

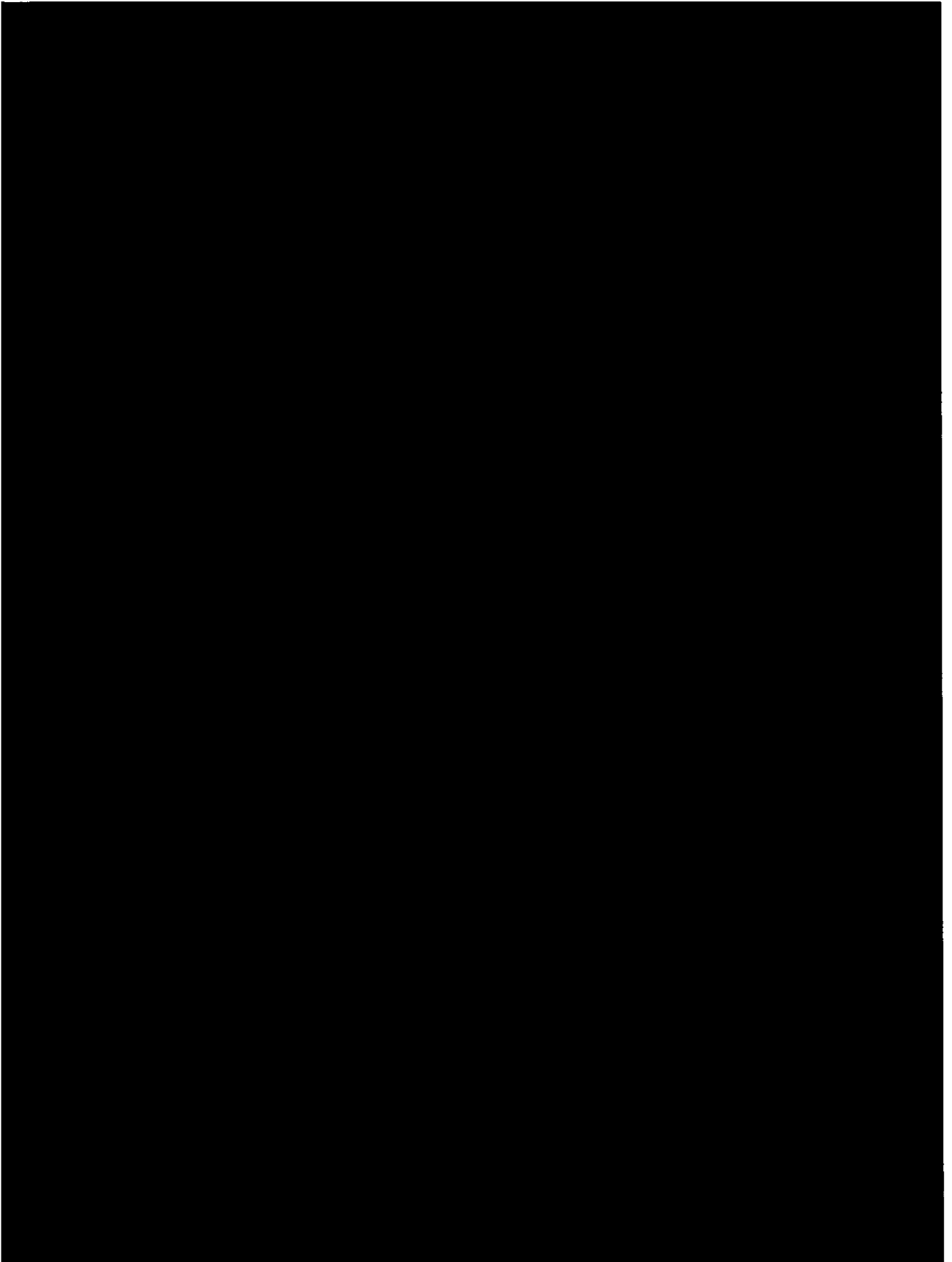
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Statement of Justin DeLorenzo, Chief Financial Officer, Networks NSW
(PUBLIC)

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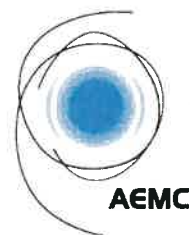
**STATEMENT OF JUSTIN DE LORENZO, GROUP CHIEF FINANCIAL OFFICER, NETWORKS
NSW**



CONFIDENTIAL CURRICULUM VITAE

JUSTIN DE LORENZO

JANUARY 2015



RULE CHANGE

Australian Energy Market Commission

DRAFT RULE DETERMINATIONS

Draft National Electricity Amendment
(Economic Regulation of Network Service
Providers) Rule 2012

Draft National Gas Amendment (Price and
Revenue Regulation of Gas Services) Rule
2012

Rule Proponents

Australian Energy Regulator
Energy Users Rule Change Committee - Amcor, Australian Paper, Rio Tinto, Simplot,
Wesfarmers, Westfield and Woolworths

23 August 2012

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AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Draft Rule Determinations, 23 August 2012, Sydney

About the AEMC

The Council of Australian Governments (COAG), through its then Ministerial Council on Energy (MCE), established the Australian Energy Market Commission (AEMC) in July 2005. In June 2011 COAG announced it would establish the new Standing Council on Energy and Resources (SCER) to replace the MCE. The AEMC has two principle functions. We make and amend the national electricity, gas and energy retail rules, and we conduct independent reviews of the energy markets for the SCER.

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Executive Summary

Overview of draft rule determination

The Australian Energy Market Commission (AEMC or Commission) proposes to make a series of amendments to the National Electricity Rules (NER) and the National Gas Rules (NGR) on the economic regulation of network services.

These amendments provide the Australian Energy Regulator (AER), and for the NGR in Western Australia, the Economic Regulator Authority (ERA) with additional strength and flexibility in setting revenues and prices for electricity and gas network service providers (service providers). The most significant changes proposed are in the way the regulator determines the rate of return that service providers can earn on their assets. Other changes are proposed on how the size of the regulatory asset base (RAB) is determined and the process for making determinations.

The amendments proposed by the Commission are in response to rule change requests submitted by the AER and a group of large energy users (the Energy Users Rule Change Committee (EURCC)). These requests have been made following one full application by the AER of the current NER to each service provider. The areas covered by the rule change requests are:

- rate of return (under the NER and NGR);¹
- capital expenditure incentives (under the NER);
- capital and operating expenditure allowances (under the NER); and
- regulatory determination process (under the NER).

In general, the Commission has found that the NER and NGR can be improved and strengthened. The Commission proposes a series of changes that will or are likely to contribute to the national electricity objective (NEO) and the national gas objective (NGO) (as relevant) taking into account the revenue and pricing principles.²

The proposed amendments comprise a package that, at a general level:

- promote flexibility and adaptability, to allow the regulator to make decisions in changing circumstances, and for service providers with different characteristics, such as network size and geography;

¹ The AER's gas rule change request covers only how the rate of return is set under the NGR. The NGR also apply to the economic regulation of pipeline services in Western Australia. The Economic Regulation Authority of Western Australia applies the rules in that State.

² The rule making tests are set out in section 88 of the National Electricity Law (NEL) and section 291 of the National Gas Law (NGL). The revenue and pricing principles are set out in section 7A of the NEL and section 24 of the NGL. They set out a number of principles that concern matters such as the recovery of efficient costs, incentives to promote efficiencies and that prices should reflect returns commensurate with the risks involved in providing services.

- improve the regulatory determination process to allow the regulator adequate time for decision making, to improve consumer engagement, and to improve transparency and accountability; and
- address ambiguities and clarify provisions, to put beyond doubt the interpretation of provisions, particularly in the NER.

Changes proposed to address problems identified

The Commission proposes a number of amendments in response to the rule change requests from the AER and the EURCC. These proposals have been informed by numerous submissions from stakeholders, various reports and other material, including the Commission's own analysis. Extensive consultation has been carried out as part of the consideration of these rule change requests.

The Commission's conclusions on the major issues covered are summarised below.

Rate of return

Overall approach

The most significant changes being proposed as part of these rule change requests are how the rate of return for service providers is determined under the NER and the NGR.

The Commission proposes to amend the rate of return provisions in the NER and NGR to provide for a common framework that enables the regulator to make the best possible estimate of the rate of return at the time a regulatory determination is made. When making the estimate the regulator must take into account the market circumstances, estimation methods, financial models and other relevant information.

Given the capital intensity of energy networks, the rate of return is one of the key determinants of the network prices that consumers pay. The nature of the energy network sector requires service providers to make significant investments in assets over time to maintain and improve their networks. The rate of return allows service providers to attract the necessary funds from capital markets for these investments and service the debt they incur in borrowing the funds.

Common framework

Currently, there are three different frameworks that have varying degrees of flexibility and prescription in how the rate of return should be determined. The Commission has concluded that there are disadvantages with each approach. The rate of return frameworks for electricity transmission and distribution are too prescriptive. The implementation of the rate of return framework under the NGR has resulted in a similar approach to that taken for electricity.

The AER has sought to have one rate of return framework in place, based on the electricity transmission model.

The Commission agrees that there is a strong case for a common framework under the NER, including as between transmission and distribution, and NGR for setting the rate of return. A common framework can minimise risks of distortions in capital allocation or investment decisions between the electricity and gas sectors. Yet, the framework must allow consideration of the different characteristics of service providers in each sector when estimating a rate of return.

The proposed common framework will require the regulator to make an estimate of the rate of return that is consistent with an overall objective. The objective is focussed on the rate of return required by a benchmark efficient service provider, with similar risk characteristics as the service provider subject to the decision. Under this approach the regulator will have the flexibility to adopt the approach it considers appropriate to estimate the rate of return, provided it considers relevant estimation methods, financial models, market data and other information. This is so that the best estimate of the rate of return can be obtained that reflects efficient financing costs of the service provider at the time of the regulatory determination.

In this way, the regulator can better respond to changing financial market conditions, particularly where volatile market conditions impact on a service provider's ability to attract sufficient capital to finance the expenditure necessary to provide a reliable energy supply to consumers.

Guidelines

While providing for flexibility, the Commission recognises that it is important for investor, service provider and consumer confidence in the framework that the regulator is transparent about its approach to determining the allowed rate of return.

To supplement the considerations at each regulatory determination, the proposed framework requires the regulator to develop rate of return guidelines setting out the approach it intends to take in estimating the allowed rate of return for service providers. This must be undertaken no less than every three years and involves consultation with stakeholders. Consultation on the guidelines will give all stakeholders an opportunity to contribute to discussions about how the regulator should approach the overall rate of return estimate.

As part of the framework the Commission has not included any preferred methods for estimating a rate of return consistent with the overall objective. Instead the Commission has provided some high-level principles to guide the estimation and left the judgement as to the best approach to the regulator to make, consistent with achieving the overall allowed rate of return objective. This involves the regulator making judgements about analytical techniques and evidence to use to make the estimate of the rate of return.

Return on debt

As part of its assessment of the rate of return framework, the Commission has found that the estimation of the return on debt component can be dramatically improved to

allow consideration of alternative ways of determining the efficient debt servicing costs of electricity network service providers (NSPs).

Both the AER and the EURCC have claimed that the current regulatory approach in the NER is not delivering a satisfactory estimate of the cost of debt for NSPs. In its rule change request the EURCC proposed changing the rules from estimating a forward-looking return on debt to using a trailing average of observed historical debt costs of benchmark NSPs.

The Commission agrees with the AER and the EURCC that the current approach in the NER is problematic for some NSPs, depending on their characteristics and debt management strategies. A number of other approaches to estimating the return on debt were suggested to the Commission by stakeholders.

A number of different approaches to estimating the return on debt may meet the overall rate of return objective. Consistent with the proposed framework, the Commission is of the view that the regulator is in the best position to determine the best approach to estimating a return on debt. The proposed common framework provides that the regulator can use a range of different approaches to undertake this task.

As part of its rule change request, the EURCC proposed that the return on debt for state-owned NSPs to be determined differently from privately-owned NSPs.³ The Commission has considered this and does not support this aspect of the EURCC's rule change request for a number of reasons, including competitive neutrality considerations.

Capital expenditure incentives (electricity)

The Commission proposes to include in the NER a number of "tools" the AER can apply to provide adequate incentives for NSPs to spend capital expenditure efficiently, having regard to an overall capital expenditure objective. The objective describes what the capital expenditure incentive regime, as a whole, should aim to achieve. That is, only capital expenditure that is efficient should enter the RAB to be recovered from consumers in future periods.⁴

The tools are:

- applying capital expenditure sharing schemes to provide incentives to incur efficient capital expenditure. These are to be designed by the AER;
- undertaking reviews of efficiency of past capital expenditure, including the ability to preclude inefficiently incurred expenditure from being rolled into the

³ Note that 'state-owned' encompasses a variety of terms such as Government owned, and publicly owned. 'privately-owned' encompasses a variety of terms such as privately owned and non-state owned. It is considered that these two terms are the most appropriate and accurate to use and are, therefore, adopted throughout this document.

⁴ In this context, references to the RAB are to the RAB that is rolled forward from one regulatory period to another.

RAB. The amount that may be precluded is limited to the amount of any expenditure above the capital expenditure allowance; and⁵

- deciding whether to depreciate the RAB using actual or forecast expenditure.

In designing and applying these tools, the AER will be required to take into account a number of principles and factors.

The proposed amendments include a requirement on the AER to make guidelines setting out its approach to incentives. These guidelines must be made in consultation with stakeholders.

The amendments to the NER have been proposed after considering the AER's concerns, and undertaking further analysis. The AER was concerned that there are incentives for NSPs to spend more than the capital expenditure allowances set by the AER as part of their regulatory determinations for a regulatory period. The Commission identified two key issues with capital expenditure incentives in the NER:

- the power of the incentive to incur capital expenditure efficiently declines during a regulatory period; and
- capital expenditure above the allowance is not subject to any regulatory scrutiny which means that there is a risk that expenditure above the allowance may be inefficient.

Also there are factors outside of the NER that may provide for additional expenditure to be incurred.

The Commission has identified a range of theoretical drivers for spending above a capital expenditure allowance. NSPs exhibit different expenditure practices. There are clearly legitimate circumstances in which expenditure above capital expenditure allowances could occur, but often mitigation action such as reprioritising projects could be taken by the NSP to ensure that, overall, capital expenditure is within the allowance set by the regulator. Amongst some NSPs there is a tendency to defer capital expenditure to the end of the regulatory period. For some this practice is not so obvious. A range of tools (see above) that the AER can apply as appropriate is the best way to address such differences.

As highlighted above, one of the tools proposed is a review of the efficiency of past capital expenditure. In the Commission's view this is the most appropriate way to address the lack of supervision of capital expenditure that has been incurred. The benefits of a review of the efficiency of past capital expenditure include:

- providing information to other stakeholders regarding the efficiency of the NSP;

⁵ Unless it relates to within period capitalisation policy changes or inefficient related party margins, which may also be precluded from being rolled into the RAB.

- contributing to the AER's analysis in setting capital expenditure allowances for the NSP's next regulatory period; and
- providing a necessary companion to any capital expenditure sharing schemes in place. While effective, capital expenditure sharing schemes will not definitely ensure that NSPs never undertake capital expenditure inefficiently. The review provides a further and final check on the efficiency of capital expenditure forming part of the RAB.

When considered alongside the amendments proposed for capital expenditure and operating expenditure allowances outlined below, this package of tools can be used by the AER to provide incentives as required so that only investment that is necessary is incurred and rolled into the RAB. If this occurs consumers will pay as part of their network charges only for investment that was necessary to provide reliable network services.

Capital expenditure and operating expenditure allowances (electricity)

The Commission proposes to make amendments to the NER to clarify and remove ambiguities regarding the powers of the AER to interrogate, review and amend capital expenditure and operating expenditure proposals submitted by NSPs. The AER should also be required to publish annual benchmarking reports, setting out the relative efficiencies of NSPs based on the information available to it.

These amendments are proposed after having considered the AER's concerns that restrictions in the NER have resulted in capital expenditure and operating expenditure allowances of NSPs that are not efficient. It should be noted here that what the AER approves in this context is expenditure, not projects.

Increases in the rate of return and expenditure allowances have both been significant factors contributing to higher network charges for consumers; and some increases in expenditure have been necessary.

In clarifying the AER's powers the Commission has confirmed its overall approach to capital expenditure and operating expenditure allowances. The NSP's proposal is necessarily the starting point for the AER to determine a capital expenditure or operating expenditure allowance, as the NSP has the most experience in how its network should be run. Under the NER the AER is not "at large" in being able to reject the NSP's proposal and replace it with its own since it must accept a reasonable proposal. But the AER should determine what is reasonable based on all of the material and submissions before it.

This reflects the obligation that all public decision makers have to justify their decisions. In addition, the NER do not place any restrictions on the analytical techniques that the AER can use to scrutinise and, if necessary, amend or substitute the NSP's capital expenditure or operating expenditure forecasts. From a practical perspective the NER reflect the approaches of other regulators.

The Commission views benchmarking as a critical exercise in assessing the efficiency of a NSP, and approving capital expenditure and operating expenditure allowances. Benchmarking should take into account differences in the environments of the different NSPs, being those factors that are outside the control of the NSP. The Commission proposes to remove any potential constraints in the NER on the way the AER may use benchmarking.

Consideration of these rule change requests has highlighted the difficulties consumers and their representatives experience in participating in the regulatory determination process. Whilst benchmarking is a critical tool for the regulator, it can also be of assistance to consumers, providing them with relative information about network performance on NSPs. Benchmarking information would be useful to consumers when participating in the regulatory determination process and merits reviews, and also in their informal interactions with NSPs.

Regulatory determination process

The Commission proposes a number of detailed changes to the regulatory determination processes in Chapters 6 and 6A of the NER.

These proposed amendments follow the consideration of a series of process related issues raised by the AER. Those issues relate largely to the ability of stakeholders to engage effectively in the regulatory determination process.

The Commission considers that the process needs to be transparent and timely. This is so that all parties have a clear understanding of their rights and obligations at the outset, as well as ample opportunity to participate. This is a key contributor to confidence in the overall outcomes from the perspective of both the NSP and consumers.

The proposed changes include:

- lengthening the regulatory determination process by commencing six months earlier, for both electricity distribution and transmission. This provides time for the regulator to prepare and publish a mandatory issues paper and hold a public forum. It also provides time for a cross submissions stage later in the process if required;
- the application of an optional framework and approach paper for electricity transmission as well as distribution. Also that document can be used, where necessary, to settle a number of issues prior to regulatory proposals being submitted. Examples here include information that needs to be provided by the NSP, and the capital expenditure incentive package that the AER proposes to apply to the NSP; and
- improving transparency and accountability by requiring the NSP to nominate to the AER the reasons why it classifies material as confidential. The AER would be required to publish a report of the NSP making confidentiality claims as well as indicating the proportion of material that the NSP claims to be confidential.

The Commission considers the consultation process in the regulatory determination process set out in the NER as a minimum. The Commission encourages engagement and interaction between the NSP and consumer representative groups, and the NSP and the AER outside of the formal regulatory determination process.

Consumer engagement and participation

A number of the proposed amendments also attempt to address a lack of focus on consumer engagement and participation. The proposed changes in this regard are broad and varied.

They include requiring:

- the NSP to indicate in its proposal the extent to which it has engaged with consumer representatives. The NSP must also provide an overview paper for consumers;
- the AER to publish an issues paper after receiving the regulatory proposal. The purpose is to assist consumer representatives to focus on the key preliminary issues on which they should engage and comment;
- the AER to publish a benchmarking report that informs consumers on the relative efficiencies of NSPs; and
- the AER, when setting capital expenditure and operating expenditure allowances, to take into account the extent to which a NSP has engaged with consumers in preparing its forecasts.

Drivers for effective regulation

The Commission is of the view that the package of amendments to the NER and NGR included in this draft rule determination provides the regulator with additional tools to carry out its functions. The effectiveness of the NER and the NGR in terms of the overall price and service outcomes experienced by consumers is dependent on two drivers:

- the effective application of the NER and NGR by the regulator; and
- the effective corporate governance of the NSPs providing services which are subject to economic regulation.⁶

The efficiency with which network services are provided depends on the way in which the drivers work together. Only when these aspects are operating as intended will the best outcomes for consumers be achieved.

⁶ Corporate governance here refers to governance at both the management and shareholder level.

The interpretation and application of the rules by the regulator is crucial. This draft rule determination provides examples and illustrations of how the rules could be interpreted and applied to address problems that exist currently, but also how their application could adapt when the circumstances change.

Management and shareholders of service providers also play a critical role in the efficient provision of network services. They do this through a variety of means, such as approving proposals to be submitted to the regulator, given the significance of AER decisions for these businesses. They also create incentives within the business to encourage efficient outcomes.

Merits review

In April 2012, the Standing Council on Energy and Resources (SCER) appointed a panel to undertake a review of the Limited Merits Review (LMR) regime in the National Electricity Law (NEL) and the National Gas Law (NGL).

The LMR Panel has observed that a narrower, and more formalistic approach to merits review, has developed than what was originally intended. In its view this approach has been relatively detached from the focus on the overall objectives set out in the NEL and NGL and encouraging outcomes that are in the long term interests of consumers. The LMR Panel has suggested that the NEL and the NGL could be amended to provide for more holistic, broader decision making, focussing on overall outcomes.

Where possible, the draft rule seeks to address this concern by allowing the regulator to approach decision making more holistically. The main examples are requiring the regulator to focus on meeting overall objectives in relation to capital expenditure incentives and the rate of return that are linked to the NEO/NGO and the revenue and pricing principles.

The LMR Panel is still in consultation phase and has not made any recommendations for change at this stage. It is possible that further rule changes will be required to complement any changes to the merits review process that the SCER decides should be made.

Next steps

The Commission invites comments from stakeholders on this package of amendments, prior to making its final rule determinations and final rule in November 2012.

The Commission also invites submissions on whether the draft rule provided reflects the intentions set out and approaches taken in these draft rule determinations.

Submissions close on 4 October 2012. Any requests for a public hearing under the NEL or the NGL must be made by 30 August 2012.

Implementation

Arrangements will be required to transition a number of NSPs to the new rules. The AEMC's implementation proposal will be published for comment mid September 2012.

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1 Network regulation rule change requests

1.1 Rule change requests

In September 2011 the Australian Energy Regulator (AER) submitted two rule change requests seeking to amend the rules for the economic regulation of network services. The areas identified by the AER as deficient and requiring improvement are:

- For electricity: the capital and operating expenditure framework, capital expenditure incentives, rate of return provisions and the efficiency of the regulatory process, as set out in the National Electricity Rules (NER); and
- For natural gas: the rate of return provisions in the National Gas Rules (NGR).

In October 2011, the Energy Users Rule Change Committee (EURCC), a committee of large energy consumers, comprising Amcor, Australian Paper, Rio Tinto, Simplot, Wesfarmers, Westfield and Woolworths, also submitted a rule change request. The EURCC's rule change request relates to one area of the rate of return on capital under the NER, being the cost of debt. The EURCC seeks changes to the NER relating to the methodology for the calculation of the return on debt component and a differential cost of debt for state-owned and privately-owned network service providers (NSPs).⁷

1.2 Rationale for the rule change requests

This section sets out, at a high level, the major problems with the current NER and NGR, as reflected in the AER's and the EURCC's rule change requests.

In the AER's view, the rules, in particular the NER, have hindered its ability to appropriately regulate the electricity networks, to ensure that the regulated electricity networks invest efficiently and earn appropriate commercial returns, and to respond to changing circumstances⁸. These conclusions have followed at least one application of the chapter 6 and chapter 6A NER frameworks for each of the electricity NSPs, and the equivalent provisions of the NGR for gas service providers. The main problems identified by the AER are as follows:

- capital expenditure and operating expenditure allowances (electricity) – the AER refers to restrictions under the NER on its ability to interrogate and amend the capital expenditure (capex) and operating expenditure (opex) forecasts of NSPs and the requirement that the regulator must accept a forecast if it reasonably reflects certain criteria listed in the NER. The AER considers that the NER invite upwardly biased forecasts and limit its ability to interrogate and amend forecasts provided by NSPs;

⁷ In this draft rule determination a reference to "service providers" includes both gas and electricity service providers, while a reference to "NSP" refers only to an electricity network service provider.

⁸ AER Executive Briefing, p1, 29 September 2011

- capex incentives (electricity) – the AER considers that there are problems with the current NER in respect of capex incentives. This is because they provide for all actual capex incurred within a regulatory control period to be rolled into the regulatory asset base (RAB) regardless of whether or not the capex allowed for in the determination was efficient. This roll forward model, in the AER’s view, creates incentives for NSPs to incur more than efficient levels of capex;
- rate of return (electricity and gas) – the AER’s electricity and gas rule change requests refer to the problems associated with having different rate of return frameworks for electricity distribution, electricity transmission and gas. In the AER’s view these frameworks have required repeated assessments of similar arrangements and evidence for each determination or access arrangement process, creating an administrative burden. For gas, the AER states that the NGR create uncertainty in that they do not specify a particular framework for determining the rate of return;
- cost of debt (electricity and gas) – the AER states that the current approach to assessing the cost of debt has become difficult to apply under changing financial market conditions. The EURCC also considers this approach is problematic in the case of electricity, along with the lack of a differential cost of debt for state-owned and privately-owned NSPs; and
- regulatory determination process (electricity) – the AER has raised a number of process issues that largely concern the ability of stakeholders to engage effectively in the regulatory determination process. For example, NSPs provide submissions on their own regulatory proposals. In the AER’s view this may result in stakeholders having insufficient time to consider additional material from the NSP.

1.3 Solutions proposed in the rule change requests

The rule proponents propose a number of amendments to the NER and the NGR to address the problems they have identified. In short, the solutions may be described as follows:

- capex and opex allowances – the AER proposes amendments to the NER to set its own estimate of capex and opex, using a range of inputs;
- capex incentives – the AER proposes for inclusion in the NER a sharing mechanism that would apply to any expenditure above the regulatory allowance. 60 per cent of this expenditure above the allowance would be rolled into the RAB for the next regulatory control period, with the remainder excluded from that asset base and funded by shareholders. It also proposes being given the discretion in transmission to determine whether to adopt forecast or actual depreciation; and to disallow capex for related party margins and as a consequence of capitalisation policy changes;

- rate of return – the AER proposes a single framework for electricity and gas which most closely aligns with the current framework for electricity transmission set out in chapter 6A of the NER; that is, the outcomes of periodic rate of return reviews must apply and cannot be departed from in subsequent determinations and access arrangements made before the next rate of return review. The AER would also amend the NER and the NGR to provide it with increased discretion in how to determine certain individual parameters forming part of the rate of return and would remove the need for persuasive evidence before amending them. For gas in particular, the AER proposes that the NGR would prescribe that the rate of return would be calculated as a nominal post-tax vanilla weighted average cost of capital, using the capital asset pricing model to determine the return on equity. This means the rate of return provisions for electricity and gas would be in line;
- cost of debt - the AER proposes that the methodology for setting the debt risk premium should be included in the periodic rate of return reviews undertaken by the AER, rather than being prescribed in the NER. The EURCC proposes a new rules-prescribed methodology for calculating the cost of debt, having regard to the "actual debt costs" of electricity NSPs. The return on debt for state-owned electricity NSPs would be determined differently to non-state owned NSPs; and
- regulatory determination process - the AER considers that aspects of the current regulatory determination process under the NER could be improved to enable more timely submission and consideration of material by all relevant stakeholders prior to the AER making its decisions.

1.4 Consultants

The Australian Energy Market Commission (AEMC)⁹ has engaged a number of consultants to assist it with the analysis of issues raised in the rule change requests from the AER and the EURCC. Initially, the AEMC engaged Professor Stephen Littlechild, Professor George Yarrow and Strategic Finance Group Consulting (SFG). Professors Littlechild and Yarrow have provided assistance in the area of capex and opex allowance, capex incentive and regulatory process. SFG has provided assistance on the rate of return (including cost of debt) issues. These consultants have provided reports to the AEMC which are available on the AEMC's website.

Following the publication of the directions paper in March 2012 the AEMC engaged the following consultants to undertake analysis and provide reports:

- The Brattle Group (Brattle) – on approaches to assessing capex and opex forecasts;
- Covec - on related party margins;

⁹ In general in this document the term "AEMC" is used in respect of administrative actions or former decisions of the Australian Energy Market Commission, whereas the term "Commission" is used when referring to the considerations and decisions leading up to the draft rule determination.

- Economic Insights - on the use of actual and forecast depreciation;
- Parsons Brinckerhoff - on capital expenditure practices of NSPs; and
- SFG - an additional report on cost of debt issues.

These additional reports are published with this draft rule determination.¹⁰

In making its draft rule determination the Commission has been informed by the material prepared by these consultants.

1.5 Commencement of rule making process and extensions of time

On 20 October 2011, the Commission published a notice under section 95 of the National Electricity Law (NEL) and section 303 of the National Gas Law (NGL) advising of its intention to commence the rule making processes and first round of consultation on the AER's rule change requests. A consultation paper prepared by AEMC staff identifying specific issues and questions for consultation was also published with the rule change requests.

Given that the proposals raised issues in the rules on similar subject matter, on 3 November 2011, the AEMC gave notice under section 93(1)(a) of the NEL to consolidate the EURCC's rule change request with the AER's electricity rule change request. The result of this consolidation was the creation of a new consolidated rule change request which would run to the same process and timetable as the original AER rule change request.

Due to the complex nature of these rule change requests, the AEMC issued notices under section 107 of the NEL and section 317 of the NGL to extend the length of the rule change process in this case. Accordingly, on 20 October 2011 and 3 November 2011, the AEMC issued notices to extend the period of time for the making of the draft rule determinations on these rule change requests to 26 July 2012. On 21 June 2012, the AEMC issued further notices under section 107 of the NEL and section 317 of the NGL to extend the period of time for the making of the draft rule determinations to 23 August 2012.

1.6 Consultation on rule change requests

On 20 October 2011 the AEMC issued a consultation paper on the AER rule change request and on 3 November 2011 it issued a consultation paper on the EURCC rule change request. The AEMC held a public forum in Brisbane on 23 November 2011 to facilitate discussion on the - rule change requests. Submissions on the two consultation papers closed on 8 December 2011.

¹⁰ This document reflects draft rule determinations made by the Commission for electricity and gas. For ease of reference, the singular term "draft rule determination" has been used to refer to these throughout this document.

On 2 March 2012, the AEMC published a directions paper on the consolidated rule change request and the AER's gas rule change request.¹¹ The directions paper explained the AEMC's initial positions on, and set out its next steps to progress these rule changes requests. A series of workshops were also held on 2 April 2012 in Melbourne to discuss some of the key issues raised in the directions paper. Submissions on the directions paper closed on 16 April 2012. A summary of these submissions is published with this draft rule determination.

The AEMC held a public forum in Sydney on 9 May 2012 with Professors Littlechild and Yarrow. Professors Littlechild and Yarrow presented on the papers they provided for the AEMC's directions paper, which provided stakeholders with the opportunity to raise questions with them.

The AEMC held workshops in Sydney on 18 May 2012 and 13 July 2012 on cost of debt issues. The AEMC also invited written submissions on cost of debt issues which closed on 5 July 2012.

1.7 Consultation on draft rule determination

In accordance with the notices published under section 99 of the NEL and section 308 of the NGL, the Commission invites submissions on these draft rule determinations by 4 October 2012. In order for the AEMC to meet the statutory deadline for publication of the final determination in November 2012 it is important that submissions are not provided after this date, and any submissions that are received late may not be given full weight.

In accordance with section 101(1a) of the NEL and section 310(2) of the NGL, any person or body may request that the Commission hold a hearing in relation to the draft rule determinations. Any request for a hearing must be made in writing and must be received by the Commission no later than 30 August 2012.

Submissions and requests for a hearing should quote project number "ERC0134/ERC0135/GRC0011" and may be lodged online at www.aemc.gov.au or by mail to:

Australian Energy Market Commission

PO Box A2449

SYDNEY SOUTH NSW 1235

1.8 Next steps

Transitional arrangements will be published in September 2012.

¹¹ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers, Directions Paper*, 2 March 2012.

The Commission invites comments from stakeholders on this package of amendments, prior to making its final rule determinations and final rule in November 2012.

The Commission also invites submissions on whether the draft rule provided reflects the intentions set out and approaches taken in these draft rule determinations.

2 Draft Rule determination - electricity

2.1 Commission's draft determination

In accordance with section 99 of the NEL the Commission has made this draft rule determination in relation to the rules proposed by the AER and the EURCC as part of the consolidated rule change request.

The Commission has determined that it should not make the rule proposed by the AER and the EURCC but rather to make a more preferable rule.¹²

The Commission's reasons for making this draft rule determination are set out in chapters 6 to 12.

A draft of the more preferable rule that the Commission proposes to make (draft rule) is attached to and published with this draft rule determination. Its key features are described in chapters 6-12 of this draft rule determination. The draft rule that has been published does not include the transitional provisions, which will be published in September 2012.

2.2 Commission's considerations

In assessing the consolidated rule change request the Commission considered:

- its powers under the NEL to make the draft rule determination;
- the consolidated rule change request;
- submissions received during initial consultation on the consolidated rule change request and following publication of the directions paper;
- comments made by stakeholders as part of workshops and forums held as part of the consultation undertaken for the consolidated rule change request;
- consultants reports;¹³
- the ways in which the proposed rule will, or is likely to, contribute to the achievement of the national electricity objective (NEO);
- discussion papers and reports published by the Limited Merits Review Panel;

¹² Under section 91A of the NEL the AEMC may make a rule that is different (including materially different) from a market initiated proposed Rule (a more preferable rule) if the AEMC is satisfied that, having regard to the issue or issues that were raised by the market initiated proposed rule (to which the more preferable rule relates) the more preferable rule will or is likely to better contribute to the achievement of the national electricity objective.

¹³ Referred to in chapter 1.

- previous decisions of the Commission, including the 2006 chapter 6A rule determination;¹⁴
- relevant documents published by the Ministerial Council on Energy (MCE) regarding the development of chapter 6 of the NEL; and
- relevant merits review decisions of the Australian Competition Tribunal (ACT).

There is no relevant MCE Statement of Policy Principles relating to the consolidated rule change request.

2.3 Commission's power to make the rule

The Commission is satisfied that the draft rule falls within the subject matter about which the Commission may make rules as set out in section 34 of the NEL and in schedule 1 of the NEL. The draft rule is, among other things, within:

- section 34(1)(a)(iii), as it relates to the activities of persons participating in the National Electricity Market (NEM) or involved in the operation of the national electricity system; and
- the matters set out in items 15-24 and 25-26I of schedule 1, as they relate to transmission and distribution system revenue and pricing.

2.4 Rule making test

2.4.1 NEO

Under section 88(1) of the NEL the Commission may only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the NEO. This is the decision making framework that the Commission must apply.

The NEO is set out in section 7 of the NEL as follows:

“The objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- (a) price, quality, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system.”

For the consolidated rule change request the Commission considers that the relevant aspects of the NEO is the promotion of efficient investment in electricity services for

¹⁴ AEMC, Economic Regulation of Transmission Services, Rule Determination, 16 November 2006, Sydney

the long term interests of consumers with respect to price. More particularly, efficient investment requires:

- there being a level of investment in network infrastructure so that safety and reliability standards are met in circumstances where consumers pay no more than is necessary for the network services they receive;
- the costs NSPs incur in providing network services to their customers reflecting efficient financing costs. This is to allow NSPs to attract sufficient funds for investment while minimising the resultant costs that are borne by consumers; and
- the establishment of certain, robust and transparent regulatory environment. Investors will have more confidence and may be more likely to invest in monopoly infrastructure where the regulatory process is certain and robust, with appropriate checks and balances in place. Consumers will also have more confidence that the outcomes are better in such an environment.

2.4.2 Assessment of the draft rule against the NEO

The Commission is satisfied that the draft rule will, or is likely to, contribute to the achievement of the NEO for the reasons set out below.

Approach to capex and opex

The draft rule confirms the discretion the regulator has to review and scrutinise NSPs' capex and opex proposals to better achieve the objective that allowances set are efficient. The regulator can adopt a range of analytical techniques to determine the ultimate capex and opex allowances for a NSP. The draft rule also provides for a suite of ex ante incentive mechanisms that could be used to encourage NSPs to incur only capex which is efficient. As NSPs are different the draft rule provides the regulator with discretion to determine an appropriate capex incentive package for each NSP. As a final check the draft rule also provides for the regulator to undertake a review of past capex for efficiency.

This establishes a package of tools to allow the regulator to set efficient allowances in the first place, to establish an appropriate ex ante incentive regime to encourage efficient capex and finally, to undertake a review of past expenditure and to preclude inefficient expenditure being rolled into the regulatory asset base. This package should mean that only investment that is necessary is incurred and rolled into the asset base. This means that consumers will pay as part of their network charges only for investment that was necessary to provide network services to them.

Rate of return

The draft rule adopts a new framework for determining the rate of return. It provides that the allowed rate of return for a NSP must meet an objective related to the efficient financing costs of a benchmark efficient NSP with a similar nature and degree of risk as the NSP subject to the decision. The draft rule provides the regulator with sufficient

discretion in estimating return on equity and debt but also requires the consideration of a range of estimation methods, financial models, market data and other information so that the best estimate of the rate of return can be obtained overall.

The draft rule also provides for the allowed rate of return to reflect changing circumstances so that the application of the framework should result in the best overall estimate of the rate of return in any case, reflecting efficient financing costs. This should ensure sufficient funds are attracted for network investment, while minimising costs for consumers.

Regulatory determination process

The draft rule makes a number of changes to the process for making determinations. It provides more time for consumers and other stakeholders to participate meaningfully in the regulatory determination process, as well as giving the regulator more time towards the end of the process to consider material presented to it. The draft rule also provides for increased transparency and accountability regarding confidentiality claims over material submitted as part of the process.

The regulatory determination process changes increase the likelihood of better overall outcomes, as there should be more time to consider information, and resolve issues at an earlier stage where possible. This will help increase confidence in the regulatory determination process.

2.4.3 Implementation costs

The draft rule provides for a range of significant changes to chapters 6 and 6A of the NER. There will be implementation costs for NSPs and other stakeholders, including consumers, in adjusting to these changes. For the regulator there will be implementation costs as it develops the guidelines and schemes necessary for the successful application of this package of rules.

Having said this, the Commission is of the view that these costs are minor when compared with the potential benefits associated with the draft rule. The costs will be outweighed by the outcomes of the determination process.

2.4.4 AEMO's declared network functions

Under s. 91(8) of the NEL the Commission may only make a rule that has effect with respect to an adoptive jurisdiction if satisfied that the proposed rule is compatible with the proper performance of Australian Energy Market Operator's (AEMO) declared network functions. The draft rule is compatible with AEMO's declared network functions because it is not related to and does not affect these functions.

2.5 More preferable rule

Under s. 91A of the NEL, the AEMC may make a rule that is different (including materially different) from a market initiated proposed rule (a more preferable rule) if the AEMC is satisfied that, having regard to the issue or issues that were raised by the market initiated proposed rule (to which the more preferable rule relates), the more preferable rule will, or is likely to, better contribute to the achievement of the NEO.

Having regard to the issues raised by the proposed rule, the Commission is satisfied that the draft rule will, or is likely to, better contribute to the achievement of the NEO than the proposed rule for the following reasons:

- the draft rule encourages more holistic, overall decision-making by the regulator. In particular, the rate of return provisions and the capex incentive provisions of the draft rule allow the AER to adopt an approach that is consistent with the achievement of a specified objective without prescribing the precise approach which the AER must adopt;
- the draft rule provides the regulator with discretion to consider the changing circumstances of each NSP, and make decisions on a case by case basis so that the best outcomes can be achieved - at the same time, the regulator must do so in an accountable and transparent manner. For the rate of return provisions, the draft rule also enables the regulator to have regard to any changes in financial market conditions that could have a positive or negative impact on a NSP's rate of return at the time of its decision; and
- the draft rule amends the regulatory process so that it commences earlier and includes additional steps. This gives the regulator more time to make better decisions and other stakeholders more time to participate in the process more effectively.

Chapters 6 to 12 explain in greater detail the respects in which the Commission considers that the draft rule is likely to better contribute to the achievement of the NEO than the proposed rule.

2.6 Other requirements under the NEL

In applying the rule making test in section 88 of the NEL, the Commission has taken into account the revenue and pricing principles as required under section 88B of the NEL as the draft rule relates to matters specified in items 15 to 24 and 25 to 26I of Schedule 1 to the NEL.

The revenue and pricing principles have been taken into account below.

2.6.1 Recovery of efficient costs

Section 7A(2) of the NEL - a NSP should be provided with a reasonable opportunity to recover at least the efficient costs it incurs in providing network services and in

complying with a regulatory obligation or requirement or making a regulatory payment.

Capex/opex allowances and capex incentives

A NSP's proposal must set out the NSP's capex and opex requirements for the regulatory period. While this draft determination clarifies the discretion the regulator has to interrogate and amend a NSP's forecasts, it also confirms the significance of the NSP's proposal for the regulator's determination. In terms of capex incentives, any scheme implemented by the regulator is likely to allow an increase above a NSP's capex allowance (or at least be neutral) for an efficient NSP. In addition, any efficient costs of a NSP should be rolled into the RAB following a review of the efficiency of past capex by the regulator.

Rate of return

This principle requires that the rate of return reflects efficient financing costs necessary to attract sufficient investment capital to maintain a reliable electricity supply while minimising the cost to consumers. The rate of return must therefore only reflect efficient financing costs of a benchmark efficient NSP to ensure that the service provider can retain the benefits from adopting more efficient financing arrangements than assumed by the regulator, and consumers are protected if a service provider is inefficient in their financing practices.

Regulatory determination process

The regulatory determination process changes increase the likelihood of better overall outcomes, as there should be more time to consider information, and resolve issues at an earlier stage where possible.

2.6.2 Effective incentives

Section 7A(3) of the NEL – a NSP should be provided with effective incentives to promote economic efficiency with respect to the services the NSP provides. The economic efficiency that should be promoted includes efficient investment in the systems used to provide network services, efficient provision of those services, and efficient use of the systems that provide those services.

Capex/opex allowances and capex incentives

The combination of an appropriately set ex ante allowance for capex and a range of capex incentives (including a review of the efficiency of past capex) will create effective incentives to promote economic efficiency. In addition, the draft rule gives the regulator the power to establish small scale incentive schemes to test innovative approaches to incentives.

Rate of return

Efficient outcomes in terms of investment, operation and use of network services are most likely to be obtained when the best estimate of the rate of return is obtained.

2.6.3 Charges for network services

Section 7A(5) of the NEL – the price or charge for the provision of a network service should allow for a return commensurate with the regulatory and commercial risks involved in providing the network service.

Capex/opex allowances and capex incentives

As described above, the regulator should take into account the NSP's proposal as part of the process of setting expenditure allowances. In addition, the draft rule clarifies the discretion the AER has in interrogating and amending the NSP's proposal. Appropriately set capex and opex allowances should allow for a return commensurate with regulatory and commercial risks.

Rate of return

Having regard to this principle involves the estimated rate of return being commensurate with the risks involved in providing the service, which is what is sought from the rate of return estimation process. This principle can best be met by obtaining the best possible rate of return estimate.

2.6.4 Economic costs and risks of potential for under and over investment

Section 7A(6) of the NEL – regard should be had to the economic costs and risks of the potential for under- and over-investment by a NSP in the systems used to provide network services.

Capex/opex allowances and capex incentives

Capex and opex allowances that are set too high or too low can create the risk of under- or over- investment. By clarifying the discretions the regulator has, the draft rule and draft determination contribute to expenditure allowances that better reflect efficient costs. More effective capex incentive arrangements, including reviews of the efficiency of past capex, may also mitigate the risk of over-investment.

Rate of return

If the rate of return estimate is set to the efficient required return, there will be no incentive for under- or over- investment. Such incentives for inefficient investment become more pronounced when the rate of return estimate differs from the efficient required return.

Regulatory determination process

The draft rule provides more time for consumers and other stakeholders to participate meaningfully in the regulatory determination process, as well as giving the regulator more time towards the end of the process to consider material presented to it. This should better allow economic costs and investment risks to be brought to the attention of the regulator and considered.

2.6.5 Economic costs and risks of potential for under and over utilisation

Section 7A(7) - regard should be had to the economic costs and risks of the potential for under- and over-use of the networks used to provide network services.

Capex/opex allowances and capex incentives

Capex allowances set to an efficient level allow an appropriate level of capex to be undertaken. This should also then allow networks to sustain the use that is made of them.

Rate of return

If the rate of return estimate is set to the efficient required return, then prices are (by definition) set at the efficient level and there is no distortive effect on usage due to mispricing.

Chapters 6 to 12 explain in greater detail the way in which the Commission has taken the above revenue and pricing principles into account in formulating the draft rule.

The draft rule also includes a number of provisions that are necessary or consequential (as permitted by section 91B of the NEL).

3 Draft Rule determination - gas

3.1 Commission's draft determination

In accordance with section 308 of the NGL the Commission has made this draft rule determination in relation to the rule proposed by the AER.

The Commission has determined that it should not make the rule proposed by the AER but rather to make a more preferable rule.¹⁵

The Commission's reasons for making this draft rule determination are set out in chapters 6 and 7.

A draft of the more preferable rule that the Commission proposes to make (draft rule) is attached to and published with this draft rule determination. Key features are described in chapters 6 and 7 of the draft rule determination.

3.2 Commission's considerations

In assessing the rule change request the Commission considered:

- its powers under the NGL to make the draft rule determination;
- the rule change request;
- submissions received during initial consultation on the rule change request and following publication of the directions paper;
- comments made by stakeholders as part of workshops and forums held as part of the consultation undertaken for the rule change request;
- consultants reports;¹⁶
- the ways in which the proposed rule will, or is likely to, contribute to the achievement of the national gas objective (NGO);
- discussion papers and reports published by the Limited Merits Review Panel;
- previous decisions of the Commission, including the 2006 Chapter 6A determinations;

¹⁵ Under section 296 of the NGL the AEMC may make a rule that is different (including materially different) from a market initiated proposed Rule (a more preferable rule) if the AEMC is satisfied that, having regard to the issue or issues that were raised by the market initiated proposed rule (to which the more preferable rule relates), the more preferable rule will or is likely to better contribute to the achievement of the national gas objective.

¹⁶ Referred to in chapter 1.

- relevant documents published by the MCE regarding the development of Chapter 6 of the NER; and
- relevant merits review decisions of the ACT.

There is no relevant MCE Statement of Policy Principles relating to this rule change request.

3.3 Commission's power to make the rule

The Commission is satisfied that the draft rule falls within the subject matter about which the Commission may make rules as set out in section 74 of the NGL; in particular section 74(1)(a)(i) and (ii) relating to access to, and the provision of, pipeline services and items 41, 49 and 50 of schedule 1 of the NGL relating to the building block approval and the AER's economic regulatory functions and powers.

3.4 Rule making test

3.4.1 NGO

Under section 291(1) of the NGL the Commission may only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the NGO. This is the decision making framework that the Commission must apply.

The NGO is set out in section 23 of the NGL as follows:

“The objective of this Law is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.”

For the rule change request the Commission considers that the relevant aspects of the NGO are the efficient investment in natural gas services for the long term interests of consumers with respect to price. Efficient investment requires that the costs gas service providers incur in providing services to their customers should reflect efficient financing costs. This is to allow gas service providers to attract sufficient funds for investment while minimising the resultant costs that are borne by consumers.

3.4.2 Assessment of the draft rule against the NGO

The Commission is satisfied that the draft rule will, or is likely to, contribute to the achievement of the NGO because the draft rule provides that the allowed rate of return for a benchmark efficient gas service provider must meet an objective related to the efficient financing costs of a gas service provider with a similar nature and degree of risk as the gas service provider subject to the decision. The draft rule also provides the regulator with sufficient discretion in estimating return on equity and debt, while requiring the consideration of a range of estimation methods, financial models, market

data and other information so that the best estimate of the rate of return can be obtained overall.

Finally, the draft rule provides for the allowed rate of return to reflect changing circumstances so that the application of the provisions of the rule should result in the best overall estimate of the rate of return in any case, reflecting efficient financing costs.

All of these factors should allow sufficient funds to be attracted for network investment, while minimising costs for consumers, thereby promoting efficient investment which is also in the long term interests of consumers.

3.4.3 Implementation costs

The draft rule provides for a range of significant changes to the rate of return provisions of the NGR. There will be implementation costs for gas service providers and other stakeholders, including consumers, in adjusting to these changes. For the regulator, there will be implementation costs as it develops the rate of return guideline necessary for the successful application of the draft rule.

Having said this, the Commission is of the view that these costs are minor when compared with the potential benefits associated with improving the process for determining the allowed rate of return. The costs will be outweighed by the outcomes of this improved determination process.

3.5 More preferable rule

Under section 296 of the NGL, the AEMC may make a rule that is different, including materially different, from a market initiated proposed rule (a more preferable rule) if the AEMC is satisfied that, having regard to the issue or issues that were raised by the market initiated proposed rule, to which the more preferable rule relates, the more preferable rule will, or is likely to, better contribute to the achievement of the NGO.

Having regard to the issues raised by the proposed rule, the Commission is satisfied that the draft rule will, or is likely to, better contribute to the achievement of the NGO than the proposed rule for the following reasons:

- the draft rule gives primacy to an overall rate of return objective. This objective is directly linked to the NGO by focussing on estimating a rate of return required by a benchmark efficient entity;
- the draft rule requires the regulator to take a more holistic approach in estimating the return on equity and debt and the overall allowed rate of return;
- the draft rule provides the regulator with discretion to use the best approach to estimating return on equity and return on debt to meet the overall rate of return objective on a case by case basis, but at the same time it must do so in an accountable and transparent manner;

- the draft rule allows the regulator to have regard to any changes in financial market conditions that could have a positive or negative impact on a gas service provider's rate of return at the time of its decision; and
- the draft rule includes a requirement for the development and periodic review of rate of return guidelines to provide an interactive process between regulator, gas service provider, consumers and other stakeholders about the best approaches to estimating the rate of return.

Chapters 6 and 7 explain in greater detail the respects in which the Commission considers that the draft rule is likely to better contribute to the achievement of the NGL than the proposed rule.

3.6 Other requirements under the NGL

As required under section 293 of the NGL, the Commission has also taken into account the revenue and pricing principles as the draft rule relates to item 41 of schedule 1 of the NGL.

The revenue and pricing principles have been taken into account as follows:

- Section 24(2) – a gas service provider should be provided with a reasonable opportunity to recover at least the efficient costs it incurs in providing reference services and in complying with a regulatory obligation or requirement or making a regulatory payment. This principle requires that the rate of return reflects efficient financing costs necessary to attract sufficient investment capital to maintain a reliable natural gas supply while minimising the cost to consumers. The rate of return must therefore only reflect efficient financing costs of a benchmark efficient gas service provider to allow the service provider to retain the benefits from adopting more efficient financing arrangements than assumed by the regulator, and consumers are protected if a service provider is inefficient in their financing practices.
- Section 24(3) – a gas service provider should be provided with effective incentives to promote economic efficiency in investment in, and the operation and use of, the pipeline for the provision of pipeline services. Efficient outcomes in terms of investment in, and the operation and use of, pipeline services are most likely to result when the best estimate of the rate of return is obtained.
- Section 24(5) – the reference tariff charged for a reference service should allow for a return commensurate with the regulatory and commercial risks involved in providing the reference service. Having regard to this principle involves the estimated rate of return being commensurate with the risks involved in providing the service, which is what is sought from the rate of return estimation process. This principle can best be met by obtaining the best possible rate of return estimate.

- Section 24(6) – regard should be had to the economic costs and risks of the potential for under- and over-investment by a gas service provider in a pipeline that is used to provide pipeline services. If the rate of return estimate is set to the efficient required return, there will be no incentive for under- or over-investment. Such incentives for inefficient investment become more pronounced when the rate of return estimate differs from the efficient required return.
- Section 24(7) – regard should be had to the economic costs and risks of the potential for under- and over-utilisation of a pipeline that is used to provide pipeline services. If the rate of return estimate is set to the efficient required return, then prices are by definition set at the efficient level and there is no distortive effect due to mis-pricing.

Chapters 6 and 7 explain in greater detail the way in which the Commission has taken the above revenue and pricing principles into account in formulating the draft rule.

4 Commission's reasons

4.1 Introduction

A number of problems have been raised in the rule change requests. They have been considered against submissions, various reports and other material, and the Commission's own analysis. The Commission has concluded that there are problems in the NER and in the case of rate of return, the NGR, and rule changes are required to address those problems.

The solutions set out in this draft rule determination and included in the draft rules are a positive contribution to the overall effectiveness of the economic regulation of network services generally under chapters 6 and 6A of the NER, and the application of the rate of return under the NGR. They comprise a package of changes that, at a general level:

- promote flexibility and adaptability, enabling the regulator to make decisions in changing circumstances, and for service providers with different characteristics;
- improve the regulatory process to allow the regulator adequate time for decision-making, to improve consumer engagement, and to improve transparency and accountability; and
- address ambiguities and clarify provisions, to put beyond doubt the interpretation of provisions, particularly in the NER.

Chapters 2 and 3 set out how the draft rules meet their respective rule making tests under the NEL and NGL. The Commission's detailed analysis and consideration of issues is contained in the subsequent chapters. This chapter sets out the Commission's analysis and articulation of the problems and proposed amendments to the NER and NGR at a high level. This chapter also includes a discussion on other issues that are relevant to the consideration of the problems raised in this rule change request, being other factors relevant to effective regulation, and the merits review process.

4.2 Summary of assessment of issues

The rule change requests raised four broad areas of problems with the rules, as set out in section 1.2 above. Taking each in turn, the Commission draws the conclusions below.

4.2.1 Rate of return

Overall framework

The AER has referred to problems associated with having different rate of return frameworks for electricity distribution, electricity transmission and gas. It has sought

to have one rate of return framework put in place, based on the electricity transmission model. The Commission's initial views were that the current rate of return rules for electricity transmission are not satisfactory as they do not provide sufficient flexibility to deal with changing circumstances. Having undertaken considerable analysis in this area, the Commission has concluded that none of the existing rate of return frameworks under the NER and NGR have the characteristics necessary to best meet the NEO and NGO, taking account of the Revenue and Pricing Principles (RPP).

There is a strong case for a common framework under the NER, including as between transmission and distribution, and NGR for setting the rate of return. A common framework can minimise any risks of distortions in capital allocation or investment decisions between the electricity and gas sectors, although the framework contemplated here would provide scope for the regulator to consider the different characteristics of NSPs in each sector when determining a rate of return for each NSP.¹⁷

Under the proposed approach the regulator must determine a rate of return (the allowed rate of return) that is consistent with that required by a benchmark efficient firm with similar risk characteristics to the service provider in question. A key feature of the new framework is that the allowed rate of return is effectively determined on a "determination by determination basis".¹⁸ This will ensure that the regulator can better respond to changing financial market conditions, particularly where volatile market conditions impact on a NSP's ability to attract sufficient capital to finance its expenditure requirements.

While providing for flexibility, the Commission recognises that it is important for investor, NSP and consumer confidence in the framework that the regulator is transparent about its approach to determining the allowed rate of return. Further, all stakeholders should have an opportunity to contribute to discussions about how the regulator will determine the overall rate of return, including how it will estimate the return on equity and debt components of the overall allowed rate of return.

To supplement the considerations at each determination, the proposed framework requires the regulator to develop rate of return guidelines that set out the approach it intends to take to estimating the allowed rate of return for NSPs. These guidelines must be reviewed at least every three years. This will allow all stakeholders to periodically consider and comment on new evidence or analytical techniques that may allow better estimates of the rate of return to be made. This process should provide a smooth evolutionary process for estimation techniques to develop as new evidence and thinking emerges.

The effectiveness of the Commission's proposed framework for the determination of the allowed rate of return depends, to a significant degree, on how the regulators and

¹⁷ In this chapter of the draft determination, the term "NSP (network service provider)" is used to refer generally to electricity network service providers under the NER and gas service providers under the NGR, unless the context requires otherwise.

¹⁸ In this draft rule determination generally, in the context of the rate of return, the term "determination" refers both to regulatory determinations under the NER and access arrangement determinations under the NGR.

the appeal body interpret the new rules. The Commission has taken the opportunity in this draft determination to explain how the draft rules are to be interpreted. Most importantly, the draft rules are intended to ensure that the regulator (and the appeal body) focuses on whether the overall rate of return meets the allowed rate of return objective, which is intended to be consistent with the NEO/NGO and revenue and pricing principles.

The Commission has not included in the draft rules any preferred methods for determining a rate of return consistent with this objective, but instead has left the judgement as to the best approach to the regulator to make consistent with achieving that objective.

Return on debt

As part of its assessment of the rate of return framework, the Commission has found that the estimation of the return on debt component can be dramatically improved to allow consideration of alternative ways of determining the efficient debt servicing costs of electricity NSPs.

Both the AER and the EURCC have claimed that the current regulatory approach in the NER is not delivering a satisfactory estimate of the cost of debt for NSPs. In its rule change request the EURCC proposed changing the rules from estimating a forward-looking return on debt to using a trailing average of observed historical debt costs of benchmark NSPs.

The Commission agrees with the AER and the EURCC that the current approach in the NER is problematic for some NSPs, depending on their characteristics and debt management strategies. A number of other approaches to estimating the return on debt were suggested to the Commission by stakeholders.

A number of different approaches to estimating the return on debt may meet the overall rate of return objective. Consistent with the proposed framework, the Commission is of the view that the regulator is in the best position to determine the best approach to estimating a return on debt. The draft rule provides that the regulator can use a range of different approaches to undertake this task.

As part of its rule change request, the EURCC would also provide for the return on debt for state-owned NSPs to be determined differently from privately-owned NSPs. The Commission has considered this and does not support this aspect of the EURCC's rule change request for a number of reasons.

4.2.2 Capital expenditure and operating expenditure allowances and related issues

Capex and opex allowances

This first issue concerns the ability of the AER to interrogate and amend capex and opex proposals. The AER has stated that restrictions in the rules have resulted in capex and opex allowances forming part of determinations for NSPs that are higher than they should be. Since publication of the directions paper the Commission has undertaken further work to assess this issue from two perspectives – analysing any further evidence provided to it of the drivers of prices, as well as engaging consultants to reconsider the original approach to expenditure allowances in chapter 6A of the NER, dealing with the economic regulation of electricity transmission services. From this the Commission has concluded:

- increases in the rate of return and expenditure allowances have both been significant factors contributing to higher network charges; and some increases in expenditure have been necessary. On the basis of information provided to the Commission it is not possible to tell if constraints on the AER's ability to amend NSPs' expenditure forecasts have caused inefficient increases in expenditure allowances; and
- from a practical perspective the approach in respect of expenditure allowances in chapter 6A of the NER reflects the approach of regulators in other jurisdictions in Australia and overseas. There are, however, some areas for improvement in the NER, largely to clarify that approach, and to remove any ambiguities.

The Commission remains of the view that the essential features of the capex and opex allowances provisions in the NER are appropriate. The NSP's proposal is necessarily the starting point for the AER to determine a capex or opex allowance, as the NSP has the most experience in how its network should be run. Under the NER the AER is not "at large" in being able to reject the NSP's proposal and replace it with its own since it must accept a reasonable proposal. But the AER should determine what is reasonable based on all of the material and submissions before it. This reflects the obligation that all public decision makers have to justify their decisions. In addition, the NER do not place any restrictions on the analytical techniques that the AER can use to scrutinise and, if necessary, amend or substitute the NSP's capex or opex forecasts.

Having confirmed that base, the Commission has identified some provisions that may be causing constraints in an unintended way, particularly clause 6.12.3(f).

The Commission views benchmarking as a critical exercise in assessing the efficiency of a NSP and in approving capex and opex allowances. Benchmarking should take into account differences in the environments of the different NSPs, being those factors that are outside the control of the NSP. The Commission proposes to remove any potential constraints in the NER on the way the AER may use benchmarking.

Annual benchmarking report

One of the problems associated with the current regulatory determination process is the difficulties consumers and their representatives experience in participating effectively. The draft rule includes a number of provisions designed to improve the ability of consumers to participate in the regulatory process, a number of which are considered below. Whilst benchmarking is of critical importance to the regulator, it can also be of assistance to consumers, providing them with relative information about network performance. This would be useful to consumers when participating in the regulatory process and merits reviews, but also in their informal interactions with NSPs. On this basis the AER should publish annual benchmarking reports, setting out the relative efficiencies of distribution network service providers (DNSPs) and transmission network service providers (TNSPs), taking into account the exogenous factors that distinguish them.

Other issues

The rule change requests and further submissions have raised other issues relating to:

- increased consultation on expenditure models – the methodology or methodologies for preparing expenditure forecasts will be included in the framework and approach paper stage, which will also apply to TNSPs, see below and section 10.9. This will encourage stakeholders to discuss the model at an earlier stage and before proposals are submitted; and
- capex and opex factors – the AER must have regard to the capex and opex factors when assessing capex and opex proposals. The process-related aspects of these factors are more appropriately located elsewhere as they are of a different character to the other factors in that they deal with the materials presented to or obtained by the AER in the course of the regulatory process. Further changes to the capex and opex factors are necessary to address a variety of incidental issues such as to take into account the various incentive schemes provided for in the NER. Finally a factor has been included to require the AER to have regard to the extent to which NSPs have considered what consumers seek. The more confident the AER can be that consumers' concerns have been taken into account, the more likely the AER can be satisfied that a proposal reflects efficient costs.

4.2.3 Capex incentives

Sharing schemes, reviews, depreciation

The AER raised concerns about what it considers to be incentives for NSPs to spend more than efficient levels of capex, that is, above the capex allowances made as part of their determinations, for a regulatory period. To address this problem in its rule change request the AER recommended the introduction of a requirement in the NER that only 60 per cent of any expenditure incurred by a NSP above its capex allowance would be rolled into the RAB and, therefore, recoverable. Related to this the AER also

requested that it be given the discretion to roll forward the RAB using depreciation based on actual or forecast expenditure.

After undertaking initial analysis, the Commission concluded that the NER does not provide incentives for NSPs to spend more than their allowance, although factors outside the NER may provide for such additional expenditure. The Commission did identify two key issues with capex incentives in the NER:

- the powers of the incentive not to incur expenditure above capex allowance declines during a regulatory period, which has implications for efficiency incentives, timing of capex and substitution between capex and opex; and
- capex above the allowance is not subject to any regulatory scrutiny which means that there is a risk that expenditure above the allowance may be inefficient.

Since publication of the directions paper the Commission has undertaken further analysis of actual capex by NSPs; engaging consultants to assist. The work of the consultants and the Commission's own analysis has identified a range of theoretical drivers as to why a NSP might spend more than its capex allowance. It also identified different expenditure practices of NSPs. There are clearly legitimate circumstances in which expenditure above capex allowances could occur, but often mitigation action could be taken so that, overall, capex is within the allowance. Amongst some NSPs there is a tendency to defer capex to the end of the regulatory period. For some this practice is not so obvious. Given the problems identified and the results of the further analysis, the Commission's approach is to provide the AER with a number of "tools" which it can apply as it considers necessary to provide adequate incentives on NSPs to spend capex efficiently, having regard to an overall capex objective and consistent with the NEO and RPP. The tools are capex sharing schemes to be designed by the AER, efficiency reviews of past capex and deciding whether to depreciate the RAB using actual or forecast expenditure to establish a NSP's opening RAB. This package should also be viewed alongside the ability of the AER, on an ex ante basis, to scrutinise effectively, and if necessary amend, proposed capex allowances as part of the determination process so that allowances set in the first place are efficient.

An overall capex incentive objective will describe what the capex incentive regime, as a whole, should aim to achieve – both in respect of the guideline that the AER must make setting out its proposed approach to application of the capex incentive "tools" provided in the NER and how it applies a capex incentive regime to an individual NSP. The AER will also be required to take into account a number of principles and factors when designing and applying the capex tools.

Regarding the reviews of the efficiency of past capex, the Commission is of the view that this is the most appropriate way to address the lack of supervision of capex that has been incurred. Such a review is also a necessary companion to any capex sharing schemes in place. While effective, capex sharing schemes will not necessarily mean that NSPs never undertake capex inefficiently. A further and final check on the efficiency of expenditure that is rolled into the RAB is in the long term interests of consumers.

The AER may use the analytical techniques it considers appropriate to undertake such reviews, in much the same way as it can when assessing capex proposals. The AER will be required to undertake a review of the efficiency of past capex for all NSPs as part of the determination process and include a statement on the efficiency of expenditure going into the RAB. The AER will also have the discretion to preclude inefficient past capex being rolled into the RAB to the extent of any over expenditure above the capex allowance for the previous regulatory period.

Related party margins and capitalisation policy changes

In addition to the broader capex incentive issue discussed above, the AER considers that there are two additional capex incentive issues in the NER relating to related party margins and changes to capitalisation policies during a regulatory period.

Further work undertaken (including modelling undertaken by consultants) appears to confirm that there is a potential incentive for NSPs to incur inefficient related party margins, even with capex sharing schemes in place. This incentive could encourage NSPs to enter into commercial arrangements that are not the most efficient. The Commission considers that the issue should be dealt with by reviewing the capex after it is undertaken. It therefore proposes to give the AER discretion to preclude inefficient related party margins being rolled into the RAB as during the previous regulatory control period, regardless of whether the NSP spent more than its allowance overall or not. In assessing this type of expenditure, the AER should take a flexible approach, recognising the differing incentive power in different circumstances.

The Commission accepts that there is a potential incentive for a NSP to change its capitalisation policy so that it can classify opex as capex and recover the same expenditure twice: once in forecast opex; and again through depreciation and return on capital once the expenditure is rolled into the RAB. The strength of such an incentive would be affected by other factors, such as the requirements of statutory accounting and capex sharing schemes. Ex ante incentives will not necessarily deal with the issue, however, so the AER should be able to review the relevant capex after it is incurred.

Similar to related party margins, the Commission proposes to give the AER discretion to preclude expenditure being rolled into the RAB to the extent that expenditure reflects operating expenditure that was capitalised as a result of changes to the NSP's capitalisation policy during the regulatory period. The AER should have this discretion regardless of whether the NSP has spent more than its allowance overall or not.

4.2.4 Regulatory determination process

Steps in the process

The AER raised a series of process-related issues, largely relating to the submission of material by NSPs late in the regulatory determination process. The AER's concern in this regard is that there is inadequate time to review and comment on this material, both from the AER's and other stakeholders' perspectives. The Commission has

reconsidered the regulatory determination process as set out in the NER, under both chapters 6 and 6A. This has been undertaken taking into account other aspects of the consolidated rule change request. Also relevant is, on the one hand, the need for the regulator and other stakeholders to have adequate time to consider and respond to material and, on the other hand, the need in some circumstances for material to be submitted later in the process.

A number of detailed changes have been proposed to address these issues, with a view that the regulatory determination process needs to be transparent and timely to ensure that all parties have a clear understanding of their rights and obligations at the outset, as well as ample opportunity to participate. This is a key contributor to confidence in the overall outcomes from both the perspective of the NSP and consumers. The changes proposed include:

- lengthening the regulatory determination process by six months, for both electricity distribution and transmission. This provides for time for the regulator to prepare and publish an issues paper as well as time for a cross submissions stage later in the process if required;
- the application of an optional framework and approach paper for electricity transmission as well as distribution. Also that document can be used, where necessary, to settle a number of issues prior to regulatory proposals being submitted. Examples here include information that needs to be provided by the NSP, and the capex incentive package that the AER proposes to apply to the NSP; and
- improving transparency and accountability by requiring NSPs to nominate the reasons why they classify material as confidential.

Some of these changes should also improve the ability of consumers to participate in the regulatory determination process.

It is important to note that the Commission considers the regulatory determination process set out in the NER as a minimum. The Commission encourages engagement and interaction between NSPs and consumers, and the AER and NSPs outside of the formal processes.

Diverse issues

The AER raised a number of diverse issues. Firstly, the AER proposed a broader uncertainty regime in distribution to balance its proposals for stronger capex incentives and more discretion in respect of capex and opex allowances, including defining the materiality threshold for cost pass through events. Secondly, the AER proposed to align and extend the timeframes for it to make decisions on applications under the uncertainty regime for distribution and transmission. Thirdly, the AER proposed to broaden the type of material errors or deficiencies by which the AER could revoke and substitute a regulatory determination and also be able to amend the regulatory determination. Fourthly, the AER proposed to introduce a shared assets mechanism to

allow it to decide on whether to apply a revenue adjustment or control mechanism adjustment for assets which are shared for services related to standard control and other services. Finally, the AER proposed for it to be given the ability to create incentive schemes outside of those prescribed in the NER.

The general approach the Commission took with these particular proposals was, where they were adopted, to seek to achieve consistency between chapters 6 and 6A unless there are substantive reasons for a difference. In respect of the AER's proposals, the Commission has decided as follows:

- for increased accountability on the NSP and to allow the NSP to recover efficient costs for unexpected events, the capex reopener and contingent project regimes that apply in transmission will now also apply in distribution;
- to build in flexibility, the decision-making timeframe for applications under the uncertainty regime will be extended for complex or difficult issues;
- the AER's power to revoke and substitute a decision for a material error or deficiency under Chapter 6A will be limited as currently provided under Chapter 6;
- to promote innovation whilst also providing for cost reflectivity to consumers, a shared assets cost adjustment mechanism may apply to assets that share distribution or transmission services with any unregulated service; and
- to promote innovation and flexibility, the AER will be able to develop small scale pilot or test schemes to ensure that the potential impact of such a scheme is understood before full implementation.

4.3 Drivers for effective network regulation

The Commission is of the view that the package of amendments to the NER and NGR included in this draft rule determination provides the regulator with additional tools to carry out its functions. The effectiveness of the NER and the NGR in terms of the overall price and service outcomes experienced by consumers are dependent on two drivers:

- the effective application of the rules by the regulator; and
- the effective corporate governance of the NSPs providing services which are subject to economic regulation.

The efficiency with which network services are provided depends on the way in which the drivers work together. Only when these aspects are operating as intended will the best outcomes for consumers be achieved.

Regarding the first driver, the interpretation and application of the rules by the regulator is crucial. This draft rule determination provides examples and illustrations

of how the rules could be interpreted and applied to address problems that exist currently, but also how their application could adapt when the circumstances change.

Management and shareholders of service providers also play a critical role in the efficient provision of network services. They do this through a variety of means, such as approving proposals to be submitted to the regulator, given the significance of AER decisions for these businesses. They also create incentives within the business to encourage efficient outcomes.

4.4 Merits review

While the Commission has been considering these rule change requests the Standing Council on Energy and Resources (SCER) decided to bring forward the review of the Limited Merits Review (LMR) regime in the NEL and the NGL. In April 2012 a panel was appointed to undertake the review.

The LMR Panel has observed that a narrower, and more formalistic approach to merits review has developed than what was originally intended. In its view this approach has been relatively detached from the focus on the overall objectives set out in the NEL and NGL and encouraging outcomes that are in the long term interests of consumers. The LMR Panel has suggested that the NEL and the NGL could be amended to provide for more holistic, broader decision making, focussing on overall outcomes.

Where possible, the draft rule seeks to address this concern by allowing the regulator to approach decision making more holistically. The main examples are requiring the regulator to focus on meeting overall objectives in relation to capex incentives and the rate of return that are linked to the NEO or NGO and the RPP.

The LMR Panel is still in consultation phase and has not made any recommendations for change at this stage. It is possible that further rule changes will be required to complement any changes to the merits review process that the SCER decides should be made.

5 Overall approach to the draft rule determination

In the directions paper, the Commission stated that it would consider, on a case by case basis, the level of detail and clarity that it would provide in the NER or the NGR, as relevant. This approach is consistent with the current energy market governance structure, as well as the approach taken by the AEMC and the MCE as rule maker in the past.

The issues established in the consideration of the rule change requests are many and varied. At a general level, they relate to:

- a lack of flexibility and ability to adapt to changing external environments and different circumstances of NSPs;
- a limited ability to review or scrutinise, on the part of the regulator, the efficiency of capital expenditure before it becomes part of the regulatory asset base;
- a lack of opportunity for meaningful consumer engagement in the determination process; and
- ambiguity and a lack of clarity in some areas of the NER which has been impacting on the regulator's ability to scrutinise, review and, if necessary, revise capex and opex forecasts.

Taking these problems into account, the Commission's general approach in the context of the rule change requests can be described as follows:

- providing the regulator with the discretion to make decisions appropriate to the circumstances of each NSP in a changing environment. This also recognises, though, that certain elements should be prescribed into the rules, such as the overall regulatory process to be followed;
- improving transparency and accountability in discretionary decision-making by requiring the regulator to address relevant factors and considerations;
- raising the level of decisions to encourage a focus on the overall outcome - this is particularly evident in the area of capex incentives and the rate of return;
- requiring transparency and accountability on the part of NSPs by requiring them to provide more explanations to consumers and to report to the regulator on the reasons for taking or not taking certain actions;
- encouraging more timely and meaningful consumer engagement where appropriate;
- facilitating more productive and earlier engagement between the NSPs and the regulator;

- removing any identified ambiguities or lack of clarification or precision in the NER and NGR; and
- harmonising the approach in chapters 6 and 6A of the NER, unless there are substantive reasons for a different approach.

Where the solutions proposed involve providing increased discretion to the regulator, generally additional provisions have been included to require the regulator to take into account certain factors and considerations. These additional requirements have been included for a number of reasons including:

- they are reflective of good regulatory practice as they improve transparency and accountability;
- they are consistent with the broader governance framework established by the NEL and the NGL which contemplate distinct roles for the rule maker and regulator; and
- together with the discretionary elements they reflect the appropriate balance for the current electricity regulatory environment (in place since 2006), bearing in mind that there has been only one full application by the AER of the current NER to each NSP. Chapters 6 and 6A can be regarded as a prescriptive and detailed articulation of the approach to incentive based regulation for electricity. The changes contemplated by this rule determination involve a departure from that approach only in so far as is warranted by recent developments and the current circumstances.

That is not to say, however, that the approach taken here could not evolve over time, as confidence in the application of the rules increases. As stated previously, including in the directions paper, these matters need to be considered on a case by case basis.

Amendments to the rules are proposed in this draft rule determination where it has been demonstrated that a clear problem exists – whether on a theoretical or practical basis. Where evidence of a problem has not been provided or is not conclusive then the Commission does not propose to make any changes. A good example here is the area of capex and opex allowances. In this area, the evidence provided of the problem was not conclusive and, on that basis, the Commission’s changes are limited to addressing ambiguities and a lack of clarity.

The directions paper included a summary of responses to the AEMC’s first consultation in this rule change process.¹⁹ Unless indicated, in this draft rule determination, where submissions are discussed, the discussion builds on the previous summary and focuses on new points made by stakeholders.

¹⁹ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, pp. 73-75. See also AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Summary of issues raised in submissions, pp. 39-92.

6 Rate of return framework

Summary

The Commission considers that there is a strong case for a common framework under the NER (including as between transmission and distribution) and NGR for setting the rate of return. A common framework can minimise any risks of distortions in capital allocation or investment decisions between the electricity and gas sectors. The proposed common framework provides scope for the regulator to consider the different risk characteristics of benchmark efficient service providers in each sector when determining a rate of return at each regulatory determination under the NER or access arrangement decision under the NGR.²⁰

The Commission does not consider that any of the existing rate of return frameworks under the NER or NGR have the characteristics necessary to best meet the NEO and the NGO, taking account of the RPP.

The Commission is proposing a framework that requires the regulator to determine a rate of return (the allowed rate of return) that meets an overall objective focussed on the rate of return required by a benchmark efficient service provider. Unlike the current NER frameworks, a key feature of the Commission's new framework is that the allowed rate of return is determined on a determination by determination basis. This approach will allow the regulators determination to better respond to changing financial market conditions, particularly where volatile market conditions impact positively or negatively on a service provider's ability to attract the necessary capital to finance its expenditure requirements.

The Commission recognises that it is important for confidence in the framework and the rate of return outcomes amongst consumers, service providers and investors, that the regulator is transparent about its approach to determining the allowed rate of return. It is also important that all stakeholders have an opportunity to contribute to discussions about how the regulator will approach determining the overall rate of return, including how it will estimate the return on equity and debt components of the overall allowed rate of return.

To supplement the considerations at each determination/access arrangement, the proposed framework requires the regulator to develop after consultation, rate of return guidelines that set out the approach it intends to take to determining the allowed rate of return. The rate of return guidelines must be reviewed at least every three years. These arrangements provide a process for all stakeholders to periodically consider and comment on new evidence or analytical techniques

²⁰ In this chapter of the draft determination, the term "service provider" is used to refer generally to electricity network service providers under the NER and gas service providers under the NGR, unless the context requires otherwise.

that may allow better estimates of the rate of return to be made. This process should provide an evolutionary process for estimation techniques to develop as new evidence and thinking emerges.

The effectiveness of the Commission's proposed framework for determining the allowed rate of return depends, to a significant degree, on how the regulator and the appeal body interpret the new rules. As with the draft rules in other areas of this draft rule determination, the Commission has explained how it intends the rate of return provisions of the draft rule to be interpreted. Most importantly, the draft rule is intended to allow the regulator and the appeal body to focus on whether the overall estimate of the rate of return meets the overall objective for the allowed rate of return, which is closely linked to the NEO, the NGO and the RPP. While the regulator may choose to determine the rate of return by estimating other values to contribute to the allowed rate of return, the Commission considers that assurance that the overall objective is met can only be gained by considering whether the overall rate of return arrived at meets the stated objective.

The Commission has not included in the draft rule any preferred methods for determining a rate of return consistent with the overall objective, but instead has left the judgement as to the best approach to the regulator. The Commission considers that determining the rate of return requires a regulator to exercise judgement about the analytical techniques and evidence to use to make the estimate. The Commission does not consider that the determination of the rate of return can be safely reduced to a formulaic exercise.

6.1 Introduction

The return on capital often represents the largest component of the revenue/pricing determinations of service providers. Therefore, the rules on how the rate of return is determined are a key element of the network charges that consumers are asked to pay. Under the building block approach to regulating revenues/prices, the return on capital is determined by applying a rate of return to the RAB (electricity) or projected capital base (gas) to determine the return on capital allowance to be included in the revenue requirement in each year of a service provider's regulatory determination or access arrangement.²¹

The current frameworks for estimating the rate of return for electricity transmission, electricity distribution and gas service providers differ in a number of respects, including the extent of the discretion available to the regulator in estimating the rate of return and whether the estimate of the rate of return is made at each determination or in a periodic review with the outcome applying to determinations over a number of future years. The current frameworks are set out in Chapter 6A of the NER for electricity transmission, Chapter 6 of the NER for electricity distribution, and rule 87 of the NGR for gas service providers.

²¹ See NER clauses 6A.6.2(a) and 6.5.2(a). See also NGR rule 76(a).

A summary of the current frameworks, including the policy rationale for the frameworks when they were put in place, was provided in the AEMC's directions paper.²² The directions paper also explained the AER's rule change request for the rate of return frameworks for electricity and gas transmission and distribution.²³

This chapter does not discuss issues relating to the estimation of return on debt although it is an integral part of determining the overall rate of return. Return on debt is covered in chapter 9 of this draft rule determination. This chapter discusses the overall rate of return framework, including estimating the return on equity.

This chapter is structured as follows:

- section 6.2 summarises the submissions received in response to the AEMC's directions paper;
- section 6.3 outlines the Commission's analysis in terms of the attributes of a good rate of return framework that achieves the NEO, the NGO and the RPP. It then considers the rate of return framework that best meets those attributes and describes some of the draft rule provisions that are intended to implement that framework; and
- section 6.4 sets out further detail on the draft rule provisions, together with the Commission's guidance on the interpretation of the draft rule provisions.

6.2 Submissions

6.2.1 Rule proponent's suggested changes to its original proposal

In response to suggestions that its rule change request did not provide for enough flexibility to adjust parameter estimates and the allowed rate of return for changes in market conditions or in response to new information, the AER proposed the following amendments to its proposed rule:

- allow the outcomes of the Weighted Average Cost of Capital (WACC) review to be applied to revenue/pricing determinations where the draft decision is released after the WACC review is finalised; and
- reduce the maximum interval between WACC reviews to two or three years.²⁴

In response to concerns that its original rule change request did not allow for merits review of the WACC review, the AER states that it does not object to the expansion of the merits review framework to cover the WACC review. The AER also states that the rate of return framework should provide a regulatory regime that delivers a "frequent,

²² See: AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, pp. 67-71.

²³ Id., pp. 71-73.

²⁴ AER, Directions Paper submission, 2 May 2012, p. 37.

³⁴ Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

industry-wide, holistic consideration of cost of capital issues (including merits review)".²⁵

The AER submitted that each of the current rate of return frameworks have flaws and that none of them should be adopted without amendment, and has urged the AEMC to determine the best approach to contribute to the achievement of the NEO and the NGO.

6.2.2 Views on the effectiveness of existing frameworks

In their submissions to the directions paper, the service providers generally maintained their position against the AER's proposed changes to the rules.

Service providers generally support the Commission's initial position in the directions paper that the Chapter 6A framework of the NER is too inflexible to deal with changing market conditions.²⁶ This view was also supported by the Western Australian (WA) Public Utilities Office and the Major Energy Users (MEU).²⁷

However, the Chapter 6A rate of return framework has received some support from some consumer representative groups.²⁸ The Energy Users Association of Australia (EUAA) submit that the Commission has dismissed the AER's concerns regarding such a framework too lightly and suggests that more work needs to be done to limit the "perpetual review" that, as they see it, advantages service providers and disadvantages consumers.²⁹

The Energy Networks Association (ENA), Grid Australia and a number of other DNSPs such as ETSA, CitiPower and Powercor, and United Energy and MultiNet Gas (UE and MG) generally favour a common framework for electricity service providers based on the existing Chapter 6 framework with some modifications that they consider would enhance investment certainty, although they recognise that there is a trade-off between certainty and flexibility.³⁰ Service providers submit that investment certainty could be improved in practice by setting out the overall objective for the rate of return

²⁵ Id., p. 38.

²⁶ See for example: APA Group, Directions Paper submission, 16 April 2012, p. 1; Ausgrid, Directions Paper submission, 16 April 2012, p. 8; APIA, Directions Paper submission, 16 April 2012, p. 23; ENA, Directions Paper submission, 16 April 2012, p. 2; ESAA, Directions Paper submission, 26 April 2012, p. 16; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p.11; Grid Australia, Directions Paper submission, 16 April 2012, p. 2; UE and MG, Directions Paper submission, 16 April 2012, p. 9.

²⁷ WA Public Utilities Office, Directions Paper submission, 19 April 2012, p. 2; MEU, Directions Paper submission, 17 April 2012, p. 28.

²⁸ EUAA, Directions Paper submission, 17 April 2012, pp.28-29.

²⁹ Id., pp. 28-29.

³⁰ See for example: ENA, Directions Paper submission, 16 April 2012, pp. 1-2; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 11; Grid Australia, Directions Paper submission, 16 April 2012, pp.2-3,9; UE and MG, Directions Paper submission, 16 April 2012, p. 9.

estimate and testing any estimate against some high-level principles on a consistent basis.³¹

The NGR framework is viewed by gas service providers (and others) as having important desirable qualities such as flexibility to deal with changing market conditions and being forward-looking such that service providers are able to attract new investment to the sector.³² Gas service providers such as APA Group and Dampier Bunbury Pipeline (DBP) submit that, in effect, the NER rate of return framework is already applied under the NGR by the AER. They submit that the desire of the AER for consistency means that the more prescriptive NER rate of return framework invariably overrides the more flexible NGR rate of return framework.³³

Gas service providers submit that the NGR better allows consideration of the efficient overall rate of return, whereas the NER can lead to individual parameters being considered independently.³⁴

6.2.3 Views on methodological issues in rate of return estimation

There is strong support from service providers for retaining a framework based on the concept of an efficient benchmark firm.³⁵ However, some consumer groups are of the view that the current framework is not delivering an efficient rate of return commensurate with what would be expected in a competitive environment.³⁶ Gas service providers stress the importance of considering the prevailing conditions in the market for funds when determining the allowed rate of return.³⁷

Some service providers submit that a determination by determination consideration of the rate of return does not necessarily have to involve a full review of all the elements of the rate of return.³⁸ For example, Ausgrid suggests that guidance from the regulator

³¹ See for example: ENA, Directions Paper submission, 16 April 2012, p. 2.

³² APA Group, Directions Paper submission, 16 April 2012, pp. 2-4; APIA, Directions Paper submission, 16 April 2012, pp. 9-15 ; DBP, Directions Paper submission, 16 April 2012, pp. 3-5.

³³ APA Group, Directions Paper submission, 16 April 2012, p. 3; DBP, Directions Paper submission, 16 April 2012, p. 5.

³⁴ APA Group, Directions Paper submission, 16 April 2012, pp. 2-3; APIA, Directions Paper submission, 16 April 2012, pp. 11-12 ; DBP, Directions Paper submission, 16 April 2012, pp. 1-2.

³⁵ See for example: APA Group, Directions Paper submission, 16 April 2012, p.1; Grid Australia, Directions Paper submission, 16 April 2012, p. 10.

³⁶ See for example: MEU, Directions Paper submission, 17 April 2012, p. 5; EURCC, Directions Paper submission, 16 April 2012, pp. 5-7.

³⁷ APA Group, Directions Paper submission, 16 April 2012, pp. 16-17; The Financial Investor Group, Directions Paper submission, 16 April 2012, pp. 1, 4, 7; UE and MG, Directions Paper submission, 16 April 2012, p. 10; WA Public Utilities Office, Directions Paper submission, 19 April 2012, p. 4.

³⁸ See for example: Ausgrid, Directions Paper submission, 16 April 2012, pp. 8-9; Ergon Energy, Directions Paper submission, 16 April 2012, pp. 2, 9-12; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp.12-13; Jemena, Directions Paper submission, 16 April 2012, p. 36; SA DMITRE, Directions Paper submission, 9 May 2012, p. 4.

from periodic WACC reviews could be readily applied to all non-contentious issues where there was no material change in circumstances.³⁹

There are some diverging views among stakeholders as to whether the rules need to be changed to reflect the interdependency and inter-relationship of parameters in estimating the rate of return.⁴⁰ Some service providers submit that it is already open under Chapter 6 of the NER for the AER to take into account the inter-relationships between parameter values but that the AER had (in some circumstances) failed to do so, and hence the rules needed to explicitly require the AER to do so.⁴¹

The Queensland Treasury Corporation (QTC) suggests that the inter-relationships should be recognised through guiding principles, but not prescribed mechanically in the rules.⁴² The Independent Pricing and Regulatory Tribunal (IPART) submit that the rules should recognise the inter-relationships to allow changes in individual parameters to be fully reflected in the final overall rate of return estimate.⁴³

A small number of stakeholders, mainly consumer and energy user groups, support the view that a specific approach for estimating the required return on equity (the Capital Asset Pricing Model or CAPM) should be mandated in the rules.⁴⁴ However, the majority of stakeholders oppose such an approach.⁴⁵ There is widespread support for the rules allowing the use of more than one model to estimate the return on equity capital, at least as a cross-check for reasonableness.⁴⁶

Other than IPART, most stakeholders are of the view that the use of ranges in estimating the rate of return parameters is not desirable. Jemena in particular, notes the approach of the New Zealand Commerce Commission that uses the 75th percentile of

³⁹ Ausgrid, Directions Paper submission, 16 April 2012, pp. 8-9.

⁴⁰ See for example: Grid Australia, Directions Paper submission, 16 April 2012, pp. 10-11; Ausgrid, Directions Paper submission, 16 April 2012, pp. 10-11.

⁴¹ ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp.13-14.

⁴² QTC, Directions Paper submission, 16 April 2012, pp. 4-5.

⁴³ IPART, Directions Paper submission, 16 April 2012, p. 12.

⁴⁴ See for example: EUAA, Directions Paper submission, 17 April 2012, p. 31; Ethnic Communities Council of New South Wales, Directions Paper submission, 16 April 2012, p. 3; TEC, Directions Paper submission, 17 April 2012, p. 3.

⁴⁵ See for example: APA Group, Directions Paper submission, 16 April 2012, pp. 1-2; APIA, Directions Paper submission, 16 April 2012, p. 4 ; Consumer Action Law Centre, Directions Paper submission, 16 April 2012, pp. 1-2, 6; DBP, Directions Paper submission, 16 April 2012, pp. 1-5; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp.11-19; IPART, Directions Paper submission, 16 April 2012, pp. 12-13; MEU, Directions Paper submission, 17 April 2012, p. 5; UE and MG, Directions Paper submission, 16 April 2012, p. 8; WA Public Utilities Office, Directions Paper submission, 19 April 2012, pp. 3-4.

⁴⁶ See for example: WA Public Utilities Office, Directions Paper submission, 19 April 2012, p. 4; UE and MG, Directions Paper submission, 16 April 2012, p. 9; Jemena, Directions Paper submission, p. 40; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 17; APIA, Directions Paper submission, 16 April 2012, pp. 12-14; APA Group, Directions Paper submission, 16 April 2012, p. 3; DBP, Directions Paper submission, 16 April 2012, p.1.

its estimate of the WACC range (rather than the mid-point) to explicitly recognise the relatively higher costs of underinvestment if the allowed return is set too low.⁴⁷

6.2.4 Views on persuasive evidence test

Many stakeholders commented on the interpretation and application of the persuasive evidence test. The AER maintains its view that the persuasive evidence test should be removed to end any ambiguity as to its interpretation and application.⁴⁸ The AER also states that it has concerns with the Tribunal's recent interpretation in the Victorian DNSPs' 2011-15 distribution determinations appeals that clause 6.12.3(f) of the NER also applies to WACC decisions.⁴⁹ The AER submits that the restriction from the application of clause 6.12.3(f) creates further complication on the application of the persuasive evidence test and gives undue weight to a service provider's regulatory proposal at the expense of setting parameters that are appropriate or otherwise in accordance with the interests of all stakeholders.⁵⁰

There is opposition to the removal of the persuasive evidence test from service providers, who argue that the persuasive evidence test is an important component of achieving regulatory certainty, efficient outcomes, accountability and rigour.⁵¹ User groups such as the MEU are also of the view that there is some value in having a persuasive evidence test.⁵² However, the MEU is concerned that such a test should not allow service providers to have a "second bite" on every issue.⁵³ On the other hand, the EUAA supports the AER's view that the persuasive evidence test is problematic to interpret.⁵⁴

6.2.5 Views on merits review

The necessity for access to merits review is something that is overwhelmingly endorsed by all service providers and many other stakeholders.⁵⁵ The AER also

⁴⁷ Jemena, Directions Paper submission, 16 April 2012, p. 38.

⁴⁸ AER, Directions Paper submission, 2 May 2012, pp. 52-54.

⁴⁹ Clause 6.12.3(f) states that if the AER refuses to approve a service provider's proposal, the substitute amount or value on which the distribution determination is based must be (i) determined on the basis of the current regulatory proposal; and (ii) amended from that basis only to the extent necessary to enable it to be approved in accordance with the rules.

⁵⁰ AER, Directions Paper submission, 2 May 2012, p. 53.

⁵¹ ENERGEX, Directions Paper submission, 16 April 2012, p.3; ENA, Directions Paper submission, 16 April 2012, pp. 43-46; Ergon Energy, Directions Paper submission, 16 April 2012, pp. 9-11; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 11.

⁵² MEU, Directions Paper submission, 17 April 2012, p. 64.

⁵³ Id., p. 30.

⁵⁴ EUAA, Directions Paper submission, 17 April 2012, p. 27.

⁵⁵ See for example: APA Group, Directions Paper submission, 16 April 2012, p. 1; APIA, Directions Paper submission, 16 April 2012, p. 21; DBP, Directions Paper submission, 16 April 2012, p. 1; Ergon Energy, Directions Paper submission, 16 April 2012, p. 2; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp.12, 18; Grid Australia, Directions Paper submission, 16 April 2012, p. 10; Jemena, Directions Paper submission, p. 36; SA DMITRE, Directions Paper

³⁸ Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

acknowledge that under its rule change request proposal, the determination of the allowed rate of return would be precluded from merits review. However, the AER states that in principle it does not object to the expansion of the merits review framework to cover its proposed periodic WACC review.⁵⁶

More generally, some service providers argue that the AER already has the ability under the rules to achieve the things it claims it is constrained from doing and that such restrictions, in some cases, related to implementation issues and do not necessitate rule changes.⁵⁷ One example in this context is the suggestion that it is already open to AER to raise at the Tribunal any consequential effect of a parameter value change on another parameter (ie take into account inter-relationships between parameter values).⁵⁸

6.3 Analysis

The following section presents the Commission's analysis of the issues to be considered in deciding on the best framework for determining the allowed rate of return. This section and the next section also describe how the proposed draft rule implements such a framework.

6.3.1 Assessment of existing frameworks

Chapter 6A of the NER

The Commission outlined its initial position on the effectiveness of the Chapter 6A rate of return framework in the directions paper.⁵⁹ The Commission noted that there is a trade-off between certainty and stability on one hand, and flexibility and the ability to reflect changing market conditions on the other. The Chapter 6A rules were designed with an emphasis on certainty and stability.

In the directions paper, the Commission took the view that the Chapter 6A framework did not provide the level of flexibility required to allow the estimate of the rate of return to evolve as market conditions change. Fixing WACC parameters for long periods produces results that may not reflect current market conditions or the availability of information to estimate parameter values. The global financial crisis and its continuing impact through the European sovereign debt crisis, highlight the

submission, 9 May 2012, p. 5; The Financial Investor Group, Directions Paper submission, 16 April 2012, p. 12; UE and MG, Directions Paper submission, 16 April 2012, p. 8; WA Public Utilities Office, Directions Paper submission, 19 April 2012, p. 2.

⁵⁶ AER, Directions Paper submission, 2 May 2012, p. 45.

⁵⁷ APA Group, Directions Paper submission, 16 April 2012, pp. 7-8; ENA, Directions Paper submission, 16 April 2012, p.2; Ergon Energy, Directions Paper submission, 16 April 2012, pp. 9-12; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 14.

⁵⁸ ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 14; ENA, Directions Paper submission, 16 April 2012, p. 49.

⁵⁹ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, pp. 78-80.

dangers inherent in an overly rigid approach. The framework in Chapter 6A does not allow for a WACC review outside of the periodic schedule. In addition, the Chapter 6A framework does not permit any decisions made at a WACC review to be subject to merits review.

Furthermore, the Commission is concerned that the current provisions of Chapter 6A of the NER create the potential for the regulator and/or appeal body to interpret that the best way to estimate the allowed rate of return is by using a relatively formulaic approach that may not consider the relevance of a broad range of evidence, and may lead to an undue focus on individual parameter values. For example, the current Chapter 6A framework does not allow the regulator, other than at a WACC review, to consider whether and how the recent substantial changes in the Government bond market have affected the required return on equity estimate.

The Commission retains its view that Chapter 6A is insufficiently flexible to be the best framework for achieving the NEO and RPP in the future. Therefore, the Commission does not share the AER's view in proposing a new common rate of return framework under the NER and the NGR predominantly based on the features of the current Chapter 6A framework will best achieve the NEO, the NGO and the RPP in the future.

Chapter 6 of the NER

The Commission's initial view in the directions paper on the effectiveness of the Chapter 6 rate of return framework reflected two important assessments. First, that the Chapter 6 rate of return framework allows more flexibility than the Chapter 6A rate of return framework for incorporating changing evidence on parameter values into the WACC estimate. Second, that there are still some problematic features in the Chapter 6 rate of return framework that require further consideration.

Estimating a WACC involves the joint estimation of parameters/values and, as such, it is important to consider inter-relationships between parameters/values to be confident that the overall rate of return estimate is appropriate. Many stakeholders agreed with this proposition and a number of them identified the parameters that were inter-related. However, there was some disagreement about the extent to which the recognition of such inter-relationships is already permissible under the Chapter 6 rate of return framework and about the merits or otherwise of including a provision in the rules requiring the consideration of such inter-relationships.⁶⁰

The Commission considers that it is important the rules allow the inter-relationships between parameters to be appropriately considered and for the regulator to focus on whether its overall estimate of the rate of return is appropriate, and not consider specific parameters or components of the return on equity and debt estimate in isolation. The Commission is concerned that the rules and interpretation of those rules

⁶⁰ Grid Australia, Directions Paper submission, 16 April 2012, pp. 10-11; Ausgrid, Directions Paper submission, 16 April 2012, pp. 10-11; QTC, Directions Paper submission, 16 April 2012, pp. 4-5; IPART, Directions Paper submission, 16 April 2012, p. 12; AER, Directions Paper submission, 2 May 2012, pp. 46-47.

in the current Chapter 6 rate of return framework has led to an undue focus on individual WACC parameter values within the overall estimate of the rate of return.

The AER's position is that the persuasive evidence test is problematic, not least because of ambiguity as to its interpretation and application, and that it provides unnecessary restrictions on the AER's ability to determine an appropriate rate of return.⁶¹ The ENA and a number of service providers submit that regulatory certainty is a critical aspect of a rate of return framework and that the persuasive evidence test serves a useful role in achieving this.⁶²

The Commission agrees with the AER that the existing persuasive evidence test is problematic. Regulatory certainty, though desirable, should not be attained at the expense of limiting the regulator's ability to make the highest-quality rate of return estimate at any particular time.

The Commission considers that the Chapter 6 rate of return framework, while more flexible than the Chapter 6A rate of return framework, is not the best framework for achieving the NEO, the NGO and the RPP in the future.

Part 9 of the NGR

Gas service providers have strongly argued that the NGR provides a clear and simple rate of return framework with considerable discretion and flexibility in contrast to the electricity frameworks. In general, the gas sector submits that the NGR framework is more likely to achieve an allowed rate of return outcome that is consistent with the NGO and the RPP. This is because the NGR specifies an overall objective – that the allowed rate of return must be commensurate with the prevailing conditions in the market for funds and that it must reflect the risk that a benchmark service provider would face in providing the regulated services. Gas service providers also submit that the NGR rate of return framework is simple and unconstrained by prescription, and that the overall objective directly aligns the estimation process towards achieving the NGO and the RPP.

Whereas the current NGR rate of return framework has the potential to provide sufficient flexibility for estimating a rate of return that reflects market conditions and the best available information, the full flexibility that is available under the NGR does not appear to have been used in practice due to approaches from the more prescriptive electricity regimes being applied to the gas regime. This assessment was also made by a number of gas service providers in their submissions.⁶³ Consequently, it is difficult to fully assess, on the basis of its current implementation, whether the NGR rate of return framework provides the flexibility to have proper regard to the overall objective in rule 87(1).

⁶¹ AER, Directions Paper submission, 2 May 2012, pp. 52-54.

⁶² ENA, Directions Paper submission, 16 April 2012, pp. 43-46; ENERGEX, Directions Paper submission, 16 April 2012, p.3; Ergon Energy, Directions Paper submission, 16 April 2012, pp. 9,11; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 11.

⁶³ See for example: APA Group, Directions Paper submission, 16 April 2012, p. 3; DBP, Directions Paper submission, 16 April 2012, p. 5.

The recent decisions of the Tribunal in the ATCO Gas (formerly WA Gas Networks) and Dampier to Bunbury Natural Gas Pipeline (DBNGP) merits review appeals on the access arrangement decisions of the Economic Regulation Authority of Western Australia (ERA) have provided additional information about the interpretation of the NGR rate of return framework.⁶⁴ In both decisions, the Tribunal noted that:

“Rule 87(1) describes the objective when the ERA is determining the rate of return on capital. It is an objective which is of course consistent with the national gas objective and with the revenue and pricing principles. It contains no guidance as to how the objective is to be achieved. In the interests of regulatory consistency, it is desirable that such guidance be provided. Rule 87(2) provides that guidance. In particular, rule 87(2)(b) describes how the rate of return on capital is to be determined. It does so by prescribing the use of a 'well accepted approach' and a 'well accepted financial model'.⁶⁵”

In both cases, the Tribunal reached identical conclusions on the application of rule 87(1) and rule 87(2). The Tribunal considered that since the CAPM is a "well accepted financial model" under the provisions of rule 87(2), provided that the inputs to this model are appropriate, the output from this model will necessarily lead to an outcome in accordance with the objective specified in rule 87(1). Therefore, under the Tribunal's interpretation of the NGR, using only the CAPM to estimate the return on equity was sufficient to satisfy the objective in rule 87(1).

The Commission considers that the broad policy intent behind the NGR rate of return framework and the use of an overall objective to guide the regulator's estimate are consistent with better meeting the NGO. However, as discussed further below in section 6.3.6, rules 87(1) and (2) as interpreted by the Tribunal, could be applied in such a way as to reduce the range of information that can be used in estimating the rate of return. Such application could lead to the adoption of relatively formulaic approaches to determining the rate of return rather than focussing on whether the overall estimate of the rate of return meets the overall objective.

Finally, the current rate of return framework under the NGR means that all the substantive debate about the methodology to be used by the regulator formally occurs within the process for each access arrangement decision unless the regulator decides to have a separate consultation, as the ERA did when it developed its bond yield approach for estimating the return on debt that it proposed in the access arrangements for ATCO Gas and DBNGP.⁶⁶ This raises a concern that stakeholders have to

⁶⁴ *Application by WA Gas Networks Pty Ltd (No 3)* [2012] ACompT 12 and *Application by DBNGP (WA) Transmission Pty Ltd (No 3)* [2012] ACompT 14. The Tribunal's decisions in both cases concerned a number of issues with direct relevance to the rate of return provisions in the NGR. Among those issues, the Tribunal considered what it termed the "rule 87 construction issue", which pertained to the proper interpretation of the operation NGR rules 87(1) and 87(2).

⁶⁵ *Application by WA Gas Networks Pty Ltd (No 3)* [2012] ACompT 12 [62]-[63] and *Application by DBNGP (WA) Transmission Pty Ltd (No 3)* [2012] ACompT 14, [83]-[84].

⁶⁶ ERA, *Measuring the Debt Risk Premium – A bond yield approach*, Discussion Paper, 1 December 2010; ERA, *Final decision on WA Gas Networks Pty Ltd proposed revised access arrangement for the Mid-West*

participate in every access arrangement decision to influence the regulator's methodology, which may involve very high costs. For some stakeholders, such as consumer representative groups, this could impose such significant costs that it acts as a barrier to contributing their views on the development of appropriate estimation methodologies. On the other hand, developments in the regulator's methodology through gradual learning in each access arrangement process can be good regulatory practice.

The Commission considers that the policy objective of the rate of return framework in the NGR is consistent with frameworks that could best achieve the NEO, the NGO and the RPP. However, the interpretation of rules 87(1) and 87(2) by the Tribunal means that the Commission cannot be confident that without amendment the current NGR framework is likely to deliver outcomes that best meet the NEO, the NGO and the RPP.

6.3.2 A common rate of return framework under the NER and NGR

The Commission is of the view that none of the existing rate of return frameworks is capable of best fulfilling the requirements of the NEO, the NGO and the RPP. The Commission considers that a new rate of return framework is therefore needed.

The new framework should be a common framework across the NER and the NGR that minimises any risks of distortions in capital allocation or investment decisions between the electricity and gas sectors. While a number of stakeholders have explained differences in the risks potentially faced by service providers operating in the electricity and gas sectors, the Commission has not seen any convincing evidence to support the view that there are features of the electricity and gas sectors that would justify different frameworks for estimating the rate of return for each sector.

The Commission recognises that each sector has a different framework at the moment, and there can be benefits from stability of frameworks over time. However, given the Commission's concerns about each of the existing frameworks as discussed above, the benefits of a common framework appear to significantly outweigh any potential benefits from preserving the stability of any of the existing frameworks.

6.3.3 Attributes of a rate of return framework that would meet the NEO and the NGO

In the directions paper, the Commission proposed that a good rate of return framework would be one that:

- is based around estimating a rate of return for a benchmark efficient service provider;

and South-West Gas Distribution Systems, 28 February 2011; and ERA, Final decision on proposed revisions to the Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline, 31 October 2011 (as amended on 22 December 2011). The Commission notes that both the access arrangement decisions have amended in accordance with the Tribunal's recent decisions.

- allows methodologies for parameters to be driven by principles and to reflect current best practice;
- allows flexibility to deal with changing market conditions and the availability of new evidence;
- recognises the inter-relationships between parameter values; and
- creates a framework of accountability for both the regulator and the service provider in determining an appropriate rate of return.⁶⁷

There was broad agreement amongst stakeholders about the appropriateness of these five attributes.

Two other key attributes were suggested that the Commission considers should be added to the list set out above, which are:

- certainty for service providers and their investors as to how the regulator will react to changes in market circumstances and make decisions on an appropriate rate of return; and
- a rate of return framework that allows for more effective consumer participation.

While achieving the best possible estimate of the rate of return is the primary requirement of the framework for achieving the NEO and the NGO, achieving a degree of regulatory certainty is an important secondary objective. A degree of certainty in a framework will promote efficient investment in, and use of, the relevant services. That is not to suggest that the rate of return itself must be stable - this would be contradictory to the intention that they correspond to market conditions. Rather, there should be predictability and transparency about the way the allowed rate of return is determined.

The Commission also recognises that consumer engagement (and broader stakeholder interaction) in the rate of return determination process must be as effective as reasonably possible. As the NEO and the NGO are concerned with achieving outcomes that are in the long-term interests of consumers, it is only appropriate that consumers, user groups and other stakeholders be given an opportunity to effectively engage in the process and put forward their views.

The Australian Pipeline Industry Association (APIA) also made a number of other suggestions on the criteria. It suggested recognising the following attributes:

- the rate of return framework must be guided by a clear overarching criterion to be met by a rate of return; and
- a rate of return framework that takes into account the specific risks of service providers operating in a regulatory environment.

⁶⁷ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, pp. 91-92.

While the Commission agrees with APIA that a clear overall objective for the rate of return estimate is important, this is a means to achieve some of the attributes listed above rather than an attribute in itself. The Commission considers that the rate of return framework should provide a rate of return for a benchmark efficient service provider, and that, in developing the characteristics of a benchmark efficient service provider, the regulator considers the risk profile of the service provider to determine whether the benchmark chosen is appropriate. Therefore, the attribute of focussing on a benchmark efficient service provider can incorporate the consideration of the specific risks of a service provider operating in a regulated environment.

6.3.4 Features of a new common rate of return framework

Having regard to the attributes of a good rate of return framework set out above, the Commission has considered the best framework for the rate of return. Recognising that the existing NGR rate of return framework and the existing framework under the Chapter 6 of the NER have some features that are consistent with the attributes of a good rate of return framework that would meet the NEO, the NGO and the RPP, the Commission considered whether these two frameworks could be amended in a way that allowed them to better meet the NEO, the NGO as well as the RPP. For instance, the relatively flexible approach to the estimation of the return on debt and equity are attractive features of the NGR rate of return framework. In addition, the ability of the regulator to take into account prevailing market conditions at the time of an access arrangement decision provides a certain level of flexibility in ensuring that the allowed rate of return can be adjusted to reflect efficient financing costs of a benchmark efficient gas service provider.

Equally, the role of the Statement of Regulatory Intent (SORI) under the Chapter 6 rate of return framework has some benefits in terms of providing certainty, transparency and predictability about how the regulator would estimate the rate of return. It also provides for a regular focussed debate and consideration of methodological issues in estimating the return on equity and debt components of the overall rate of return.

Having considered the two starting points of the existing Chapter 6 approach under the NER and the approach under the NGR, the Commission has developed a proposed framework in this draft rule determination that it considers can result in outcomes that best meet the NEO, the NGO and the RPP. In the following sections, the Commission has set out its considerations of the features of its proposed framework against the attributes of a good rate of return framework discussed above.

Estimating a rate of return for benchmark efficient service provider

The primary objective of the allowed rate of return is to provide service providers with a return on capital that reflects efficient financing costs. A rate of return that corresponds to efficient financing costs will allow service provider to attract the necessary investment capital to maintain a reliable energy supply while minimising the cost to consumers.

The application of the NEO, the NGO and the RPP do not necessarily mean that service providers should recover their actual financing costs as this would create no incentive for them to minimise their financing costs. It is for this reason that the concept of a "benchmark efficient firm" and "benchmark efficient financing costs" are often used in the rate of return discussion. De-coupling a service provider's allowed financing costs from its actual costs means that service providers can retain the benefits from adopting more efficient financing arrangements than assumed by the regulator, and consumers are protected if a service provider is inefficient in their financing practices.

It is essential for the rate of return framework to be based around the concept of efficiency and to allow the recovery of only benchmark efficient financing costs. While both the NGR and the Chapter 6 rate of return frameworks include references to the rate of return being based on the efficient benchmark financing costs, the Commission is not confident that the current rules link the determination of the allowed rate of return to this overall objective.

In the Commission's view, there is a need to bring the focus of the rate of return in the rules back to the NEO, the NGO and the RPP. The Commission's proposed rate of return framework therefore has an overall objective for the allowed rate of return. In order to meet the NEO and the NGO, this objective reflects the need for the rate of return to correspond to the efficient financing costs of a benchmark efficient entity with similar circumstances and degree of risk as that which applies to the service provider whose rate of return is being determined.

Methodologies driven by principles and reflecting current best practice

In the Commission's view, achieving the NEO, the NGO, and the RPP requires the best possible estimate of the benchmark efficient financing costs. This can only be achieved by ensuring that the estimation process is of the highest possible quality. It means that a range of estimation methods, financial models, market data and other evidence should be considered, with the regulator having discretion to give appropriate weight to all the evidence and analytical techniques considered.

The Chapter 6 rate of return framework takes a relatively prescriptive approach to the rate of return estimation process and, once particular methodologies and parameter values are adopted in a review, there is a material hurdle in the persuasive evidence test before a different approach or value can be adopted. For example, the Chapter 6 rate of return framework provides no scope for the estimation of the return on equity using an estimation method other than the CAPM. In addition, it does not provide any scope to test the outcomes against other information or developments in current best practice.

By contrast, in not prescribing a particular methodology, the NGR rate of return framework should allow methodologies for parameters to be driven by principles and to reflect current best practice. Further, it can recognise the inter-relationships between parameter values and thereby enable the allowed rate of return to be determined in an internally consistent manner.

The rate of return estimation should not be formulaic and be driven by a single financial model or estimation method. The estimation approach to equity and debt components should include consideration of available estimation methods, financial models, market data and other evidence to produce a robust estimate that meets the overall rate of return objective. This means giving the regulator discretion on how it should estimate these components, rather than limiting the estimation process to a particular financial model or a particular data source. In the context of estimating the return on equity, the estimation should not be limited to the standard CAPM, but should consider other relevant evidence. The Commission's view on the return on debt estimation is discussed in chapter 7.

An example of an estimation process that has become formulaic is the mandatory use of the CAPM under the NER and the view that appears to be adopted in practice that CAPM is the only "well accepted" model under the NGR, despite the flexibility to consider other models.

The AER has strongly rejected any approach other than the CAPM in its submission. The AER's view is that it is unlikely that there would be a justifiable departure from the CAPM over the medium to long term.⁶⁸ Specifically, the AER noted that:

"[T]o the extent that other models are considered, other parameters may need to be considered. Assessing all parameters and alternative models concurrently, however, is practically difficult, and would be particularly so if undertaken during a tight reset timeframe.⁶⁹"

Most of the financial models that exist in the finance field are based on academic work. All of the models appear to have some weaknesses. All the models that have been advanced have been criticised for either the underlying assumptions required or lack of correlation of modelling results with empirical tests. Even the CAPM has been criticised in academic literature.⁷⁰ For example, some of the identified limitations of the CAPM are:

- it is based on unrealistic assumptions;
- it is difficult to test the validity of the CAPM; and
- the Beta estimate does not remain stable over time.⁷¹

⁶⁸ AER, submission to the Directions Paper, 2 May 2012, p. 43.

⁶⁹ Ibid.

⁷⁰ See for example: E Fama, and K French, 'The Cross-Section of Expected Stock Returns', *Journal of Finance*, vol 47, no.2, 1992, pp. 427-465; E Fama, and K French, 'The Capital Asset Pricing Model: Theory and Evidence', *Journal of Finance*, vol 48, no.3, 2004, pp. 25-46; T Copeland, J Weston, and K Shastri, *Financial Theory and Corporate Policy* 4th edition, Pearson Education, 2005, chapter 6.

⁷¹ See M Grinblatt, and S Titman, *Financial Markets and Corporate Strategy*, 2nd edition, McGraw-Hill, New York, 2002; and for surveys of the empirical evidence on the CAPM see: JY Campbell, AW Lo, and AC MacKinlay, *The Econometrics of Financial Markets*, Princeton, New Jersey, 1997, pp. 211-217; R Jagannathan, I Meier, 'Do We Need CAPM for Capital Budgeting?', *Financial Management*, vol 31, no.4, 2002, pp. 55-77.

Two of the most prominent academics in this field, Eugene Fama and Kenneth French, make the following statement on the CAPM:

“The attraction of the CAPM is that it offers powerful and intuitively pleasing predictions about how to measure risk and the relation between expected return and risk. Unfortunately, the empirical record of the model is poor - poor enough to invalidate the way it is used in applications. The CAPM's empirical problems may reflect theoretical failings, the result of many simplifying assumptions. But they may also be caused by difficulties in implementing valid tests of the model.⁷²”

An illustration of the issues associated with just relying on the CAPM to estimating return on equity has also been highlighted by the LMR Panel. In its stage one report, the LMR Panel noted that “binding regulatory decisions hand and foot to a financial model with known defects does not immediately commend itself as an approach that will advance the NEO and NGO”.⁷³

There are a number of other financial models that have varying degrees of weaknesses.⁷⁴ Some of the financial models that have gained some prominence include the Fama-French three-factor model⁷⁵, the Black CAPM⁷⁶, and the dividend growth model.⁷⁷ Weaknesses in a model do not necessarily invalidate the usefulness of the model. Ultimately, it is important to keep in mind that all these financial models are based on certain theoretical assumptions and no one model can be said to provide the *right* answer.

Given that there are other financial models and methods for estimating the cost of equity capital that vary in their acceptance academically and consequent usage by market practitioners, restricting consideration to the CAPM alone would preclude consideration of other relevant estimation methods.

The Commission is of the view that estimates are more robust and reliable if they are based on a range of estimation methods, financial models, market data and other evidence. A framework that eliminates any relevant evidence from consideration is unlikely to produce robust and reliable estimates, and consequently is unlikely to best meet the NEO, the NGO and the RPP.

⁷² E Fama, and K French, 'The Capital Asset Pricing Model: Theory and Evidence', *Journal of Finance*, vol 48, no.3, 2004, p. 25.

⁷³ LMR Panel, *Review of the Limited Merits Review Regime, Stage One Report*, Report for the SCER, 29 June 2012, p. 42.

⁷⁴ A summary of a number of return on equity financial models was provided by SFG in their report to the Commission on preliminary analysis of rule change proposals. See: SFG Consulting, *Preliminary analysis of rule change proposals*, Report for the AEMC, 27 February 2012, pp. 57-66.

⁷⁵ E Fama, and K French, 'Common Risk Factors in the Returns on Stocks and Bonds', *Journal of Financial Economics*, vol 33, no.1, 1993, pp. 3-56

⁷⁶ F Black, 'Capital market equilibrium with restricted borrowing', *Journal of Business* vol 45, no.3, 1972, pp. 444-455.

⁷⁷ MJ Gordon, *The Investment, Financing, and Valuation of the Corporation*, Irwin, Homewood Illinois, 1962.

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The Commission also notes that a framework that allows the regulator to properly consider a range of estimation methods, financial models, market data and other evidence is in line with the Commission's general philosophy of giving the regulator capacity to exercise regulatory judgment.

The Commission considers that the approach in the NGR rate of return framework provides a sound basis on which to build a new rate of return framework. The less prescriptive nature provides sufficient flexibility to consider alternative methodologies. It can also allow the regulator to consider new evidence as it emerges and adjust or adapt its methodologies if justified.

As further discussed below, the Commission considers that while the broad architecture of rule 87 is appropriate for the new rate of return framework in respect of this attribute, given the Tribunal's recent interpretation of rules 87(1) and (2), the rules need to be changed to allow the overall objective for the allowed rate of return to remain a key focus, while also allowing the estimation to be driven by principles.

Flexibility to deal with changing market conditions and new evidence

A robust and effective rate of return framework must be capable of responding to changes in market conditions. If the allowed rate of return is not determined with regard to the prevailing market conditions, it will either be above or below the return that is required by capital market investors at the time of the determination. Neither of these outcomes are efficient and neither is it in the long term interest of energy consumers.

The Commission does not consider that the Chapter 6 rate of return framework approach is capable of responding sufficiently to changing market conditions. The fact that some parameters and methodologies are locked in through the WACC review SORI, means that the regulator is unable to reconsider whether adjustments should be made to the rate of return at the time of a service provider's determination to reflect circumstances in the financial markets. While the Chapter 6 rate of return framework provides for departure through the persuasive evidence test, this test places a threshold both for the regulator and the service providers to justify. Instead of focussing on whether the overall allowed rate of return reflects efficient financing costs, the persuasive evidence test drives debates on specific parameter values and methodologies.

On the other hand, the NGR rate of return framework potentially provides the flexibility needed to take account of changing market conditions and the availability of new evidence. The NGR rate of return framework achieves this by allowing the rate of return to be determined during each access arrangement decision, unconstrained by any WACC review outcomes. However, this approach does raise some concerns about the ability of all stakeholders, including consumers and their representative groups, to participate in rate of return determinations on an ongoing basis.

In order to provide the flexibility to determine the rate of return that can take into account changes in market conditions, the Commission's proposed rate of return framework requires the rate of return to be determined at the time of each regulatory

determination of a TNSP or DNSP under the NER and each access arrangement decision of a gas service provider under the NGR. As discussed further below, the Commission considers that a requirement for guidelines on rate of return methodologies to be developed by a regulator provides the mechanism to achieve both effective consumer engagement and regulatory predictability.

Inter-relationships between parameter values

For an estimate from a financial model to be reliable, it must properly reflect any interactions between the parameters within the model. In some models, two or more parameters are mathematically linked (ie the relationship between them can be expressed in the form of a mathematical formula). Proper implementation of a model requires that any mathematical relationship between parameters be recognised when estimating those parameters.

There are also some well-established empirical relationships between parameters (eg it may be an empirical fact that two parameters are significantly negatively correlated). Proper implementation of a model would require any empirical relationship between parameters to be recognised when estimating those parameters.

The Commission considers that the rate of return framework should allow such inter-relationships of parameter values to be appropriately recognised. While stakeholders have suggested that the current Chapter 6 rate of return framework allows for such inter-relationships to be taken into account, the Commission has seen limited evidence of how this occurs in practice.

The Commission's proposed framework explicitly recognises such parameter inter-relationships by requiring the regulator and the service provider to have regard to them.

Accountability for both the regulator and the service providers

It is important that the rate of return framework places accountability on the regulator and the service provider in estimating an appropriate allowed rate of return. The Commission's proposed rate of return framework achieves this accountability in a number of ways.

First, the return on equity estimate can be derived from a range of different estimation methods, financial models and market evidence, ensuring that it is informed by and tested against the range of relevant evidence.

Second, the framework requires the regulator and the service providers to be continually measuring their choice and application of methods, models and other relevant evidence against the overall objective of a rate of return that corresponds to the efficient financing costs of a benchmark efficient service provider.

Third, the regulator is required to develop and publish guidelines as part of a transparent consultative process.

Lastly, given the existing NEL provisions, the Commission's proposed rate of return framework does not alter the service providers' ability to seek merits reviews of the regulator's decision on its allowed rate of return after a regulatory determination or access arrangement decision.

Regulatory certainty

The Commission recognises that the Chapter 6 rate of return framework provides a certain level of regulatory certainty in the determination of the rate of return for service providers that is desirable. However, it is important to also recognise that there is some tension between having flexibility and certainty in the framework. On the one hand, investors require certainty in the regulatory regime on how the rate of return would be determined in the future. On the other, investors also require certainty that where market conditions change, the regulatory regime will provide enough flexibility to the regulator to make the necessary adjustments.

The Commission considers that the NGR rate of return framework represents a stronger attempt at ensuring that the determination of the rate of return meets the NEO, the NGO and the RPP. It places primary importance on determining an overall rate of return that promotes efficient use and investment, ensuring that a desire for certainty and predictability does not inhibit this being achieved. The Chapter 6 rate of return framework seeks to strike a balance between the two somewhat competing objectives. While the Commission agrees that regulatory predictability is a relevant consideration under the NEO, the NGO and the RPP, it considers that achieving an estimate of the rate of return that best reflects the benchmark efficient financing costs is the overriding consideration for a rate of return framework in terms of achieving the NEO, the NGO and the RPP.

During the Commission's discussions with some service providers, it was suggested that if a rate of return framework based on the NGR approach was to be adopted, then there should be an "inertia principle". This would require the parameter values of previous regulatory determinations to be binding for future regulatory determinations until variation is sought that passes some form of persuasive evidence test. It was suggested that some parameters by their nature are subject to significant ongoing discussion and that two experts could look at the same material and come up with multiple answers. It was suggested that use of this type of "evidence" would reduce certainty, stability and transparency in the regulatory framework.

The Commission notes that the concept of an inertia principle was raised during the AER's last WACC review in 2008 on the interpretation of the persuasive evidence test in Chapters 6 and 6A of the NER. Legal opinion obtained by the ENA at the time of the AER's WACC review suggested that the persuasive evidence requirement in rules put in place an inertia principle which gives precedence to the parameters previously adopted.⁷⁸ That legal opinion also stated that such evidence may comprise empirical

⁷⁸ See *Request for advice – AER review of the WACC parameters*, Letter to ENA members dated 22 September 2008 (Appendix A of joint submission from Grid Australia, ENA and APIA to the AER's 2008 WACC review), p. 3.

observation and expert opinion which logically tends to establish the value, and that the AER must adopt an approach to the WACC review that properly gives effect to the inertia principle.⁷⁹ The legal opinion also stated that an approach that requires, before departing from an existing parameter, evidence that the previous value was incorrect or likely to be incorrect would be appropriate because it would be consistent with the language of the rules and give substantive and real effect to the requirement for persuasive evidence.⁸⁰

The Commission's view is that inclusion of an inertia principle would undermine the strength of its proposed rate of return framework. Having said this, it is conceivable that an inertia principle will manifest itself under the Commission's proposed framework through the development of regulatory precedent from previous regulatory determinations and access arrangement decisions until new evidence emerges or market conditions change. Therefore, it is not obvious why the framework should explicitly lock in any evidence threshold based on an inertia principle.

The Commission is proposing to have non-binding guidelines on rate of return methodologies. This is to safeguard the framework against the problems of an overly-rigid prescriptive approach that cannot accommodate changes in market conditions. Instead, sufficient flexibility would be preserved by having the allowed rate of return always reflecting the current benchmark efficient financing costs.

The non-binding nature of the guidelines would not work against regulatory predictability (or the inertia principle) since the regulator would, in practice, be expected to follow the guidelines unless there had been some genuine change in the evidence. The regulator would also need to explain why it was deviating from the guidelines. Similarly, service providers would need to explain in their regulatory proposals why they are proposing a different approach to the regulator's guidelines if they wished to advocate a different approach. This would not, of course, limit a service provider's ability to submit that there was a change in evidence or circumstances that required a variation. Additionally, each regulatory determination would remain subject to merits review, allowing the appeal body to maintain appropriate oversight over the regulator's decision.

More effective consumer participation

One of the key drawbacks of the existing NGR rate of return framework is that it may not allow for more effective consumer participation (particularly where there are a lot of relatively small consumers) on rate of return issues as it operates on a determination by determination basis. Consumer representative groups and energy user groups have submitted that resource constraints limit their ability to effectively engage on a determination by determination basis. The Commission is mindful of this and would prefer to have a rate of return framework that provides both periodic consultation and a mechanism for allowing consumer consultation to be given proper effect.

⁷⁹ Id., p. 4.

⁸⁰ Ibid.

The Commission is also mindful of ensuring that the rate of return framework can facilitate regulatory predictability. Providing a degree of certainty to service providers and their investors as to how the regulator will react to changes in market circumstances and make decisions on an appropriate rate of return allowance is an important consideration.

A useful way to achieve both effective consumer engagement and regulatory predictability is through the use of guidelines. Such guidelines can play the role of outlining the methodologies that the regulator proposes to use in determining the allowed rate of return at the time of a regulatory determination. The guidelines could be developed and thereafter reviewed periodically, using an extensive consultation process. This would allow consumers to effectively engage in the creation and review of such guidelines.

6.3.5 Nominal post-tax rate of return

Whereas the NER currently mandates a nominal post-tax framework for determining the rate of return, the NGR does not specify a particular framework. In its gas access arrangement decisions to date, the AER has consistently applied a nominal post-tax framework. However, the ERA has used a real pre-tax approach.

The AER's rule change request has sought to prescribe the nominal post-tax approach in the NGR. The ERA has supported the AER's proposal, noting that it has found the real pre-tax approach to be problematic and is considering moving to the nominal post-tax framework in any event.⁸¹ Given the AER's rule change request, the Commission has had to consider the approach a common rate of return framework should take.

In prescribing a nominal post-tax approach in Chapter 6A, the AEMC in its 2006 Chapter 6A determination noted that this largely reflected existing practice under the Australian Competition and Consumer Commission's (ACCC) Statement of Regulatory Principles. The AEMC also commented that:

- the post-tax approach addresses concerns regarding overcompensation for tax in the early years of an asset's life, due to accelerated depreciation provisions for tax purposes which continue to apply to some TNSP assets; and
- convergence in modelling approaches across different energy businesses would improve the ability to compare returns across different regimes, whereas allowing differences in the frameworks applying to TNSPs and DNSPs would not aid in such a convergence.⁸²

The pre-tax and post-tax approaches produce equivalent outcomes provided that the effective company tax rate is properly calculated under the pre-tax framework. Generally, where a pre-tax approach has been adopted, regulators have adopted either

⁸¹ ERA, Consultation Paper submission, 6 December 2011, p. 4.

⁸² AEMC, *Draft national electricity amendment (Economic regulation of transmission services) rule 2006 - Transmission revenue: rule proposal report*, February 2006, pp. 63-64.

the statutory tax rate or a simple and conservatively high assumption for the effective tax rate. For example, the ERA has applied the real pre-tax framework in relation to gas pipelines regulated under the NGR in WA, using an effective tax rate of 30 per cent (the equivalent of the company tax rate of 30 per cent as used under the post-tax framework).⁸³

The AER and ERA both submit that the use of the company tax rate and a conservatively high assumption of the effective tax rate lead to systematic overcompensation for company tax. The AER also submit that eliminating the potential for overcompensation requires the precise calculation of an effective tax rate, which is administratively burdensome. Moreover, the calculation of an effective tax rate requires cash flows to be modelled in post-tax terms and then converted into pre-tax equivalents. That is, the regulator would perform a post-tax calculation in either case.

The Commission is of the view that a common framework should apply the nominal post-tax approach. While the nominal post-tax approach is already applied consistently to TNSPs and DNSPs under the NER, prescribing a nominal post-tax approach in the NGR would streamline the access arrangement review process and provide certainty for gas service providers as to the basis on which the regulator will determine the allowed rate of return. Furthermore, there are unlikely to be any changes in circumstances of the gas service providers or in regulatory practice that would justify having the flexibility in the NGR to reconsider these issues in each access arrangement.

A consistent approach by the AER and the ERA across the NER and the NGR will also allow convergence in modelling approaches across different sectors and would improve the ability to compare returns across the different regimes. As observed by the AEMC in its Chapter 6A determination, allowing differences in the frameworks applying to different types of service providers would not aid in such a convergence.

6.3.6 Implications of the Tribunal decision in the ATCO Gas and DBNGP cases

Given that the Commission is proposing to introduce a common rate of return framework that has similar broad architecture to the existing NGR rate of return provisions, the Commission considers it is helpful to outline further its reasons for altering the existing NGR to better reflect its policy objective, particularly in the context of the recent decision of the Tribunal in the ATCO Gas and DBNGP merits reviews.

In both the ATCO Gas and DBNGP cases, the Tribunal rejected the contention of the applicants that giving primary emphasis to rule 87(1) would reflect the NGO and the RPP.⁸⁴ Such a conclusion does not reflect the policy intention of the Commission. The

⁸³ ERA, *Final decision on WA Gas Networks Pty Ltd proposed revised access arrangement for the Mid-West and South-West Gas Distribution Systems*, 28 February 2011, pp. 50-56; and ERA, *Final decision on proposed revisions to the Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline*, 31 October 2011 (as amended on 22 December 2011), pp. 119-126. Cf. AER's post-tax approach under the NGR: AER, *Envestra Ltd Access arrangement proposal for the SA gas network 1 July 2011 – 30 June 2016*, Final Decision, June 2011, pp. 43-46 and Appendix A pp.164-175.

⁸⁴ *Application by WA Gas Networks Pty Ltd (No 3) [2012] ACompT 12; Application by DBNGP (WA) Transmission Pty Ltd (No 3) [2012] ACompT 14.*

⁵⁴ Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

Commission's policy intention is for the primary consideration to be whether or not the overall allowed rate of return reflects benchmark efficient financing costs. A focus on the overall estimate of the rate of return is a key policy objective for the new framework.

The Tribunal has suggested in both these cases that rule 87(1) lacks guidance as to how the objective is to be achieved and that in the interests of regulatory consistency, it is desirable that such guidance be provided, and that rule 87(2) serves that function in describing how the rate of return is to be achieved.⁸⁵

The Tribunal also held that "implicit (or explicit) criticisms of modelling... must be minimised, if not negated, by the requirement that the approach and the model used must be well accepted by those who undertake and use such approaches and models for that purpose"⁸⁶, and that "it is almost inherently contradictory then to say that the approach or the model is not likely to produce a reliable output - assuming that the inputs are appropriate - if that approach and that model are well accepted".⁸⁷

The Commission considers that this conclusion presupposes the ability of a single model, by itself, to achieve all that is required by the objective. The Commission is of the view that any relevant evidence on estimation methods, including that from a range of financial models, should be considered to determine whether the overall rate of return objective is satisfied.

The Tribunal also highlighted its concerns regarding insufficient prescription:

"The measure of prevailing conditions in the market for funds, and of the risks involved in providing reference services - without prescribing finally how that is done - would be fraught and vulnerable to an evolutionary and possibly idiosyncratic series of regulatory decisions. It would provide less certainty. It would expose the process of selection of rate of return on capital to the risk of prolonged debate about the relevant factor, their empirical measurement and their weightings."⁸⁸

The Commission is mindful of the potential consequences of removing prescription and allowing the regulator increased discretion. However, the potential consequences must be balanced against potential benefits. Regulatory discretion is an important feature of every regulatory regime and guidance that is too prescriptive runs the risk of unnecessarily limiting the achievement of the NEO and the NGO. The focus should be on the outcome of the process rather than on individual steps of the process itself. The Commission believes no one method can be relied upon in isolation to estimate an allowed return on capital that best reflects benchmark efficient financing costs.

⁸⁵ *Application by WA Gas Networks Pty Ltd (No 3)* [2012] ACompT 12, [61] - [63]; *Application by DBNGP (WA) Transmission Pty Ltd (No 3)* [2012] ACompT 14, [81]-[83].

⁸⁶ *Application by WA Gas Networks Pty Ltd (No 3)* [2012] ACompT 12, at [63]; *Application by DBNGP (WA) Transmission Pty Ltd (No 3)* [2012] ACompT 14, [84].

⁸⁷ *Ibid.*

A focus on the overall estimate of the rate of return is a key objective of the new rate of return framework. It is the Commission's belief that requiring the regulator to have regard to more relevant information on estimation methods, financial models and other market data and allowing the regulator more capacity to achieve the overall objective, combined with a strengthened emphasis on achieving this objective, is more likely to achieve the NEO and the NGO than the current approaches.

The Commission believes that a mechanism for addressing, or at least mitigating, the Tribunal's concerns regarding "idiosyncratic series of regulatory decisions", "less certainty" and "prolonged debate" is the use of guidelines on rate of return methodologies under the new framework. The next section provides a detailed discussion on these guidelines, including their construction, operation, and role in meeting the NEO, the NGO and the RPP.

6.4 Draft rule

This section covers aspects of the draft rule on the rate of return framework other than the return on debt, which is discussed in chapter 7.

In addition to comments on whether the Commission's proposed draft rule for determining the rate of return is the best way to meet the NEO, the NGO and the RPP, the Commission would also welcome comments on whether the draft rule achieves the Commission's intended objectives. While all future circumstances cannot be anticipated, the Commission would prefer the rules to be as clear as possible in giving effect to its intended objectives, and would welcome comments on whether it has achieved this with the proposed draft rule.

6.4.1 Guidance on draft rule

The draft rule provides a common rate of return framework for determining the return on capital for service providers. In determining the return on capital, the allowed rate of return would be estimated at the time of each regulatory determination of a TNSP or DNSP and each access arrangement decision of a gas service provider.

The draft rule is structured to require the regulator to determine a rate of return consistent with an overall objective (the allowed rate of return objective). The allowed rate of return objective requires the rate of return to correspond to the efficient financing costs of a benchmark efficient service provider with similar degree of risk to the service provider whose rate of return is being determined.

The Commission considers that the allowed rate of return objective is consistent with the NEO and the RPP under the NER, and is also consistent with the NGO and RPP under the NGR. The concept of a benchmark efficient service provider means that the regulator can conclude that the risk characteristics of the benchmark efficient service provider are not the same for all service providers, and the Commission would expect

⁸⁸ *Application by WA Gas Networks Pty Ltd (No 3)* [2012] ACompT 12, [68]; *Application by DBNGP (WA) Transmission Pty Ltd (No 3)* [2012] ACompT 14, [89].

a regulator in developing its guideline (discussed below) to explicitly consider this issue. Having said this, the Commission recognises that if a regulator concluded that the risk characteristics of a benchmark efficient service provider are different between, for instance, electricity and gas service providers, there may be challenges in all cases in identifying sufficiently precise measurements of the quantum of the difference for determining the rate of return.

In determining the allowed rate of return, the regulator would be required to consider the return on equity and the return on debt as the allowed rate of return comprises a weighted average these two components. Although for practical purposes, the regulator may turn its mind to separately estimating the return on equity and return on debt, the Commission considers that in order to satisfy the overall objective the regulator must consider whether the overall estimate of the rate of return is consistent with the overall objective, and have regard to inter-relationships between approaches and values used for estimating the return on equity and return on debt.

In order to determine the rate of return, the regulator must use relevant estimation methods, financial models, market data and other information. The intention of this clause of the proposed rule is that the regulator must consider a range of sources of evidence and analysis to estimate the rate of return, and make a judgement in the context of the overall objective as to the best method(s) and information sources to use, including what weight to give to the different methods and information in making the estimate.

The draft rule requires the allowed rate of return to be determined on a nominal post-tax basis with proper regard to dividend imputation (γ). This is also consistent with the current WACC approach in the NER rate of return frameworks in that it requires a consistent treatment of cash flows and the discount rate to properly incorporate the gamma factor. The current prescription of the gamma value of 0.5 in clause 6A.6.4 has also been removed to allow the regulator the ability to estimate an appropriate value that would result in a rate of return that meets the overall objective.

In addition, since the nominal-post tax rate of return framework will apply to gas service providers under the NGR, the Commission's draft rule includes new provisions for the estimation of the cost of corporate income tax. This provision is similar to the provisions in Chapters 6 and 6A of the NER to allow for a common rate of return framework to be established.

The draft rule distinguishes between the allowed rate of return objective (ie the rate of return must correspond to the efficient financing costs of a benchmark efficient entity with similar degree of risk to the service provider whose rate of return is being determined) and certain secondary requirements that the regulator must have regard to. These secondary requirements relate to the use of internally consistent approaches and considering any inter-dependencies between parameters used in estimating the rate of return. For these and other provisions that the regulator is required to have regard to when estimating the rate of return, the Commission intends only that the regulator has considered these issues and explained how it has considered the issues.

The Commission does not intend that the regulator's estimate of the rate of return must be done in a way that meets these provisions.

Further, the Commission notes the Tribunal's comments in the recent Victorian DNSPs merits review case, where it the Tribunal said that:

"[I]t is important for the AER to estimate the DRP [debt risk premium] and other WACC components with rigour and transparency, using comprehensive market-accepted data and offering some degree of certainty about the way in which it will apply the various estimating formulae (including the DRP formula) to a regulated company. Its estimating practices, data sources and reference periods must be well articulated, consistent and communicated to the parties...⁸⁹"

While the draft rule gives the regulator discretion in the factors it must have regard to, the Commission agrees with the Tribunal's view that the regulator must undertake the rate of return estimation process with rigour and transparency. In this regard, the Commission expects the regulator to use estimating practices that are robust and rely on transparent data sources. It is also expected that the regulator will clearly articulate how it has considered the factors it must have regard to in making its decision on the allowed rate of return that meets the overall objective.

Estimating return on equity

The draft rule sets out two requirements for the return on equity estimation. The first is that the estimation must be consistent with the allowed rate of return objective. The second is that the estimation must take into account prevailing conditions in the market for equity funds.

The requirement that the return on equity is to be estimated in a manner consistent with the overall objective means that the overall approach is reflected in the return on equity component. In turn, the overall approach requires the regulator to have regard to relevant estimation methods, financial models, market data and other evidence as part of its assessment process.

The Commission has taken the view that it is preferable not to prescribe in the rules a list of particular models that should be considered or indeed prescribe characteristics that must be met by such a model. The Commission instead is proposing rules that require the regulator to have regard to relevant estimation methods, financial models, market data and other evidence and leave to the judgement of the regulator the relative weights given to methods, models and such information. Implicit in this requirement to consider a range of methods, models and information is that checks of reasonableness will be undertaken.

The second principal requirement is that the return on equity must take into account the prevailing conditions in the market for equity funds. It reflects the importance of estimating a return on equity that is sufficient to allow efficient investment in, and

⁸⁹ *Application by United Energy Distribution Pty Limited* [2012] ACompT 1 at [461].

efficient use of the relevant services. However, this requirement does not mean that the regulator must estimate the return on equity at the latest possible moment before the regulatory determination. Instead, it means that the regulator must make its estimate in a way that meets the overall objective, while taking into account the prevailing conditions in the market for equity funds.

Rate of return guidelines

The purpose of having guidelines on rate of return is two-fold. First, it will allow a more focussed discussion on wider issues around estimating the rate of return, including the choice of estimation methods, financial models, types of information that may be used, and how the regulator intends to apply them. This includes guidance from the regulator on how it proposes to deal with any new information or evidence at the time of the regulatory determination. Secondly, it will allow all stakeholders, including consumers and consumer representative groups to have an opportunity to participate in debates on return on equity and return on debt methodologies rather than always having to find resources to engage on technical matters at each and every electricity determination or gas access arrangement decision.

These guidelines must be reviewed at least every three years in accordance with the defined consultation procedures. The draft rule requires the AER to develop separate guidelines for service providers in the electricity transmission, distribution and gas sector, though the intention of the Commission is to allow the AER to undertake a common process to the extent possible (and appropriate) for developing the guidelines.

In developing and reviewing the guidelines, the draft rule requires the AER to follow the consultation procedures under Chapters 6 and 6A of the NER. The Commission's preference is for the distribution consultation procedures to apply both for TNSPs under Chapter 6A and DNSPs under Chapter 6 of the NER. Since the transmission consultation procedures are different to the distribution consultation procedures, the Commission's draft rule amends the transmission consultation procedures to align it with the distribution consultation procedures to allow the AER to undertake the review of the guidelines for TNSPs and DNSPs jointly and concurrently.

In addition, the draft rule introduces a new rate of return consultative procedure in Part 3 of the NGR for the development and review of the rate of return guidelines. This provision mirrors the distribution consultation provisions of the NER. The NGR rate of return consultative procedure provisions will allow the AER to develop and review the guidelines under the NGR at the same time as under the NER. The ERA would also be required to produce separate guidelines for the gas service providers it regulates under the NGR through the new rate of return consultative procedure provisions.

In keeping with the Commission's objective of limiting unnecessary prescription, these guidelines would be non-binding. Though the guidelines will not be binding in the same way the current SORI is under the Chapter 6 and 6A rate of return frameworks, the Commission would expect service providers, consumers, the AER, the ERA, and the appeal body to have significant regard to them as a starting point for each regulatory determination or access arrangement. The Commission is of the view that

the regulator should be allowed a fair degree of discretion on the precise contents of these guidelines, but intends the guidelines to provide a meaningful signal as to the regulator's intended methodologies for estimating return on equity and return on debt components of the allowed rate of return.

The Commission expects that the creation and periodic review of the rate of return guidelines will involve a wide and thorough consultation with stakeholders. The Commission expects the guidelines to provide a detailed outline of the methodologies to which the regulator proposes to have regard in determining the rate of return. That is, within the guidelines the regulator would be expected to:

- detail the financial models that it would take into account in its decision, and why it has chosen those models rather than other models. This would extend to outlining its methodologies, estimation techniques and current estimates (where appropriate) of relevant parameters;
- detail any other information that it would expect to have regard to, and why it has chosen to have regard to that information and not other information;
- provide guidance on how it would use such models and information in reaching its decision, including matters such as:
 - the relative weight (although not necessarily in a quantitative way) it would expect to place on various model estimates; and
 - what market data (or similar) it would use to ascertain lower bounds and/or reasonableness checks on the estimates;
- incorporate best practice in the application of financial models and market data; and
- be as transparent and open as possible.

The Commission anticipates that the guidelines would allow a service provider or other stakeholder to make a reasonably good estimate of the rate of return that would be determined by the regulator if the guidelines were applied. In other words, the methodologies to be adopted and the information sources to be used should be sufficiently well explained such that they could be applied with a reasonable degree of certainty and accuracy.

The application of the rate of return guidelines at the time of a regulatory determination or an access arrangement decision is not mandatory. However, if the regulator makes a decision on any methodology for estimating the allowed rate of return that is not in accordance with the guideline, the regulator must state, in its reasons for the regulatory determination or access arrangement decision, the reasons for departing from the guidelines.

The draft rule places a similar obligation on the service providers. That is, a service provider must have regard to the most recent rate of return guidelines when proposing

a rate of return as part of its regulatory proposal. However, where the service provider seeks to depart from the methodologies in the guidelines, it must state in its regulatory proposal the reasons for departing from the guidelines.

Clarification on discretion in constituent decisions under the NER

The AER has expressed some concern with the manner in which the Tribunal has interpreted clause 6.12.3(f) of the NER as imposing a constraint on rate of return decisions. In the merits appeal by the Victorian DNSPs, the Tribunal noted that:

“[I]t was unreasonable for the AER to adopt its novel approach to estimating the DRP. In the circumstances, its departure from JEN’s proposal in relation to the DRP [debt risk premium] was contrary to cl 6.12.3(f) of the NER, which provides that the AER may only amend a value or input used in a regulatory proposal to the extent necessary to enable it to be approved in accordance with the NER. Since the value for the DRP in the JEN revised regulatory proposal was derived in a way that was compliant with cl 6.5.2 of the NER, no amendment by the AER was permitted under cl 6.12.3.⁹⁰”

The Commission has clearly specified that the allowed rate of return must meet the overall rate of return objective. In order for its draft rule on the rate of return framework to work as intended under the NER, the AER should not be limited to assessing a rate of return proposal on the basis of what the service provider proposes, with any departure from that proposal being the minimum necessary for the rate of return to comply with the requirements set out in the NER.

The Commission has therefore determined to amend clause 6.12.3(f) in Chapter 6 of the NER so that it no longer applies to the AER’s decision on the allowed rate of return under the new framework. A similar amendment has been made to Chapter 6A in clause 6A.14.3(b) of the NER.

⁹⁰ *Application by United Energy Distribution Pty Limited* [2012] ACompT 1 at [441].

7 Return on debt

Summary

The Commission's approach to the issues raised by the AER and the EURCC's rule change requests in relation to the return on debt are consistent with the approach to the overall rate of return framework discussed in chapter 6. In particular, the Commission is giving the regulators the scope to consider the most appropriate approach to estimating the return on debt having regard to the overall allowed rate of return objective for estimating the rate of return for service providers.⁹¹

Regulatory practice in Australia for estimating the return on debt has primarily involved taking an average of the risk free rate and the DRP over a 20 to 40 day period close to the start of the regulatory determination or access arrangement. Therefore, the estimate is an attempt to reflect the prevailing conditions in the market for debt funds.

The EURCC's rule change request proposed that the return on debt element of the rate of return should be estimated using a trailing average of observed historical debt costs for a benchmark efficient service provider. The rule change request also proposed to distinguish the return on debt estimate for service providers based on whether the service provider was state-owned or privately-owned to account for government debt guarantees provided to state-owned service providers. Stakeholder feedback has indicated substantial support for consideration of historical trailing average approaches.

Extensive stakeholder engagement on the EURCC's proposed historical trailing average approach indicated that there is substantial support for consideration of approaches other than the current prevailing market conditions approach.

The Commission engaged SFG to assess the various historical trailing average approaches to estimating the return on debt that have been put forward by stakeholders in this rule change process.⁹² Informed by this analysis from SFG, the Commission has concluded that there are a number of equally reasonable approaches to estimating the return on debt that may, in some circumstances, help to estimate a rate of return that better meets the overall allowed rate of return objective. In particular, some approaches to estimating the return on debt may better align the regulatory approach with the financing practices of efficiently managed service providers. In these situations, the re-financing risks faced by service providers are reduced, thereby potentially reducing the required

⁹¹ As in chapter 6, the term "service provider" is used to refer generally to electricity network service providers under the NER and gas service providers under the NGR, unless the context requires otherwise.

⁹² SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return*, Report for the AEMC, 21 August 2012.

return on equity and providing better investment incentives, to the benefit of consumers.

However, the Commission is also very conscious that the best methodology for estimating return on debt may not be the same for all service providers. As SFG's report shows, specifying any particular method in the rules creates the risk that the rules embed approaches that differ from the financing practices of efficient benchmark service providers and/ or create significant distortions to the incentives for undertaking capex. Therefore, consistent with the Commission's approach to how return on equity should be estimated, the Commission considers that the rules should not prescribe a particular methodology for estimating the return on debt component. The regulator will be better placed than the Commission to decide the best approach in particular circumstances and over time to meet the overall allowed rate of return objective.

The Commission's proposed draft rule provides the regulators with the scope to use a range of different approaches to estimate the return on debt depending on the methodologies they consider to best meet the overall allowed rate of return objective. The draft rule includes some factors that the regulators must have regard to when considering the best approach to estimate return on debt, including implications for the broader estimate of the allowed rate of return. Given the difficulties in designing one unambiguously superior approach, the Commission considers that providing regulators with this flexibility is the best way to ensure that the rate of return outcomes better achieve the NEO, the NGO and the RPP.

The rate of return guidelines to be developed by the regulators will provide a forum to discuss and analyse the best approaches to estimating the return on debt. Service providers would also have the opportunity as part of their regulatory determination or access arrangement process to argue for a different approach to that proposed in the guidelines. Service providers would need to explain why their proposed approach better met the overall rate of return objective than the approach in the guidelines.

The Commission is not proposing to make a rule that would put in place a different approach to estimating the return on debt for privately-owned and state-owned service providers, as proposed by the EURCC. The governments in Australia are signatories to the Competition Principles Agreement that puts in place various provisions that attempt to preserve competitive neutrality where service providers are state-owned. In particular, the NSW, Queensland and Tasmanian governments have arrangements in place to meet the Competition Principles Agreement for their service providers. It is for governments to decide how to implement the Competition Principles Agreement, and the Commission considers that assessment of potential rule changes under the NEO needs to take account of how governments have implemented the agreement. The Commission considers that rate of return should be determined by reference to benchmark efficient service providers.

7.1 Introduction

The current Chapter 6 and 6A rate of return frameworks under the NER require weights to be applied to the return on equity and the return on debt to estimate the average expected return on capital. The weights are applied according to the gearing ratio – the relative proportions of equity and debt finance. The return on debt estimate represents the return that investors of debt capital would require from a benchmark efficient service provider. Aligning the return on debt estimate with the efficient expected cost of debt of a service provider is therefore an important element in determining the rate of return.

As the return on debt is part of the overall allowed rate of return, the Commission considers that the best way to meet the NEO, the NGO and the RPP for estimating the return on debt is the same as that discussed in the rate of return framework chapter. That is, the return on debt estimate should reflect the efficient financing costs of a benchmark efficient service provider. It should try to create an incentive for service providers to adopt efficient financing practices and minimise the risk of creating distortions in the service provider's investment decisions. If a service provider is run inefficiently then its shareholders, and not its customers, should bear the financial consequences of inefficient financing practices.

Under the current Chapter 6 and 6A of the NER, the return on debt is defined to be the nominal risk free rate plus the debt risk premium (DRP).⁹³ No such definition exists in the NGR. While the NGR does not mention the DRP, it states that the rate of return for gas service providers is to be commensurate with prevailing conditions in the market for funds and the risk involved in providing reference services.⁹⁴

A more detailed discussion on the application of the current rules on return on debt, including the risk free rate and the DRP, was provided in the AEMC's directions paper.⁹⁵ The directions paper also explained the rule change requests from the AER and the EURCC on return on debt that have been consolidated by the Commission.⁹⁶

This chapter is structured as follows:

- Section 7.2 summarises the comments of stakeholders to the AEMC's directions paper and additional consultation. It explains the Commission's assessment of the proposal for a historical trailing average approach to estimating the return on debt;
- Section 7.3 explains the Commission's consideration of the current definition of the benchmark for estimating the return on debt and whether the allowance for

⁹³ NER clauses 6.5.2(b) and 6A.6.2(b).

⁹⁴ See NGR rule 87(1).

⁹⁵ See AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, pp. 97-98.

⁹⁶ *Id.*, pp. 98-101.

⁶⁴ Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

the return on debt that service providers are currently receiving is too high given their debt service costs;

- Section 7.4 explains the Commission's assessment of the EURCC's proposal for a different approach to estimating the return on debt for state-owned and privately-owned service providers; and
- Section 7.5 sets out further detail on the draft rule provisions, together with the Commission's guidance on the interpretation of the draft rule provisions.

7.2 A trailing average approach to estimating the return on debt

7.2.1 Stakeholder views

Most service providers are supportive of exploring historical averaging approaches, though not generally endorsing the specific EURCC proposal.⁹⁷ APIA suggests that the EURCC proposal is a departure from the forward looking approach and would adversely affect incentives for efficient investment. APIA argues that a historical trailing average approach should only be considered if it is likely to be a better forecast of return on debt at the time of the regulatory determination as required by the RPP, and considered that the EURCC proposal had a low likelihood of being so.⁹⁸

The ENA is of the view that the EURCC proposal was just one form of a trailing average that could be implemented, and has proposed its own approach.⁹⁹ The principal difference between the two proposals is that the ENA method entails calculating a trailing average of the DRP only, with the risk free rate continuing to be fixed at the beginning of the regulatory period. The ENA argues that this approach would reflect the current financing strategies of most privately-owned service providers.¹⁰⁰ This proposal is similar to that advocated jointly by ETSA, CitiPower and Powercor.¹⁰¹

Some service providers submit that the NER requirement for the rate of return to be forward looking does not necessarily limit the consideration of historical evidence and point to reliance on historical evidence for calculating other parameters that make up the WACC as proof of this.¹⁰² The New South Wales Treasury Corporation (NSW T-Corp) and some service providers argue that the evidence is that long-term averaging does a better job at predicting future rates that will apply over the course of the

⁹⁷ ENA, Directions Paper submission, 16 April 2012, p. 56; ENERGEX, Directions Paper submission, 16 April 2012, p.3; Ergon Energy, Directions Paper submission, 16 April 2012, pp. 13-14; Grid Australia, Directions Paper submission, 16 April 2012, p. 2; Ausgrid, Directions Paper submission, 16 April 2012, p. 13; UE and MG, Directions Paper submission, 16 April 2012, p. 11.

⁹⁸ APIA, Directions Paper submission, 16 April 2012, pp. 20-21.

⁹⁹ ENA, Directions Paper submission, 16 April 2012, p. 56.

¹⁰⁰ Ibid.

¹⁰¹ ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 23.

¹⁰² Ausgrid, Directions Paper submission, 16 April 2012, p. 13.

regulatory period than short-term averaging.¹⁰³ Ausgrid argues that the current Chapter 6 rate of return framework already allows for the historical averaging approach to be implemented.¹⁰⁴

However, the ENA and some of its members argue that substantial changes would be required in the rules to implement a trailing average approach, including:

- the separation of the risk-free rate used to estimate the return on debt from that used to estimate the return on equity;
- the development of a revised over-arching principle for the estimation of the debt element of the WACC;
- the potential creation of an annual pass-through mechanism to allow the trailing average DRP to be updated; and
- the need to establish empirical estimates of DRP over the period of the trailing average that includes significant market disruptions.¹⁰⁵

In their joint submission, ETSA, CitiPower and Powercor reiterates its arguments from its submission to the directions paper that a trailing average on DRP is more consistent with the NEO and the RPP than both the EURCC proposal (for a trailing average of the return on debt) and the existing approach.¹⁰⁶ They argue that allowing the trailing average as an option would lead to opportunism.¹⁰⁷ These service providers also expressed concern about an annual adjustment mechanism removing the rights to merits review of the AER decisions on the DRP.¹⁰⁸ They suggest a compromise might be a reviewable determination decision on a composite historical and forward looking DRP (with no annual adjustment).¹⁰⁹

Ausgrid argues that the short-term (20 day) averaging approach, currently applied, involves too much risk for investors and service providers and prevents prudent hedging of risk for those utilities with large debt portfolios and large refinancing needs.¹¹⁰ Ausgrid endorses an approach utilising long-term historical data.¹¹¹

¹⁰³ NSW T-Corp, Directions Paper submission, 16 April, pp. 2-3; Ausgrid, Directions Paper submission, 16 April 2012, p. 13.

¹⁰⁴ Ausgrid, Directions Paper submission, 16 April 2012, pp. 13-14.

¹⁰⁵ ENA, Directions Paper submission, 16 April 2012, p. 57; Ergon Energy, Directions Paper submission, 16 April 2012, p. 14.

¹⁰⁶ ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp. 23-24.

¹⁰⁷ *Id.*, pp. 23-24.

¹⁰⁸ *Id.*, p. 24.

¹⁰⁹ *Ibid.*

¹¹⁰ Ausgrid, Directions Paper submission, 16 April 2012, p. 13.

¹¹¹ *Ibid.*

Ausgrid also agrees with the ENA that substantial changes would be required to adopt the EURCC's proposal.¹¹² Ausgrid suggests that an annual updating of the DRP would mean an effective annual updating of the risk-free rate (as part of the DRP), which would be inconsistent with the fixed risk-free rate in both the return on debt and return on equity calculations. Ausgrid argues that such an inconsistency would create variances that would be very difficult to hedge.¹¹³ Ausgrid also questions the compatibility of this approach with the building blocks framework, suggesting that, the annual updating could lead to an increase in price/revenue volatility for consumers and NSPs during the regulatory period.¹¹⁴

Ergon Energy considers that the EURCC approach is not consistent with the forward looking framework, but that there is merit in a moving average approach, such as proposed by QTC.¹¹⁵ Potential benefits identified by Ergon Energy include that service providers would not be exposed to risk-free interest rate and DRP volatility at the time of regulatory resets it would avoid the drawback of the current method which creates significant market signalling and re-pricing risks for service providers with large debt portfolios, and customers would not be exposed to prices being set during periods of elevated risk-free interest rates and/or DRPs.¹¹⁶

The AER considers that the trailing average of actual costs is still likely to represent a forward looking rate of return, in so far as the actual debt costs of the service provider would comprise debt that will mature in the future, but acknowledged that it would be unlikely to reflect the prevailing conditions in the market for funds.¹¹⁷ Nonetheless the AER recognises the substantial support the EURCC proposal had received and submits that it should be allowed to consider the method when determining the best method for setting the DRP.¹¹⁸ The AER recommends that any ambiguity in the rules as to whether this approach could be adopted be removed.¹¹⁹

Some consumer representative groups argue that the AEMC's approach to the issue is too narrowly focussed and that it should broaden its approach to a wider consideration of regulatory economics.¹²⁰ While there is some agreement from consumer representative groups that the rate of return should be benchmarked against an efficient service provider, they suggest that this benchmark had to be tested against a wider market, including taking account of the special position of state-owned

112 Id., p. 14.

113 Id., pp. 14-15.

114 Id., p. 15.

115 Ergon Energy, Directions Paper submission, 16 April 2012, pp. 13-14

116 Id., p. 14.

117 AER, Directions Paper submission, 2 May 2012, p. 61.

118 Ibid.

119 Ibid.

120 EURCC, Directions Paper submission, 16 April 2012, p. 3;

businesses.¹²¹ Overall, consumer representative groups are strongly of the view that benchmarks needed to more closely resemble actual debt funding costs.¹²²

7.2.2 Further consultation on historical trailing average approach

During the course of consulting on the AEMC's directions paper, in addition to the EURCC rule change request, two other detailed proposed methodologies for some form of historical trailing average approach to return on debt were proposed by ETSA, CitiPower and Powercor and the QTC.¹²³ In response to these proposals, the AEMC held a further short round of consultation on the trailing average approach proposals seeking specific comments.¹²⁴ The joint ETSA, CitiPower and Powercor proposal and the QTC proposal are briefly summarised below, together with the submission responses received during the additional round of consultation.

Historical trailing averaging approach proposed by ETSA, CitiPower and Powercor

ETSA, CitiPower and Powercor have proposed a variation of the historical trailing averaging approach with the following features:

- the return on debt would be the sum of a base rate of interest and an estimate of the DRP;
- the base rate of interest would be the five-year swap rate (that matches the length of the regulatory period), estimated as the average over a 20-40 day rate-setting period at the time of the determination;
- the DRP would be estimated as the average, over the ten-year period prior to the determination, of the difference between the estimated yield on benchmark debt and the ten-year swap rate (the term would be set to match the term selected for benchmark debt); and
- the resulting estimate of the return on debt could either:
 - be updated annually during the regulatory period; or
 - be set as some combination of the historical average and a forward-looking estimate.¹²⁵

¹²¹ See for example: MEU, Directions Paper submission, 17 April 2012, pp. 4-5

¹²² See for example: EURCC, Directions Paper submission, 16 April 2012, pp. 5-7; MEU, Directions Paper submission, 17 April 2012, pp. 31-32; EUAA, Directions Paper submission, 17 April 2012, pp. 31-32.

¹²³ ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp. 23-24.

¹²⁴ AEMC, *Additional round of consultation on cost of debt issues for the Economic Regulation of Network Service Providers Rule Change Requests*, Consultation Notice, 21 June 2012.

¹²⁵ See: ETSA, CitiPower and Powercor, Consultation Paper submission, 8 December 2011, pp. 15.155; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp. 23-24; ETSA, CitiPower and Powercor, *Additional consultation on cost of debt submission*, 5 July 2012, pp. 9-10.

Historical trailing averaging approach proposed by QTC

The QTC proposed methodology, like the EURCC's approach, is based on an historical average of the yield on benchmark debt.¹²⁶ However, under QTC's proposal, the benchmark return on debt would equal a ten-year weighted moving average of the ten-year total corporate cost of debt. The moving average would be re-calculated quarterly based on the prevailing ten-year corporate cost of debt and updated annually.

The key features of the QTC proposal are:

- the historical averaging period would match the assumed tenor of benchmark ten year debt;
- the cost of benchmark debt would be estimated at the end of each quarter (ie for a ten-year tenor, the average would be taken over 40 observations); and
- the regulatory allowance for the return on debt would be updated annually based on the most recent ten-year period.

To reflect the fact that some service providers may have already locked in debt funding costs at the time of their most recent determinations, having been incentivised to do this under the current rules, QTC proposes a set of transitional arrangements. These transitional arrangements are designed to ensure that service providers do not receive a windfall gain or loss stemming from the differential between current and historical yields. The QTC's proposed transition arrangements can be summarised as follows:

- in Year 1 of the first regulatory period, the debt allowance would be based on the estimate of the current yield on benchmark debt, as under the current rules;
- in Year 2, the debt allowance would be based on 90 per cent weighting on the current yield and 10 per cent weighting on the average yield over the previous year;
- in Year 3, the debt allowance would be based on 80 per cent weighting on the current yield, 10 per cent weighting on the average yield over the previous year, and 10 per cent weighting on the average yield over the year prior to that; and
- this procedure continues for ten years, at which time the return on debt allowance each year is the average over the previous ten years.

The QTC stated that its proposed approach is consistent with an efficient diversified debt funding strategy that would be used by a benchmark service provider in the absence of regulatory distortions. Under its approach, all increases in the benchmark debt balance would be weight-averaged into the benchmark return on debt allowance using the prevailing ten-year corporate cost of debt. The size and timing of the debt increases would be based on the benchmark debt profile in the service provider's post-tax revenue model.

¹²⁶ QTC, Directions Paper supplementary submission, 8 June 2012.

Summary of submission responses to further consultation

In response to the further consultation, the AER submits that there is merit in further exploring trailing average approaches, although the QTC's proposal requires further refinement.¹²⁷ The AER's view is that the AEMC should amend the rules to enable, but not prescribe, trailing average approaches. The AER states that the specification of methodology would be best considered as part of a WACC review process.¹²⁸ The AER also suggests that a number of practical considerations remain to be resolved.¹²⁹

Responses from service providers generally welcomed a trailing average approach as an option, but stressed the need to keep it only as an option under the rules as it would not necessarily be suitable for all service providers.¹³⁰ A common view is that there should be appropriate transitional provisions to allow service providers to unwind any hedging arrangements put in place in response to the existing approach to estimating the return on debt should any trailing average approach be adopted.¹³¹

UnitingCare Australia in its submission notes that consideration of the trailing average approaches risks too much focus on the borrowing practices of service providers at the expense of achieving the long term interests of end-users.¹³²

7.2.3 SFG's analysis of historical trailing average approaches

The AEMC engaged SFG to advise on the potential impacts of adopting a historical trailing average approach to estimating the return on debt. SFG were particularly asked to consider the impact on the risks faced by the shareholders of the service providers and the impact on the incentives for service providers to undertake efficient capex. It is in these two ways that the introduction of a trailing average approach to estimating the return on debt could lead to more efficient outcomes to the benefit of consumers.

SFG's report has been released along with this draft determination.¹³³

In its report, SFG highlighted that for a given definition of the return on debt for an efficient benchmark service provider (in particular, the assumed credit rating and term to maturity), whether the return on debt estimate is based on the prevailing debt cost

127 AER, Additional consultation on cost of debt submission, 10 July 2012, p. 1.

128 *ibid.*

129 *Ibid.*

130 See for example; APIA, Additional consultation on cost of debt submission, 5 July 2012, p. 2; ETSA, CitiPower and Powercor, Additional consultation on cost of debt submission, 5 July 2012, p. 2; Grid Australia, Additional consultation on cost of debt submission, 6 July 2012, p. 1; ENA, Additional consultation on cost of debt submission, p. 1.

131 ENA, Additional consultation on cost of debt submission, pp. 8-9; Grid Australia, Additional consultation on cost of debt submission, 6 July 2012, pp. 10-11.

132 UnitingCare Australia, Additional consultation on cost of debt submission, 6 July 2012, pp. 1-2.

133 SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return*, Report for the AEMC, 21 August 2012.

spot rate or an average of that spot rate over time, the average cost of debt will be the same over the long run.¹³⁴ That is, changing to an averaging approach will not, in itself, systematically reduce or increase the allowed return on debt in the long run. SFG observed that averaging approaches will, by definition, result in smoother estimates of the return on debt over time.¹³⁵

The AEMC asked SFG to analyse a number of different approaches to implementing a trailing average approach to estimating the return on debt that covered the range of approaches proposed during the rule change process. The options analysed by SFG took account of the EURCC's, the QTC's and ETSA, CitiPower and Powercor's proposed approaches. SFG compared these approaches to the current approach, which was defined as an estimate of the return on debt for a service provider estimated at the time of each regulatory determination or access arrangement over a 20 to 40 day rate setting period. SFG's analysis isolated the impact of introducing different forms of a historical trailing average approach from the impact of different benchmark specifications for estimating the return on debt.

SFG also noted that the approach to setting the return on debt by the regulators cannot occur without regard to the service providers financing practices. In particular, SFG considered that the regulatory framework should aim to provide incentives for NSPs to engage in efficient financing practices, and should seek to minimise distortions to the financing practices as well as to the incentives to undertake efficient capex.

Summarily, SFG has concluded that:

- The introduction of historical trailing average approaches for estimating the return on debt has the potential to reduce the risks faced by equity holders of some service providers. This is because a historical trailing average approach can allow a service provider to more closely match its debt servicing costs to the regulatory allowance for the return on debt.
- Currently service providers have varying abilities to match their debt servicing costs to the regulatory allowance for the return on debt. Some of the smaller privately-owned service providers appear able to hedge their interest rate very well, but larger state-owned service providers such as those in NSW and Queensland appear unable to enter into these hedges because the relevant financial markets are not sufficiently deep to meet their requirements. The reduction in risks for equity holders of moving to an historical trailing average approach is greater for those least able to currently match their debt servicing costs to the regulatory allowance. For those able to achieve a good match currently the introduction of a trailing average approach may slightly increase the risks for equity holders.
- A historical trailing average approach to estimating the return on debt can lead to significant differences between the regulatory allowance for return on debt and

134 Id., p. 4.

135 Id., p. 5.

the cost of debt in the market for funds at any point in time. Such a difference could impact the incentives for service providers to invest efficiently in capex. For example, if the cost of debt in the market for funds is higher than the regulatory allowance then the service provider may not invest as much as would be efficient. SFG noted that the QTC's proposal for a historical trailing average return on debt provided one way to address this risk.

- Service providers are likely to have entered into financial arrangements to mitigate their risk given the current approach to estimating the return on debt. Therefore, any change in approach could lead to some service providers gaining extra revenue or losing revenue as a result of unwinding those financial arrangements. Gains or losses of revenue of this type from changes in regulatory arrangements could be perceived by investors as increasing regulatory risk, and thereby lead investors to seek a higher rate of return. SFG therefore recommend that consideration be given to transitional arrangements when changing the approach to estimating the return on debt.

7.2.4 Analysis

The Commission notes the widespread, though not unanimous, support for consideration of a historical averaging approach to the return on debt allowance across service providers and consumer representative groups.¹³⁶ A case was made, for example by the QTC, NSW T-Corp, and Ausgrid, that the current regulatory position of calculating interest rates on debt over a 20 to 40 day period encourages risk management behaviour in service providers that, in general, would not likely occur in the absence of such regulation. They argue that it also comparatively disadvantages large service providers whose ability to hedge large volumes of interest rate risk over such a short period is severely limited by the size and liquidity of the relevant markets.¹³⁷ The Commission also notes that submissions against the introduction of an averaging approach were based on arguments that such an approach would not properly reflect service providers' efficient financing and risk management strategies.¹³⁸

This diversity of views is consistent with modelling analysis from SFG that suggests that, for service providers with significant refinancing risks, the cash flow volatility of equity returns can be substantially reduced by moving to a trailing average approach,

¹³⁶ see for example: ENA, Directions Paper submission, 16 April 2012, p. 56; ENERGEX, Directions Paper submission, 16 April 2012, p.3; Ergon Energy, Directions Paper submission, 16 April 2012, pp. 13-14; Grid Australia, Directions Paper submission, 16 April 2012, p. 2; Ausgrid, Directions Paper submission, 16 April 2012, p. 13; UE and MG, Directions Paper submission, 16 April 2012, p. 11; MEU, Directions Paper submission, 17 April 2012, p. 32; EUAA, Directions Paper submission, 17 April 2012, pp. 31-32.

¹³⁷ QTC, Directions Paper Submission, 16 April 2012, p. 7; NSW T-Corp, Directions Paper submission, 16 April 2012, p. 3; Ausgrid, Directions Paper submission, 16 April 2012, p. 13.

¹³⁸ See for example: APIA, Directions Paper submission, 16 April 2012, pp. 20-21; APA Group, Directions Paper submission, 16 April 2012, p. 6.

but that for others the current prevailing rate approach is slightly better at minimising the volatility of returns.¹³⁹

The Commission considers that the long-term interests of consumers are best served by ensuring that the methodology used to estimate the return on debt reflects, to the extent possible, the efficient financing and risk management practices that might be expected in the absence of regulation. The Commission therefore proposes that the rules be amended to make it unambiguous that the regulator can consider a range of approaches to estimating the return on debt to meet the overall rate of return objective. This would include a range of different approaches that involve averaging estimates of the return on debt over historical periods.

The draft rule does not set the return on debt by reference to any particular base rate and DRP. This will allow the regulator sufficient flexibility to determine historical averages of either the entire return on debt or just the DRP component. Furthermore, there is the flexibility to set a DRP against a base rate other than the Commonwealth government-bond rates. For example, a bank bill swap rate could be used. This flexibility is important to allow the methodology used to estimate the return on debt to reflect the borrowing and risk management practices of an efficiently run service provider.

Regulators in other jurisdictions have adopted similar approaches to the type of historical trailing average approaches discussed during this rule change process. For example, the Civil Aviation Authority, the Office of Gas and Electricity Markets (Ofgem), the Office of Water Services Regulation Authority (Ofwat) and the Office of Rail Regulator in Great Britain have been considering and applying some form of annually adjusting cost of capital, primarily driven by concerns about predicting future market movements in the risk-free rate and the cost of debt measure.

Most recently, Ofgem as part of its transmission and gas distribution price controls to reflect the new RIIO (Revenue = Incentives + Innovation + Outputs) model have applied an index to the return on debt allowance. Ofgem has noted that indexation, in and of itself, does not preclude regulated businesses from entering into any particular hedging strategy, and that indexation ensures that efficiently financed debt is funded, even if the market cost of debt is above the return on debt allowance at the time of debt issuance.¹⁴⁰

Consistent with its approach to other aspects of this draft rule proposal, the Commission is concerned that there should be transparency and accountability in the regulators' consideration of the approach to estimating the return on debt, and that there should be similar accountability for the service provider. Therefore, the Commission is proposing some factors that the regulator must have regard to when considering the approach to estimating the return on debt.

¹³⁹ SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return*, Report for the AEMC, 21 August 2012. pp. 52-68.

¹⁴⁰ Ofgem, *Decision on strategy for the next transmission and gas distribution price controls - RIIO-T1 and GD1 Financial issues*, 31 March 2011.

Amongst the issues that the Commission intends the regulator to have regard to is the extent to which a particular approach to estimating the return on debt may influence the required return on equity for a service provider. If a particular approach to estimating the return on debt can reduce the refinancing risk of an efficiently financed service provider, then there may be scope to conclude that the return on equity should be lower than it otherwise would have been, which would be to the benefit of consumers.

The impact on the incentives for efficient capital expenditure is also an important consideration. To the extent that the difference between the return on debt and the debt servicing costs of the service provider is minimised at any point in time then it might be expected that the incentives for efficient capital expenditure are stronger.

Section 7.5 provides an explanation of issues the Commission expects the regulator to have regard to when considering these factors.

7.3 Benchmark for estimating the return on debt and whether the allowed cost of debt is higher than service providers' actual debt costs

In the directions paper the Commission sought views on the appropriate benchmark to use for estimating the return on debt, and whether the return on debt estimate made in recent regulatory decisions had been higher than the service providers' actual debt costs. The next section below summarises the comments of stakeholders on these related issues. As the Commission's draft rule does not prescribe the detailed characteristics of the benchmark to be used for estimating the return on debt, it has not been necessary for the Commission to reach a view on the appropriate definition of the benchmark. Under the Commission's proposed draft rule this will be a decision for the regulator as part of determining which approach meets the overall allowed rate of return objective for the relevant service provider.

7.3.1 Stakeholder views

The appropriate benchmark

In general, service providers maintain the view that the use of a ten-year benchmark DRP remains an appropriate way of estimating the return on debt for an efficient benchmark service provider. Service providers submit that the apparent disparities between the return on debt estimates in recent regulatory determinations and the market-observed service provider debt servicing payments were a reflection of current financial market conditions driven by a temporary necessity to borrow funds at shorter maturities.¹⁴¹ Service providers argue that this cost did not account for higher

¹⁴¹ See for example: Ausgrid, Directions Paper submission, 16 April 2012, p. 12; APLA, Directions Paper submission, 16 April 2012, pp. 17-18; ENA, Directions Paper submission, 16 April 2012, pp. 50-52; Ergon Energy, Directions Paper submission, 16 April 2012, p. 12; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp. 21-22; Grid Australia, Directions Paper submission, 16 April 2012, p. 11.

refinancing risks that are inherent in borrowing at shorter terms. They also note that the Tribunal has consistently concluded that the AER has erred in approaches that produced an artificially depressed DRP benchmark.¹⁴²

The SA DMITRE is of the view that the approach should be specified by the AER, but the AEMC should provide sufficient detail in the rules for service providers to be able to propose DRP values from a consistent source of indicators, as determined by the AER.¹⁴³

Jemena suggests limiting the discretion of the AER by detailing the return on debt methodology in a binding document with the AER decision being subject to merits review.¹⁴⁴ Ergon Energy suggests the rules should provide some guidance as to how the DRP is to be estimated, rather than give the AER complete discretion.¹⁴⁵ It also states that it would be appropriate for the AER to specify its benchmark in periodic reviews to provide sufficient certainty and predictability for service providers and investors.¹⁴⁶

The ENA argues that the AER is allowed under the existing Chapter 6 rate of return framework to adopt a new benchmark for DRP if its 2009 SORI values are no longer appropriate and yet has not sought to do so.¹⁴⁷ The ENA argues for a stable benchmark that provides certainty and is consistent with long term evidence of debt financing practices.¹⁴⁸ TNSPs and DNSPs generally supported the ENA's view that it was not the current rules that is the problem, but rather the way the AER has applied the existing rules. It was also suggested that the AER should commence a process in consultation with stakeholders on these matters, consistent with the Tribunal's recent recommendations in the APT Allgas merits review appeal.¹⁴⁹

Consumer representative groups argue that the return on debt allowances were not designed to be a source of profit and the current benchmarks were too generous.¹⁵⁰ Consumer representative groups were split on the question of prescription versus discretion. Some submit that the approach to estimating the return on debt should be specified in the rules.¹⁵¹ Others agreed with the AEMC's initial view, and that of the

142 UE and MG, Directions Paper submission, 16 April 2012, p. 10.

143 SA DMITRE, Directions Paper submission, 9 May 2012, p. 5.

144 Jemena, Directions Paper submission, 16 April 2012, p. 43.

145 Ergon Energy, Directions Paper submission, 16 April 2012, p. 13.

146 Ibid.

147 ENA, Directions Paper submission, 16 April 2012, p. 55.

148 Id., pp. 55-56.

149 Id., p. 2.

150 EUAA, Directions Paper submission, 17 April 2012, pp. 5, 31-32; MEU, Directions Paper Submission, 17 April 2012, pp. 31-32; EURCC, Directions Paper submission, 16 April 2012, pp. 5-6.

151 EUAA, Directions Paper submission, 17 April 2012, p. 31; EURCC, Directions Paper submission, 16 April 2012, p. 5.

AER, that the approach to estimating the return on debt should not be specified in the rules and that the AER should be allowed discretion.¹⁵²

Regulatory allowance for return on debt estimate compared to observed debt servicing costs

The NSW T-Corp supports the view that the apparent disparity is temporary, driven by the effects of the global financial crisis, and that longer-term debt remains the appropriate benchmark. It also submits that higher refinancing risks and costs would offset any short term benefit.¹⁵³

The QTC's view is similar to the NSW T-Corp's and it provided an empirical analysis to show that the ten-year DRP awarded by the AER has been consistent with the shorter-term costs of borrowing for service providers. Based on this analysis, the QTC concludes that equity holders have not been over-compensated for their increased refinancing risks and costs.¹⁵⁴

The AER, in its submission, acknowledges that some, but not all, of the difference between the DRP and the observed debt cost market data may be due to refinancing risks. However, it argues that it has been effectively limited to using the Bloomberg Fair Value curve as a benchmark and that this benchmark reflects higher DRPs than that of service providers, even after adjusting for different maturities.¹⁵⁵ The AER argues for the methodology to determine the DRP, including the definition of the benchmark, to be determined during its proposed WACC review.¹⁵⁶

Those service providers that addressed the question, generally, submit that limited, little, or no weight should be afforded the views of market analysts on whether the cost of debt allowed by the regulator was more or less than the cost of debt available to service providers in the market.¹⁵⁷ Market analysts were seen to be limited in their understanding of the regulatory process and, further, the focus of their reports was very different from that required for regulatory purposes. This meant that mistakes may follow in trying to utilise them in this context.¹⁵⁸

The QTC is of the view that, while the independence of market analysts was desirable, there are numerous significant risks in relying on information in analysts' reports.¹⁵⁹ The QTC suggests that the best way to incorporate information from market analysts

152 MEU, Directions Paper submission, 17 April 2012, p. 5; CUAC, Directions Paper submission, 17 April 2012, p. 3.

153 NSW T-Corp, Directions Paper submission, 16 April 2012, pp. 1-2.

154 QTC, Directions Paper submission, 16 April 2012, pp. 11-18.

155 AER, Directions Paper submission, 2 May 2012, p. 56.

156 Id., p. iv.

157 APIA, Directions Paper submission, 16 April 2012, p. 36; Ergon Energy, Directions Paper submission, 16 April 2012, p. 12; Jemena, Directions Paper submission, 16 April, 2012, p. 44; UE and MG, Directions Paper submission, 16 April 2012, p. 10.

158 See for example: APIA, Directions Paper submission, 16 April 2012, p. 36.

159 QTC, Directions Paper submission, 16 April 2012, pp. 20-22.

into the process would be by way of a formal survey, and that debt capital market specialists are more likely to provide valuable information than analyst reports.¹⁶⁰

Consumer representative groups, directly or indirectly, seemed to favour consideration of analyst reports in assessing whether service providers could outperform their allowances.

7.3.2 Analysis

The appropriate benchmark

The Commission considers that the regulator is best placed to assess the characteristics of a benchmark efficient entity consistent with the overall rate of return objective. Therefore, the Commission has not reached a view on whether the characteristics the regulators have used to define the benchmark are appropriate. Under the Commission's proposed rules for the rate of return framework, the regulator will need to consider this issue as part of developing its rate of return guidelines, and that process will provide an opportunity for all stakeholders to submit their views and discuss any differences of view.

There is a separate issue about how easy it is to measure the return on debt for particular characteristics of a benchmark efficient service provider. In this respect, the proposed draft rule does not mandate the use of any particular measurement approach. This flexibility gives the regulator the ability to consider the best information and evidence to inform such a measurement.

Regulatory allowance for return on debt estimate compared to observed debt servicing costs

In its report, SFG suggests that since the DRP has been somewhat elevated post-global financial crisis (GFC), and since there has been an upwardly-sloping yield curve and it is easier to obtain shorter-term debt finance, it is unsurprising that observed DRPs are higher than those on previously issued debt and are higher than DRPs on shorter-term debt.¹⁶¹ SFG considers that such facts do not, in themselves, imply that regulatory estimates are overstated - refinancing risks could very well explain the premium - the fact that interest rates have risen does not mean that abnormal returns are being earned.¹⁶²

When the regulatory estimate for return on debt is set on the basis of prevailing rates of debt at a particular point in time, it is almost inevitable that there will be periods of time when the debt servicing costs of a service provider are higher than, and periods when they are lower than, that estimated by the regulator at the time of the determination or access arrangement. This mismatch would only potentially be

¹⁶⁰ Ibid.

¹⁶¹ SFG Consulting, *Preliminary Analysis of Rule Change Proposals: Report for AEMC*, 27 February 2012, p. 4.

¹⁶² Ibid.

avoided if a service provider was able to, and chose to, refinance all its debt at exactly the same time as the regulatory estimate was made. If this mismatch is broadly likely to occur equally often in both directions then the outcome is not systematically favouring one set of stakeholders over another.

The Commission's rate of return framework draft rule proposal provides the flexibility for the regulator to consider alternative approaches to estimating the return on debt, including historical trailing average approaches that may better align the debt servicing costs of an efficiently run service provider with the regulatory estimate of the return on debt. Over a long enough period of time such approaches will not lead to service providers facing higher or lower debt servicing costs than an unbiased assessment of prevailing debt costs at the time of regulatory determinations or access arrangement decisions. However, as discussed above, there may be some circumstances in which such historical trailing average approaches could reduce the required return on equity and reduce distortions to capex, which could benefit consumers. Under the proposed draft rule, it is for the regulator to determine the best approach to estimating the return on debt to meet the overall rate of return objective.

7.4 Whether the return on debt should be estimated differently based on the service provider's ownership

In the directions paper the Commission explained its preliminary view that it was not minded to adopt the EURCC's proposal that the return on debt for state-owned service providers be set differently than for investor-owned service providers. The Commission provided a number of reasons why it was not minded to support the state-owned return on debt aspect of the EURCC's rule change request.

7.4.1 Stakeholder views

Consumer representative groups did not accept the views of the Commission as to why the EURCC's proposal to treat state-owned service providers on a different basis to privately-owned service providers for return on debt was not likely to be accepted.¹⁶³

The QTC outlined some of the various complicated ownership structures that existed and argued that the correct approach is to treat each service provider as a stand-alone entity.¹⁶⁴

ENERGEX strongly supported the AEMC's preliminary view that it would be inappropriate to have different return on debt allowances for state-owned and privately-owned service providers. ENEREX suggests that no commercial advantage accrues to state-owned service providers since competitive neutrality fees are applied,

¹⁶³ EURCC, Directions Paper submission, 16 April 2012, pp. 8-15; MEU, Directions Paper submission, 17 April 2012, p. 33-34; EUAA, Directions Paper submission, 17 April 2012, pp. 31-32; TEC, Directions Paper submission, 17 April 2012, p. 3.

¹⁶⁴ QTC, Directions Paper submission, 16 April 2012, pp. 18-19.

and that distortions would be created by treating service providers differently based on ownership.¹⁶⁵

The EURCC's submission provides a number of arguments against the Commission's preliminary reasoning in the directions paper.

The primary contention by the EURCC is that the Competition Principles Agreement (CPA) that imposes competitive neutrality principles to businesses owned by state governments does not apply to state-owned service providers as they operate in a market that has no actual or potential competition. That is, as natural monopolies, they neither face actual competition for the network services they provide, nor any potential competition from the private sector. Consequently, it believes that despite the fact that state governments levy debt neutrality fees under the CPA on service providers due to competitive neutrality concerns, this cost should not be considered for the purposes of regulating the revenue of these businesses.

Other key objections made by the EURCC are that:

- the Commission's view that competitive neutrality principles also apply to potential resource allocation distortions that can result in input as well as output markets of state-owned monopoly businesses cannot be sustained (the resource allocation distortion argument);¹⁶⁶
- while the state governments have a right to charge service providers that it owns whatever it chooses to, this does not confer an obligation on users to pay those fees. The charges to users should reflect the NEO and the Commission has failed to take account of that (the governments' right to levy debt guarantee fees versus the consumer interest argument);¹⁶⁷
- the Commission's claims of geographical distortions that would arise with different allowances for the return on debt are without foundation (the geographical market distortions argument);¹⁶⁸
- the Commission's claim that the EURCC's proposal would dissuade jurisdictions from divestiture of their service providers is not correct. The design and implementation of the regulatory framework should not be influenced by policy considerations either for or against divestiture (the sale or divestiture of state-owned service providers argument);¹⁶⁹ and
- taxes on the profits of the service providers owned by governments are effectively a return on the government investment in their service providers and

¹⁶⁵ ENERGEX, Directions Paper submission, 16 April 2012, p. 3.

¹⁶⁶ EURCC, Directions Paper submission, 16 July 2012, pp. 8-10.

¹⁶⁷ Id., pp. 10-12.

¹⁶⁸ Id., p. 13.

¹⁶⁹ Id., p. 14.

should be counted as such in consideration of the appropriate return on debt (the taxes versus equity ownership argument).¹⁷⁰

Other than EURCC, the other only other stakeholders that have made submissions against the Commission's preliminary position in its direction paper were from the EUAA,¹⁷¹ the MEU,¹⁷² and the Total Environment Centre (TEC).¹⁷³

The EURCC's views and arguments on these issues are discussed below.

7.4.2 Analysis

Application of competitive neutrality principles to state-owned service providers

There is a significant difference of view between the Commission and the EURCC on the application of the CPA and the competitive neutrality principles to state-owned service providers and the ability of the NER to legally affect the ability of jurisdictional governments to levy debt neutrality fees in accordance with the CPA.

The CPA defines the aim of competitive neutrality policy as:

“the elimination of resource allocation distortions arising out of the public ownership of entities engaged in significant business activities: Government businesses should not enjoy any net competitive advantage simply as a result of their public ownership. These principles only apply to the business activities of publicly owned entities, not to the non-business, non-profit activities of these entities.¹⁷⁴”

Under the CPA, competitive neutrality principles must be applied by governments where appropriate, to all significant state-owned businesses, including at the local government level. The CPA also imposes a set of obligations on all governments in relation to taxation, debt and regulatory neutrality, full cost attribution and setting prices to earn a commercial rate of return.

The Commission does not accept the EURCC's view that the application of the CPA to state-owned service providers should not be a relevant consideration under the NEO. The Commission is mindful that the interpretation and application of the CPA is a matter for the state and territory governments who are signatories to it, and not the Commission. All jurisdictional governments that own service providers in the NEM apply the competitive neutrality principles to them as part of discharging their obligations under the CPA. Accordingly, each jurisdiction that has retained ownership of its service provider has corporatised the business and imposed on the business

¹⁷⁰ Id., pp. 14-15.

¹⁷¹ EUAA, Directions Paper submission, 16 April 2012, pp. 31-32;

¹⁷² MEU, Directions Paper submission, 17 April 2012, p. 34.

¹⁷³ TEC, Directions Paper submission, 17 April 2012, p. 4.

¹⁷⁴ Competition Principles Agreement subclause 3.(1).

similar commercial and regulatory obligations to those faced by the private sector, including:

- full Commonwealth, State and Territory taxes or tax equivalent payments;¹⁷⁵
- commercial rate of return requirements and an obligation to pay dividends;
- requirements that prices reflect the full cost of providing network services;
- debt guarantee charges to offset cost advantages of implied government borrowing guarantees; and
- regulations applying to private sector competitors.

In the Commission's view, the most important factor to recognise is that state-owned service providers that are subject to the NER are required to pay debt neutrality or government guarantee fees to the jurisdictional government (via state treasuries) as part of the application of the competitive neutrality principles. These fees are mandated in various state legislation and code of practice instruments. The various legislative and codes of practice instruments are described in Box 7.1.

Box 7.1: Jurisdictional legislative instruments and codes applying debt guarantee fees to state-owned service providers

Commonwealth Government

The Commonwealth Government's approach for implementing competitive neutrality principles with respect to debt neutrality is set out in its Competitive Neutrality Policy Statement of June 1996 and Competitive Neutrality Guidelines for Managers. In essence, the Commonwealth Government requires its businesses to pay a debt neutrality charge where they borrow money at a rate that reflects the credit risk of the Commonwealth Government as a whole rather than a rate reflecting the credit risk of that type of business activity.¹⁷⁶

Commonwealth Government businesses that are subject to competitive neutrality are required to determine the difference between their actual cost of borrowing and the benchmark cost they would incur if they were borrowing as a non-government entity and remit the difference as debt neutrality payments to the Official Public Account.¹⁷⁷

New South Wales

In NSW, the *Public Authorities (Financial Arrangements) Act 1987 (NSW) (PAFA*

¹⁷⁵ For example see sections 128 and 129 of the *Government Owned Corporations Act 1993 (Qld)*; section 15 of *State Owned Corporations Act 1989 (NSW)*; section 6 of the *Electricity Companies Act 1997 (Tas)*.

¹⁷⁶ Commonwealth Government Treasury and Department of Finance and Administration, *Australian Government Competitive Neutrality Guidelines for Managers*, Financial Management Guidance No.9, February 2004, p. 21.

¹⁷⁷ *Id.*, pp. 22-27.

Act) provides the legislative basis for administering government guarantee fees for state-owned corporations such as Ausgrid, Endeavour Energy, Essential Energy and TransGrid.

Under section 10 of the PAFA Act, all declared state-owned corporations are required to obtain all financial accommodation (generally defined to include debt instruments such as loans, promissory notes, debentures, bonds and discounted securities) from the NSW T-Corp. In accordance with section 22D of the PAFA Act, the NSW Treasurer can charge a state-owned corporation a fee in respect of debt guaranteed by the NSW Government. The Treasurer determines the amount and the timing of the fee.

In addition to the PAFA Act, the NSW Treasury also has a policy statement on the application of competitive neutrality.¹⁷⁸ According to this policy, state-owned businesses in NSW with government guaranteed borrowings have been required to pay a credit-rating-based fee to the Consolidated Fund since 1990.¹⁷⁹ The policy statement states that the debt guarantee fees scheme is intended to:

- “• make up the difference between the interest paid by government businesses and what they would have paid based on their stand-alone credit ratings;
- correct any distortions in Government business investment and pricing decisions;
- encourage better debt management practices by Government businesses by making them aware of the full cost of borrowing; and
- compensate the Government for the financial risk of guaranteeing debt repayment by Government businesses.¹⁸⁰”

Tasmania

In Tasmania, electricity service providers such as Aurora Energy and Transend, are deemed to be state-owned companies and as such must comply with section 13 of the *Electricity Companies Act 1997* (Tas). This Act states that government guarantee fees are to apply as if the business was a Government Business Enterprise under the *Government Business Enterprises Act 1995* (Tas). Section 78 of the *Government Business Enterprises Act* states that:

“(1) A Government Business Enterprise must pay guarantee fees into the Consolidated Fund if it has financial accommodation.

178 NSW Treasury, *Policy Statement on the Application of Competitive Neutrality - Policy and Guidelines Paper*, January 2002.

179 *Id.*, p. 11,

180 *Ibid.*

(2) The guarantee fees in respect of a financial year that are payable by a Government Business Enterprise are to be calculated as specified in the Treasurer's Instructions.

(3) The Treasurer must determine one or more guarantee fee rates for each Government Business Enterprise and must notify each Government Business Enterprise of the guarantee fee rates applicable to it.

(4) A Government Business Enterprise must -

(a) provide to the Treasurer guarantee fee returns in the form, and at the times, specified in the Treasurer's Instructions; and

(b) pay its guarantee fees at the times, and in the manner, specified in the Treasurer's Instructions."

The Tasmanian government also has a number of policy instruments that provide guidance on the application of competitive neutrality principles to state-owned businesses. The following policy documents are applicable:

- National Competition Policy: Tasmania's Reform Obligations and the New Financial Arrangements, August 1995;
- Application of the Competitive Neutrality Principles under National Competition Policy, June 1996;
- National Competition Policy: Guidelines for considering the Public Benefit under the National Competition Policy, March 1997;
- Guidelines for Implementing Full Cost Attribution Principles in Government Agencies, September 1997;
- Significant Business Activities and Local Government in Tasmania, April 2004; and
- Costing Fees and Charges - Guidelines for Use by Agencies, December 2006.¹⁸¹

Queensland

In Queensland, the debt guarantee fee is levied on government-owned corporations (GOC) such as ENERGEX, Ergon Energy and Powerlink via a number of instruments. These include:

- the *Government Owned Corporations Act 1993 (Qld) (GOC Act)*;

¹⁸¹ These documents are available from the office of the Tasmanian Economic Regulator at www.economicregulator.tas.gov.au/domino/otter.nsf/price-v/002.

- the *Queensland Competition Authority Act 1995 (Qld)* (QCA Act);
- Queensland Government policy statement: *Competitive Neutrality and Queensland Government Business Activities*, July 1996; and
- Queensland Government Code of Practice for Government Owned Corporations' Financial Arrangements, August 2009.

Under section 16(d) of the GOC Act, the competitive neutrality principles apply to state-owned corporations such that "... each GOC competes on equal terms with other entities carrying on business, any special advantages or disadvantages of the GOC because of its public ownership or its market power will be removed, minimised or made apparent."

Section 38 of the QCA Act contains principles of competitive neutrality, which states that:

"The principle of competitive neutrality is that a government agency carrying on a significant business activity should not enjoy a competitive advantage over competitors or potential competitors in a particular market solely because the agency's activities are not subject to 1 or more of the following:

- (a) full Commonwealth or State taxes or tax equivalent systems;
- (b) debt guarantee fees are to be directed towards offsetting the competitive advantages of government guarantees;
- (c) procedural or regulatory requirements of the Commonwealth, the State or a local government on conditions equivalent to the conditions to which a competitor or potential competitor may be subject, including, for example, requirements about the protection of the environment and about planning and approval processes."

The Queensland Government Code of Practice for Government Owned Corporations' Financial Arrangements states, inter alia, that:

- The Code of Practice applies to all government owned corporations declared under the GOC Act.
- The Code of Practice is to be applied through a statement of compliance in the parent GOC's Statement of Corporate Intent, which each GOC must have for each financial year in accordance with sections 97, 102 and 107 of the GOC Act.
- Each GOC is required to engage an independent credit rating agency to undertake a comprehensive stand-alone credit rating at least once every three years. This rating will be used to determine the competitive neutrality

fee payable by the GOC.¹⁸²

Difference between benchmark return on debt and actual cost of debt

In its submission, the EURCC states that the Commission has an incorrect understanding of the relationship between the regulatory return of debt allowance that sets the charges that energy users pay, and, the service providers' calculation of their actual cost of debt.

Since state-owned service providers are able to borrow funds at interest rates based on the credit rating of their respective state or territory government, a debt guarantee fee/competitive neutrality fee aims to ensure that the service providers are subject to a rate of interest or cost of debt based on their own credit rating. The fee represents an extra charge to make up the difference between the interest paid by the service provider and the amount they would have paid in the absence of a government guarantee. Therefore, under the current rules, the return on debt estimate does not need to account for any charges associated with these fees as the return on debt is estimated on the basis of a benchmark service provider with a standalone credit rating.

Resource allocation distortions

The EURCC states that it disagrees with the Commission's view that competitive neutrality considerations include resource allocation distortions in input as well as output markets. The EURCC states that resource allocation distortions can only occur if the state governments charge fees to some government departments (or corporatised businesses that it owns) but not to others.

The EURCC notes the example where the Queensland and NSW governments charge government debt guarantee fees for the debt that they provide to their service providers, but they do not charge the same fee for the debt that they provide to their health, education or housing departments. It claims that this type of distortion would lead the governments to prefer lending to their service providers rather than to, for example, their health, education or housing departments, since they get a fee from the loans it makes to the former but not the latter. It concludes that any debt government guarantee fees may therefore encourage misallocation of resources – more lending for networks at the expense of hospitals, schools and roads, etc. On this reasoning, the EURCC states that the Commission's conclusion that service providers should be subjected to debt neutrality fees is therefore in contradiction.

Debt raised by service providers to fund capex is an input into the network services they produce as the output for users. The current application of government debt guarantee fees ensures that service providers apply a commercial discipline to their borrowing to fund any capex requirements. Absent the government debt guarantee fees, the service providers would now be facing an artificially lower rate of return than

¹⁸² Queensland Treasury, *Queensland Government, Code of Practice for Government Owned Corporations' Financial Arrangements*, August 2009, available at: <http://www.ogoc.qld.gov.au/goc-policies/code-of-practice-gocs-fin-arr.pdf>.

other private sector service providers seeking to raise funds in the same capital markets.

Faced with an artificially lower rate of return, the service provider may view capex solutions as comparatively lower cost to non-network solutions. This is because a lower rate of return implies that non-network solutions involving operating expenditure costs such as labour costs and non-asset solutions are now comparatively less attractive. Clearly, artificial distortion on the efficiency of capex means that resources in the input markets are no longer being used at least cost, thus causing allocative inefficiency.

Lack of competitive neutrality on debt costs would not only result in resource allocation distortions between different types of inputs for network solutions and non-network solutions, it would also have an impact on other businesses. State-owned electricity service providers can be considered to be in competition with:

- the gas sector which is a fuel of choice; and
- other electricity networks when large consumers are considering where to locate new factories, offices etc.

This point was also made by the NSW Treasury in their submission to the rule change requests.¹⁸³

Any network over-investment by service providers caused by an artificially lower rate of return allowance would have flow on effects for gas networks since they compete with electricity as a fuel of choice in states such as Queensland and, to a lesser extent, in NSW. If service providers are required to charge comparatively lower prices to their consumers due to lower rate of return, it could lead consumers to switch any discretionary consumption of gas to electricity. Over the longer term, not only would this cause inefficient consumption of electricity, it would also impact on the competitiveness of the gas networks.

Having an artificially lower rate of return allowance can also impact on the competitiveness of other investor-owned service providers or third party suppliers of alternative control services that compete with state-owned service providers. If the state-owned service provider's rate of return did not reflect market based rates and they did not face any commercial discipline, then they could effectively outbid their competitors for projects.

In the Commission's view, it is arguably more likely that reducing the rate of return for state-owned service providers in the way proposed by the EURCC could lead to under-investment by the relevant service providers because the state governments may choose to restrict their access to debt capital. Whatever the reaction of the state government, it appears likely to lead to some distortions in behaviour.

¹⁸³ NSW Treasury, Consultation Paper submission, 23 December 2011, p. 7.

Contrary to the EURCC's view, applying competitive neutrality to the cost of borrowing of state-owned service providers ensures that the businesses recognise the efficient cost of debt and therefore minimise any resource allocation distortions.

On the second issue raised by the EURCC with respect to government guarantee fees encouraging misallocation of resources between service providers and other public goods providers such as hospitals, education and housing departments, etc, it is important to recognise that government debt has an opportunity cost.

The government has a finite borrowing capacity at particular prices for debt, and it must make allocation decisions on the debt it can raise in the capital markets. If the government did not apply debt management discipline to the service providers, the debt it would raise for them must compete with other government services such as hospitals, roads and public housing that do not operate to the same degree on a commercial basis.

The debt guarantee fee represents the opportunity cost of the government borrowing on behalf of the service providers. Borrowing will impact on investment in other public goods such as roads, hospitals and schools. As service providers pass on their costs to their consumers, the government guarantee fees act to allow compensation for the opportunity cost to taxpayers for providing the cheaper lending.

If governments were to provide debt to service providers at AAA credit rating without charging a neutrality fee, it would mean an effective subsidy from taxpayers. The guarantee fees aim to allow the best deployment of funds for the governments and value to taxpayers.

In any event, the Commission considers that how the jurisdictional governments choose to prioritise their funding is a public policy matter that is beyond the scope of the NER to address.

Geographical market distortions

The EURCC put forward two reasons for its disagreement with the Commission's view about potential geographical market distortions that could arise through their proposal on different cost of debt for state-owned service providers. The EURCC claims that:

- (i) with regard to generators, since they do not pay for the use of the transmission (or distribution) systems they will not be impacted by any difference between the charges levied by privately-owned or state-owned service provider; and
- (ii) with regard to end users, the Commission has shown that privately-owned service providers already have lower network charges than state-owned networks. If there is a prospect of inefficient end-user relocation due to price differences between networks then, if anything, reducing the charges of state-owned service providers will help to address this problem, not exacerbate it, as the Commission has concluded.

The Commission remains concerned that circumstances where service providers operating in different geographic regions would be required to set prices that are differentiated by ownership rather than by reference to the underlying economic costs of providing those services could create distortions. There could over time potentially be an artificial incentive for overinvestment in generation and network capacity in the lower price regions, along with under-investment in demand-side initiatives.

Sale or divestiture of state-owned service providers

The EURCC disagrees with the Commission's view that its proposal would effectively preclude any state government from selling or divesting its service provider. It rejects that view on the basis that:

- privately-owned service providers already charge considerably less than state-owned service providers. If state-owned service providers are privatised, their owners will deliver higher levels of investment and operating efficiency than has occurred under state ownership; and
- if state governments were not able to derive such high profits and fees from their service providers, they are more likely to want to sell them.

More generally, the EURCC states that it is inappropriate for the Commission to be mindful of the impact of rule change proposals in terms of the propensity for state governments to privatise service providers. According to their view, such a consideration is not contemplated in the NEO.

The rule proposed by the EURCC attempts to differentiate efficient cost recovery depending on who the shareholder is. If such a rule was made, it risks distorting the incentives of efficient capital financing structures of state-owned service providers compared to privately-owned service providers. In such circumstances, there is likely to be a material impact on consumers as ownership changes are considered.

In the Commission's interpretation of the NEO, the efficiency of a service provider should be based on how well they can respond to the incentives provided by the regulatory framework.

Taxes versus equity ownership

The EURCC suggests that the dividends paid to the state governments as the shareholder and the taxation payments paid to the state governments as the taxing authority should be added together when considering the effective returns (or profits) that state governments are receiving from their service providers.

This issue was considered in the directions paper, and the Commission does not agree with the EURCC's contention. As SFG noted, when taxation revenues are included in this calculation, the resulting estimate of the return on equity would be disproportionate to the risk that is borne by the state governments as the

shareholder.¹⁸⁴ SFG has already advised the Commission that the return received by governments as a shareholder (as dividends) should be compared with the risk borne as a shareholder and taxation revenues received as the taxing authority should have no part in this comparison.¹⁸⁵ The Commission remains satisfied that SFG's view is appropriate.

Use of the Commonwealth Government's approach for the guarantee scheme for ADIs

The EURCC suggests that a potential way forward for estimating return on debt for state-owned service providers could be based on the approach adopted by the Commonwealth Government in relation to the benchmark for the Guarantee Scheme for Large Deposits and Wholesale Funding Australian Deposit-taking Institutions (ADIs).

While the details of how this might precisely work in the context of its rule change proposal have not been provided in its submission, the EURCC appears to be suggesting that the rules could be made to require establishing a benchmark basis points spread based on some defined credit rating and debt tenor that would be explicitly added to the state-owned service providers' return on debt allowance, as observed through the yields on their respective state treasury bonds.

It is unclear how this approach would materially differ to the current approach where the government debt guarantee fees are levied on each service provider by their state treasuries based on cost of debt estimates of a service provider with a stand-alone credit rating (which is different to the state's credit rating). State treasuries generally obtain independent market cost of debt estimates based on stand-alone credit ratings for each of the service providers they finance, and determine the guarantee fee based on the difference between the actual cost of debt incurred for the service provider and notional market-based cost of debt derived from market surveys. For example, in its submission the QTC has stated that it obtains DRP estimates from market surveys for BBB+ rated companies with varying debt maturities to calculate the competitive neutrality fee to apply to the service providers it finances.¹⁸⁶ The BBB+ credit rating is what the AER has used for the benchmark market-based return on debt estimate to date.

It might be the case that stakeholders such as the EURCC do not fully understand how jurisdictional governments determine the debt guarantee fees for their service providers. It may be useful if there was a more transparent process through which the fees were levied.

¹⁸⁴ SFG Consulting, *Preliminary analysis of rule change proposals*, Report for the AEMC, 27 February 2012, p. 36.

¹⁸⁵ *Id.*, p. 37.

¹⁸⁶ QTC, Directions Paper submission, 16 April 2012, Appendix B.

7.5 Draft rule

This section covers return on debt aspects of the new rate of return framework that the Commission proposes to adopt, which was discussed in the previous chapter of this draft determination.

This section should be read in conjunction with the section in the previous chapter that discussed the draft rule for the overall rate of return framework, including how the Commission intends the proposed draft rule to be interpreted. It is particularly important to note that the proposed draft rule places a requirement on the regulator to determine a rate of return that meets the overall allowed rate of return objective. It is the Commission's view that this requirement can only be fully satisfied if the regulator considers its overall estimate against that objective. The Commission does not consider that the regulator could be satisfied it had met that overall objective if it made estimates about components or parameters that form part of the rate of return estimate in isolation and without considering the overall estimate against the overall objective. Therefore, those aspects of the proposed draft rule that relate to the return on debt estimate should be seen as part of the analysis to inform the estimate of an overall rate of return.

The Commission would also welcome comments on whether the draft rule on return on debt achieves the Commission's intended objective.

7.5.1 Estimating return on debt

The Commission has not mandated any particular approach to estimating the return on debt in the draft rule. Instead, the draft rule sets out at a very broad level the characteristics of three approaches to estimating the return on debt that could reasonably be contemplated by a regulator. The three options are designed to reflect an approach to return on debt based on:

- the prevailing cost of funds approach;
- an historical trailing average approach; or
- some combination of these two approaches.

The draft rule describes these three options to make it clear that all of them are available to the regulator if it considers they best meet the overall allowed rate of return objective. The Commission accepts that it could also have chosen not to describe any approaches, but it considers that there is a benefit of certainty in stating clearly the range of available options.

The Commission intends that the regulator (and the service provider in its regulatory proposal or access arrangement proposal) have the discretion to propose an approach that it considers best meets the overall allowed rate of return objective. This discretion for the regulator includes the detail of any approach, such as the period over which a prevailing cost of debt is observed, the length of any historical averaging period, and

the form of measurement of the observed financing costs. In all cases the regulator's judgement is to be exercised in such a way as to be consistent with the overall allowed rate of return objective.

While the Commission considers that allowing the regulator to estimate the return on debt component of the rate of return using a broad range of methods represents an improvement to the current approach, it is a separate issue from that of benchmark specification and measurement. A historical trailing average approach still requires the regulator to define a benchmark and use appropriate data sources to measure it. Arguably, it is even more important that the benchmark is defined very clearly and can be measured, because it needs to be estimated periodically in the future. The measurability of the approach would be a factor that the regulator would have to consider as part of its assessment of different approaches.

The regulator will need to set out its approach(es) to estimating the return on debt in its rate of return guidelines. The Commission expects that the development of the guidelines will provide a forum for service providers, consumers and other stakeholders to propose different approaches to the estimation of return on debt, and for the regulator to discuss the merits of different approaches before setting out its proposed approach in the guidelines. The Commission intends that the regulator could adopt more than one approach to estimating the return on debt having regard to different risk characteristics of benchmark efficient service providers. The service providers will have an opportunity at the time of their determination or access arrangement to propose an alternative approach to that proposed by the regulator in the guidelines, but the service provider will need to explain why their proposed approach is better than the approach proposed by the regulator in the guidelines.

The proposed draft rule includes a provision to allow an annual adjustment to the allowed revenue for the service provider in circumstances where the regulator decides to estimate the return on debt using an approach that requires the return on debt to be updated periodically during the regulatory period. The formula for calculating the updated return on debt must be specified in the regulatory determination or access arrangement and must be capable of applying automatically. Additional consequential amendments have been made in Chapters 6 and 6A of the NER to remove any impediments to allow the regulator to adjust its revenue/pricing determination during the regulatory period from the application of an annually updating return on debt estimate.

While the proposed draft rule provides the regulator with substantial discretion as to the approach to adopt to estimate the return on debt, consistent with meeting the overall rate of return objective, the Commission considers that regulatory accountability and transparency is very important. Therefore, the draft rule includes factors that the regulator must have regard to when considering the approach to estimating the return on debt. It is not intended that these are the only factors the regulator can have regard to. The specific factors identified in the draft rule are:

- the likelihood of any significant differences between the costs of servicing debt of a benchmark efficient service provider and the estimated return on debt;

- the impact on consumers, including due to any impact on the return on equity of a benchmark efficient service provider;
- the incentive effects of inefficiently delaying or bringing forward capex; and
- the impact of changing the methodology for determining the return on debt across regulatory periods.

The Commission explains below the types of issues that the regulator is be expected to consider when having regard to each of these factors.

Likelihood of differences between the cost of servicing debt of a benchmark efficient service provider and the estimated return on debt

The Commission intends that there is consideration of the extent to which the methodology used is commensurate with the financing and hedging strategy of the benchmark efficient service provider. This means that there should be consideration of the extent to which the methodology matches the funding costs expected to be incurred by a benchmark efficient service provider over the regulatory period, having regard to the debt arrangements the benchmark efficient service provider is likely to already have in place. This matching is based on the benchmark efficient service provider but, this benchmark could vary with the nature of regulated entities and their efficient funding and hedging strategies. Further, the length of any proposed averaging period would need to be considered alongside the benchmark service provider's borrowing profile.

Impact on consumers, including the impact on the return on equity

The Commission considers it essential that the effect on consumers is considered. Perhaps the most direct way in which consumers could benefit from the use of a historical trailing averaging period would be if this reduced the required return on equity because a benchmark efficient service provider's refinancing risks had been reduced through the particular method that was adopted for estimating the return on debt. To the extent that a methodology allows the overall risk to equity holders to be reduced in a measurable way by reducing the cash flow volatility of equity returns the regulator might be expected, all other things being equal, to be positively disposed towards it.

Quantifying the impact may be difficult in many cases, but the Commission would expect that the position of different types of service providers could be considered. For example, large single asset service providers might argue they face high refinancing risks from a prevailing rate approach, such that moving to a historical averaging approach would provide a net decrease in risk to equity holders, and consequentially a net benefit to consumers. Similarly, the Commission would expect that some service providers would argue that their equity investors would be worse off under any historical trailing average approach and therefore consumers would be better off with retention of the prevailing rate approach in their case.

Incentive effects of inefficiently delaying or bringing forward capex

This factor requires the regulator to consider the impact of its proposed approach on incentives to accelerate or delay capex in ways that are inefficient and hence run counter to the NEO, the NGO and the RPP. A distortion to investment incentives can arise where there is a significant mismatch between the cost of debt under the regulatory determination and the actual costs of debt in the market. For example, if the return on debt under the regulatory determination is lower than the cost of debt in the market then service providers may under invest relative to an efficient amount of investment.

Impact from changing the methodology across regulatory periods

The Commission considers that when there is a proposed change in methodology for estimating the return on debt, consideration should be given to the consequences for investment incentives arising from a change in methodology. In particular, consideration should be given to the potential for consumers and service providers to face a significant and unexpected change in costs or prices that may have negative effects on confidence in the predictability of the regulatory arrangements. It may be possible in many circumstances for the method to estimate the return on debt to take such concerns into account in the design of the method. Therefore, this factor is intended to promote consideration of whether these issues would arise and how best to address them.

8 Capex and opex allowances and factors

Summary

- Since publication of the directions paper the Commission has done further work to address the problems raised by the AER, being inappropriate constraints in the NER on its powers to interrogate and amend capex and opex proposals.
- The Commission has analysed further evidence provided to it of the drivers of prices, which indicate that both the rate of return and expenditure allowances have been significant factors contributing to higher network charges. However it is not possible to tell from this if any expenditure allowances to date have been inefficient, or if there is a problem with the NER.
- The approach to expenditure allowances was set by the AEMC in Chapter 6A in 2006. It includes that the NSP's forecast should be the starting point for the AER's analysis, but the AER is free to use a range of analytical techniques to assess this forecast and should consider all material and submissions before it. Further work confirms that the practices of the AER pursuant to Chapter 6A conform to good regulatory practice when compared with other regulators in Australia and overseas, and the Commission's view is that Chapter 6A reflects these practices.
- In general, the existing provisions of the NER provide the AER with appropriate discretion to set capex and opex allowances at an efficient level, assuming it has adequate information and uses appropriate analytical techniques.
- There are however some areas for improvement in the NER to clarify the approach and remove ambiguities.
- Benchmarking is a critical exercise in assessing the efficiency of a NSP's capex and opex forecasts. It should take into account differences in the environments of the different NSPs.
- The AER should be required to undertake annual benchmarking of NSPs. Among other things, this will improve the ability of consumers to participate in the regulatory process.
- It is appropriate that the methodology or methodologies for determining expenditure forecasts be set in advance of the NSP preparing its regulatory proposal. It should be included as part of the framework and approach paper.

This chapter sets out the Commission's considerations in respect of capex and opex allowances, and capex and opex factors. Section 8.1 sets out further thinking on

whether the problem raised by the AER exists, that is, whether the NER inappropriately constrain the AER in respect of the way it can interrogate and amend NSP's capex and opex forecasts. Having dealt with the problem, section 8.2 describes the original intent of Chapters 6 and 6A of the NER and sets out some changes to the NER to clarify ambiguities and increase clarity. Section 8.3 addresses other issues relating to capex and opex allowances, and section 8.4 deals with capex and opex factors.

8.1 Do the NER inappropriately constrain the AER regarding capex and opex allowances?

8.1.1 Introduction

The AER claims that the NER have constrained its ability to interrogate and amend expenditure proposals, resulting in capex and opex allowances which are higher than they should be.¹⁸⁷ While there are legitimate reasons for increases in network charges, it states these constraints are also driving up network charges.¹⁸⁸

The AEMC commenced its analysis in the directions paper by examining evidence for these problems in AER regulatory determinations and comments of the Australian Competition Tribunal. It considered submissions provided by stakeholders, and engaged two consultants, Professors Littlechild and Yarrow, to undertake further analysis. Following this analysis, the Commission did not come to a conclusion as to whether constraints in the NER were driving up network charges. In order to consider the matter in greater depth, the Commission called for further evidence from stakeholders of a problem and engaged consultants to reconsider the original intent behind Chapter 6A of the NER.

8.1.2 Submissions

The AER and the ENA have both provided lengthy submissions in response to the AEMC's request for further information about the drivers for rising network costs. Both assess how much lower revenues would have been had key variables not been allowed to increase from the previous regulatory period. These include capex, opex and the rate of return.¹⁸⁹ The relative significance of rate of return and capex differs between the two submissions but both found they were significant. The ENA submission also includes a critique of a 2011 Bruce Mountain paper referred to in the directions paper.¹⁹⁰ The AER's submission includes examples of how it claimed it had been constrained in setting capex and opex allowances.¹⁹¹

187 AER, Rule change request, Part A, 29 September 2011, p. 8.

188 *Id.*, p. 6.

189 ENA, Directions Paper submission, 16 April 2012, p. 10; and AER, Directions Paper submission, 2 May 2012, Appendix 1, p. 9.

190 ENA, Directions Paper submission, Attachment B, 16 April 2012.

191 AER, Directions Paper submission, 2 May 2012, Appendix 2.

In terms of other stakeholders, Ausgrid provides a detailed submission explaining its recent increases in investment.¹⁹² Other NSPs and representative groups provide additional detail of drivers for price increases.¹⁹³ Consumers groups highlight declining affordability and also the fact that the growth in the RAB has been outstripping growth in demand, new connections or length of network in recent times.¹⁹⁴ Perceived inefficiency of state-owned NSPs is also a focus of consumer group submissions.¹⁹⁵

8.1.3 Analysis

This section sets out the Commission's further consideration of whether there is a problem with the NER in respect of capex and opex allowances in the way claimed by the AER.

Rising network charges

At the start of the rule change process, a number of assertions were made by stakeholders about rising network charges. For example, the AER claimed that a significant proportion of recent rises in electricity prices can be attributed to increases in network charges, and that one factor driving up network charges has been the need for capex and opex.¹⁹⁶ In order to understand the context of the problems, the Commission sought more detail on the drivers for increases in network charges and any link between these increases and the NER.

As described above, in response to this request some stakeholders have provided detailed research and analysis. Submissions from these stakeholders demonstrate that a number of factors have been causing increasing network charges. There is no doubt that capex and opex allowances have increased from previous periods, but the significance of the capex and opex increases in comparison to increases in other factors - and in particular the rate of return - is not clear. According to the ENA, rate of return increases are at least as significant a driver of network costs as increases in capex and opex.¹⁹⁷ On the other hand, according to the AER, which conducted a similar type of analysis to the ENA though excluding adjustments as a result of Tribunal decisions, the increase in the forecast capex from the previous period is a more significant factor than rate of return increases.¹⁹⁸ Had the AER included the effect of the Tribunal decisions

¹⁹² Ausgrid, Directions Paper submission, 16 April 2012, p. 4.

¹⁹³ See for example ENERGEX, Directions Paper submission, 16 April 2012, p. 2; ESAA, Directions Paper submission, 24 April 2012, p. 4.

¹⁹⁴ Consumer Action Law Centre, Directions Paper submission, 16 April 2012, pp. 2-3; EUAA, Directions Paper submission, 16 April 2012, pp. 2-11; Ethnic Communities Council of NSW, Directions Paper submission, 16 April 2012, p. 2; and UnitingCare Australia, Directions Paper submission, 9 May 2012, pp. 23-31.

¹⁹⁵ EUAA, Directions Paper submission, 16 April 2012, p. 8.

¹⁹⁶ AER, Rule change request, Part A, 29 September 2011, pp. 5-6.

¹⁹⁷ Compare ENA, Directions Paper submission, Attachment C, 16 April 2012, p. 9 (Figure 3.1) and p. 11 (Figure 3.2).

¹⁹⁸ AER, Directions Paper submission, 2 May 2012, Appendix 1, p. 4 (Figure 1.3).

⁹⁶ Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

its results may not have been too dissimilar to those of the ENA. Either way, the submissions provide important clarity to the problem. Increases in capex and opex are driving up network charges, but rate of return increases are also contributing to this.

However, the mere fact of increases, or even significant increases, in capex and opex allowances for a NSP from one period to the next does not of itself demonstrate a deficiency in the NER. The increased capex and opex may be required to meet the objectives in the NER. To demonstrate a deficiency, it is necessary to show that these increases were more than what was needed to satisfy the requirements of the NER, including the requirement that capex and opex allowances should reasonably reflect efficient costs. Little evidence has been provided relating to the efficiency of the expenditure allowances determined by the AER. The ENA's analysis of this efficiency identifies the main drivers of capex and opex increases, such as replacement capex, for key NSPs. The ENA then shows that the AER or its consultant came to the view at the most recent reset for the NSP that the expenditure proposed for that category was efficient.¹⁹⁹ Ausgrid has provided a higher level of detail on the need for increased investment.²⁰⁰

The directions paper referred to a report by Bruce Mountain in 2011 which offered a way of assessing the efficiency of DNSPs' expenditure.²⁰¹ This sort of analysis could have been used by stakeholders in responding to the directions paper to show whether capex or opex allowances were efficient. The ENA has, however, provided a critique of the Mountain report in Attachment B to its submission. This critique appears to take the view that the Mountain report is too simplistic in its analysis to be robust. For example, Mountain should have used energy distributed and peak demand as part of his composite scale variable, in addition to customer numbers.²⁰² The Commission accepts that it may be possible to undertake a more sophisticated analysis, taking into account more of the "exogenous" reasons for differences between the levels of capex and opex required by each NSP. This does not invalidate the overall approach taken in Mountain's report, though. While there may be some shortcomings in Mountain's report, no analysis has been provided which would challenge Mountain's conclusion that the average privately-owned DNSP is more efficient than the average state-owned DNSP. With a greater use of benchmarking, perhaps using the approach suggested in Bruce Mountain's report, it may have been easier for the AER to identify inefficiencies in previous expenditure forecasts or allowances.

In conclusion, the analysis presented in submissions by stakeholders provides important context about rising network charges but does not confirm that expenditure allowances to date have been inefficient, or that there are in fact problems with the NER in this area. The AER analysis of specific constraints and the report commissioned by the AEMC comparing the original intent with other jurisdictions is more useful in this regard. These are discussed further below.

199 ENA, Directions Paper submission, 16 April 2012, pp. 12-13.

200 Ausgrid, Directions Paper submission, 16 April 2012, Attachment A, section 3.

201 AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, p. 25.

202 ENA, Directions Paper submission, Attachment B, 16 April 2012, p. 7.

AER evidence of constraints applying

Appendix 2 of the AER's submission provides evidence that the AER claims shows that the capex and opex allowed by the AER in its previous decisions may have been higher than efficient on the basis that the AER was constrained in its ability to replace a NSP's forecast with a lower amount. The AER refers to two of its regulatory determinations for Ergon Energy as examples. The first relates to corporation initiated augmentation (CIA) capex. The AER claims that it could not establish the CIA capex proposed by the NSP was inefficient but its substituted CIA capex was limited by the NSP's proposal, such as by having to use an 18 month deferral assumption.²⁰³ In the other example, relating to customer initiated capital works (CICW), there was disagreement between the AER and Ergon Energy over the methodology for forecasting CICW. The AER claims that it was constrained by the NER to focus on the methodology rather than being free to establish its own efficient estimate.²⁰⁴

In each example the AER states it was limited to the approach Ergon Energy took to capex. It appears that each time the constraint was based on clause 6.12.3(f), which is discussed further below. Leaving aside any ambiguity associated with that clause, the AER appears to have taken a somewhat conservative approach to interpreting it. If the AER is correct that in the two examples described above the capex allowance may have been higher than was efficient, it is not clear this was due to a deficiency in the NER. Had the AER been able to provide benchmarking analysis that the Ergon Energy capex allowance was high relative to other NSPs this would have provided clarity on whether the allowance was, in fact, efficient.

The Brattle report

The Brattle report considers whether the overall approach to expenditure allowances in chapter 6A of the NER, and the AER's practices in applying Chapter 6A, conform to good regulatory practice. Here regulatory practice refers to the approach regulators use to determine expenditure allowances, such as the analytical techniques employed. In order to understand what good regulatory practice may be, Brattle looked at regulatory practices in seven jurisdictions in Australia and overseas which adopt incentive-based economic regulation. In considering these other jurisdictions the AEMC asked Brattle also to consider whether there are any "background factors" which might explain any differences observed in these other jurisdictions.

In addition to the AER, Brattle considered the regulatory approaches in Great Britain, New Zealand, New South Wales, Western Australia, Ontario and Rhode Island.²⁰⁵ Brattle considered how the relevant regulators review capex and opex forecasts, and described the extent to which the practice in each jurisdiction is driven by rules or guidelines. Using the analysis of these different regimes, Brattle formed a conclusion

²⁰³ AER, Directions Paper submission, 2 May 2012, Appendix 2, p. 3.

²⁰⁴ Id., p. 5.

²⁰⁵ The Brattle Group, *Framework for assessing capex and opex forecasts as part of a "building blocks" approach to revenue/price determinations*, June 2012, paragraph 74. This paragraph also explains why each of the four overseas jurisdictions was chosen.

on best practice regarding approaches to setting allowances as part of incentive-based regulation. Following on from this, it sets out some observations and recommendations, including how the NER could be improved. Many of these observations and recommendations are used as support for the approach the Commission has taken in sections 8.2 and 8.3 below.

It is important to note that there are some clear differences between the jurisdictions chosen in terms of regulatory structures and institutional arrangements. For example, in NSW NSPs are state-owned, whereas in Great Britain they are privately-owned.²⁰⁶ The AER does not have to assess the prudence of past capex, while the ERA, for example, does do this. Many North American regulators take a backward-looking approach to setting prices however Brattle chose Ontario and Rhode Island due to their use of forecasting.²⁰⁷ There is much less prescription in Great Britain around how Ofgem must exercise discretion in respect of capex and opex allowances by comparison to the NER.²⁰⁸

In terms of the actual practices that regulators adopt when assessing capex and opex forecasts under incentive-based regulation, Brattle does not identify any fundamental differences between the approach of the AER and the practices of regulators in the other jurisdictions. It notes that in respect of assessments of capex and opex forecasts, while the level of prescription in the rules differs among jurisdictions, the regulators operating under such rules do not undertake less analysis nor do they seem to be restricted in the choice of tools for the purposes of such analysis.²⁰⁹ Rules may affect the weight put on the results of different analysis, but Brattle is not able to determine this conclusively.²¹⁰ On the basis of Brattle's conclusion, the Commission's view is that the approach to expenditure allowances in Chapter 6A, which generally reflects the AER's practices, remains fairly consistent with good practice as reflected in the practices of the other regulators examined by Brattle.

Brattle also makes some observations about improvements to the NER. In some areas the approach could be clarified and the differences between Chapters 6 and 6A should only reflect fundamental differences in characteristics between transmission and distribution. For example, in respect of clause 6.12.3(f) of the NER, Brattle cannot see how such a clause could constrain the AER, since a regulator will always use the NSP's proposal as a starting point, and will always explain its decision. However, the clause does not operate in a helpful way and could be clarified. In addition, Brattle cannot see any reason to justify clause 6.12.3(f) in distribution given that there is no equivalent clause in Chapter 6A.

In general, Brattle states that the regulator should always be free to develop its own analytical method, though the rules might provide guidance in the form of principles. There are some additional tools which could be used to improve how capex/opex

206 Id, paragraph 26.

207 Id., paragraph 75.

208 Id., paragraph 12.

209 Id., paragraphs 13, 30 and 31.

210 Id., paragraph 33.

allowances are set, such as the use of output measures and a "menu" approach to forecasts.²¹¹

Other matters considered by Brattle include the following:

- rejecting or adjusting the NSP's proposal - in some jurisdictions the rules require the regulator first to test whether the NSP's forecast is reasonable before making an adjustment, whereas in others the regulator's goal is simply to set a forecast, though Brattle considers that this apparent distinction is not a helpful way of characterising what regulators actually do in practice;²¹²
- importance of good information - as discussed further below, it is critical that the regulator has good information;²¹³
- analytical tools - each regulator develops its own tools to address issues that arise;²¹⁴
- interaction between NSP and regulator - these interactions tend to be similar in all jurisdictions considered, though in some there is additional "senior-level" interaction;²¹⁵ and
- consumer engagement - there does not appear to be a common approach to consumer engagement, but it would appear that other regulators engage with consumers or consumer representatives more than the AER does, both on a formal and informal basis.

Finally, Brattle highlights the importance of good data for setting expenditure allowances at the right level. Some regulators in other jurisdictions have put considerable effort into improving the data they collect. This includes annual data collection outside the determination process, and regular interaction with NSPs to ensure that the data collection process is operating effectively.²¹⁶

Conclusion

On the basis of the analysis in the directions paper and this draft rule determination, the Commission forms the following views:

- increases in the rate of return and expenditure allowances are both significant factors contributing to rises in network charges;
- some increases in expenditure allowances have been necessary;

²¹¹ Id., paragraphs 41-45.

²¹² Id., paragraph 15.

²¹³ Id., paragraph 16.

²¹⁴ Id., paragraphs 17 and 43.

²¹⁵ Id., paragraph 23.

²¹⁶ Id., paragraph 44.

- on the basis of the material considered, it is not possible to conclude that the NER have constrained the AER's ability to consider and substitute NSPs' expenditure forecasts and have caused inefficient increases in expenditure allowances; and
- while the Chapter 6A approach to capex and opex allowances remains generally consistent with good regulatory practice, it could be enhanced in some ways, and some changes for clarification reasons should be made so that Chapters 6 and 6A of the NER better reflect this approach.

8.2 Clarifying the rules regarding capex and opex allowances

8.2.1 Introduction

In the directions paper the Commission indicated an initial view that the overall approach to setting expenditure allowances in the NER remains valid but that changes so that this approach is better reflected in the rules, and to improve clarity generally, may be warranted.

8.2.2 Submissions

The AER's submission maintains its position that it is constrained in the way it can substitute its own estimate for NSP expenditure forecasts, though it states fewer constraints apply in respect of the AER's ability to reject a proposal for being too high.²¹⁷ For example, it states when it seeks to substitute its own estimate it is limited to addressing only those elements of a proposal which do not meet the expenditure criteria. The AER has provided more material on the incentives on NSPs to over-forecast and exacerbate information asymmetries.²¹⁸ The AER states that a better approach than the current NER would be for it to be free to replace a NSP's forecast with its better estimate, though it would need to justify this on the basis of the information before it, as well as principles in the NEL.²¹⁹

NSPs maintain their position that the AER is not constrained by the NER and no changes are necessary in respect of the setting of expenditure allowances.²²⁰ The ENA states that the way the NER has been applied has not been inconsistent with the approach set out in the AEMC's Chapter 6A rule determination. Consumer groups support the AER's proposal and believe that its experience is sufficient reason for concern; it should be given the benefit of the doubt in these matters. The onus of proof should be shifted away from the AER to the NSPs, who must be required to justify

²¹⁷ AER, Directions Paper submission, 2 May 2012, p. 2.

²¹⁸ *Id.*, p. 5.

²¹⁹ *Id.*, p. 11.

²²⁰ ENA, Directions Paper submission, 16 April 2012, p. 23.

their forecasts. In general if there is no detriment to consumers in clarifying the NER in the way required by the AER then this should occur.²²¹

The Victorian Department of Primary Industries (Vic DPI) also supports changing the NER to clarify the AER's powers, and states that it does not think the AER's proposed changes would give it unconstrained powers.²²² The SA DMITRE suggests changing the propose-respond approach, with its claimed presumption in favour of investment, to receive-determine which gives the AER more discretion.²²³ IPART expresses concern about unnecessary price increases and supports the AER's proposal to allow it to adopt its best estimate of efficient costs.²²⁴

In respect of benchmarking, NSPs continue to seek the retention of the reference to the "circumstances of the NSP" in the NER so that the AER takes these circumstances into account.²²⁵

8.2.3 Analysis

Confirming the approach to capex and opex allowances

In section 8.1 above, the conclusion was that while the Chapter 6A approach remains broadly consistent with good regulatory practice, it could be enhanced in some areas, and there could also be changes to Chapters 6 and 6A of the NER so that they better reflect that approach. The changes to the NER are discussed further below.

The original intent behind Chapter 6A was initially described by the AEMC in 2006.²²⁶ Set out below is a further clarification of what that intent is regarding capex and opex allowances.

The NSP's proposal is necessarily the procedural starting point for the AER to determine a capex or opex allowance.²²⁷ The NSP has the most experience in how a network should be run, as well as holding all of the data on past performance of its network, and is therefore in the best position to make judgments about what expenditure will be required in the future. Indeed, the NSP's proposal will in most cases be the most significant input into the AER's decision. Importantly, though, it should be only one of a number of inputs. Other stakeholders may also be able to provide relevant information, as will any consultants engaged by the AER. In addition,

²²¹ CUAC, Directions Paper submission, 16 April 2012, pp. 3-4; Consumer Action Law Centre, Directions Paper submission, 16 April 2012, pp. 3-4; EUAA, Directions Paper submission, 16 April 2012, pp. 18-19; TEC, Directions Paper submission, 17 April 2012, p. 4.

²²² Vic DPI, Directions Paper submission, 16 April 2012, pp. 2-4.

²²³ SA DMITRE, Directions Paper submission, 5 May 2012, p. 3.

²²⁴ IPART, Directions Paper submission, 16 April 2012, pp. 5-6.

²²⁵ ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 44; Grid Australia, Directions Paper submission, 16 April 2012, p. 6.

²²⁶ AEMC, Economic Regulation of Transmission Services, Rule Determination, 16 November 2006.

²²⁷ See also comments made in The Brattle Group, *Framework for assessing capex and opex forecasts as part of a "building blocks" approach to revenue/price determinations*, June 2012, paragraphs 14 and 71.

the AER can conduct its own analysis, including using objective evidence drawn from history, and the performance and experience of comparable NSPs. The techniques the AER may use to conduct this analysis are not limited, and in particular are not confined to the approach taken by the NSP in its proposal.

While the AER must form a view as to whether a NSP's proposal is reasonable, this is not a separate exercise from determining an appropriate substitute in the event the AER decides the proposal is not reasonable. For example, benchmarking the NSP against others will provide an indication of both whether the proposal is reasonable and what a substitute should be. Both the consideration of "reasonable" and the determination of the substitute must be in respect of the total for each of capex or opex.

The criteria for determining capex and opex contain a requirement that the AER must accept a proposal that is reasonable. It seems almost to go without saying that the AER must accept such a proposal. Why the AER would ever need to reject a proposal that it has determined is reasonable is unclear. The idea of reasonableness was used at times in consultation in 2006 to refer to a "reasonable range".²²⁸ This is a concept that can be misleading in the context of the exercise the AER must conduct in determining a capex or opex allowance. The AER has confirmed that it does not generally approach capex and opex allowances by determining a maximum and minimum possible allowance, and indeed the lack of precision inherent in this exercise would mean this has little benefit.²²⁹ The use of the term "reasonable" merely reflects this lack of precision. Thus, the AER could be expected to approach the assessment of a NSP's expenditure (capex or opex) forecast by determining its own forecast of expenditure based on the material before it. Presumably this will never match exactly the amount proposed by the NSP. However there will be a certain margin of difference between the AER's forecast and that of the NSP within which the AER could say that the NSP's forecast is reasonable. What the margin is in a particular case, and therefore what the AER will accept as reasonable, is a matter for the AER exercising its regulatory judgment.

The Commission remains of the view that the AER is not "at large" in being able to reject the NSP's proposal and replace it with its own.²³⁰ The obligation to accept a reasonable proposal, discussed above, reflects the obligation that all public decision-makers have to base their decisions on sound reasoning and all relevant information required to be taken into account. Some submissions have referred to the concept of an evidentiary burden, or onus of proof, as some submissions have termed it, that the AER has.²³¹ To the extent the AER places probative value on the NSP's proposal, which is likely given the NSP's knowledge of its own network, then the AER should justify its conclusions by reference to it, in the same way it should regarding any other submission of probative value. In circumstances where the NSP is required to provide information in support of its proposal, and the AER is required to explain its decision, an evidentiary burden does not appear to reside with one party more than another.

228 Id., p. 52.

229 AER, Response to AEMC questions, 2 February 2012, p. 10.

230 AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, p. 53.

231 EUAA, Directions Paper submission, 16 April 2012, p. 17.

Changes to clarify and remove ambiguity in the NER

The description of the approach above confirms that the NER is drafted appropriately in many areas. With the exception of benchmarking, discussed further below, the capex and opex criteria remain valid. For example, the obligation to accept a reasonable proposal should reflect the AER's current practice. There is no reference to a reasonable range, which is appropriate.²³² The AER, whenever it determines a substitute for a NSP's proposal, is not constrained by the capex and opex criteria from choosing the best substitute it can determine. As described above, the criteria also do not impose an inappropriate evidentiary burden.

In terms of whether it is appropriate for the process to start with the NSP submitting a proposal to the AER, Brattle has shown that this is accepted practice in most of the jurisdictions it surveyed.²³³ In jurisdictions where this did not occur, the regulator tended to be reviewing a large number of smaller businesses, such as in New Zealand. Of much more import is whether the AER has the necessary tools to scrutinise the NSP's proposal.

The analytical techniques the AER may use are not limited by the capex/opex criteria. This is appropriate, as Brattle has indicated.²³⁴ On the other hand, the extent of the constraint imposed on the AER by clause 6.12.3(f) is unclear. This could be read as merely requiring the AER to treat the NSP's proposal as an input into its determination of a capex or opex allowance, or as preventing an AER substitute from moving away from an NSP's proposal beyond what is necessary to result in a reasonable allowance. NSPs state that clause 6.12.3(f) is clear, but there have been few strong arguments about the benefits of this clause - and why it should be retained - in respect of capex and opex.²³⁵ On the other hand, the AER has interpreted these provisions as imposing a much greater constraint on it.²³⁶ The Brattle Group has also observed problems with this provision:

“... it may be that neither 'adjusted only to the extent necessary' nor 'based on the NSP proposal' are helpful guides to the exercise of the regulator's judgment, in particular, if this were interpreted to rule out 'top down' adjustments.”²³⁷

The Commission has determined it should be clear clause 6.12.3(f) does not apply to capex and opex allowances. The guidance provided by this clause, as described above, such as requiring the AER to take into account the NSP's proposal, would be achieved

²³² The Brattle Group, *Framework for assessing capex and opex forecasts as part of a “building blocks” approach to revenue/price determinations*, June 2012, paragraph 42.

²³³ *Id.*, paragraph 14.

²³⁴ *Id.*, paragraph 17.

²³⁵ ENA, Consultation Paper submission, Attachment C, 8 December 2011, p. 11; though note Ausgrid, Consultation Paper submission, 8 December 2011, p. 17.

²³⁶ AER, Directions Paper submission, 2 May 2012, p. 11 and Appendix 2 generally.

²³⁷ The Brattle Group, *Framework for assessing capex and opex forecasts as part of a “building blocks” approach to revenue/price determinations*, June 2012, paragraph 38.

by other provisions anyway, and this clause represents a difference between Chapters 6 and 6A for which there is no substantive explanation. The AER should not be limited to assessing a proposal on the basis of a "bottom up", engineering-based approach, and the AER should be free to determine a substitute amount on the basis of the information it has.

The AER has proposed that the criterion relating to demand forecasts and cost inputs²³⁸ is less important than the first two criteria and should be moved to the capex and opex factors. In the directions paper the Commission took the initial view that the significance of demand forecasts and cost inputs is such that they should remain in the capex and opex criteria.²³⁹ The AER has since proposed that these could be moved to the capex and opex objectives.²⁴⁰ This would, however, position demand forecasts and cost inputs as objectives rather than key elements of expenditure allowances that are relevant in a range of ways. The Commission remains of the view that this criterion should remain where it is.

The Commission shares the view expressed by The Brattle Group that there could be greater harmony between Chapters 6 and 6A.²⁴¹ While recognising that these Chapters were developed by different organisations at different times, there should be no reason for any differences unless these are based on a fundamental difference between the characteristics of transmission and distribution networks or their owners. Differences in the NER not based on this may lead to ambiguity and a loss of clarity. In time, it may be possible for Chapters 6 and 6A to be merged into one. At present, changes are limited to those within the scope of the rule change process. Certain issues raised by the AER, both in terms of expenditure allowances and the overall regulatory process,²⁴² relate to the quality of the information available to the AER and the manner in which it is collected. For example, good quality information should make it easier for the AER to determine the reasonableness of capex or opex forecasts. There are notable differences in the provisions in Chapters 6 and 6A relating to information provision. Among other things, submission guidelines are part of Chapter 6A but may have been thought unnecessary in Chapter 6 with the advent of regulatory information orders and notices. The Commission has therefore determined to adjust Chapter 6A to remove the rule requirement for the AER to prepare submission guidelines; any information the AER would have required to be provided through submission guidelines can be required to be provided through a regulatory information instrument.

²³⁸ See for example, clause 6.5.7(c)(3).

²³⁹ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, p. 33.

²⁴⁰ AER, Directions Paper submission, 2 May 2012, p. 16.

²⁴¹ The Brattle Group, *Framework for assessing capex and opex forecasts as part of a "building blocks" approach to revenue/price determinations*, June 2012, paragraphs 21, 35 and 41.

²⁴² See chapter 10.

Benchmarking

The Commission views benchmarking as a critical exercise in assessing the efficiency of a NSP and determining the appropriate capex or opex allowance. Any benchmarking exercise must take into account differences in the environments of the different NSPs. The directions paper sought to explore further with stakeholders the circumstances that benchmarking should take into account with a view to determining whether these circumstances should be clarified in the NER. Submissions from stakeholders in response indicate consistency in terms of the circumstances that are considered relevant to benchmarking.²⁴³ Broadly, the factors that would be taken into account are exogenous - being factors outside the control of the NSP - such as the age of the network, and topography. Endogenous factors, such as the nature of ownership or previous managerial decisions, should not generally be taken into account. Having considered the possible circumstances raised in submissions, the Commission shares the view expressed in the joint submission of ETSA, CitiPower and Powercor that the variety of circumstances are such that it would be difficult for the AEMC to set these out in the NER in a comprehensive way.²⁴⁴

Instead, the reference to "circumstances of the relevant NSP" should be removed from the capex and opex criteria. There appears to be little doubt about how the AER should undertake a benchmarking exercise, including the circumstances that should be taken into account, and the reference to individual circumstances is likely to constrain the AER in an inappropriate way. Given the importance of benchmarking in determining the capex or opex allowance, any inappropriate constraints on the AER under the NER in undertaking a benchmarking exercise should be removed.

In response to the concerns Grid Australia raised about other consequences of the removal of the reference to "circumstances of the relevant NSP", these appear to be unfounded.²⁴⁵ Outside of benchmarking, it is hard to see how the manner in which a NSP accounts for its costs could be affected by this clause. The clause only relates to the total costs a prudent operator would require to achieve the objectives and the way a NSP accounts for its costs is irrelevant. The AER should not be able to control such processes through this clause.

8.2.4 Guidance on draft rule

Changes to clarify and remove ambiguity in the NER

Section 8.2.3 has recommended some changes to clarify and remove ambiguity in respect of the AER's powers to consider and, if necessary, amend, expenditure forecasts. As described above, however, the existing rules in this area remain appropriate. Importantly, the existing rules operate at a high level and, with the

²⁴³ AER, Directions Paper submission, 2 May 2012, p. 9; ENA, Directions Paper submission, 16 April 2012, p. 23; Jemena, Directions Paper submission, 16 April 2012, p. 13; and ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 43.

²⁴⁴ ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 45.

²⁴⁵ Grid Australia, Directions Paper submission, 16 April 2012, p. 6

possible exception of clause 6.12.3(f), which is discussed further below, do not prescribe in detail how the AER must go about assessing expenditure forecasts. The Commission is of the view that the best outcomes will be achieved if the NER do not attempt to describe too closely what the AER must do in this area, and instead leave it with the discretion to determine, based on its own experience and judgment, the right level of capex and opex allowance.

Under the existing rules, when the AER assesses an expenditure forecast it has certain criteria to assess the forecast against, and certain factors it must bear in mind. These criteria broadly reflect the NEO, and include the efficient costs of a prudent operator and a realistic expectation of demand. The AER assesses the total of the capex or opex forecast and is not required to consider individual projects. The Commission considers that the existing rules give the AER sufficient freedom to set capex and opex allowances that are efficient, assuming it applies appropriate analytical techniques and has access to an appropriate level of information.

In respect of clause 6.12.3(f), the Commission has determined to amend this so it is made clear that it does not apply to the AER's decisions in respect of substituted capex or opex allowances under Chapter 6 of the NER. This means that, when the AER replaces a NSP's forecast with the AER's substitute amount or value, the NER do not require that the substitute is determined on the basis of the NSP's proposal and amended from that basis only to the extent necessary to be approved. The way that the AER exercises its judgment in respect of the proposal and the rest of the evidence may achieve the same result as clause 6.12.3(f), but the NER themselves no longer prescribe it.

Benchmarking

The draft rule gives the AER discretion as to how and when it undertakes benchmarking. However, when undertaking a benchmarking exercise, circumstances exogenous to a NSP should generally be taken into account, and endogenous circumstances should generally not be considered. In respect of each NSP, the AER must exercise its judgement as to the circumstances which should or should not be included. However exogenous factors to be taken into account are likely to include:

- geographic factors: topography and climate;
- customer factors: density of the customer base (urban v rural), load profile, mix of customers between industrial and domestic;
- network factors: age, mix of underground and overground lines, though this will depend on the extent to which this is at the election of the NSP; and
- jurisdictional factors: reliability and service standards.

Endogenous factors not to be taken into account may include:

- the nature of ownership of the NSP;

- quality of management; and
- financial decisions.

8.3 Other issues

8.3.1 Introduction

In the course of consulting on the rule change requests, other options for dealing with the original problems raised by the AER have been identified. Some of these are described in this section.

8.3.2 Submissions

The AER proposes in its submission on the directions paper a new solution for dealing with the problem raised in its rule change proposal of determining whether a NSP's capex or opex proposal is efficient.²⁴⁶ At present, the AER has had difficulty in requiring a NSP to use a particular model to prepare its expenditure forecasts. Even if the AER has a preferred approach, the NSP need not use it. This means that the AER must spend time after the NSP's regulatory proposal is submitted to understand the NSP's model and engage with the NSP in respect of it. There are practical problems in using a regulatory information instrument to specify the AER's model.

Instead, the AER seeks to consult on expenditure models as part of the framework and approach paper. Once a model is set in the framework and approach paper, the NSP would be required to justify its expenditure forecasts based on the model in the framework and approach paper, including any departures it has made from the model.

Another issue that has been identified is that the opex/capex objective to maintain the quality, reliability, safety and security of the distribution/transmission system and the regulated services provided by it may perpetuate a higher standard than is necessary based on past service and reliability standards. In general, stakeholders are supportive of clarifying the word "maintains" in the capex and opex objectives so that forecasts are better aligned with applicable service and reliability standards.²⁴⁷ The Vic DPI states that since Victoria does not have jurisdictional reliability standards the capex and opex objectives should not be stated in these terms.²⁴⁸

²⁴⁶ AER, Consultation Paper submission, 12 December 2011, p. 12.

²⁴⁷ AER, Directions Paper submission, 2 May 2012, p. 17; ENA, Directions Paper submission, 16 April 2012, p. 24.

²⁴⁸ Vic DPI, Directions Paper submission, 16 April 2012, p. 4.

8.3.3 Analysis

Annual benchmarking reports

Benchmarking has been discussed in section 8.2.3 above. As well as informing the AER's consideration of capex and opex allowances, benchmarking analysis undertaken by the AER can be of benefit to consumers.

A key issue that has arisen in the context of this rule change process is the ability of stakeholders, and in particular consumers, to participate actively in regulatory determinations. A number of changes have been made to the NEL to improve consumer participation, and if consumer groups were better resourced it would likely lead to significantly improved consumer engagement. Other changes have been made to encourage NSPs to engage more with consumers prior to submitting their regulatory proposals.

In addition to this, changes need to be made to improve the information available to consumers, including adequate and relative - in the sense of comparing NSPs- information about network performance. Having access to this would assist consumers both in informal interaction with NSPs as well as engaging in the formal regulatory process and merits reviews. The Commission considers many of these aims would be achieved if the AER was required to undertake annual benchmarking of NSPs, with its results published in a report that could be easily understood by consumers. This would set out the relative efficiencies of distribution and transmission NSPs, taking into account the exogenous factors that distinguish them.

These reports would also assist the AER in assessing capex and opex forecasts as part of a regulatory determination. Having undertaken the benchmarking on an annual basis, it should be much quicker for the AER to benchmark as part of its determination. This requirement would not impact the AER's ability to utilise other analytical techniques.

In addition, the capex and opex factors have been amended to allow the AER to consider any relevant annual benchmarking report when assessing a capex or opex forecast.

Under section 28V of the NEL, the AER has the power to prepare network service provider performance reports. The annual benchmarking reports proposed in the draft rule are a subset of the reports the AER may publish under section 28V.

In order to undertake an annual benchmarking exercise, the AER should use the best information available to it. This may involve using the information gathering powers it has under the NEL, such as regulatory information instruments. Alternatively, the AER may collect information on a voluntary basis or else use information it has collected in other processes, such as regulatory determinations. Brattle has underlined the importance of annual data collection outside of the regulatory determination process,

and notes the effort other regulators have put into doing this.²⁴⁹ It appears the AER does not undertake information gathering and benchmarking to the same extent as many other regulators.

One reason for the AER's lack of information gathering could relate to the powers it has. Among other things, there are limitations on using regulatory information instruments solely for the purposes of preparing network service provider performance reports: section 28F(3)(d) of the NEL. Changes to the NEL are outside the AEMC's power, however the SCER may wish to address this further. Changes to the NEL may also provide the AER with greater powers in this respect; the AEMC has proposed to the SCER as part of its work on total factor productivity possible rule changes which would require NSPs to provide benchmarking information to the AER.

Engagement on the expenditure model

In this rule change process, the Commission encourages NSPs, the AER and other stakeholders to engage more often, on a more informal basis, and outside of the regulatory determination process. In most cases, it is not possible to mandate this engagement through new rules, and instead it should occur through a change in approach of the bodies mentioned. Some provisions of the draft rule have been designed to facilitate this. They include a new capex/opex factor which requires the AER to take it into account the extent to which expenditure forecasts include expenditure to address the concerns of consumers that have been identified in the course of consumer engagement, and certain changes proposed in chapter 10 such as an extension to the time frame for the regulatory determination process.

Nevertheless, it may be appropriate to mandate consultation between the AER and the NSP on some specific matters. One such area is expenditure models. The expenditure models to be used to prepare capex and opex forecasts are a critical part of a NSP's proposal. The AER has stated that NSPs are not restricted in the methodologies they may use to prepare their expenditure forecasts, and that the AER remains unaware of the methodology or methodologies a NSP decides to use until the regulatory proposal is submitted.²⁵⁰ The AER has proposed that the methodologies for preparing expenditure could be included as part of the framework and approach paper stage.

It is hard to see any disadvantages in an approach which encourages stakeholders to engage on the expenditure methodologies at an earlier stage. If the AER and stakeholders do not engage on the expenditure methodologies until after the regulatory proposal is submitted it will take up time generally and, more critically, if the AER prefers a different methodology it may take the NSP some time to re-run its calculations, putting pressure on the rest of the process. Instead, any expenditure methodology or methodologies preferred by the AER for a particular NSP should be included in the framework and approach paper. This includes Chapter 6A (transmission), in which a framework and approach paper step should be added to the

²⁴⁹ The Brattle Group, *Framework for assessing capex and opex forecasts as part of a "building blocks" approach to revenue/price determinations*, June 2012, paragraph 44.

²⁵⁰ AER, *Directions Paper submission*, 2 May 2012, p. 12.

regulatory process. Importantly, for flexibility, there should be no restriction on a NSP also including in its regulatory proposal expenditure forecasts generated using methodologies other than those specified in the framework and approach paper, as long as the framework and approach paper methodology or methodologies are also used.

Capex and opex objectives

In the directions paper, the Commission noted the concern raised by the AER that use of the word "maintain" in the capex and opex objectives may mean the AER is constrained in its ability to adjust expenditure allowances in the event that jurisdictional standards, for example, were to decrease or be relaxed.²⁵¹ In general, submissions were not opposed to the capex and opex objectives being clarified to recognise greater flexibility for the AER in this regard.²⁵²

On further consideration, a change to these objectives would be outside the scope of this rule change. While the AER raised the issue, it indicated that it had chosen not to proceed with the issue in its rule change proposal, and did not propose a rule change as a result.²⁵³ This issue was also considered by the Commission as part of the NSW workstream of the Review of Distribution Reliability Standards and Outcomes, where it was suggested that this issue should be resolved through a separate rule change proposal.²⁵⁴

Menu regulation

The directions paper raised the concept of incentive schemes that would encourage more accurate forecasting by rewarding companies for making forecasts that turn out to be correct.²⁵⁵ In Great Britain, an example of this type of scheme is menu regulation. On further consideration, a scheme such as menu regulation is likely to require a wide range of changes to the way expenditure forecasts are provided which are not warranted at this stage based on the evidence provided. Menu regulation is discussed further at section 9.5.1 below.

8.3.4 Guidance on draft rule

Engagement on the expenditure model

The draft rule requires the AER to develop a standard methodology for preparing expenditure forecasts. This overall methodology may be comprised a number of

²⁵¹ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, p. 30.

²⁵² See for example, ENA, Directions Paper submission, 16 April 2012, p. 24.

²⁵³ AER, Rule change request, Part B, 29 September 2011, p. 33.

²⁵⁴ AEMC, *Review of Distribution Reliability Outcomes and Standards*, Draft Report - NSW workstream, 8 June 2012, p. 101.

²⁵⁵ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, p. 29.

approaches. For example, it may include the "repex" model that the AER used in the recent Victorian distribution regulatory determinations for replacement capex, and a different approach for augmentation capex. NSPs would have the chance to make submissions on this model when the AER consults on it. There is no obligation that the same standard methodology be used for transmission and distribution, but given the similarities between TNSPs and DNSPs it seems likely this would be the same. There may, however, be specific NSPs for whom the standard model is not appropriate, perhaps due to size or location. The AER would have the ability in its framework and approach paper, which is also consulted on, to identify if the NSP is required to use the standard methodology, or if not, what alternative methodology should be used. In preparing its proposal, the NSP could use different methodologies but at least one of these would have to be the methodology specified in the framework and approach paper.

Annual benchmarking reports

The Commission notes above that the AER may need additional information gathering powers under the NEL to produce robust annual benchmarking reports. To the extent that a lack of information gathering powers has affected the ability of the AER to undertake annual benchmarking, the AER could raise this in the reports.

8.4 Capex and opex factors

8.4.1 Introduction

The AER must have regard to the capex and opex factors when considering proposals from NSPs for capex and opex. The AER has proposed a number of discrete changes to these factors, though some of these factors relate to other changes considered, including benchmarking and incentive schemes.

8.4.2 Submissions

The AER maintains its position from its rule change request. In particular, while seeking that the "procedural" factors should be moved to the procedural provisions of Chapters 6 and 6A, it sees no need for a rule that replicates the procedural fairness requirement to publish analysis relied on in a decision.²⁵⁶ It continues to press removing from the capex and opex criteria the reference to demand forecasts and cost inputs.

The ENA is very concerned that there must be an obligation on the AER to make available to a NSP in advance all material on which the AER intends to rely in its final decision.²⁵⁷ It does however accept that the capex and opex factors should not be exhaustive.²⁵⁸ In terms of moving the procedural factors, the ENA is concerned that

²⁵⁶ AER, Directions Paper submission, 2 May 2012, p. 15.

²⁵⁷ ENA, Directions Paper submission, 16 April 2012, p. 41.

²⁵⁸ *Id.*, p. 39.

this would affect the weight that would be placed on them.²⁵⁹ The joint submission of ETSA, CitiPower and Powercor, on the other hand, does not object to moving the procedural factors.²⁶⁰

8.4.3 Analysis

Process-related changes

The Commission maintains its position from the directions paper to move the process-related changes from the capex/opex factors to the "procedural" provisions further back in chapters 6 and 6A.²⁶¹ These provisions have a different character from the other factors in that they deal with the materials presented to, or obtained by, the AER in the course of the regulatory process, as opposed to certain facts or data. As such, they sit better with the other procedural provisions, such as clause 6.11.1. It is noted that ETSA, CitiPower and Powercor, in their joint submission, support this approach.²⁶²

The ENA does not support moving these factors.²⁶³ This is partly because they are fundamental elements of the AER's decision and partly for legal reasons. The Commission shares the view that these should be fundamental components of the AER's decision, but does not see the shift to the procedural provisions as altering this approach. The ENA raises a concern at law that the AER's proposed shift from "have regard to" wording to "consider" wording in respect of two of these factors will affect the overall decision-making process.²⁶⁴ To accommodate this, the draft rule adopts the "have regard to" wording for all three factors.

The Commission has considered further the views it presented in the directions paper regarding the requirement on the AER to consider analysis it has published.²⁶⁵ It acknowledges the challenges in using merits review to test analysis published with a final regulatory determination, and notes that the NEL requires that the AER inform NSPs of material issues under consideration.²⁶⁶ However, the Commission maintains the position that because the length of time the AER has to reach a final regulatory determination is fixed there could be times when it is too difficult for the AER to consult on analysis prior to the final regulatory determination. To balance the time constraints against the need for scrutiny of new material, the draft rule requires the

259 Id., p. 39.

260 ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 46.

261 AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, p. 33.

262 ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 46.

263 ENA, Directions Paper submission, Attachment F, 16 April 2012, p. 24.

264 Id., p. 68.

265 AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, p. 32.

266 ENA, Directions Paper submission, 16 April 2012, p. 41; and ENA, Directions Paper submission, Attachment F, 16 April 2012, p. 69.

AER to use its best endeavours to publish analysis on which it proposes to rely, or which it proposes to refer to, prior to the making of the final regulatory determination. The obligation on the AER under section 16(1)(b) of the NEL is also relevant; as with any provision of the NEL, this has priority over related provisions of the NEL to the extent of any inconsistency.

Non process-related changes

In respect of the other proposed changes to the capex and opex factors, the Commission maintains its view from the directions paper that the capex and opex factors should remain mandatory considerations. In respect of whether these factors are exhaustive, the Commission also maintains its position from the directions paper that the AER is not at present limited to the factors set out in the NEL. At the same time, however, different clauses in the NEL take an inconsistent approach to whether additional wording needs to be added to confirm that factors are exhaustive, and this could lead to ambiguity. To clarify this, an additional factor has been added to the capex and opex factors allowing the AER to consider other factors. Since a NSP should be given the opportunity to address factors against which its forecast will be assessed, there is also included in the draft rule a requirement that the AER notify the NSP in advance of any such additional factor or factors. This reflects the AER's obligations in section 16(1)(b)(i) of the NEL.

Various other changes have been made to the capex and opex factors. One factor relates to the service target performance incentive scheme (STPIS) (see for example clause 6.5.6(e)(8)). The original intent behind this factor is that expenditure allowances with respect to labour costs should be sufficient to allow the NSP to respond to the incentives as part of the STPIS. The AER has suggested this factor could be broadened.²⁶⁷ The Commission agrees with this and has removed the reference to labour costs and broadened the scope of the incentive schemes covered. In addition, consequential amendments have been made to the capex and opex factors in Chapter 6 to recognise the addition of the contingent projects regime.

As discussed above, the factor relating to benchmarking²⁶⁸ has been expanded to refer to the annual benchmarking reports.

Finally, a factor has been added that requires the AER to have regard to the extent to which NSPs have considered what consumers seek. NSPs should be engaging with consumers in preparing their regulatory proposals and should factor in the needs and concerns of consumers in determining, for example, their capex programs. What consumers want and are prepared to pay for, whether in terms of reliability or some other factor, will assist in showing what is efficient. The more confident the AER can be that consumers' concerns have been taken into account, the more likely the AER could

²⁶⁷ AER, Rule change request, Part B, 29 September 2011, p. 34.

²⁶⁸ See for example clause 6.5.7(e)(4).

be satisfied that a proposal reflects efficient costs. A similar approach is taken in Great Britain by Ofwat in respect of water regulation.²⁶⁹

8.4.4 Guidance on draft rule

Process-related changes

The "best endeavours" clause in the draft rule for the AER to publish in advance analysis on which it proposes to rely, or to which it proposes to refer, for the purposes of the final regulatory determination means that the AER should publish such analysis unless there are time constraints or other reasons why it would be practically impossible for the AER to do so. The way this clause interacts with section 16(1)(b) of the NEL is critical. To the extent there is an inconsistency between those two provisions, the draft rule is not intended to override the NEL, and indeed could not. The AER still has an obligation under the NEL provision to inform the relevant NSP of material issues under consideration and to give the NSP a reasonable opportunity to make submissions in respect of them.

Non process-related changes

As mandatory considerations, the AER has an obligation to take the capex and opex factors into account, but this does not mean that every factor will be relevant to every aspect of every regulatory determination the AER makes. The AER may decide that certain factors are not relevant in certain cases once it has considered them.

In respect of the new capex and opex factor that clarifies that the AER may consider additional factors, any additional factor must be notified to the relevant NSP prior to the NSP submitting its proposal.

In respect of the new factor for the AER to have regard to the extent to which NSPs have considered what consumers seek, there are various ways this could be relevant. For example, it may be the case that a majority of consumers are unhappy with the visual impact of a proposed new line. If the NSP engages with consumers, it may decide that the best way to address the concerns of consumers would be to build the line underground, even if this is a more expensive option. When the AER considers the NSP's overall capex proposal, it should take into account that the proposed option will provide a higher quality of service in line with consumers' preferences and willingness to pay, above less expensive options which fall below the level of service demanded by consumers. In general, a NSP that has engaged with consumers and taken into account what they seek could reasonably expect the AER to take a more favourable view of its proposal.

²⁶⁹ See for example Ofwat, *Involving customers in price setting - Ofwat's customer engagement policy statement*, April 2011, p. 21.

9 Capex incentives

Summary

- The AER raised concerns about what it considers to be incentives for NSPs to spend more than their capex allowances and recommended the introduction of a requirement in the NER that only 60 per cent of any expenditure incurred by a NSP above its capex allowance would be rolled into the RAB.
- The Commission does not agree that capex incentives in the NER provide incentives for NSPs to spend more than their allowance. However, it has identified issues in relation to incentives to seek efficiencies and a lack of supervision of capex above the allowance. Further analysis of actual capex by NSPs has also identified that there are legitimate circumstances in which expenditure above capex allowances could occur.
- The Commission's approach to addressing these problems is to provide the AER with a number of "tools" which it can apply as it considers necessary to provide adequate incentives for NSPs to spend capex efficiently, having regard to an overall capex objective which is consistent with the NEO and RPP. These tools are:
 - capex sharing schemes to be designed by the AER;
 - efficiency reviews of past capex, including the ability to preclude inefficient expenditure from being rolled into the RAB. However, any exclusion will be limited to an amount that is equal to the amount of expenditure above the allowance; and
 - deciding whether to depreciate the RAB using actual or forecast expenditure to establish a NSP's opening RAB.
- These tools should be viewed alongside the ability of the AER, on an ex ante basis, to scrutinise effectively, and if necessary amend, proposed capex as part of the determination process to set efficient allowances in the first place.
- An overall capex incentive objective will describe what the capex incentive regime, as a whole, should aim to achieve. The AER will also be required to take into account a number of principles and factors when designing and applying the capex incentive tools.
- In addition, regardless of whether the NSP spent more than its allowance, the AER will have the discretion to preclude expenditure from being rolled into the RAB to the extent that expenditure comprises:
 - inefficient related party margins; or

- opex which was capitalised as a result of within period changes to the NSP's capitalisation policies.

9.1 Introduction

The role of capex incentives is to encourage NSPs to incur efficient levels of capex - that is, to spend no more than necessary for a given level of reliability and broader service quality. Currently, a NSP is required under the NER to forecast its requirements for capex for the forthcoming regulatory period. In the regulatory determination, the AER determines to either approve this forecast or not approve it and replace it with its own forecast²⁷⁰ which then becomes the allowance. This allowance is the basis of an incentive for a NSP. If a NSP spends more than its allowance it is required to bear the costs²⁷¹ of this expenditure above the allowance for the remainder of the period. Conversely, if it spends less than its allowance it retains the benefit for the rest of the period.

The AER claims that the NER provide an incentive for NSPs to spend more than efficient levels of capex for a regulatory period.²⁷² This is claimed to be the case particularly where the NSP's allowed rate of return was higher than its actual cost of capital and where the NSP was responding to non-financial incentives it may face. The AER proposes to prescribe in the rules an adjustment to the RAB roll forward²⁷³ such that a NSP could only recover 60 per cent of the cost of any over expenditure (the 60/40 sharing mechanism).²⁷⁴ It also requests that it be given the discretion to roll forward the RAB using depreciation based on actual or forecast capex as a means of providing an additional incentive. The AER currently has this discretion in Chapter 6 (distribution) but not in Chapter 6A (transmission).

In addition to the broader capex incentive issue, the AER considers that the NER provide an incentive for NSPs to inefficiently incur capitalised related party margins and to replace opex with capex through changes to their capitalisation policies during a regulatory period.²⁷⁵

The Commission does not consider that capex incentives in the NER provide an incentive for NSPs to spend more than their allowance. It noted in the directions paper that a NSP could make a judgement on a forward looking basis as to the possible

²⁷⁰ The AER does not approve augmentation capex for TNSPs in Victoria; this is determined instead by AEMO.

²⁷¹ The cost the NSP bears is the cost of financing the extra capex, so these costs are for depreciation incurred and foregone return on the capex.

²⁷² AER, Rule change request, Part B, 29 September 2011, p. 38.

²⁷³ In this chapter, phrases such as capex 'going into the RAB' or being considered at the 'RAB roll forward' are generally referring to the RAB which is adjusted and locked in for the next regulatory period.

²⁷⁴ Id., p. 40.

²⁷⁵ AER, Rule change request, Part B, 29 September 2011, pp. 53-56; AER response to AEMC queries on AER network regulation rule change proposals, 1 February 2012, pp. 7-10.

difference between its allowed cost of capital and its true cost of capital. This might provide a basis to support an overspend, but capex incentives should not be designed to address cost of capital matters. However, the Commission identified two key issues with capex incentives in the NER. These were that:

- the incentive to make efficiency improvements declines during the regulatory period, which has implications for the timing of capex and substitution between opex and capex; and
- capex above the allowance is not subject to any regulatory scrutiny, which means that there is a risk that any expenditure above this allowance may be inefficient.²⁷⁶

The Commission identified a number of options that might address these issues and sought stakeholders' views on these. It also decided to undertake further analysis, engaging consultants to assist.

The directions paper did not present a view on whether the AER should have discretion to use actual or forecast depreciation or whether a specific method should be prescribed in the NER. Nor did it come to a view on whether there was an issue with capitalised related party margins. Instead, the Commission decided to undertake further analysis on these issues, engaging consultants to assist. However, the Commission acknowledged that there is an incentive for NSPs to change their capitalisation policies during a regulatory period in order to recover opex again as a capex.

The remainder of this chapter is structured as follows:

- section 9.2 summarises the submissions received in response to the Commission's directions paper;
- section 9.3 outlines further consideration of the problems raised in respect of capex incentives;
- section 9.4 sets out the Commission's overall approach to addressing the problems identified with capex incentives;
- the following sections provide detailed analysis on each of the tools that comprise capex incentives, the Commission's draft rule and the intended interpretation. These tools are:
 - capex sharing schemes (section 9.5);
 - reviews of efficiency of past capex (section 9.6); and
 - actual or forecast depreciation (section 9.7); and

²⁷⁶ AEMC, Directions Paper, pp. 34, 40, 43.

- section 9.8 discusses related party margins and within-period capitalisation policy changes, and the draft rule provisions that are directed at these problems.

9.2 Submissions

9.2.1 Capex incentive sharing schemes/ex-post reviews

The AER agrees with the problems identified by the Commission in the directions paper. In addition, it also maintains that in certain circumstances the NER fail to create incentives to incur only efficient capex. In respect of a solution, the AER prefers the discretion to develop a capex sharing scheme in a guideline rather than having a mechanism prescribed in the NER such as the 60/40 sharing mechanism. However, the AER considers that it is inappropriate to introduce incentives that generate greater rewards for deferring capex from one regulatory period to another. Should the problem of deferral be addressed, the AER is open to alternative capex incentives including a symmetrical scheme.²⁷⁷

NSPs maintain their support for a principles-based, symmetrical capex sharing scheme as the appropriate means for addressing issues with capex incentives. However, they consider that the AER should have discretion not to introduce a capex incentive mechanism if it proves impracticable to address concerns regarding deferral. NSPs are not in support of ex post prudency and efficiency reviews of capex. They consider that a well-designed ex post prudency and efficiency review does not provide any additional incentives compared to a well-designed ex ante regime. In addition, they note that ex post prudency and efficiency reviews create regulatory risk and distort ex ante incentives for efficient investment.²⁷⁸

Consumer groups have a range of views on these matters. The EUAA and UnitingCare Australia state that there is an incentive in the NER for NSPs to overspend and support the thrust of the AER's 60/40 proposal.²⁷⁹ The MEU agrees with the AER on the incentive to overspend and supports ex post scrutiny.²⁸⁰ The Consumer Action Law Centre supports a range of mechanisms given the different ownership and governance arrangements of NSPs.²⁸¹

Governments and other regulators broadly support further consideration of ex post prudency and efficiency reviews.²⁸² The SA DMITRE supports a symmetrical efficiency benefit sharing scheme (EBSS) in combination with ex post prudency and

²⁷⁷ AER, Directions Paper submission, 2 May 2012, p. 20.

²⁷⁸ ENA, Directions Paper submission, 16 April 2012, pp. 29-32.

²⁷⁹ EUAA, Directions Paper submission, 16 April 2012, p. 25; UnitingCare Australia, Directions Paper submission, 9 May 2012, p. 48.

²⁸⁰ MEU, Directions Paper submission, 17 April 2012, pp. 23-26.

²⁸¹ Consumer Action Law Centre, Directions Paper submission, 16 April 2012, p. 5.

²⁸² IPART, Directions Paper submission, 16 April 2012, pp. 7-8; Vic DPI, Directions Paper submission, 16 April 2012, p. 6.

efficiency reviews limited to projects above a certain threshold.²⁸³ On the other hand, the Vic DPI is not convinced that an additional capex incentive scheme will be in the long term interests of consumers.²⁸⁴

9.2.2 Actual/forecast depreciation

Some stakeholders agree with the views presented in the directions paper regarding the incentive to incur efficient capex under an actual depreciation approach compared to a forecast approach.²⁸⁵ However, submissions from NSPs note that the use of actual depreciation creates a disincentive to invest in short-lived assets because a higher proportion of any savings made against the forecast can be retained by the NSP.²⁸⁶ Therefore, to address capex efficiency incentives, NSPs favour the application of an EBSS over the use of actual depreciation.²⁸⁷

In contrast, the AER does not believe that the differing incentives to invest in short versus long lived assets was material given that short-lived assets are a relatively small proportion of the RAB and the scope to substitute was limited. As a result, the AER states that potential distortions are not significant enough to warrant exclusion of actual depreciation from the framework. In addition, the AER states that further guidance should not be provided in the NER, but if principles were included they should be at a high level and direct the AER to consider the interactions with the overall capex incentive framework in the decision to use actual or forecast depreciation.²⁸⁸ Both Vic DPI and IPART support the AER's proposal that it be given this discretion.²⁸⁹

9.2.3 Related party margins/capitalisation policy changes

In respect of related party margins, UE and MG characterises the AER's concerns as largely theoretical.²⁹⁰ The AER maintains that applying a capex incentive regime does not address incentives to incur inefficient related party margins.²⁹¹ The Vic DPI agrees with the AER that there is an incentive for NSPs to incur inefficient related party

283 SA DMITRE, Directions Paper submission, 5 May 2012, pp. 3-4.

284 Vic DPI, Directions Paper submission, 16 April 2012, pp. 5-6.

285 See for example: ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp. 28-29; IPART, Directions Paper submission, 16 April 2012, pp. 8-9.

286 See for example: Jemena, Directions Paper submission, 16 April 2012, pp. 22-23; ENA, Directions Paper submission, 16 April 2012, pp. 33-34.

287 See for example: ENA, Directions Paper submission, 16 April 2012, p. 34; Grid Australia, Directions Paper submission, 16 April 2012, p. 8; Jemena, Directions Paper submission, 16 April 2012, p. 23.

288 AER, Directions Paper submission, 2 May 2012, pp. 21-25.

289 Vic DPI, Directions Paper submission, 16 April 2012, p. 10; IPART, Directions Paper submission, 16 April 2012, pp. 8-9.

290 UE and MG, Directions Paper submission, 16 April 2012, p. 6.

291 AER, Directions Paper submission, 2 May 2012, p. 29.

margins and that the issue needs to be addressed.²⁹² Similarly, the MEU is concerned about the use of related parties that could provide incentives for raising costs.²⁹³

NSPs have mixed views on how the problem could be dealt with. UE and MG support incentive mechanisms that encourage NSPs to minimise capex.²⁹⁴ Jemena considers that an ex post review of new or changed margins may be appropriate.²⁹⁵ UE and MG consider that an approach which excludes related party margins from being included in the RAB may have the unintended consequence of precluding network service providers from negotiating more favourable performance related contracts which would ultimately deliver better outcomes for consumers.²⁹⁶ The AER has proposed that margins be either included or excluded in the RAB roll forward consistent with how those margins were treated in the determination.²⁹⁷

In respect of capitalisation policy changes, the joint submission of ETSA, CitiPower and Powercor suggest that decisions as to the inclusion of overheads in the RAB roll forward should be based on whether they were allocated to capex consistently with the capitalisation policy of the NSP at the time of the determination.²⁹⁸ Jemena considers that stronger capex incentives through a well-constructed EBSS will deal with the capitalisation issue by removing the incentive to capitalise operating expenditure.²⁹⁹ Similarly, the ENA considers it appropriate that the AER should retain the ability to calculate operating and capital expenditure efficiency gains under an EBSS in a manner that removes the effect of changes to the classification of expenditure.³⁰⁰

9.3 Further consideration of the problems raised in respect of capex incentives

9.3.1 Report on capex overspends

The Commission undertook further work on the circumstances in which a NSP would need to spend more than its capex allowance. This was to further understand the issues the Commission identified regarding capex incentives, and to form a basis on which to develop solutions. It also sought submissions on this issue and engaged Parsons Brinckerhoff to assist with this.

292 Vic DPI, Directions Paper submission, 16 April 2012, pp. 10-13.

293 MEU, Directions Paper submission, 17 April 2012, p. 61.

294 UE and MG, Directions Paper submission, 16 April 2012, p. 7.

295 Jemena, Directions Paper submission, 16 April 2012, p. 25.

296 UE and MG, Directions Paper submission, 16 April 2012, pp. 6-7.

297 AER, Directions Paper submission, 2 May 2012, p. 29.

298 ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 33.

299 Jemena, Directions Paper submission, 16 April 2012, p. 25.

300 ENA, Directions Paper submission, 16 April 2012, p. 35.

Parsons Brinckerhoff identified a range of theoretical drivers as to why a NSP might spend more than its capex allowance. These include:

- corporate governance including asset management capability and forecasting, estimating and planning ability of the NSP;
- unpredictable events/uncontrollable costs such as natural disasters, eg Victorian bush fires, macro-economic factors such as Gross Domestic Product (GDP) growth and inflation;
- delivery risks such as changes in input prices, eg for labour and equipment, and unforeseen conditions at construction sites; and
- the regulatory framework such as the capex incentives in the NER and whether a service target performance incentive scheme is in place.³⁰¹

However, from a practical point of view, case studies of NSPs suggest that many of the drivers of capex overspends are in fact able to be mitigated or at least controlled. Harder to control though are capex overspends to meet unexpected growth in demand for new connections because these are primarily a function of macro-economic conditions. Also compliance with unanticipated regulatory obligations or requirements for the provision of regulated services is hard to control.³⁰²

Parsons Brinckerhoff considers that the ability to defer expenditure is one of the ways in which some of these uncontrollable factors might be mitigated. A NSP is likely to look more closely at options for deferring capex the closer it gets to exceeding its allowance. For example, ElectraNet commented that if planned capex was likely to exceed the allowance, then it would typically reassess its planned projects and look at available deferral or scope for change options that help reduce capex. Parsons Brinckerhoff also noted that:

“In practice actual project costs will be both more than and less than original regulatory submission forecasts, so the net effect is an increase in the business's ability to offset overspending in one area against unpredicted savings or efficiencies realised in another in order to stay at or below the regulated allowance levels.

The exception to this is where low probability high impact events such as extreme weather events, or geopolitical economic shocks have a material effect on Capex. Such exceptions would be better handled by dedicated regulatory tools such as Capex re-openers.³⁰³”

While there may currently be stronger incentives to minimise opex than capex, nothing in the work that Parsons Brinckerhoff has undertaken indicates that the current

³⁰¹ Parsons Brinckerhoff, *Report on capital expenditure overspends by electricity network service providers*, Report for the AEMC, 16 August 2012, chapter 2.

³⁰² *Id.*, pp. 32-33.

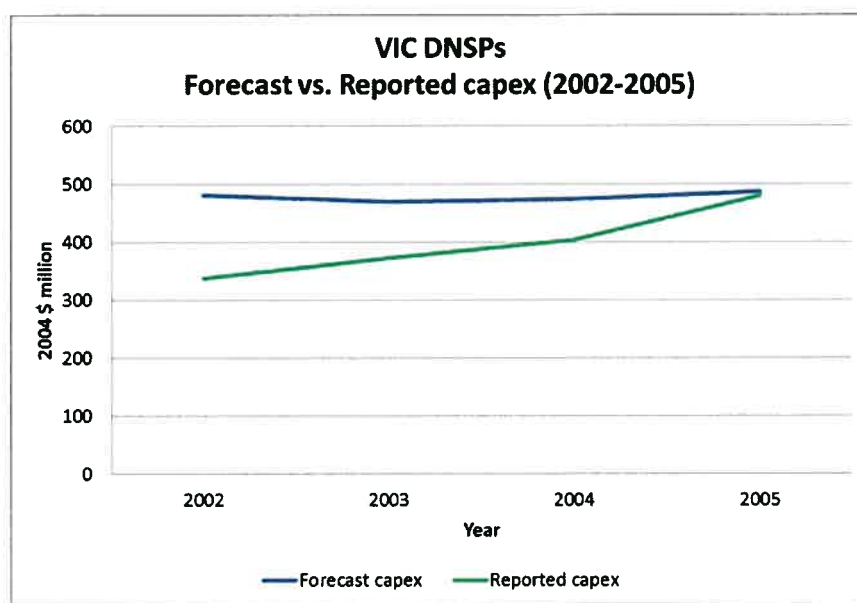
¹²² Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

regulatory framework provides NSPs with an incentive to overspend their allowances. However, Parsons Brinckerhoff has also noted that insufficient regulatory oversight would strengthen the potential for capex overspends through a lack of consequences.³⁰⁴

9.3.2 Further analysis of problems

Further work undertaken provides additional support for the problems with the current capex incentives framework as identified in the directions paper. In respect of the incentive to defer capex, the Victorian DNSP Annual Performance Report from 2010, as published by the AER, indicates that amongst Victorian DNSPs there is a tendency to defer capex towards the end of regulatory periods. Figure 9.1 and Figure 9.2 below track capex allowances and reported capex during two regulatory periods: the first in which there was an EBSS; and the second where there was no EBSS.

Figure 9.1 Victorian DNSPs allowance versus reported capex for the period 2002-2005

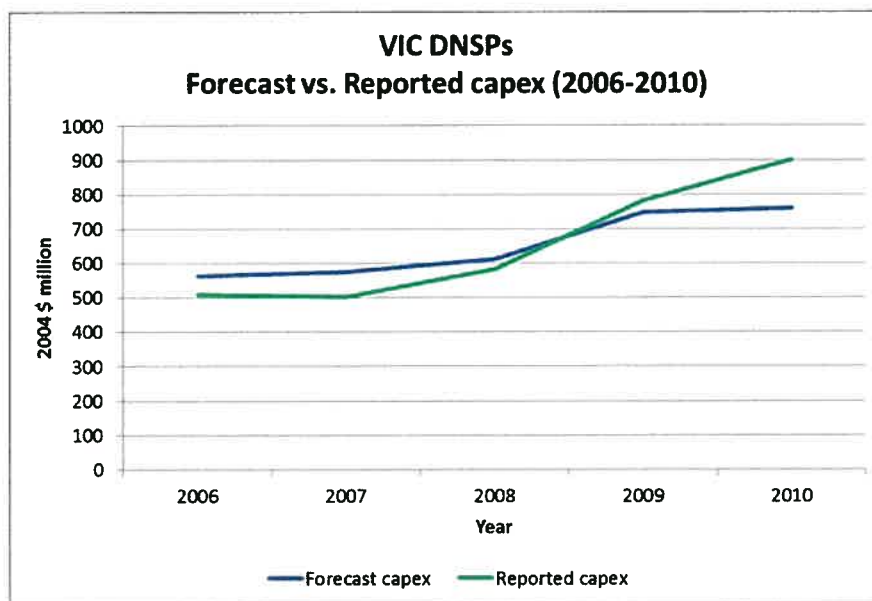


Source: AER, Victorian Electricity Distribution Network Service Providers Annual Performance Report 2010, May 2012, p. 94.

303 Id., p. 33.

304 Ibid.

Figure 9.2 Victorian DNSPs allowance versus reported capex for the regulatory period 2006-2010



Source: AER, Victorian Electricity Distribution Network Service Providers Annual Performance Report 2010, May 2012, p. 94.

Some of the data presented in the Parsons Brinckerhoff report suggests a similar tendency. For example, in Ausgrid's last regulatory period, its actual capex increased significantly compared to the allowance.

Figure 9.3 Example of capex in previous regulatory period

Capital expenditure in previous regulatory period (\$m) \$ values expressed in (\$m, nominal)						
Capital Expenditure Category	2004/05		2005/06		2006/07	
	Allowance	Actual	Allowance	Actual	Allowance	Actual
Asset renewal/replacement		151.3		214.3		270.1
Augmentation to meet peak demand growth		203.5		248.2		369.5
Quality, reliability and security of supply enhancement		7.5		9.9		10.2
Environmental, safety and statutory obligations (excluding reliability)		47.0		40.9		34.2
Non-network assets		48.8		64.4		72.0
Other		0.0		0.0		0.0
Total	452.9	458.1	497.5	577.7	681.2	755.9

Capital expenditure in previous regulatory period (\$m) \$ values expressed in (\$m, nominal)						
Capital Expenditure Category	2007/08		2008/09		Total	
	Allowance	Actual	Allowance	Actual	Allowance	Actual
Asset renewal/replacement		273.1		312.6		1,221.4
Augmentation to meet peak demand growth		480.6		642.8		1,944.5
Quality, reliability and security of supply enhancement		13.6		25.3		66.5
Environmental, safety and statutory obligations (excluding reliability)		29.1		34.8		185.9
Non-network assets		113.8		209.8		508.9
Other		0.0		9.6		9.6
Total	689.7	910.3	690.9	1,234.9	3,012.2	3,936.9

Source: Parsons Brinckerhoff, *Report on capital expenditure overspends by electricity network service providers*, Report for the AEMC, 16 August 2012, p. 12.

9.4 Overall approach

9.4.1 Providing the AER with discretion

This section sets out, broadly, how the Commission proposes to address the identified problems.

The AER should have access to a range of "tools" that can be used to create incentives for NSPs to undertake efficient capex. These tools are reviews of capex efficiency, capex sharing mechanisms and the use of actual or forecast depreciation and are described in further detail below. The AER is generally best placed to determine which tools can be

best used to create incentives for individual NSPs rather than specific approaches being included in the NER.

The flexibility inherent in the proposed approach will allow the AER to apply and tailor the incentives. Scope for the AER to use a range of tools and adapt those tools over time recognises that the best incentives for efficient capex may not be the same for all NSPs or the same over time. The experience of other regulators such as Ofgem, who have gradually developed their approach to incentives for capex, illustrates that learning from how incentives work and adapting them can help to improve overall outcomes for customers. Importantly, the use of incentives by the AER to encourage dynamic efficiency – which would include innovation – should deliver benefits to consumers in the longer term, as required by the NEO. This longer term focus is critical.

The Commission's view is that, with greater discretion, there must also be appropriate accountability and transparency to help provide certainty for stakeholders and confidence that the outcomes are in the best interests of consumers.

9.4.2 Objective, guidelines and principles

The draft rule provides for an overall objective for capex incentives that is consistent with the NEO and RPP. This objective describes what the capex incentive regime, as a whole, should aim to achieve. It provides that only capex that is included in an adjustment that increases the value of the RAB is capex that reasonably reflects the capex criteria. This will be particularly relevant when the AER is considering what its overall approach should be to capex incentives. Should it use one tool and none of the others or should it use all of the available tools? As well as guiding the AER on its overall approach to capex incentives, the objective will guide the AER in the development and application of the tools themselves to individual NSPs. It will also be relevant for the appeal body to consider this objective when assessing any merits reviews on elements of the capex incentives regime. Importantly, the objective does not act as a mandatory requirement or a prohibition, but a source of direction for the capex incentives regime.

The capex incentive objective has been formulated to reflect the ex ante test for efficiency of capex that was developed by the Commission in 2006. This means that capex incentives should be designed with the aim that only capex that is efficient should be rolled into the RAB. Efficiency in this context should include trading off investment in new and replacement assets, maintenance of existing assets and other options such as demand side management.³⁰⁵ It also includes the efficient timing of capex and whether expenditure incurred reflects that which would have been incurred by a prudent NSP. The capex incentive objective is framed in terms of ensuring the capex that is included in the RAB reasonably reflects the capex criteria.

To provide greater certainty around how capex incentives are to be utilised, the AER is required under the draft rule to set out its approach to capex incentives in guidelines.

³⁰⁵ In practice, efficiency can only be measured by comparison to other companies.

This is where the AER must set out the approach to capex sharing schemes and the manner in which it proposes to undertake efficiency reviews of past capex and determine whether to use actual or forecast depreciation. In putting together its guidelines, the AER will need to take a coordinated approach to capex incentives. The AER has the flexibility to develop different tools for different NSPs. The guidelines would set out these different approaches, but the specific regulatory determination for each NSP would develop the specifics to apply. Whatever combination of tools it develops, the guidelines must include an explanation of how that combination achieves the capex incentive objective. The first guidelines will be required to be put in place by 30 August 2013.

Finally, an additional measure of certainty is provided in respect of each of the tools. Included in the draft rule are principles that the AER must consider when it first develops and then applies one of the tools. The Commission intends only that the regulator has considered these principles and explained how it has considered the issues. The Commission does not intend that the regulator's approach to capex incentives must be done in a way that necessarily achieves the principles.

The Commission expects that this combination of an overall objective with a requirement for guidelines and then specific principles will provide for capex incentives to be applied in a transparent and accountable manner.

9.4.3 Capex incentive tools

The capex incentive tools to which the AER will have access are:

- capex sharing schemes;
- efficiency reviews of past capex; and
- whether to depreciate the RAB using actual or forecast capital expenditure to establish a NSP's opening asset base.

These options will be discussed in sections 9.5, 9.6 and 9.7.

The ex ante capex allowance, which is described in chapter 8 also provides capex incentives. For example, an allowance that represents the efficient costs of a NSP will provide incentives for NSPs to incur efficient capex as they have to bear some of the cost of any expenditure above this allowance for the remainder of the regulatory period.

The Commission considered a number of other options that it is not proposing to specify in the NER. These include the AER's 60/40 proposal, not allowing any expenditure above the allowance to be rolled into the RAB, menu regulation and ex post optimisation of the RAB. These are also considered further below.

9.5 Capex sharing schemes

9.5.1 Analysis

Background to capex sharing schemes

Capex sharing schemes allow for the sharing of efficiency gains and losses from capital expenditure between NSPs and consumers. In general regulators have approached such schemes by allowing NSPs to retain a set portion of any efficiency gains they make and bear a set portion of any efficiency losses it incurs against the benchmark. Often the benchmark is the allowance set by the regulator. The ratio of sharing of the efficiency gains and losses between the NSP and consumers is known as the incentive rate.

Importantly, capex sharing schemes can be implemented in a range of ways. Energy regulators in Australia and in Great Britain have provided some examples of what these schemes may look like, and have typically adopted one of three forms: a fixed carry-over period before true-up, a periodic true-up to achieve an incentive rate specified ex-ante or annual true-ups to achieve the ex-ante incentive rate. Examples of these types of schemes are included in Appendix A.

Energy regulators in Australia have tended to use a form of capex sharing scheme that allows the NSP to retain the financial benefits from making efficiency improvements for a fixed period regardless of when the improvements occur in the regulatory period. For example, a saving incurred in year three of one regulatory period would be retained by the NSP until year three of the next regulatory period. The Essential Services Commission of Victoria (ESCV) applied such a capex sharing scheme in the 2001-2005 regulatory period in respect of electricity distribution.³⁰⁶ Essential Services Commission of South Australia (ESCOSA) has also applied a similar scheme in the past.³⁰⁷

The incentive rate is the proportion of benefits retained by the NSP and in these schemes is determined by the length of the carry-over period and the magnitude of the rate of return. A longer (shorter) carry-over period will result in a higher (lower) incentive rate while a higher (lower) rate of return will result in a higher (lower) incentive rate.

In contrast, Ofgem in Great Britain has previously explicitly fixed an incentive rate ex ante and made an adjustment at the start of the following regulatory period such that the NSP receives the specified share of any efficiency gains or losses.³⁰⁸ The ex-ante incentive rate is usually set as part of a menu of choices contained in Ofgem's Information Quality Incentive mechanism. Ofgem's approach has developed and will in future involve an annual true up of efficiency gains and losses to achieve the ex-ante

³⁰⁶ ESCV, Electricity Distribution Price Review 2006, Final Decision, October 2006, pp. 419-430.

³⁰⁷ ESCOSA, 2005-2010 Electricity distribution price determination, Part A - Statement of Reasons, April 2005, pp. 67-73.

³⁰⁸ Ofgem, Electricity Distribution Price Control Review, Final proposals, November 2004, p. 98.

incentive rate with a two year lag, which allows for the use of fully audited accounts.³⁰⁹

Chapter 6 of the NER currently provides for a form of capex sharing scheme under the efficiency benefit sharing scheme provisions, though this is discretionary.³¹⁰ There is no equivalent provision in Chapter 6A. The AER has determined not to develop an efficiency benefit sharing scheme under these provisions due to concerns that it would encourage inefficient deferral of capex into future regulatory periods.³¹¹ The ESCV removed its capex sharing scheme for Victorian DNSPs for the 2006-2010 regulatory period due to similar concerns.³¹²

Background to menu regulation

Menu regulation is aimed at addressing similar incentive problems as efficiency sharing schemes, yet has broader aims. It has been adopted by Ofgem and Ofwat in Great Britain.³¹³ It consists of a set of forecasts from the NSP and the regulator. The regulator uses these to set a menu of expenditure allowances and incentive rates from which the NSP must choose. The incentive rates are set on a sliding scale such that the lower the allowance chosen by the NSP relative to the regulator's forecast, the higher the incentive rate. The incentive rate is then applied to the gap between the actual outcome and the allowance. Additional income is provided to NSPs based on how close their actual expenditure is to their original forecast. Menu regulation is therefore not only designed to encourage efficient capex but also encourage more accurate forecasting. Ofgem also closely monitors service levels as part of its scheme known as the Information Quality Incentive scheme.

The Commission notes that menu regulation in the form such as that adopted by Ofgem would require a different approach to the provision of forecasts and incentives than the current model in the NER. It has therefore decided not to specifically allow for this option in the NER at this stage. However, the Commission notes that the AER could explore the adoption of menu regulation in some form using the new power to develop small scale pilot schemes subject to the limits under that power, as discussed in chapter 11, at section 11.4.

How capex sharing schemes address the identified problems

In general, the AER could use capex sharing schemes to set incentives so that the most efficient NSPs earn the highest rewards and those that are inefficient are penalised. In this way, the AER should be able to use these schemes to encourage appropriate network investment. It will also encourage NSPs to look for efficiencies, such as by innovation. This is in contrast to reviews of efficiency of past capex, for example, which

³⁰⁹ Ofgem, TPCR4 Rollover: Final proposals, Final decision, November 2011, p. 68.

³¹⁰ NER clause 6.5.8(b).

³¹¹ AER, Directions Paper submission, 2 May 2012, p. 20.

³¹² ESCV, Electricity Distribution Price Review 2006, Final Decision, October 2006, pp. 10, 431-433.

³¹³ For a more detailed description of the approach see, for example: IPART, *Incentives for cost saving in CPI-X regimes*, IPART Working Paper, July 2011.

would primarily only discourage inefficient overspends (see section 9.6 below). Finally, it should also provide an incentive for NSPs to reveal their efficient costs.

A capex sharing scheme could also, depending on how it is applied by the AER, contribute to addressing the problems the Commission has identified with the existing capex incentives. A scheme could, for example, be designed to provide for a continuous incentive, that is, the incentives would be set so that the incentive power is the same no matter which year of a regulatory period an investment is made. Since the incentive power at the end of a regulatory period would no longer be less than that at the start of the period, the problem of inefficient deferral of capex within a regulatory period should be addressed. Further, any stronger incentives, including towards the end of the regulatory period, should make it likely that there would be less capex above the allowance and therefore less need for scrutiny of actual capex undertaken. A capex sharing scheme is likely to provide the AER with greater confidence that the capex going into the RAB is efficient.

One problem with capex sharing schemes is that it may be difficult to identify whether reductions in capital expenditure are from efficiency gains or inefficient deferral. A capex sharing scheme should not encourage actions that would later lead to degradation of network quality and consequent reductions in service quality. In addition, NSPs are subject to service target performance incentive schemes and regulatory obligations which may affect their ability to respond to capex incentives in that way. The ESCV in respect of gas and Ofgem in Great Britain have both developed ways which attempt to address this problem. A lower powered incentive could also be adopted as a means of reducing the potential size of the problem. While there may be difficulties in applying these schemes, the benefits should outweigh these difficulties. There is room for further innovation in this area.

Capex sharing scheme principles

The draft rule gives the AER the power to implement capex sharing schemes of its own design subject to certain principles.

The first principle concerns rewards and penalties. The scheme should reward the NSP for undertaking efficient capex and penalise the NSP for undertaking inefficient capex. In coming to this principle, the Commission considered whether the scheme should allow for a penalty only regime such as the AER's 60/40 proposal. The purpose of this approach proposed by the AER was to provide an incentive for NSPs not to overspend. In the directions paper, the Commission raised concerns regarding the prescriptive nature of this approach, and also with the lack of a continuous incentive. The Commission was also concerned that the approach would provide penalties for assumed inefficient expenditures but not rewards for efficient expenditure. The 60/40 proposal would therefore not be consistent with the first principle.

The second principle concerns the size of the rewards and penalties. While there is a measure of symmetry in a scheme that provides for both rewards and penalties, a scheme should not have to be "mathematically symmetrical". Mathematical symmetry refers to an improvement or decline in capex relative to a benchmark which is of the

same absolute value accruing the same reward or penalty in absolute value terms. Such an approach would be overly prescriptive and could prevent some schemes that would be beneficial. In a general sense, the level of reward or penalty should be commensurate with the level of efficiency or inefficiency of capex. That is, the financial reward to the NSP should bear some relationship to the efficiency benefit and the financial penalty on the NSP should bear some relationship to the inefficiency penalty, but the size of a reward or penalty for some magnitude of efficient or inefficient capex need not be the same. This is consistent with similar principles in the NER in respect of existing incentive schemes.

The third principle is that penalties should not be imposed on NSPs that undertake capex in an efficient manner. To put it another way, the scheme should encourage NSPs to seek out and achieve efficiency improvements over and above those in the allowance. Those improvements should then be appropriately shared between NSPs and consumers. This means that achieving such efficiency improvements under the scheme should be expected to be net present value (NPV) positive for NSPs while also providing benefits for consumers.

The NER create other incentives for NSPs, and NSPs are required to comply with various legally binding requirements in providing their regulated services. Accordingly the draft rule requires the AER to take into account both of these matters when designing a capex sharing scheme. The principles and matters referred to above, as well as the NSP's circumstances, must also be taken into account by the AER in determining whether, and how, to apply the capex sharing scheme to a particular NSP.

The Commission does not support a principle which provides that a capex sharing scheme should be continuous. A principle of this nature could discourage some schemes which are appropriate. At the same time, the Commission takes the view that in most cases a continuous incentive is preferable to a declining incentive. A constant incentive power is relevant in capex in order to provide an equal incentive to invest in each year of a regulatory period. Anything other than an equal incentive may provide incentives for NSPs to defer expenditure, even where it is not efficient to do so. The Commission agrees with the EUAA and UnitingCare Australia that a declining incentive in capex and a constant incentive in opex may encourage inefficient substitution between opex and capex.³¹⁴ Some issues relating to inefficient substitution between opex and capex, particularly in respect of demand side management, are being examined as part of the Commission's Power of Choice Review.

The draft rule permits the AER to apply schemes differently to NSPs or even to apply different schemes. So, for example, the AER could apply stronger incentives where a NSP traditionally spends more than its allowance and weaker incentives where the AER is concerned about inefficient deferral into future regulatory periods.

³¹⁴ EUAA, Directions Paper submission, 16 April 2012, p. 24; UnitingCare Australia, Directions Paper submission, 9 May 2012, p. 47.

Differences from the current EBSS

As described above, the AER has not used its power in Chapter 6 of the NER to apply an EBSS in respect of capex on the basis that it may lead to inefficient deferral of capex. It is possible that the AER could take the same view in relation to the draft rule provisions for capex sharing schemes. However, there are some important differences between the EBSS and what is proposed here. For a start, an overall capex incentive objective is proposed to be added to the NER, and the AER will need to consider and justify its overall approach to capex incentives in terms of that objective. It is likely that all approaches will have some advantages and disadvantages, but the AER will need to consider whether at an overall level the approach is the best one to meet the overall objective, and the NEO and RPP.

In addition, under the principles described above, the AER will have more flexibility than it currently does under the Chapter 6 EBSS principles. For example, nothing in the principles described above obliges the AER to implement a scheme which has continuous incentives. This may allow the AER to design a scheme which does not create incentives to inefficiently defer capex from one regulatory period to the next.

In respect of the risk of inefficient deferral, the ENA has commented that:

“Perhaps the most challenging [implementation issue] is the need for measures to avoid creating incentives for NSPs to inefficiently defer capital expenditure from one regulatory period to the next. Similar continuous incentive schemes apply in other jurisdictions, and in these jurisdictions mechanisms exist to address the deferral incentive.³¹⁵”

In the draft rule, the current EBSS has been retained in respect of opex and distribution losses but has been removed for capex.

9.5.2 Guidance on draft rule

Process

The process of developing and applying a capex sharing scheme is as follows:

- the AER may develop a capex sharing scheme or schemes that can be applied to any NSP. This will be set out in the guidelines, which should also explain how the scheme is consistent with the overall capex incentive objective;
- the AER must set out in the framework and approach paper for a NSP its proposed approach to applying any capex sharing scheme to the NSP;
- the NSP proposes how any applicable capex sharing scheme should apply to it in its regulatory proposal. For example, there may be elements that the NSP may propose that are discretionary in the scheme; and

³¹⁵ ENA, Directions Paper submission, 16 April 2012, p. 29.

- the AER determines how any applicable capex sharing scheme will apply in its draft and final regulatory determinations for the NSP. For example, the AER could use this stage to set any incentive rate that is to be applied for a NSP.

Principles

While the principles provide for rewards and penalties, the principles do not require that there be mathematical symmetry between those rewards and penalties. That is, NSPs are rewarded with a set portion of any efficiency gains and are penalised by a set portion of any efficiency losses. This could be implemented by the AER by reference to a benchmark. For example, a scheme may be designed so that where a NSP is able to undertake its capex program for a regulatory year at \$1 million less than the benchmark, 50 per cent of this saving, or \$500,000, is reflected in higher revenues. The same scheme may provide that where there is \$1 million over the benchmark, the NSP bears the cost of 70 per cent and only \$300,000 is recovered in revenues. However, the AER is required to explain in its guidelines how this scheme is consistent with the capex incentive objective.

It should be noted that the use of the terms 'efficiency' and 'inefficiency' are not intended to define any amount above or below the allowance. Specifically, it will be for the AER to define efficient and inefficient expenditure, as well as the relevant benchmark. The purpose of not defining such terms in the draft rule is to give the AER the flexibility to interpret and apply as it sees most appropriate.

The draft rule requires the AER to take into account the interaction of the scheme with other incentives and obligations, such as those relating to service performance, demand management and opex. For example, the AER should consider the impact of the mechanism on substitution of capex for opex. Similarly, it may consider adopting a higher powered scheme where it has access to extensive information on service standards. The AER must also take into account regulatory obligations and requirements on NSPs such as reliability and service standards and the relevant circumstances of the NSP.

The principles can accommodate different types of schemes. Examples of schemes that would be permitted by the draft rule are described in Appendix A. These examples are not meant to limit the way the AER approaches setting capex incentives but to illustrate particular ways that the provisions on capex sharing schemes in the draft rule could be implemented.

9.6 Reviews of efficiency of past capex

9.6.1 Analysis

General approach to reviews of efficiency of past capex

In the directions paper, the Commission observed that reviews of efficiency of past capex would address the lack of supervision problem that it identified. The Commission remains of the view that such reviews are the most direct way of

addressing this problem since they give the regulator the chance to check that the capex to be recovered is efficient.

Reviews of the efficiency of past capex generally encompass the regulator determining whether to allow the future recovery of incurred capex. Reviews of the efficiency of past capex are found in many other jurisdictions, and have been widely adopted in Australia. IPART uses them in the rail and water sectors and has excluded expenditure as a result of a review. For example, it excluded \$61 million expenditure in 2003 incurred by Sydney Water Corporation relating to a discontinued customer billing system project.³¹⁶ It excluded \$0.84 million in the same year from Hunter Water Corporation for purchase of some land for a dam site for a project that it did not consider was required.³¹⁷ IPART, in its submissions, is supportive of these reviews.³¹⁸ The ESCV also uses them to regulate the water sector.³¹⁹

The ERA in WA also regularly reviews the efficiency of past capex of service providers. For example, it has applied such reviews in respect of Western Power, a NSP. A feature of the regime is that it allows Western Power to obtain pre-approval of expenditure above the allowance to provide the NSP with greater certainty that the regulator will allow the expenditure *ex post*.³²⁰ The ERA recently excluded \$261 million of capital expenditure incurred in one period from the opening capital base for the next period.³²¹

These mechanisms are also available to energy regulators in Great Britain and in the United States of America. Professor Yarrow has noted the greater significance of *ex post* supervision in the United States of America compared to Great Britain.³²²

Analysis of reviews of efficiency of past capex by other regulators indicates that in many cases these reviews are conducted on a project by project, or "bottom up" basis. That is, the regulator considers a particular project that was undertaken and assesses whether that project was undertaken efficiently. The Commission considers that while

³¹⁶ IPART, Sydney Water Corporation – Prices of water supply, wastewater and stormwater Services – From 1 July 2003 to 30 June 2005, Determination 4, May 2003, p. 19.

³¹⁷ IPART, Hunter Water Corporation, Prices of water supply, wastewater and stormwater services, From 1 July 2003 to 30 June 2005, Determination 3, May 2003, p. 19.

³¹⁸ IPART, Directions Paper submission, 16 April 2012, p. 7; IPART, Consultation Paper submission, 8 December 2011, pp. 11-12.

³¹⁹ See for example: ESCV, 2008 Water price review, Regional and rural businesses' water plans 2008-2013, Melbourne Water's drainage and waterways water plan 2008-2013, June 2008, pp. 21, 26, 58, 64, 84; PwC, Essential Services Commission urban and rural water price review 2008: assessment of demand forecasts, Barwon Water, Final report, Report for ESCV, March 2008, pp. 16-17; Sinclair Knight Merz (SKM), Expenditure forecast review for the Victorian regional urban water businesses, Barwon Water, Final report, Report for ESCV, March 2008, pp. 3-4.

³²⁰ Economic Regulation Authority of Western Australia (ERAWA), Proposed revisions to the access arrangement for the South West Interconnected Network submitted by Western Power, Final decision, December 2009, pp. 291-292.

³²¹ ERAWA, Proposed revisions to the access arrangement for the South West Interconnected Network submitted by Western Power, Final decision, December 2009, pp. 200-201.

³²² See for example: George Yarrow, Preliminary Views for the AEMC, 12 February 2012, pp. 14-15.

this approach may be appropriate in some cases, any review of past capex by the AER should not be limited to a bottom up consideration. The reviews should consider the totality of the capex undertaken and use a range of techniques to assess whether this capex was, as a whole, efficient. For example, the AER may use benchmarking techniques to compare capex undertaken by one NSP with the capex required by other NSPs. Such reviews might also focus on the processes that NSPs have in place to decide which capex projects to undertake. A regulator may be able to obtain some assurance that a NSP's actual capex is likely to be efficient based on confidence that it has robust processes to determine the need for capex and manage projects within efficiency levels of cost.

The Commission supports the AER using a range of analytical techniques when assessing capex forecasts, as discussed in chapter 8 above. This approach allows the AER to treat capex as a whole, rather than on a project by project basis, when assessing the ex ante capex allowances for a NSP.³²³ A similar approach could be taken in respect of reviews of past capex.

Ex post optimisation of the RAB was also raised in the directions paper as a way to address the lack of supervision problem. It is a form of review of past capex. This option is being considered as part of a rule change request from the MEU.³²⁴ As set out in the draft determination on that rule change request, the Commission does not support this option. Among other things, it would require the AER to assess capex from the detail of specific projects and assets. In addition, the Commission considers that the ex post optimisation of the RAB could provide disincentives for future efficient investment due to increased risks to NSPs. It also considers optimisation would increase the complexity and costs of the regulatory process.³²⁵

In effect, the draft rule requires the AER to undertake a review of the efficiency of past capex for all NSPs as part of the regulatory determination process. This is because the draft rule requires the AER to make a statement on the efficiency of expenditure going into the RAB in its draft and final determination for each NSP. The Commission is concerned about expenditure going into the rolled forward RAB as this is the value used to determine the return on capital and depreciation building block components that will determine the revenue that a NSP can earn on the expenditure incurred. However, the draft rule only allows the AER to preclude expenditure from being rolled into the RAB as a result of a review if a NSP has spent more than its allowance for a specified period. The exception to this provision is expenditure relating to related party margins and as a result of within-period changes to the NSP's capitalisation policy, which is discussed in section 9.8. It is the AER's decision as to whether it considers it appropriate in the specific circumstances to exercise this power. In addition, the draft rule restricts the amount of expenditure that can be excluded from the RAB to the amount of any expenditure above the allowance. The Commission considers that

³²³ See for example the use of the word "total" in clause 6.5.7(c).

³²⁴ MEU, Optimisation of Asset Base and Use of Fully Depreciated Assets Rule change request, October 2011.

³²⁵ AEMC, Optimisation of Regulatory Asset Base and the Continued Use of Fully Depreciated Assets, Draft Rule Determination, 21 June 2012.

setting the best possible ex ante allowance for capex is important, and also that the use of ex ante incentive mechanisms for capex have the potential to provide important incentives for efficiency and innovation in capex that may not occur if reliance was placed on reviews of the efficiency of expenditure after it has occurred. Therefore, it is appropriate for NSPs to only be at risk of capex not being included in the RAB if they have overspent the ex ante allowance and the AER's incentive guidelines will be required to set out the manner in which the AER proposes to approach it.

Benefits of a review of the efficiency of past capex

Reviews of the efficiency of past capex would, as described above, provide scrutiny of capex that has been undertaken. This risk of an inability to recover for inefficient expenditure would therefore provide an incentive for NSPs to avoid inefficient capex as this may result in allowances being exceeded. Ex ante incentives, while effective, do not ensure that NSPs never undertake inefficient capex. A further check that what is rolled into the RAB is efficient is therefore in the long term interests of consumers.

The Commission considers there to be additional benefits in undertaking reviews of the efficiency of past capex as a complement to ex ante reviews of capex. The obligation to make a public statement on the efficiency or otherwise of what is going into the RAB may be useful in terms of providing information and analysis to consumers and their representatives. Further, undertaking the review itself could be considered beneficial as a complement to ex ante reviews of capex. For a start, it is common practice that these reviews are carried out at the same time as the ex ante allowances are determined for the next regulatory period. There are good reasons for this. As Brattle has observed in respect of the task of conducting reviews of the efficiency of past capex:

“in practice, this task is frequently carried out in parallel with reviewing capex forecasts, for example through the use of technical consultants, and perhaps because both tasks require the same data and expertise.³²⁶”

The review of efficiency of past capex should also assist the AER in determining an appropriate ex ante allowance by better understanding how efficient a NSP has been in the previous period and what projects it has undertaken. It should also improve understanding of the reasons for overspends.

NSPs and the AER have raised a number of concerns in submissions about reviews of efficiency of past capex.³²⁷ The AEMC also determined not to allow for reviews of the efficiency of past capex in 2006.³²⁸ These concerns include that the reviews may add to regulatory risk, and that a NSP may not undertake efficient and required investment and implementation challenges. If a NSP is well run and its management has in place robust processes for deciding which capex projects to undertake and regularly reviews and reassesses its capex program, it should have nothing to fear from a review of its

³²⁶ The Brattle Group, *Framework for assessing capex and opex forecasts as part of a “building blocks” approach to revenue/price determinations*, June 2012, paragraph 54.

³²⁷ AER, Rule change request, Part B, 29 September 2011, pp. 43-44.

³²⁸ AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, pp. 98-99.

efficiency. Indeed such a review should act to give the regulator greater confidence about the efficiency of the NSP's future capex projections.

To mitigate any potential for an increase in regulatory risk, the draft rule is that the amount of capex that may be precluded from being rolled into the RAB will be limited to the extent of any over expenditure of the capex allowance for the relevant period. If the NSP does not overspend, no reduction will be possible. This is discussed further below. Finally, the requirement for the AER to set out its approach to these reviews in a guideline which must be consulted on should create more certainty for the NSP.

Stakeholders have also commented that there may be implementation challenges with reviews of the efficiency of past capex.³²⁹ It is likely that such reviews will require additional work by the AER. However, given that such reviews are expected to be conducted at the same time as the AER considers the ex ante capex allowance for the next regulatory period, there should be synergies that the AER can take advantage of, such as in respect of the information that the AER would need. As for the evidentiary burden, it is unclear why that should be any different from the evidentiary burden that the AER has when it considers ex ante allowances, which are discussed in more detail in chapter 8. The AER should be able to use a variety of approaches to determine the efficiency of capex including top down and bottom-up analysis. The specific approach adopted by the AER could also be tailored to the amount of any overspend. For example, the AER might undertake a more intrusive approach where a NSP has spent significantly more than its allowance and a less intrusive review where the amount of expenditure above the allowance was smaller, and a strong ex ante incentive had been in place.

Finally, examples are provided above of reductions made by other regulators following such reviews. It appears that these regulators have been able to overcome any implementation and evidentiary challenges. Indeed, IPART indicates that it very much supports regulators having the power to undertake reviews of the efficiency of past capex.³³⁰

In line with the general approach to reviews of the efficiency of past capex set out in the previous section, the Commission has determined to make a draft rule which has the following two elements:

- Reducing the amount of capex to be rolled into the RAB - the AER may preclude expenditure above a NSP's allowance from being rolled into the RAB³³¹; and
- Statement on the efficiency of past capex – as part of a regulatory determination for a NSP, the AER must make a statement on the efficiency of capex being rolled into the RAB.

³²⁹ See for example: ENA, Directions Paper submission, 16 April 2012, pp. 31-32.

³³⁰ IPART, Directions Paper submission, 16 April 2012, p. 7.

³³¹ Unless it relates to within period capitalisation policy changes or inefficient related party margins, which may also be precluded from being rolled into the RAB.

Reduction for inefficient expenditure

This sub-section deals with the AER's power to make a reduction to the amount of capex to be rolled into the RAB. This is discretionary, and is separate to the obligation included in the draft rule for the AER to include in each regulatory determination a statement as to the overall efficiency of the capex rolled into the RAB as part of that regulatory determination. This obligation is discussed in the next sub-section.

The power to reduce the amount of capex to be rolled into the RAB is one of the tools the AER has at its disposal as part of the overall capex incentives regime. As such, the AER must coordinate its approach to this power with the other tools it has. It must do this by setting out in the capex incentive guidelines how it intends to approach imposing such a reduction.

The focus in the draft rule on the overall amount to be rolled into the RAB is intended to encourage the AER to undertake a review of the total capex incurred by the NSP during the specified period rather than just looking at individual projects. In undertaking the review the AER could consider, among other things, whether the NSP could have avoided spending more than its allowance for the period by deferring projects through re-prioritisation. The draft rule is intended to allow the AER to use a range of analytical techniques to assess the efficiency of capex including benchmarking and the assessment of individual projects. The AER could also consider the effectiveness of the NSP's planning and prioritisation processes for capex to try and gain assurance about the robustness of its decision-making.

The AER may only preclude expenditure from being rolled into a NSP's RAB if the NSP has spent more than its allowance for a specified period. In addition, the draft rule only allows the AER to reduce the amount rolled into the RAB by the amount of any expenditure above the allowance. As identified in the directions paper, the Commission considers that if the capex undertaken is the same or very similar to that which the NSP set out in its regulatory proposal then the ex ante assessment of the projects should provide a degree of confidence about the likely efficiency of the expenditure below the allowance. That is, while the nature of the actual capex undertaken need not be identical to what was included in the ex ante allowance, that allowance represents an efficient quantum and expenditure below this amount could be expected to be efficient at an overall level.

Given that the ex ante allowance, as a total, represents a forecast of an efficient level of expenditure for the NSP there should be little need for the NSP to spend above this amount in normal circumstances. As the Parsons Brinckerhoff report indicates, while there are often unexpected additional costs for a NSP during a regulatory period, there will also be unexpected reductions in costs.³³² In addition, the NSP should be able to take mitigating actions, such as re-prioritising capex, to avoid spending over its allowance, or seek a cost pass through if the relevant test is met. Indeed, on this basis, there is an argument that no capex above the level of the ex ante allowance should be

³³² Parsons Brinckerhoff, *Report on capital expenditure overspends by electricity network service providers*, Report for the AEMC, 16 August 2012, p. 33.

rolled into the RAB. However, to accommodate unforeseen circumstances where a NSP has legitimately spent more than its allowance, the AER should have the ability to make an assessment of the amount of the overspend that may be rolled into the RAB.

The Commission considered whether a pre-approval process such as that adopted by the ERA in Western Australia could be applied. While the Commission notes that this mechanism can provide for greater certainty for NSPs it does not support adopting a pre-approval mechanism in the NER. This would not be consistent with the general approach which is to encourage the AER to undertake a review of the total capex rather than individual projects. This process could also be administratively burdensome for the AER given the number of NSPs that it regulates.

The operation of the draft rule is explained further in the guidance section below. However, it is relevant to discuss three further elements here.

First, it is significant that the test in the draft rule that the AER must apply in determining whether to preclude expenditure from being rolled into the RAB is essentially the same as it is for assessing forecasts of capex on an ex ante allowance - that is, whether or not the expenditure reasonably reflects the capex criteria. This was the appropriate test for the efficiency of capex determined by the AEMC in 2006 and it continues to remain valid. The AER now has several years of experience in applying this test and a body of regulatory precedent has been developed.

Second, in determining whether to reduce the amount to be rolled into the RAB the AER should only take into account information and analysis that the NSP had or could reasonably be expected to have had access to at the time it undertook the capex.

Finally, whilst an AER decision to preclude capex that would otherwise be rolled into the RAB as a result of an inefficient capex overspend would not itself be a constituent decision, it would form part of the constituent decision as to the opening value of the regulatory asset base. As a result, this reduction would be subject to the same consultation process as the determination process and, more significantly, merits review. It is important for accountability that a NSP be able to seek an appeal body's review of any decision to reduce its capex rolled into the RAB in this way. While the decision would be subject to merits review, the Commission considers it is very important that any review of the AER's decision considers as a minimum the totality of its approach to capex incentives. This is because a decision that focused only on the outcomes of the review of expenditure after it has been incurred, but did not have regard to, for example, any ex ante sharing mechanisms, may reach a conclusion that is not consistent with the overall capex objective and the NEO.

Statement on the overall efficiency of capex rolled into the RAB

In addition to the discretion to make a reduction in the amount of capex rolled into the RAB, the Commission considers it is appropriate that the AER should consider the overall efficiency of capex that is rolled into the RAB. While the reduction described in the previous sub-section only applies where there is an overspend, the requirement to consider the overall efficiency of capex will require the AER to go further and consider the efficiency of capex even where the ex ante allowance has not been exceeded. The

fact that capex in excess of the ex ante allowance can be efficient was discussed above; recognised here is the principle that capex below the allowance can still be inefficient.

This obligation is part of the overall approach towards a greater focus on the efficiency of NSPs in the NER. The annual benchmarking reports, discussed in chapter 6, should mean that the AER develops an overall understanding of the relative efficiency of NSPs on an annual basis. When the AER then comes to considering, for a particular NSP, whether the capex to be rolled into the RAB at a reset is efficient the AER should already have some understanding of the relative efficiency based on its annual analysis. A deeper understanding of whether what is rolled into the RAB is efficient should in turn provide an insight into how the NER are operating to encourage NSPs to achieve efficiency. This would include whether the AER is setting the ex ante allowances at the right level, and whether the capex incentives are operating to deliver efficient outcomes. In addition, conducting this assessment of the overall efficiency of a NSP's capex should assist the AER to better understand whether to make a reduction in respect of any overspends.

In line with the overall approach of giving the AER greater discretion and allowing flexibility, few requirements have been included in the draft rule around how the AER must undertake this task. Some guidance is set out below. For consistency the overall test for efficiency is the same as that to be applied where the AER considers whether to make a reduction to the capex to be rolled into the RAB, and the same as that currently in the rules for the assessment of an ex ante forecast.

The AER should, when it develops its Regulatory Information Notice (RIN), consider the information that it will require to assess the efficiency of capex that has been undertaken during the regulatory period.

9.6.2 Guidance on draft rule

Reduction for inefficient expenditure

The draft rule allows the AER to make a reduction in respect of any overspend in relation to the regulatory allowance for a specified period. The process requires that the AER must set out in its capex incentives guidelines how it will approach an exclusion of incurred capex.

The years that comprise this period will not match any one regulatory period. This is because at the time a regulatory proposal is submitted, data on actual capex will not yet be available for every year of the current regulatory period. This means that the years which comprise the period for analysis should be compared with the relevant regulatory allowance on a like for like basis, for example the same constant dollars and discount factor should be used. Under the current timing for the regulatory process and the extended time frame set out in the draft rule, three years of data from the current regulatory period will be available at the time of the regulatory proposal assuming a five year regulatory period. The draft rule intends that the period in respect of which the overspend will be assessed should comprise:

- the years in the current regulatory period for which the AER has actual capital expenditure data at the time the NSP submits its regulatory proposal. For example, years one to three of a regulatory period where the regulatory period is five years; and
- the last two years of the previous regulatory period which will not previously have been the subject of an ex post review by the AER.

Even though the AER is likely to obtain the data for actual capex of the second last year of the current regulatory period *during* the regulatory process, there may not be sufficient time for the AER to consider this. Therefore, the actual capex during the second last year of the regulatory period will not be considered until the following regulatory determination.

As identified above, the AER will set out the manner in which it will determine to preclude incurred capex from being rolled into the RAB in more detail in the capex incentive guidelines. This could include considerations such as:

- the extent to which projects were evaluated against, and satisfied, the relevant regulatory test;
- the amount of any penalty already imposed on the NSP in respect of the expenditure through a capex sharing scheme, as well as whether the operation of a capex sharing scheme would reduce the likelihood of inefficient overspending; and
- the effect of the use of actual rather than forecast depreciation in the RAB roll forward mechanism.

In determining whether an overspend has occurred, the allowance for each year is determined based on the AER's relevant regulatory determination that includes that particular year. Since this will include years in different regulatory periods different regulatory determinations will be relevant for determining the overall allowance for the years being considered. Any decisions relating to cost pass-throughs, capex re-openers and contingent projects are to be applied to adjust the allowance for the purposes of determining if there has been an overspend. In respect of cost pass throughs, this will mean that the AER will need to know the proportion of any cost pass through amount that represents capex, as opposed to opex. The AER may wish to use its information gathering powers to have this information provided with a cost pass-through application.

As described above, in determining whether expenditure incurred was efficient, the AER must only take into account information and analysis that the NSP could have reasonably been expected to have considered or undertaken at the time that it undertook the relevant capex. The NSP should only be judged on material reasonably available to it at the time, though this would include material available not just at the start of a project but also during it. If for example the NSP chose the most efficient pole design in 2008 but further studies in 2010 indicated a different pole design would have been more efficient, it would depend on when the project was carried out relative to

2010 in the regulatory period whether it may be appropriate for the AER to take into account these further studies. As another example, in coming to a decision on whether work was undertaken efficiently the AER could only use unit costs at the time the expenditure was incurred. The AER could not take into account advancements in technology which may have reduced the unit costs of expenditure. One source of information that the AER could use is published forecasts of demand, for example the transmission annual planning report, and it would be reasonable for the AER to expect that NSPs actively and regularly reviewed capex plans based on the most up to date forecasts of demand.

The AER should set out its reasons in the regulatory determination for reducing the capex that would otherwise be rolled into a NSP's RAB consequent upon a review of the efficiency of past capex. If the AER determines a capex overspend has occurred but determines not to make a reduction, the AER should also explain this in the determination in accordance with the consideration of the overall efficiency of what is rolled into the RAB.

Consideration of the overall efficiency of what is rolled into the RAB

In the draft rule, the statement on the efficiency of capex to be rolled into the RAB is independent of the discretion to reduce the capex that is rolled into the RAB. In practice, the AER is likely to conduct these assessments together and use the review of the efficiency of the totality of the capex as part of its consideration of whether to make a reduction in respect of any overspend.

The draft rule enables the AER to undertake these reviews in the manner it considers appropriate. In particular, these may be tailored to the circumstances of a particular NSP. A review may be different based on the AER's knowledge of how a particular NSP has undertaken capex in the past, for example. Alternatively, if a NSP has overspent in a particular regulatory period the AER might choose to undertake a more extensive review than if it had underspent. The review could be based on a top down or bottom up analysis, or some combination of the two. It is expected that NSPs will include justification that past capex is efficient in their regulatory proposals.

9.7 Actual or forecast depreciation

9.7.1 Analysis

Further work on the incentive effects of actual and forecast depreciation

The changes to the NER that have been proposed by the AER aim to give it flexibility to choose to adopt either a high powered or low powered capex incentive. This would allow it to adopt the approach most appropriate taking into account a range of factors including other incentives and the circumstances of a NSP. The choice of depreciation approach is one part of the overall capex incentive framework, the objective of which is for the AER to ensure that only efficient capex is rolled into the RAB. As discussed above, it is desirable for the AER to have access to a range of options it can apply in

order to achieve this objective. Furthermore, it is appropriate for the AER to be accorded the flexibility to apply those options differently depending on the circumstances of a NSP.

The directions paper did not present a view on whether the AER should have discretion to use actual or forecast depreciation or whether a specific method should be prescribed in the NER. Instead, the Commission undertook to explore in more detail how the choice of depreciation affects a NSP's behaviour.³³³

The Commission engaged Economic Insights to provide advice on the incentive effects of using actual versus forecast depreciation when rolling forward the RAB. Economic Insights designed a model to measure how much benefit is retained by a NSP over the life of the asset if it is able to make a saving against the capex allowance or how much is lost if the NSP overspends. This is the "incentive power" and is the percentage of revenue that a NSP is either up or down for changes in its spending relative to the allowance. The incentive power was calculated for asset lives of 10, 20, 30, 40 and 50 years using both forecast and actual depreciation for comparison.³³⁴

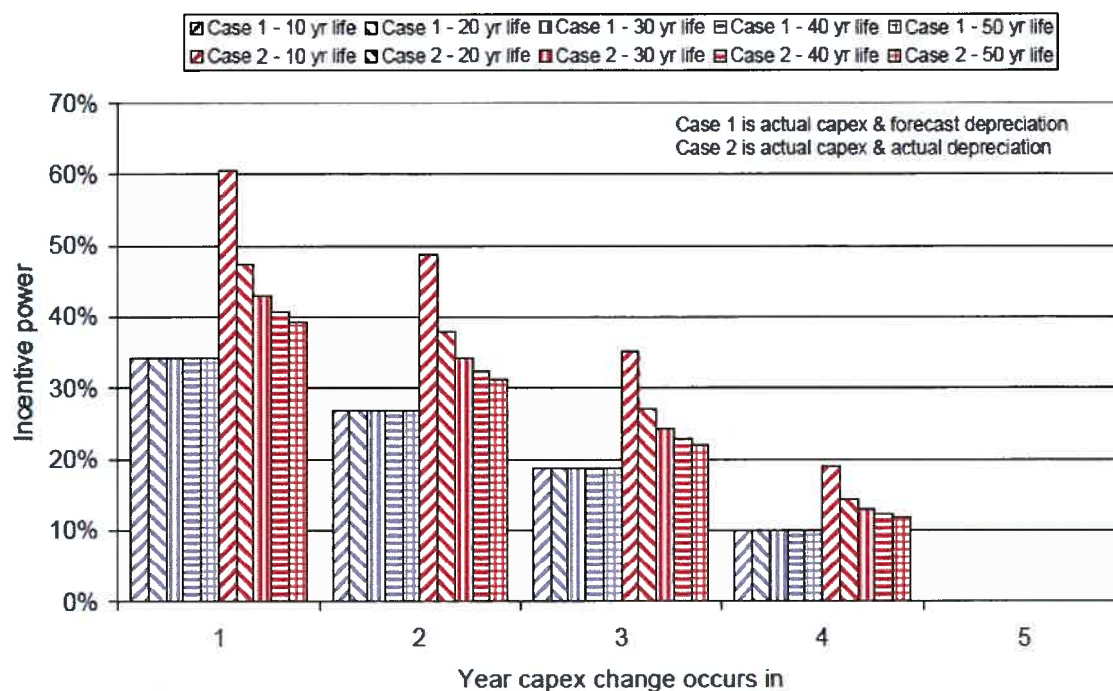
Figure 9.4 below illustrates the results of Economic Insights' modelling. The incentive power for each asset category is shown for each year of a 5 year regulatory period for two cases: Case 1 using actual capex and forecast depreciation (red bars); and Case 2 using actual capex and actual depreciation (blue bars).³³⁵

³³³ AEMC, Consolidated Rule Request – Economic Regulation of Network Service Providers, Directions Paper, 2 March 2012, p. 49.

³³⁴ Economic Insights, *The use of actual or forecast depreciation in energy network regulation*, Report for the AEMC, 31 May 2012, pp. 14-15.

³³⁵ Economic Insights also examined two further cases whereby the capex that is rolled into the RAB is based on the forecast as opposed to the current approach whereby all capex rolled into the RAB is based on the actual amount spent during the period. These additional scenarios were modelled for completeness in order to examine the full range of incentives on NSPs in relation to the roll forward model. The Commission is not currently considering changing the current approach with respect to capex.

Figure 9.4 Capex incentive powers from using actual or forecast depreciation



Source: Economic Insights, *The use of actual or forecast depreciation in energy network regulation*, Report for the AEMC, 31 May 2012, p. 20.

Three conclusions may be drawn from the figure above:

1. The incentive power under an actual depreciation approach is higher than the incentive power under a forecast depreciation approach. That is, a NSP will have a stronger incentive to minimise capex relative to the allowance under an actual depreciation approach. This is illustrated by the red bars being taller than the blue bars;
2. The incentive power under an actual depreciation approach differs depending on asset class whereas it is the same for all asset classes using forecast depreciation. This is shown by the red bars being different heights for the same year and the blue bars being the same height. Since the red bars are highest for the shortest asset lives, a NSP will have a relatively stronger incentive to minimise capex relative to the allowance for those asset types using actual depreciation;
3. The incentive to make any savings relative to the allowance declines through the regulatory period and by year five results in no incentive to make savings.³³⁶ This is shown by all the bars becoming smaller as the years progress and

³³⁶ Note these results will differ slightly depending on the time of year it is assumed that capex is undertaken. Economic Insights have assumed that capex is incurred at the end of the year (Economic Insights, *The use of actual or forecast depreciation in energy network regulation*, Report for the AEMC, 31 May 2012, p. 14).

becoming zero by year 5. This is true under both the actual and the forecast depreciation approach.

These modelling results confirm the theoretical assessment of the relative incentive effects of depreciation approaches and analyses put forward in submissions.³³⁷ Consequently, Economic Insights stated that:

“using forecast depreciation may be a preferable default as the use of actual depreciation is a second best substitute for having a capex EBSS [efficiency benefit sharing scheme], creates an incentive to substitute away from short life assets at a time when they may be becoming increasingly important to achieving efficient energy market outcomes and creates an incentive for NSPs to over-inflate their capex forecasts.³³⁸”

However, Economic Insights also conducted a review of recent Australian regulatory practice and found that the approach to depreciation varied across and within jurisdictions with regulators citing different reasons for using their chosen approach. In contrast, actual depreciation is the norm in the overseas jurisdictions surveyed. As a result, Economic Insights stated that:

“It has not been a case of 'one size fits all' and the approach used in each jurisdiction reflects the relative issues and concerns that have evolved in that jurisdiction.³³⁹”

Economic Insights thus concluded that it would be desirable to accord the AER flexibility in making the choice of depreciation approach in transmission as it currently has in distribution. However, it also stated that given the potential distortionary effects of an actual depreciation approach, it should be used sparingly where additional incentives are warranted and not likely to create significant distortions.

The AER should have the same flexibility in Chapter 6A to adopt actual or forecast depreciation as it does in Chapter 6. This is consistent with the overall approach on capex incentives, that the AER should have access to a range of tools that it can apply depending on the circumstances of the NSP. It is also consistent with harmonising Chapters 6 and 6A to the extent possible. The Commission also notes that nearly all stakeholders supported the AER having the same flexibility in transmission as it currently has in distribution.

Principles for the AER to consider in determining an approach to depreciation

In the rule change process, the Commission has in general supported discretion for the AER coupled with principles the AER must take into account when exercising its discretion. This approach is also appropriate for depreciation. Indeed, Economic

³³⁷ ENA, Directions Paper submission, 16 April 2012, p. 33 and ENA, Directions Paper submission, Attachment C, 16 April 2012, p. 8.

³³⁸ Economic Insights, *The use of actual or forecast depreciation in energy network regulation*, Report for the AEMC, 31 May 2012, p. 42.

³³⁹ *Id.*, p. 33.

Insights has recommended this approach be taken.³⁴⁰ Some stakeholders support the use of criteria to evaluate whether a particular approach is appropriate.³⁴¹ The importance of criteria was demonstrated by the recent Tribunal decision in which the AER's decision to apply actual depreciation to the Victorian DNSPs was appealed by the Victorian government and was rejected on the basis that the Minister failed to demonstrate that the AER had not followed the required procedures in making its decision.³⁴² Any principles applied should be the same in Chapter 6 as in Chapter 6A.

The choice of depreciation methodology that is made in a regulatory determination applies at the following reset when the RAB is rolled forward. It affects how much capex that is incurred during the period is rolled into the RAB at the end of the period. As a result, the choice of methodology affects the incentives on the NSP to incur capex efficiently during the period and is one tool that can be utilised to provide incentives to incur capex efficiently. There are also a number of other factors that will affect a NSP's incentives to incur capex efficiently during the period. It is therefore appropriate to consider these factors together when making a decision on the choice of depreciation methodology. The principles set out in the draft rule are intended to facilitate a bespoke analysis of the most appropriate depreciation approach for a NSP.

Therefore, the principles reflect the fact that depreciation is one component of a broader capex incentives arrangement, and that the incentives provided by the choice of depreciation methodology should be coordinated with other incentives for a NSP. For example any capex sharing scheme will be relevant, as this will directly increase the power of the incentive. The power of the incentive for opex is also a relevant consideration to the extent that opex or elements of opex can be substituted with capex. It is undesirable to have incentives to reduce opex without corresponding incentives to reduce capex such that any reductions in opex can be offset by investments in capex. It is also important that incentives to reduce capex do not provide an incentive that could lead to a decline in service standards below the level valued by customers; the incentives provided by the STPIS should also be considered.

Moreover, given the differing incentive rates for assets with economic lives of different lengths under the actual depreciation approach, the extent to which they are substitutable will affect whether it is appropriate to have these differing incentives.³⁴³ This is because, should they be substitutable, it may distort investment decisions on input use which may ultimately impact consumers. For example, it may be more expensive to address demand management by investing in poles and wires (long life) instead of smart technologies (short life). Whether these are substitutable or not, the differing power of the incentive under an actual depreciation approach may independently affect the investment decision. It is therefore relevant to also consider

³⁴⁰ Id., p. iv.

³⁴¹ Jemena, Directions Paper submission, 16 April 2012, p. 24; ENA, Directions Paper submission, Attachment C, 16 April 2012, p. v.

³⁴² ACompT, *Application by United Energy Distribution Pty Limited [2012] ACompT 1*, 6 January 2012.

³⁴³ Economic Insights, *The use of actual or forecast depreciation in energy network regulation*, Report for the AEMC, 31 May 2012.

both the proportional value of short-lived assets in the asset base and their likely current and future strategic importance to gauge the significance of such a risk.

Finally, in considering the appropriate capex incentive it is also relevant to consider the past performance of the NSP. The AER may wish to apply incentives in a different way to a NSP that has historically overspent due to being inefficient compared to one that has underspent.

The objective of the analysis is to arrive at a decision that is consistent with the incentives for efficient capex under the overall regulatory framework whilst minimising any distortionary effects. The AER is required to set out in the capex incentive guidelines the manner in which it proposes to determine whether to use actual or forecast depreciation.

9.7.2 Guidance on draft rule

The draft rule enables the AER to choose the depreciation approach with regard to a number of principles. The principle that refers to the other incentives a NSP has to incur efficient capex is intended to prompt a review of the totality of those incentives, including incentives outside the NER which may be specific to the NSP. This will provide a guide as to whether additional incentives are required to encourage efficient capex. As well, the principle which relates to the efficiency of past capex will also provide a guide as to whether additional incentives are required.

To the extent that additional incentives are deemed appropriate, the principle requiring an examination of the substitution effects of short and long life assets is designed to assess the materiality of the potential distortionary effects of increasing the power of the incentive using depreciation by applying an actual approach. The extent that short-lived assets, such as information technology, can be physically substituted with long-lived assets, such as poles and wires, to achieve similar outcomes in network management should be considered in terms of the ability and the incentive to do so. In turn, a consideration of the benefits of such asset types is intended to address potential strategic importance of such asset types to avoid potential distortions even if the relative size of the asset class is a small proportion of the capex program.

Substitution possibilities between opex and capex should also be considered for potential distortions as they are included in the capex factors. A consideration of capex factors is to encourage consistency with the overall capex incentive objective. Finally, the purpose of the requirement to consider the capex incentive guidelines is to promote internal consistency with the principles and approach included in the guidelines in any decision of the approach to depreciation.

9.8 Related party margins and capitalisation policy changes

9.8.1 Analysis

Further consideration of the problem

In addition to the broader capex incentive issues discussed above, the AER considers that there are two additional relevant capex incentive issues in the NER relating to related party margins and changes to capitalisation policies during a regulatory period.

In the directions paper the Commission stated it would undertake further work to understand the strength of the additional incentive for NSPs to inefficiently incur capitalised related party margins, particularly if the higher related party margins are due to genuine higher costs. The Commission also acknowledged that there is a theoretical incentive for NSPs to reclassify opex as capex by changing their capitalisation policy during a regulatory period, although it considered that stronger capex incentives through an EBSS for capex for example might deal with this issue by removing the incentive to capitalise opex inefficiently.³⁴⁴

Following the directions paper the Commission engaged consultants (Covec) to explore the strength of any incentive that a NSP has to incur inefficient related party margins. Covec investigated and reported on a range of related party issues.

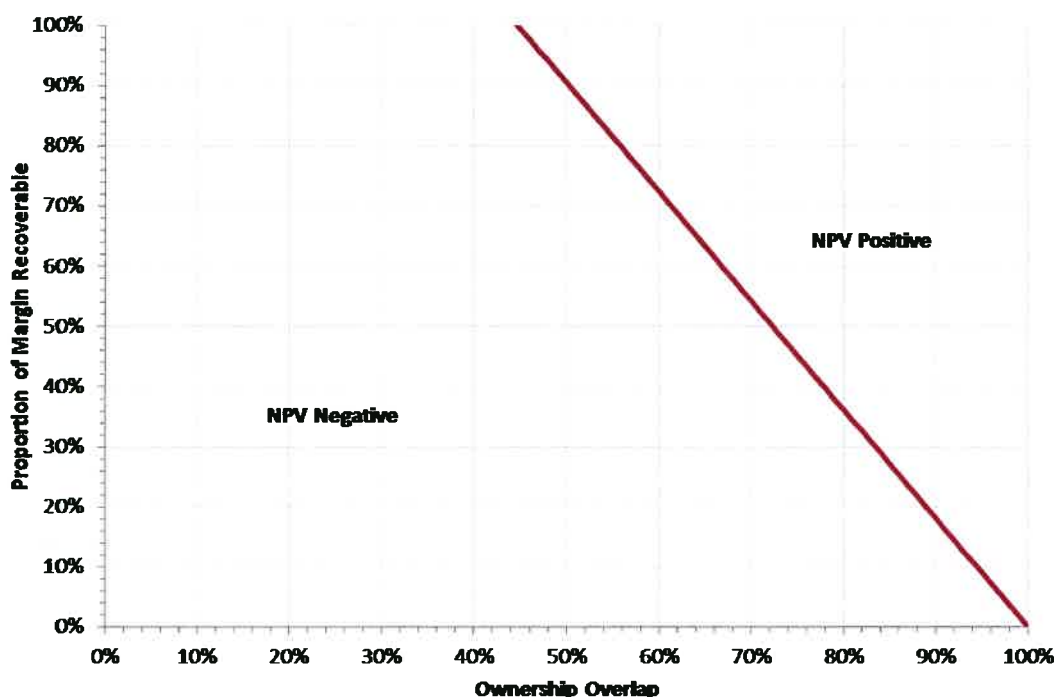
In particular, Covec developed a model to analyse the incentive to pay related party margins. The model allowed for different levels of ownership by the NSP of the related party and different fractions of the margin allowed by the regulator to enter the RAB. The results of the model show that when the NSP owns a large share of a related party it can be financially beneficial for the NSP to pay an inflated margin, even if something less than 100 per cent of that margin is allowed into the RAB.³⁴⁵ However, Covec identified that at smaller ownership shares it is not financially beneficial to pay an inflated margin, even if there is full pass through of the margin into the RAB.³⁴⁶ This is illustrated in Figure 9.5 below.

³⁴⁴ AEMC, Consolidated Rule Request – Economic Regulation of Network Service Providers, Directions Paper, 2 March 2012, pp. 57-58.

³⁴⁵ Covec, *Analysis of the Use of Related Parties by Electricity Network Service Providers, Report for the AEMC*, 6 June 2012, p. iii.

³⁴⁶ Ibid.

Figure 9.5 Incentives to pay related party margins



Source: Covec, *Analysis of the Use of Related parties by Electricity Network Service Providers*, Report for the AEMC, 6 June 2012, p. 21.

In addition to the modelling results, Covec identified that a driver for NSPs to engage related parties was economies of scale and scope.³⁴⁷ Similarly, it noted that there may be tax advantages in engaging related parties but considered that the size of this incentive would be small.³⁴⁸ It also noted that there is some risk that recent regulatory practice may deter otherwise efficient outsourcing to related parties. Covec considers that an ex post review of prudence and efficiency would provide an opportunity for the AER to mitigate the risk that NSPs may inflate related party margins.³⁴⁹

The modelling undertaken by Covec appears to confirm that there is a potential incentive for NSPs to incur inefficient related party margins. It shows that this can occur even where there are strong ex ante capex incentives on a NSP, such as through a capex sharing scheme. Also, as identified by the AER, strong capex incentives will not deal with the issue where a NSP spends less than its allowance overall but incurs inefficient related party margins.³⁵⁰ The Covec modelling also shows that there is a potential incentive on NSPs to incur inefficient margins where there is less than 100 per cent joint ownership between the NSP and the related party.³⁵¹

³⁴⁷ Id., p. 18

³⁴⁸ Id., p. 12.

³⁴⁹ Id., p. iii

³⁵⁰ AER, Directions Paper supplementary submission, 30 May 2012, p. 28.

³⁵¹ Covec, *Analysis of the Use of Related parties by Electricity Network Service Providers*, Report for the AEMC, 6 June 2012, p. 20.

In summary, it appears in theory that there is an issue in the sense that a NSP contracting with a related party in some circumstances could derive a NPV benefit compared to another NSP that does not, although conversely there are other circumstances when such an approach may be NPV negative. This incentive could encourage NSPs to enter into commercial arrangements that are not the most efficient. It is relevant that the AER and ESCV have both felt that there was a need for additional measures to address excessive related party margins. To encourage NSPs to use the most efficient business structure the Commission considers that this issue should be addressed.

Addressing the problem

Given that stronger ex ante incentives through a capex sharing scheme will not fully deal with this issue the Commission considers that the issue should be dealt with by reviewing the capex after it is undertaken. It therefore proposes to give the AER discretion to reduce capex that would otherwise be rolled into the RAB by an amount that represents such part of the margin as would not have been paid if the arrangements to which the margin relates had been on arm's length terms. The AER should have this discretion regardless of whether the NSP spent more than its allowance overall or not. This is because a NSP may also gain from inflating related party margins where it spends less than its allowance overall. This is consistent with the capex factor in the NER that the AER must have regard to in determining the ex ante capex allowance.³⁵²

The AER should determine whether related party margins meet this test. Overall, a flexible or NSP-specific approach would be optimal, to recognise the differing incentive power in different circumstances. The AER's current approach, as described in the Covec report,³⁵³ may lack flexibility to take account of NSP specific circumstances. That is, the AER could better tailor incentives to reflect the different circumstances, and so far as is reasonably possible provide an incentive for NSPs to deliver services in whichever way is most efficient, eg in house, related party providers or third party contractors. The Covec model is an example of how this approach might be developed. The Commission proposes to require the AER to set out its approach in the capex incentive guidelines. This will give NSPs and other stakeholders a chance to provide input on the AER's approach outside of the regulatory determination process, promote consistency in the application of the rule between NSPs, and provide greater certainty to NSPs as to how the AER will apply the rule.

The Commission accepts that there is a potential incentive for a NSP to change its capitalisation policy during a regulatory period so that they can classify opex as capex and recover the same expenditure twice: once in forecast opex and again through depreciation and return on capital once the expenditure is rolled into the RAB. At the same time, though, the requirements of statutory accounting may reduce somewhat the incentive or increase the costs of changing capitalisation policies. The incentive to

³⁵² See for example clause 6.5.7(e)(9).

³⁵³ Covec, *Analysis of the Use of Related parties by Electricity Network Service Providers*, Report for the AEMC, 6 June 2012, pp. i, 8-9.

change policies should be reduced if a capex sharing scheme brings closer the incentives to undertake efficient opex and capex. In addition there appears to be merit in the ENA's comment that the AER should retain the ability to calculate opex and capex efficiency gains under an EBSS in a manner that removes the effect of changes to the classification of expenditure.³⁵⁴ However, as set out in section 9.5, although there are likely to be benefits in applying a capex sharing scheme it should be at the AER's discretion as to whether such a scheme is implemented. In addition, even if the AER were to develop and apply a capex sharing scheme this would not necessarily provide for an incentive power that was equal to the opex incentive power, although this is something that the AER would need to consider. Ex ante incentives alone will, therefore, not necessarily deal with this issue. In these circumstances the AER should be able to review the relevant capex after it is incurred.

Similar to related party margins, the Commission proposes to give the AER discretion to reduce the capex that would otherwise be rolled into the RAB by an amount that represents the opex that has been capitalised as a result of within-period changes to the NSPs capitalisation policy. The AER should have this discretion regardless of whether the NSP has spent more than its capex allowance overall or not. This is because a NSP may gain from changing its capitalisation policy where it spends less than its allowance overall. In general a NSP should be able to avoid having to capitalise opex as a result of a change in its capitalisation policy. First, changes to the capitalisation policy in the first two to three years of a forthcoming regulatory period should be less likely on the basis that they could have been included in the earlier regulatory determination. Second, any changes that a NSP wants to make in the final two to three years of a regulatory period could be delayed until the start of the next regulatory period.

9.8.2 Guidance on draft rule

The draft rule allows the AER to reduce the capex that would otherwise be rolled into the RAB to deal with inefficient related party margins. It is up to the AER to determine whether arrangements that were entered into by the NSP and a third party reflect arm's length terms. Similarly, it is up to the AER to determine what the margin would have been if it considers the arrangements do not reflect arm's length terms. However, the AER is required to set out its proposed approach in the capex incentive guidelines. The Commission considers a flexible or NSP specific approach might be adopted to recognise that the incentive power differs in different circumstances and that the Covec model may assist the AER in developing this approach.

Similarly, the draft rule allows the AER to reduce the capex that would otherwise be rolled into the RAB to reflect opex that was capitalised as a result of changes to the NSPs capitalisation policy during the regulatory period.

The AER can reduce the capex that would otherwise be rolled into the RAB for these expenditure types regardless of whether a NSP has spent more than its capex allowance. Similarly, the amount by which the AER may reduce the capex that would

³⁵⁴ ENA, Directions Paper submission, 16 April 2012, p. 35.

otherwise be rolled into the RAB for these expenditure types is not limited to the amount of any expenditure above the allowance.

To assist the AER in exercising this discretion the draft rule requires an NSP to include in its regulatory proposal information on margins paid or expected to be paid in respect of arrangements that are not on arm's length terms and information on opex that has been capitalised by NSPs otherwise than in accordance with the policy submitted to the AER as part of the NSP's regulatory proposal. As a corollary, the draft rule requires NSPs to provide their capitalisation policy with their regulatory proposal. The AER will need this as a reference point in respect of actual expenditure at the time of the next determination. In practice, the AER could take the approach that it will approve capitalised expenditure where a NSP provides audited statements that its policy has not changed. Although not required, it could set this out in the capex incentive guidelines.

10 Regulatory determination process

Summary

- The NER prescribe the process by which the AER is to determine revenues and, in some cases, prices of NSPs. It also sets out the process for market participants in making submissions on each other's material and the AER's draft decision.
- In addition to the NER, the NEL sets out how the AER is to undertake its economic regulatory functions or powers. As a general rule, the NER do not prescribe matters that are already addressed in the NEL. The AER is also subject to various common law requirements that apply to the AER's decision-making processes.
- The process set out in the NER should be considered as the minimum requirement for stakeholder engagement. In the absence of any prescription in the NER on the regulatory determination process, the NSP and AER should be engaging with each other and other stakeholders.
- The Commission has taken a holistic approach to address broad issues with the current process. These issues relate to:
 - giving the AER and other stakeholders, including consumers and consumer representative groups, sufficient time to consider all relevant and significant material;
 - improving consumer engagement, especially earlier in the process; and
 - allowing the NSP sufficient time to prepare its revised regulatory proposal.
- Incremental changes have been made to the current regulatory determination process to clarify existing processes as well as to address the particular issues identified by the Commission. These changes aim to make the process more transparent and make all market participants engaged in the process more accountable.
- The following changes address the issue of improving consumer engagement:
 - the NSP providing a consumer-targeted overview paper with its regulatory proposal;
 - the AER publishing an issues paper outlining its preliminary key issues to assist the consumers to focus their resources; and

- the AER holding a public forum to allow consumers and other stakeholders to engage with the AER and NSP on the regulatory proposal and issues paper.
- The following changes address the issue of making the NSP more accountable:
 - requiring the NSP to identify to the AER specific confidentiality claims in its regulatory proposal;
 - requiring the AER to report such confidentiality claims on its website; and
 - requiring the AER to report on its website where it receives late or out-of-scope material from the NSP.
- The following changes address the issue of improving submissions and the submission consideration process:
 - extending the timeframe for the regulatory determination process by commencing it six months earlier;
 - increasing the time for the NSP to prepare its revised regulatory proposal; and
 - introducing a discretionary cross-submissions stage to target specific issues arising from submissions on the draft regulatory determination or revised regulatory proposal.
- The following changes address the issue of streamlining the framework and approach paper stage:
 - making the paper optional on particular matters that has been addressed in a previous framework and approach paper; and
 - clarifying and aligning the circumstances for changing the service classification and formulaic expression of the control mechanism for unforeseen circumstances.

10.1 Introduction

Regulatory decision-making involves thorough consideration of the regulated business' proposal.³⁵⁵ It involves providing opportunities for the regulated business and interested stakeholders, including consumers and consumer representative groups, to make submissions to the regulator.³⁵⁶ It also entails allowing reasonable

³⁵⁵ This point was also made by the Commission in 2006. See AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, p. 108.

³⁵⁶ Ibid.

time for full and thorough analysis of the submissions and the regulator's intermediate decisions.³⁵⁷ To facilitate this, the NEL sets out the manner in which the AER is to perform its economic regulatory functions or powers.³⁵⁸ In addition, the NEL specifies the processes that the AER, NSP and other stakeholders are required to follow as part of the regulatory determination process.³⁵⁹ A key to effective regulation is the reduction of regulatory risk by providing transparent and timely processes for regulatory determinations.³⁶⁰ Ensuring clarity around a number of procedural issues provides greater certainty to market participants, makes them more accountable to a clearly prescribed process, and reduces delays in regulatory decision making.³⁶¹

10.1.1 Regulatory determination process

To reduce regulatory error under the current regulatory determination processes, all stakeholders are permitted to provide submissions at various points throughout the process. The AER is concerned that NSPs are undermining the process by providing material that should be part of an initial or a revised regulatory proposal later in the process in the form of submissions.³⁶² This does not provide other stakeholders and the AER sufficient time to scrutinise this material.

The AER proposes placing limitations on NSP submissions to address this issue. In particular, the AER has proposed rules that would prevent the NSP from making a late initial or revised regulatory proposal in the form of submissions.³⁶³

10.1.2 Confidentiality claims

The current confidentiality arrangements were designed to balance the need for stakeholders to have access to the information upon which regulatory decisions are made and the need to protect confidential information. Without giving the appropriate protection for certain information, such disclosure could commercially harm the NSP or third parties. The AER is concerned that NSPs have been claiming that more information is confidential than is necessary. This, in turn, denies other stakeholders the opportunity to respond to, make an informed comment upon, and scrutinise, all relevant information.³⁶⁴

The AER proposes amendments to the NEL which would, amongst other things, provide the AER with the discretion to give such weight as it considers appropriate to

357 Ibid.

358 Ibid.

359 Ibid.

360 Ibid.

361 Ibid.

362 In this Chapter, unless clearly specified, references to "regulatory proposal" are to regulatory proposals in Chapter 6 and revenue proposals in Chapter 6A. Where references to "revenue proposal" are referred to, these are revenue proposals in Chapter 6A.

363 AER, Rule change request, Part B, 29 September 2011, p. 89.

364 Id., p. 90.

confidential information. This would apply in an initial or revised regulatory proposal, or in any submissions given to the AER.

10.1.3 Framework and approach

The framework and approach paper is specific to the distribution regulatory determination process. It provides the DNSP and other stakeholders with an opportunity to be consulted on the AER's likely approach to certain elements of the distribution regulatory determination.

The AER proposes changes to the content of the framework and approach paper, and when it may be departed from in a final regulatory determination. This would include:

- removing consultation on the application of incentives schemes in the framework and approach paper;
- allowing the AER to change the control mechanism, in addition to service classification, following the framework and approach paper; and
- changing the threshold for departing from the service classification and control mechanism in the framework and approach paper to "unforeseen circumstances".

10.1.4 Chapter structure

The remainder of this chapter is structured as follows:

- section 10.2 summarises the submissions received in response to the Commission's directions paper;
- section 10.3 outlines the general principles adopted by the Commission in addressing the problems identified with the regulatory determination process; and
- the following sections provide detailed analysis on specific matters with respect to:
 - late or out-of-scope submissions (section 10.4);
 - confidentiality claims in the regulatory proposal (section 10.5);
 - the mandatory issues paper and overview paper (section 10.6);
 - the cross-submissions stage (section 10.7);
 - the timing of the regulatory determination process (section 10.8); and
 - the framework and approach paper (section 10.9).

10.2 Submissions

10.2.1 Regulatory determination process

There is general support for commencing the regulatory determination process earlier, including extending the current timeframe.³⁶⁵ Submissions varied in how much time should be allocated for commencing the regulatory determination process earlier.³⁶⁶ However, there was also general disagreement on delaying the making of the final regulatory determination, especially due to the impact on subsequent and concurrent regulatory processes.³⁶⁷ Other options proposed, including a mandatory issues paper and cross-submissions stage, received support from NSPs and other stakeholders.³⁶⁸ However, the AER was concerned that these would either not provide any value or create administrative burden.³⁶⁹

The AER supports its original proposal to restrict submissions from the NSP to require a complete regulatory proposal upfront and to allow the AER and other stakeholders to consider the NSP's regulatory proposal.³⁷⁰ Nevertheless, the AER is open to modifying its proposal if there are any inconsistencies with the NEL.³⁷¹

Consumer representative groups also support the AER's proposal.³⁷² They generally do not consider any of the other options proposed in the directions paper would

³⁶⁵ AER, Directions Paper submission, 2 May 2012, pp. 62, 65-69; ENA, Directions Paper submission, 16 April 2012, pp. 63-65; ENERGEX, Directions Paper submission, 16 April 2012, pp.3-4; Ergon Energy, Directions Paper submission, 16 April 2012, pp. 15-16; Essential Energy, Directions Paper submission, 20 April 2011, pp.9-12; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp. 47-48; Grid Australia, Directions Paper submission, 16 April 2012, pp. 2-3, 12; Jemena, Directions Paper submission, 16 April 2012, pp. 47, 54; MEU, Directions Paper submission, 17 April 2012, pp.37-38.

³⁶⁶ ENA, Directions Paper submission, 16 April 2012, p. 63; Grid Australia, Directions Paper submission, 16 April 2012, p. 12; Jemena, Directions Paper submission, 16 April 2012, p. 47.

³⁶⁷ AER, Directions Paper submission, 2 May 2012, pp. 68-69; ENA, Directions Paper submission, 16 April 2012, p. 65; ENERGEX, Directions Paper submission, 16 April 2012, pp. 3-4; Ergon Energy, Directions Paper submission, 16 April 2012, pp. 15-16; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp. 47-48; MEU, Directions Paper submission, 17 April 2012, p.38; SA DMITRE, Directions Paper submission, 5 May 2012, p. 5.

³⁶⁸ ENA, Directions Paper submission, 16 April 2012, pp. 63-66; ENERGEX, Directions Paper submission, 16 April 2012, pp.3-4; Ergon Energy, Directions Paper submission, 16 April 2012, pp. 15-16; Essential Energy, Directions Paper submission, 20 April 2011, pp.9-12; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp. 47-48; Grid Australia, Directions Paper submission, 16 April 2012, p. 12; Jemena, Directions Paper submission, 16 April 2012, 47, 54; MEU, Directions Paper submission, 17 April 2012, pp.37-38; SP AusNet, Directions submission, 16 April 2012, pp. 6-7; Vic DFI, Directions Paper submission, 16 April 2012, pp.13-14.

³⁶⁹ AER, Directions Paper submission, 2 May 2012, pp. 65-69.

³⁷⁰ *Id.*, pp. 65-66.

³⁷¹ *Ibid.*

³⁷² Consumer Action Law Centre, Directions Paper submission, 16 April 2012, p. 7; CUAC, Directions Paper submission, 16 April 2012, p. 4; EUAA, Directions Paper submission, 16 April 2012, pp. 33-34; MEU, Directions Paper submission, 17 April 2012, p. 37; PIAC, Directions Paper submission, 16 April 2012, p. 2; UnitingCare Australia, Directions Paper submission, 9 May 2012, p. 60.

directly address the AER's problem of receiving late submissions.³⁷³ NSPs maintain their previous position from first round submissions that there are legitimate reasons for making late submissions.³⁷⁴ As an alternative to the AER's approach, NSPs propose a non-rule based solution to address legitimate late submissions.³⁷⁵

10.2.2 Confidentiality claims

Most of the stakeholders who provided second round submissions on confidentiality claims maintained their positions from first round submissions. Consumer representative groups maintain their support for the AER proposal, as they agree with the AER's characterisation of the problem.³⁷⁶ In addition to its original proposal, the AER proposes a "stop the clock" mechanism to allow it more time to consider confidentiality claims.³⁷⁷

NSPs continue to disagree with the AER's proposal and consider that the current arrangements are appropriately balanced and the AER should not be given more time.³⁷⁸ They elaborate further on their previous first round submissions for a non-rule based approach, including proposing a confidentiality information protocol, principles for the protocol, and categorising confidentiality claims.³⁷⁹

10.2.3 Framework and approach

Need for a framework and approach paper

The AER supports the NSPs' previous proposal from first round submissions for making the framework and approach paper optional on particular matters, which would be triggered by either the AER or NSP.³⁸⁰ However, some other NSPs consider that the framework and approach paper must be mandatory to avoid complications such as uncertainties associated with triggering its publication.³⁸¹ The MEU considers

³⁷³ EUAA, Directions Paper submission, 16 April 2012, pp. 33-34; Public Interest Advocacy Centre (PIAC), Directions Paper submission, 16 April 2012, p. 2; UnitingCare Australia, Directions Paper submission, 9 May 2012, p. 60.

³⁷⁴ ENA, Directions Paper submission, 16 April 2012, pp. 62-63; Ergon Energy, Directions Paper submission, 16 April 2012, pp. 15-16; Essential Energy, Directions Paper submission, 20 April 2011, pp. 10-11; Jemena, Directions Paper submission, 16 April 2012, pp. 51-53.

³⁷⁵ ENA, Directions Paper submission, 16 April 2012, pp. 66-67; Jemena, Directions Paper submission, 16 April 2012, pp. 51, 55; SP AusNet, Directions Paper submission, 16 April 2012, pp. 5-6.

³⁷⁶ Consumer Action Law Centre, Directions Paper submission, 16 April 2012, p. 7; EUAA, Directions Paper submission, 16 April 2012, pp. 33-34; MEU, Directions Paper submission, 17 April 2012, p. 38; PIAC, Directions Paper submission, 16 April 2012, pp.2-3; UnitingCare Australia, Directions Paper submission, 9 May 2012, pp. 59-60.

³⁷⁷ AER, Directions Paper submission, 2 May 2012, p. 71.

³⁷⁸ Ergon Energy, Directions Paper submission, 16 April 2012, p.16; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 49.

³⁷⁹ ENA, Directions Paper submission, 16 April 2012, pp. 67-71.

³⁸⁰ AER, Directions Paper submission, 2 May 2012, pp. 63, 73.

³⁸¹ ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp. 50-51.

that the framework and approach paper is still necessary to fix in and resolve specific matters earlier in the process.³⁸²

Control mechanism

The AER states that the control mechanism should be fixed in the framework and approach paper.³⁸³ On the other hand, the AER supports changing the formulaic expression that gives effect to the control mechanism for unforeseen circumstances subsequent to a framework and approach paper.³⁸⁴ This is a view that has received support from NSPs.³⁸⁵

Threshold for changing service classification and formulaic expression of the control mechanism in regulatory determinations

The AER maintains from its original proposal that the threshold for changing service classification in regulatory determinations should be for unforeseen circumstances.³⁸⁶ This should also now apply to the formulaic expression that gives effect to the control mechanism.³⁸⁷ Most NSPs consider that the AER's proposal creates uncertainty and that any such change should be based on persuasive evidence.³⁸⁸ However, the joint submission of ETSA, CitiPower and Powercor consider that the current threshold of "good reasons" should be retained for service classification.³⁸⁹ They consider that the formulaic expression of the control mechanism can be revisited because the AER currently does this.³⁹⁰ The MEU, on the other hand, suggests that basing the threshold on unforeseen circumstances suggests the NSP does not understand its business.³⁹¹

10.3 General principles

10.3.1 Background

In 2006, the AEMC considered that the regulatory determination process needs to be transparent and timely to provide all parties with a clearer understanding of their

382 MEU, Directions Paper submission, 17 April 2012, pp. 56-57, 68-69.

383 AER, Directions Paper submission, 2 May 2012, p. 73.

384 Ibid.

385 ENA, Directions Paper submission, 16 April 2012, pp. 74-75; Ergon Energy, Directions Paper submission, 16 April 2012, p. 17; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 51.

386 AER, Directions Paper submission, 2 May 2012, p. 73.

387 Ibid.

388 ENA, Directions Paper submission, 16 April 2012, pp. 74-75; Ergon Energy, Directions Paper submission, 16 April 2012, p. 17.

389 ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp. 51-52.

390 Ibid.

391 MEU, Directions Paper submission, 17 April 2012, p. 69.

rights and obligations at the outset.³⁹² This promotes more efficient network investment, operation and service provision in the long term interests of consumers.³⁹³

Providing the NSP and stakeholders opportunities to make submissions to the regulator and providing for full and thorough decision-making by the regulator promotes transparency.³⁹⁴ This transparency leads to reduced regulatory risk and error, and decreases the administrative costs of regulation.³⁹⁵ Applying time constraints to the process also contributes to timely and efficient regulatory decision-making.³⁹⁶

The environment for the economic regulation of network services has changed since the AEMC's Chapter 6A rule determination. In 2008, the merits review process was introduced into the NEL. In addition, the MCE Standing Committee of Officials (SCO) made Chapter 6 of the NER for economic regulation of distribution network services. The volume and scope of material being assessed by the AER, and consulted upon with stakeholders, has also increased over time. AER decisions have, as a consequence, increased in length.

As a result of this changed environment, the current timeframe creates challenges for stakeholders to scrutinise the NSP's material, and for the AER to assess all relevant material and make a decision. Consumer representative groups also cannot engage effectively in the regulatory determination process. This changing environment requires adjustment to the regulatory determination process.

10.3.2 Key objectives underpinning the regulatory determination process

In the directions paper, the Commission set out objectives which it considered underpin the regulatory determination process:

- the AER should be given enough time to scrutinise material provided by a NSP in its initial and revised regulatory proposals. This includes providing a clear period of time to consider all relevant and significant material submitted during a regulatory determination process prior to making the final regulatory determination;
- the regulatory determination process should provide a reasonable opportunity for a NSP and other stakeholders to comment on and scrutinise material submitted by each party;
- the NSP should have sufficient time to prepare its revised regulatory proposal and should submit as much relevant information as possible in its revised regulatory proposal;

392 AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, p. xxi.

393 Ibid.

394 Id., p. 33.

395 Ibid.

396 Ibid.

- in circumstances where a restriction is imposed on the content of the revised regulatory proposal, the NER should not permit this restriction to be circumvented through the use of submissions; and
- the regulatory determination process should encourage dialogue between the AER, the NSP and other stakeholders, particularly consumers, to establish a common understanding of the issues.

These key objectives are consistent with the AEMC's Chapter 6A rule determination. They are also consistent with the NEO as they will likely lead to more transparent and robust decision-making, and therefore increased certainty for investment in significant infrastructure for the provision of services.

The Commission's general approach to this rule change request has been to provide the AER with more discretion. Unlike rate of return or capex incentives, however, in respect of the regulatory determination process there are less risks of additional prescription in the NER. In particular, there should be less need for regular changes to the regulatory determination process to adapt to changing circumstances. To allow stakeholders to properly plan, certainty is also very important for the regulatory determination process.

Nonetheless, the NER, including the draft rule, do not prescribe the regulatory determination process on every aspect, and the AER does have discretion in many respects. This discretion may include further consultation when the AER proposes a shift from its draft position, and placing less weight on, or not considering, information that is submitted too late in the process.³⁹⁷ The New Zealand Commerce Commission has made use of this type of discretion. Further, the NER only provide a framework towards effective engagement; they it should be seen as a minimum in terms of the level of engagement. The extent of interaction between the regulated business, the regulator and other stakeholders is up to those parties. For instance, the AER and NSP should be engaging with each other regularly on an informal basis, including outside of the regulatory determination process.

As a general rule, the Commission has not prescribed in the NER requirements where a regulatory requirement already exists via the NEL or common law. The Commission considers that prescribing AER discretions which are a general function of regulators, or are already set out in the NEL, should be avoided where possible. This is especially where it is clear that they would still exist in the absence of the NER and including them in the NER would not provide any additional value. This general approach avoids any potential conflict between the NER and the NEL or common law, especially if the NEL or common law position were to change in the future.

³⁹⁷ It is noted that section 16(b)(i) of the NEL requires the AER to inform the NSP of material issues under consideration by the AER.

10.3.3 Options chosen

In addressing the broader issues identified in the directions paper, the Commission has decided to proceed with the following options:

- reporting late or out-of-scope submissions;
- commencing the regulatory determination process earlier, including extending the timeframe for the NSP to prepare its revised regulatory proposal;
- introducing a discretionary cross-submissions stage;
- requiring a mandatory issues paper from the AER and an overview paper from the NSP;
- identifying and reporting confidentiality claims in the regulatory proposal; and
- making the framework and approach paper an optional stage.³⁹⁸

These options enhance the transparent and timely processes for regulatory determinations, and increase the robustness of regulatory decision-making. They also address the broader issue of providing all stakeholders with sufficient time and improving stakeholder engagement during the regulatory determination process. They are each discussed in turn below.

10.4 Late or out-of-scope submissions

10.4.1 Analysis

The AER has characterised the problem as being that NSPs are undermining the process by providing late or out-of-scope submissions where they should have included this in their regulatory proposals. To resolve this, the AER proposed placing limitations on NSP submissions, including preventing the NSP from making submissions and limiting it to providing regulatory proposals. However, in the directions paper, the Commission considered the AER's identification of the problem only highlighted a broader issue with the current regulatory determination process. The process is currently not providing all stakeholders with an opportunity to effectively scrutinise material provided by the NSP where the NSP submits further information later in the process. It also does not provide the AER with enough time to assess all relevant material and to make a decision. This late information is greater than was previously envisaged by the AEMC in 2006. There may be legitimate reasons for the provision of information later in the process, such as new information becoming available to the NSP or a material change in the circumstances. However, an increase in

³⁹⁸ It is noted that a framework and approach paper must exist for the prescribed matters, although this may well be the previous framework and approach paper if the approach set out in it remains appropriate.

the quantity of late material has an adverse effect on the ability of interested parties to be engaged with the regulatory determination process.

Inconsistency with the NEL

The Commission has decided not to accept the AER's proposal to restrict the NSP's provision of material during the regulatory determination process. This is because it would create procedural fairness issues by denying the NSP a reasonable opportunity to make submissions, especially where there are legitimate reasons for making submissions. The Commission considers that the AER's proposal to restrict the NSP from making submissions in respect of the regulatory determination before it is made creates an inconsistency with sections 16 and 28ZC of the NEL. On this basis, the Commission notes that the AER has retracted from its original proposal and is open to making modifications to its proposal to avoid any inconsistencies with the NEL.³⁹⁹

Other regulators

The AER's problem with receiving information from the NSP which may be late, out-of-scope or voluminous is not unique. Regulators in general are subject to this as part of their regulatory decision-making processes, although there may be differences in the regulatory framework.

One New Zealand Commerce Commission case related to the input methodologies proposed to be used to regulate the price and quality of air services under the *Commerce Act 1986* (New Zealand). The regulated businesses filed a number of late submissions close to the end of the regulatory process, which was several months after submissions had closed.⁴⁰⁰ These submissions were provided in another part of the consultation stage addressing a different matter which made them out-of-scope. This was also late with respect to the previous consultation stage. The Commerce Commission decided to reject those submissions.⁴⁰¹

The regulated business sought judicial review of the Commerce Commission, and the High Court of New Zealand found in favour of the regulator.⁴⁰² The court held that there was no legitimate expectation created for the Commerce Commission to consider late submissions.⁴⁰³ This is because there was no "clear, unambiguous and unqualified" representation from the Commerce Commission that it would have regard to late submissions.⁴⁰⁴ It was also held that the Commerce Commission made no error in not considering the late submissions.⁴⁰⁵ This is because it made no procedural error in determining the input methodologies under the legislation and there was no material

399 AER, Directions Paper submission, 2 May 2012, p. 66.

400 *Wellington International Airport Limited v Commerce Commission* HC WN CIV-2011-485-1031 [21 December 2011], [278]-[293].

401 *Ibid.*

402 *Ibid.*

403 *Ibid.*

404 *Ibid.*

405 *Ibid.*

new element in the late submissions.⁴⁰⁶ The Commerce Commission was also deemed to only be required to have regard to views received in the timeframes that the regulator sets.⁴⁰⁷ The court's finding has set the precedent for the Commerce Commission if similar situations arise in the future.

The AER currently has the discretion as the regulator to not accept such submissions from the NSP or any other stakeholder.⁴⁰⁸ The Commission understands that the Australian Competition Tribunal has previously stated that the AER must draw a line on its engagement with a NSP or it will fail to meet the imposed deadlines.⁴⁰⁹ The Commission encourages the AER where appropriate to utilise its existing powers as are available for any administrative decision-maker to not accept late submissions.

Reporting on late and out-of-scope submissions

With this in mind, the Commission has decided a better approach would be for the AER to report on any late or out-of-scope submissions it receives from a NSP. This will not preclude such material from being considered by the AER. However, making public on the AER's website details of late or out-of-scope submissions from the NSP may be an effective tool to discourage such submissions being made. It should allow stakeholders, including consumers, to identify those NSPs that may be taking advantage of the regulatory process. At the same time, it would not prevent the AER taking into account submissions or further material from NSPs where this is justified and the AER has sufficient time to take it into account. The use of such a tool would increase transparency in this area in that the AER previously did not need to report that it had received a late submission. This approach may also be seen as creating a reputational risk for the NSP if it does decide to make a late or out-of-scope submission.

Other options

As noted above, part of the reason for late submissions also relates to a shortage of time in the current regulatory determination process. The Commission's proposed changes to the regulatory determination process, including commencing earlier and extending the current timeframe may assist to alleviate the problem.⁴¹⁰

The Commission considered some other options proposed to address the limited timeframe, but decided to not accept these. These relate to:

- delaying the making of the final regulatory determination;
- "stopping the clock" for assessing an incomplete regulatory proposal;

406 Ibid.

407 Ibid.

408 ENA, Consultation Paper submission, 8 December 2011, p. 57.

409 *Application by EnergyAustralia* [2009] ACompT 8, [257].

410 Commencing the regulatory determination process earlier and extending the current timeframe are described in section 10.8 of this draft rule determination.

- creating non-binding guidelines to address legitimate late submissions;
- applying a pecuniary penalty against the NSP who submits late submissions; and
- prescribing less weight to be placed on confidentiality claims in the regulatory proposal.

With respect to the option of delaying the making of the final regulatory determination process as a result of receiving a late submission from the NSP, the Commission decided not to proceed with this approach. This is because it would result in a significant administrative burden on other stakeholders. For instance, there would be flow-on effects on the annual pricing process for retailers and jurisdictional regulators. It may also be disproportionate to the problem identified.

The AER proposed a "stop the clock" mechanism to allow the AER to wait for information from a NSP in order to assess an incomplete or a deficient regulatory proposal.⁴¹¹ However, as previously considered by the AEMC in 2006, there is benefit in maintaining a fixed timeframe for completion of the process.⁴¹² This will also help the NSP to provide its best proposal, and allow for greater certainty and reduce delays. The Commission maintains its 2006 view by continuing the practice of specifying the timeframe for milestones within the regulatory determination process. Balanced with a specified timeframe, some flexibility will continue to be given to the AER to vary the time according to the individual circumstance. For example, not setting a time limit for the making of the draft regulatory determination will allow the AER some flexibility to obtain sufficient information before making the draft regulatory determination.

The ENA proposes non-rule based solutions including earlier engagement between the AER and NSP, and non-binding guidelines for addressing legitimate late submissions based on a set of principles.⁴¹³ The Commission commends the NSPs' participation in the rule change process by proposing some solutions towards resolving the identified problems. The Commission encourages NSPs to continue proactively engaging with the AER and other stakeholders, especially consumer representative groups, to improve how they interact with each other. The practices promoted by the NSPs should already be occurring consistent with the obligations on the AER under section 16 of the NEL.

The CUAC proposes the implementation of a pecuniary penalty against the NSP for making late submissions.⁴¹⁴ However, the making of such a rule is prohibited under section 36 of the NEL.

⁴¹¹ AER, Directions Paper submission, 2 May 2012, p. 67.

⁴¹² AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, p. 114.

⁴¹³ ENA, Directions Paper submission, 16 April 2012, pp. 66-67.

⁴¹⁴ CUAC, Directions Paper submission, 16 April 2012, p. 4.

10.4.2 Guidance on draft rule

If the AER receives a late or out-of-scope submission from a NSP, the Commission's draft rule requires the AER to make available on its website from a NSP the following information:

- the identity of the NSP who made the late or out-of-scope submission;
- a summary of the particular information it considers to be late or out-of-scope; and⁴¹⁵
- an indication of the amount or length of that information that it considers to be late or out-of-scope.

The purpose of this draft rule is to publicise the fact that the NSP has made a submission to the AER which the AER considers to be either late or out-of-scope. By making this public, it should discourage the NSP and other NSPs from making such submissions in the future unless the information contained in them is necessary. It also allows the NSP to understand what the AER considers to be late or out-of-scope. Finally, the NSP may wish to informally respond to the AER to explain its reasons for providing such a submission once it is made aware of the AER's position.

10.5 Confidentiality claims in the regulatory proposal

10.5.1 Analysis

Background

In the AEMC's Chapter 6A rule determination, the AEMC considered that efficient and effective regulation requires the provision of accurate, timely and relevant information.⁴¹⁶ In making its decision on the treatment of confidential information, the AEMC balanced the need for:

- timely and accurate information, and stakeholder access to information by which the AER makes its decision; versus
- administrative cost and burden in providing that information, and protection of confidential information that would commercially harm the TNSP or third parties.⁴¹⁷

The AEMC considered in 2006 that it was essential to provide a degree of transparency with respect to the contents of all submissions considered by the AER in making its decision. It also considered that the NSP should have the opportunity to respond to

⁴¹⁵ For instance, the summary may simply cross refer to that information as contained in the submission.

⁴¹⁶ AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, p. 113.

⁴¹⁷ Ibid.

¹⁶⁶ Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

comments contained in submissions, in particular those critical of a NSP.⁴¹⁸ Therefore, the AEMC specified in the NER for the AER to be given the discretion to give lesser or no weight to confidential submissions.⁴¹⁹

AER's existing powers

In general, the Commission maintains the view it set out in the directions paper. It is important that the probative value of as much of a NSP's initial or revised regulatory proposal as possible is able to be tested with stakeholders. There will almost always be information included as part of a NSP's initial or revised regulatory proposal which is legitimately claimed to be commercially sensitive and confidential. For example, if detailed cost forecasts for different aspects of a project were made public this may hamper a subsequent competitive procurement process. However, the Commission considers it unlikely that all aspects of an initial or revised regulatory proposal could legitimately be claimed to be confidential. This is partly because the NSP is a monopoly business and does not therefore compete directly with other businesses.

There also appears to be scope for information to be aggregated where concerns about confidentiality for more detailed aspects of information are present. On this basis, it would be expected that only relatively small parts of the initial or revised regulatory proposal should be commercially sensitive, and therefore confidential.

The NER do not explicitly permit the AER to give less weight to confidential information in an initial or revised regulatory proposal. However, there are existing AER powers under the NEL and common law to use discretion in addressing confidentiality claims in a regulatory proposal. These include:

- giving lesser weight to the information when making a decision;
- aggregating confidential information;
- publishing confidential information if the public benefit outweighs the detriment to the NSP arising as a result of the disclosure of the information; and
- seeking alternative arrangements such as limited disclosure.

The Commission considers that the AER has a broad range of tools at the AER's disposal to assist it in addressing confidentiality claims. The AER should take advantage of its existing discretionary powers.

Limited timeframe

In respect of these discretionary powers, the AER indicates that the current timeframe sometimes makes it infeasible to apply the public benefits test under section 28ZB of the NEL.⁴²⁰ However, the AER also indicates that its internal processes are being

⁴¹⁸ Id., p. 121.

⁴¹⁹ Ibid.

⁴²⁰ AER, Response to AEMC questions, 2 February 2012, p. 7.

improved to allow it sufficient time to make use of this discretionary power.⁴²¹ The AER notes that extending the regulatory determination timeframe may assist the AER in assessing large confidentiality claims and applying section 28ZB of the NEL.⁴²² The Commission considers that an additional six months to the current timeframe as discussed in section 10.8 should allow the AER more time to consider confidentiality claims in a regulatory proposal. However, the AER considers that extending the timeframe would not address the problem of a NSP making blanket and unsubstantiated confidentiality claims.⁴²³ Having more information about the reasons for a confidentiality claim may make it easier for the AER to assess the claim. Categories of confidential information, as described below, may assist this.

Categorisation of confidentiality claims and guidelines

NSPs propose a categorisation of confidentiality claims to assist the AER in assessing confidentiality claims.⁴²⁴ They propose the following categories:

- confidential contractual terms;
- market sensitive cost inputs;
- information provided by a third party on a confidential basis;
- proposed strategic property acquisitions;
- planning for negotiation of industrial agreements;
- proprietary information of a NSP or a third party;
- information which if made public may jeopardise security of the network or NSP's ability to effectively plan and operate its network; and
- information which identifies the personal affairs of individuals.⁴²⁵

The Commission considers that these confidentiality categories are clearly legitimate reasons for claiming confidentiality as they relate to commercial sensitivities, protection of security, or privacy. However, they should not be considered an exhaustive list. There may be other categories of confidentiality claims for information not listed which legislation would still require the AER to protect from being disclosed.⁴²⁶

To provide clarity on how confidentiality claims in regulatory proposals should be presented to the AER, the Commission proposes to require the AER to develop and

421 Ibid.

422 AER, Directions Paper submission, 2 May 2012, p. 71.

423 Ibid.

424 ENA, Directions Paper submission, 16 April 2012, p. 71.

425 Ibid.

426 *Competition and Consumer Act 2010* (Cth) s. 44AAF.

consult on guidelines with respect to this. The guidelines would specify the manner in which the NSP is to make confidentiality claims in its regulatory proposal, which may include categories of confidential information. The guidelines may also include how the NSP should identify the confidential information and the type of information that the NSP wishes to have disclosed. However, the guidelines would not prevent the NSP from making confidentiality claims. Its purpose is to assist the AER when it receives confidentiality claims from the NSP.

Further, by establishing guidelines which clarify the manner in which NSPs are to make their confidentiality claims, NSPs will have a better understanding of the AER's requirements. It will also make NSPs become more accountable when they make confidentiality claims in regulatory proposals. In addition, the administrative burden that would have been placed on the AER in addressing confidentiality claims should be reduced. For instance, the AER would be able to sort through the confidentiality claims more quickly and understand what it has to focus on. This would mean the time pressures on the AER would be alleviated and allow the AER to make use of its existing powers more efficiently.

In addition to the guidelines, the draft rule requires the AER to publish on its website information relating to the proportion of the NSP's material that is subject to a claim of confidentiality. This will allow the public to have an understanding as to the proportion of material that has been claimed to be confidential. As a comparison to other NSPs' claims of confidentiality, a comparative proportion of material that the AER has previously received from other NSPs claiming to be confidential will also be published on the AER's website.

Interaction with interested parties

NSPs have proposed a non-rule based solution to the issues raised in respect of confidential information in the form of a confidential information protocol.⁴²⁷ This may include a limited disclosure agreement between the NSP and an interested party, as has been utilised in the telecommunications industry.⁴²⁸ The Commission supports any initiative that aims to improve stakeholder engagement, without the need for prescription in the NER.

With the introduction of the NSP overview paper, it would be the appropriate place to require the NSP to explain whether and, if so, how it has engaged with consumers. The AER could use this information to assist it in determining whether it should take a stricter approach in assessing the confidentiality claims from the NSP. For instance, a consumer representative group may be given access by the NSP to a confidential document prior to the submission of the regulatory proposal. On this basis, the AER may be able to test the probative value of the document with that consumer representative group. This could assist the AER in determining how much weight to place on the document.

⁴²⁷ ENA, Directions Paper submission, 16 April 2012, p. 70.

⁴²⁸ Ibid.

The Commission considers setting out the process for addressing confidentiality claims as discussed above will encourage NSPs to become more disciplined in only making genuine confidentiality claims. It will also result in the identification of confidential information to the AER more clearly. This in turn will reduce the administrative burden on the AER to test confidentiality claims. Other stakeholders will also benefit from a more transparent process and have a greater opportunity to access relevant information. Overall, this facilitates as much testing and scrutiny of the initial or revised regulatory proposal as possible, while upholding legitimate claims of confidentiality by NSPs. This will lead to a more well-balanced and robust decision-making process.

10.5.2 Guidance on draft rule

As noted earlier, to promote adherence to a process for addressing confidentiality claims, the draft rule requires the AER to issue guidelines. This will set out the manner in which the NSP makes confidentiality claims in its regulatory proposal, which may include identifying relevant categories of confidential information. The guidelines would be consulted upon in accordance with the standard consultation procedures for guidelines in the NER. The NSP and other stakeholders will then have an opportunity to clarify the requirements for making confidentiality claims in regulatory proposals.

Once the guidelines are in place, the NSP will be required to identify to the AER which information it claims to be confidential. This may include identifying the category of confidentiality claim that the NSP wishes to make or wishes to have disclosed. Based upon this information, the AER would be able to determine the comparative proportion of material that has been claimed as confidential with regard to other NSPs. The AER would then report on its website that a confidentiality claim has been made. Other information on the website would include:

- the identification of the NSP;
- the quantity and proportion of confidential information; and
- a comparison of the NSP's proportion of confidential information to other NSPs.

The AER would not be required to report on other more specific aspects such as categories of confidentiality claims. That type of information is more for the AER's benefit when addressing confidentiality claims.

As an example, the AER provided a table in its submission to demonstrate the proportion of material from NSPs that it has previously received claiming to be confidential.⁴²⁹ This is reproduced and shown in Table 10.1. The AER could use a similar format on its website to report on confidentiality claims and include the identification of the NSP and proportion of confidential information claimed from each NSP.

⁴²⁹ AER, Directions Paper submission, 2 May 2012, p. 71.

Table 10.1 Page count - documents submitted by DNSPs in the AER's Victorian electricity distribution determination (2011-15)

	Regulatory proposal		Revised regulatory proposal	
	Public	Confidential	Public	Confidential
Business 1	1,540	4,584	4,157	5,599
Business 2	2,960	5,231	9,337	10,235
Business 3	1,869	22,811	1,704	2,626

Source: AER, Directions Paper submission, 2 May 2012, p. 71.

In addition to the draft rule for confidentiality claims with respect to initial or revised regulatory proposals, the Commission considers that the same rules could also be applied to the pricing methodologies and to submissions in general.⁴³⁰ However, no consequential amendments will be made to the NER to align confidentiality claims in respect of submissions with the Commission's position on regulatory proposals. This is because NER provisions relating to confidentiality claims in submissions already exist. Conversely, the Commission considers it appropriate to treat confidentiality claims in respect of pricing methodologies for transmission consistently with confidentiality claims in respect of regulatory proposals.

10.6 Mandatory issues paper and overview paper

10.6.1 Analysis

Issues paper

Consumer representative groups seek better opportunities to be engaged in the regulatory determination process. In the directions paper, the Commission identified a need for improvement in engaging with stakeholders during the regulatory determination process, especially with consumer representative groups. The LMR Panel has also taken a similar view that there are weaknesses in the regulatory determination process for consumer and user participation.⁴³¹ As a monopoly business, incentives need to be placed on the NSP to continually take into account consumers' current and future interests, preferences and requirements, including improvements to consumer welfare.⁴³²

The Commission considered in its directions paper the option to establish a mandatory issues paper during the time between the regulatory proposal and close of submissions

⁴³⁰ Pricing methodologies are submitted with the regulatory proposal in transmission.

⁴³¹ LMR Panel, *Review of the Limited Merits Review Regime*, Stage One Report, Report for the SCER, 29 June 2012, p. 45.

⁴³² Ibid.

on the regulatory proposal. The Commission considered that it would be for the benefit of stakeholders, including consumer representative groups.

Currently, an issues paper is optional under the NER.⁴³³ However, the Commission understands that this process has never been utilised in practice.

A potential explanation for the issues paper not being used by the AER is the current limited timeframe between the regulatory proposal and close of submissions on the regulatory proposal. The AER suggests that this time should be extended to reflect the time and resources if an issues paper is required.⁴³⁴ The Commission recognises the current time constraints, and considers that additional time should be provided to the AER to prepare this paper.

The AER also considered that the issues paper should continue to be optional, as it may not add value to the regulatory determination process.⁴³⁵ The Commission notes that the use of an issues paper is not unusual in regulation. Other jurisdictional regulators have used the paper in their regulatory processes.⁴³⁶ The issues paper allows for preliminary considerations of the AER to be identified upfront. It also allows resource-limited stakeholders, such as consumer representative groups, to focus on specific issues. The Commission shares the view of the Vic DPI that the issues paper may result in a reduction of the volume of NSP material which stakeholders will have to consider.⁴³⁷ By imposing an obligation on the AER to identify preliminary issues which it considers to be relevant, stakeholders will be guided into focusing on specific areas of interest in the NSP material. It will also reduce the need for stakeholders to unnecessarily become immersed in the other NSP material. In turn, the AER is not limited to considering other issues when making its determination.

The identification of these preliminary issues will assist all stakeholders to make better use of their resources to focus on particular matters when preparing their submissions on the regulatory proposal. It will also encourage further discussion on these issues earlier in the process and before the publication of the draft regulatory determination. The regulator should also benefit from this process because fundamental differences could be identified and resolved earlier in the regulatory determination process and the quality of submissions should improve. This should lead to an overall improvement in stakeholder engagement. For these reasons, the Commission endorses the use of an issues paper.

⁴³³ NER clauses 6.9.3(b) and 6A.11.3(b).

⁴³⁴ AER, Directions Paper submission, 2 May 2012, p. 67.

⁴³⁵ Ibid.

⁴³⁶ For example: ERA, *Western Power's Proposed Revisions to the Access Arrangement for the Western Power Network*, Issues Paper, 7 November 2011, p. 2; ESCOSA, *ETSA Utilities' Capital and Operating Expenditure Submission 2005-2010*, Issues Paper, June 2004, p. 3; ESCV, *Electricity Distribution Price Review 2006*, Issues Paper, December 2004; IPART, *Review of regulated retail tariffs and charges for electricity 2010-2013*, Issues Paper, July 2009; Office of the Tasmanian Economic Regulator (OTTER), *Declaration of Distribution Services and Terms of Reference*, Issues Paper, November 2006; Queensland Competition Authority (QCA), *2005 Electricity Distribution Review*, Issues Paper, September 2003, p. 4.

⁴³⁷ Vic DPI, Directions Paper submission, 16 April 2012, p. 13.

Given its importance, an issues paper should be made mandatory. This will also help to place a discipline for all parties involved to discuss the AER's preliminary views earlier in the process.

In terms of the time requirement, the Vic DPI provided a comparison between the AER regulatory determination process and the ESCV regulatory process which included publication of an issues paper.⁴³⁸ It took the ESCV approximately two months from the date of receiving the regulatory proposal to publish the issues paper. Using this as a guideline for providing adequate time without creating an administrative burden, the existing regulatory determination process timeframe could be extended to accommodate an additional 40 business days. The issues paper will therefore be required to be published by the AER within 40 business days after the AER receives the NSP's regulatory proposal.

Overview paper

Alongside the issues paper, the Commission considers that there is a need for the NSP's regulatory proposal to be easier for consumers, including consumer representative groups, to understand. To promote this, the Commission has decided that an overview paper should be provided by the NSP. The paper would be subject to preliminary examination together with the regulatory proposal.

A difficulty identified in submissions, especially from consumer representative groups, is the resource intensive nature of the regulatory determination process. Part of this relates to the volume of information provided in the NSP's regulatory proposal. Just on the initial regulatory proposal alone, Table 10.2 illustrates the size that other stakeholders would have to consider for a given regulatory determination process.⁴³⁹

⁴³⁸ Id., pp. 13-14.

⁴³⁹ This excludes the confidential information and any other accompanying information.

Table 10.2 Total page count for initial regulatory proposals submitted to the AER

Region	Segment	Regulatory period	Total page count
New South Wales/Australian Capital Territory	Distribution	2009-14	1049
	Transmission	2009-14	128
Queensland	Distribution	2011-15	892
	Transmission	2012-17	131
South Australia	Distribution	2010-15	286
	Transmission	2008-13	138
Tasmania	Distribution	2012-17	323
	Transmission	2009-14	187
Victoria	Distribution	2011-15	1886
	Transmission	2008-14	421

As can be seen in Table 10.2, the total number of pages in initial regulatory proposals varies between regions. This is because of the number of NSPs and type of segment that are being considered as part of the regulatory determination process. With the addition of information that would accompany these regulatory proposals, it creates a further burden on resources for consumer representative groups to digest this information and understand the risks, benefits and impacts.

The overview paper would aim to address this by providing a summary of the NSP's regulatory proposal from the NSP's perspective which is specifically directed at electricity consumers. The scope would be to focus on the risks and benefits of the regulatory proposal for electricity consumers. In addition, the paper would outline how the NSP has engaged with consumers and how it has a right to address any of their concern which have been identified as a result of that engagement. Finally, a comparison between the NSP's proposed and current revenue requirements would be made. This is aimed at promoting NSP engagement with electricity consumers earlier in the process. As the NSP overview paper would be consumer-focused, it would need to be presented in plain language that would be easily understood by electricity consumers. Designing the overview paper this way will help to promote better engagement by the NSP with consumers, including consumer representative groups. It will also mitigate the disadvantage of limited consumer resources and expertise in the area. This approach would also be consistent with the LMR Panel's Stage One Report

findings to encourage earlier consideration of consumers' interests in the regulatory determination process.⁴⁴⁰

Public forum

The Commission considers that the requirement to have an overview paper and issues paper should be complemented by a public forum. The benefit of this is that it provides an additional opportunity for stakeholders to seek clarification from the AER and NSP on the NSP's regulatory proposal and the AER's preliminary thinking in the issues paper. Further, the forum should assist stakeholders when they prepare their submissions.

The Commission understands that the AER currently holds a public forum following the publication of the regulatory proposal, which involves the NSP and AER presenting to interested stakeholders. The Commission also recognises that the AER has a Customer Consultative Group which helps provide the AER with advice on matters affecting consumers. The Commission welcomes any other informal engagement between the NSP and AER with stakeholders.

Taken together, the AER issues paper, NSP overview paper and associated public forum should improve the level of understanding of the issues and quality of input from stakeholders. These processes add value by assisting stakeholders to allocate their resources to focus on key issues in the regulatory proposal and on the AER's preliminary views.

10.6.2 Guidance on draft rule

Issues paper

The Commission has decided to require the AER to publish an issues paper. The purpose of the paper will be to identify the preliminary issues that the AER considers are likely to be relevant to its assessment of the NSP's regulatory proposal. However, the AER would not be precluded from considering other issues when making its regulatory determination. Therefore, the issues paper would not be an exhaustive review of the proposal or contain a complete list of the matters that the regulator would consider in making its final decision.

The issues paper will be published within 40 business days of the AER receiving the NSP's regulatory proposal. It is noted that the publication date for the issues paper is not based on when a resubmitted regulatory proposal, if required to be resubmitted, is received by the AER. This is because the AER should still be able to prepare the issues paper while it waits on further information to be included in the resubmitted regulatory proposal. Therefore, only the period between the resubmitted regulatory proposal and issues paper will be affected. The other milestones in the regulatory

⁴⁴⁰ LMR Panel, *Review of the Limited Merits Review Regime, Stage One Report*, Report for the SCER, 29 June 2012, p. 46.

determination process will not be contingent on the date that the issues paper is published.

The deadline for submissions on the issues paper and regulatory proposal will be required to be no earlier than 60 business days after the AER publishes its issues paper. This means that the deadline for submissions on the regulatory proposal is essentially no earlier than 100 business days after receipt of the regulatory proposal.⁴⁴¹ The additional time for submissions on the regulatory proposal takes into account the introduction of the issues paper and submissions associated with that paper.

Further, to allow the AER to address a potential increase in submissions as a result of the issues paper, an additional 20 business days will be included as part of the overall regulatory determination process. This also accounts for the additional time that the AER would need to prepare its draft regulatory determination.

Submissions on the issues paper will be due at the same time that submissions on the regulatory proposal are due. This is to reflect the purpose of the issues paper, which is to assist stakeholders, particularly consumers and consumer representative groups, in preparing their submissions on the regulatory proposal.

Overview paper

With a consumer-specific focus in mind, the mandatory overview paper will need to explain how the NSP has engaged with electricity consumers in preparing its regulatory proposal. The paper will also provide a summary of the regulatory proposal for electricity consumers. In this way, the issues paper will act as a "map" to the regulatory proposal and help consumers focus on the relevant parts when responding to the regulatory proposal. In addition, the paper will explain how the NSP has sought to address any relevant concerns identified as a result of the engagement with electricity consumers. To further focus the attention of consumers, the paper will describe the key risks and benefits of the regulatory proposal for electricity consumers. Finally, the paper will compare the total revenue approved for the current regulatory period with the NSP's proposed total revenue for the next regulatory period. In this regard, it would be expected that the NSP will provide an explanation for any material differences between these two amounts.

Given that consumers will need to be able to easily access the paper, the issues paper will be a standalone document provided with the regulatory proposal. This means that the language in the paper should be plain language and should not use technical language or industry jargon.

To reflect the overview paper's importance in the process, the AER will be given the ability to accept or reject the overview paper which accompanies the regulatory proposal. If the AER considers that the overview paper does not comply with the NER requirements, the AER may reject the overview paper and require that this paper be resubmitted, addressing any relevant requirements. To provide clarity to the NSP on

⁴⁴¹ This time also takes into account the 40 business days for the AER to publish its issues paper after receipt of the regulatory proposal.

the information required in the overview paper, the AER can utilise a regulatory information instrument.

Public forum

The Commission will be making the convening of the public forum on the NSP's regulatory proposal and the AER's issues paper mandatory. It will be required to be held within 20 business days after the AER publishes its issues paper on the NSP's regulatory proposal.

10.7 Cross-submissions stage

10.7.1 Analysis

The AER has expressed a concern that NSPs are providing submissions on the draft regulatory determination to which other stakeholders do not have a reasonable opportunity to respond. Equally, it could be argued that other stakeholders may raise issues in their submissions which do not allow the NSP to have a formal opportunity to respond. Presently, under the NER, there are no formal consultation processes available following close of submissions on the draft regulatory determination. That said, the Commission understands that the AER has used its discretion at times to consult informally with interested parties prior to making a final regulatory determination.

The Commission considers a formal discretionary cross-submissions process may alleviate some of these problems. The New Zealand Commerce Commission uses a cross-submissions stage as part of its regulatory process. It is a discretionary stage in which the Commerce Commission can decide to initiate the process based on a narrow scope of issues raised during the initial round of submissions. For example, the Commerce Commission allowed for a cross-submissions stage on its process and issues paper in one of its regulatory processes.⁴⁴² This stage followed immediately after close of submissions on the process and issues paper. Later in that same regulatory process, the Commerce Commission allowed for another cross-submissions stage on its draft input methodology.⁴⁴³ This second cross-submissions stage occurred immediately after close of submissions on the draft input methodology. NSPs support a cross-submissions stage on the basis that this would provide an opportunity for submissions made by different stakeholders to be tested, and lead to a broader debate between the NSP and other stakeholders.

A criticism of the cross-submissions stage is that it could create an additional administrative burden on the AER to consider an additional volume of material as a

⁴⁴² The regulatory process was with respect to input methodologies for default price-quality paths with respect to electricity distribution and gas pipeline services. For further information, see New Zealand Commerce Commission, *Additional Input Methodologies for Default Price-Quality Paths*, Process and Issues Paper, 9 December 2011, pp. 5, 7, 9, 12, 16.

⁴⁴³ New Zealand Commerce Commission, *Draft Input Methodologies for Default Price-Quality Paths*, Consultation Paper, 15 June 2012, p. 5.

result of the process.⁴⁴⁴ Another criticism is that it may disincentivise the NSP from providing a complete revised regulatory proposal and submissions upfront within the current timeframes.⁴⁴⁵ These two concerns could be mitigated by giving the regulator the discretion to initiate the cross-submissions stage. These concerns can be further mitigated by limiting the scope of the cross-submissions stage to specified matters that have been raised during first round submissions.

The Commission is of the view that providing the NSP and other stakeholders with an opportunity to respond to each other's submissions on specified matters will likely increase the opportunity for all to comment. It will also likely potentially reduce the volume of material that may have otherwise been provided later in the regulatory determination process, which would have been outside of the consultation period. The AER may also benefit in the cross-submissions stage if the cross-submissions provide clarity to the AER on specified matters that were raised in submissions on the draft regulatory determination.

Making the cross-submissions stage discretionary and limited in scope will reduce the risk that NSPs treat this stage as an opportunity to submit a late revised regulatory proposal. It also gives the AER the option to dispense with the process if it considers that it would be unnecessary and to better utilise resources in preparing the final regulatory determination.

10.7.2 Guidance on draft rule

The Commission has decided to allow for a cross-submissions stage in the NER. The AER will have the discretion to decide whether or not the cross-submissions stage will be required immediately following the close of submissions on the revised regulatory proposal. If the AER does not invite submissions on the revised regulatory proposal, it implies that the cross-submissions stage would be unnecessary. This is because the AER did not consider it necessary with respect to the revised regulatory proposal. The AER would have the discretion to limit the scope of the cross-submissions stage. The scope would be to specified matters that have been raised during submissions on the draft regulatory determination or submissions on the revised regulatory proposal. If utilised, the cross-submissions stage would allow at least 15 business days for submissions after the invitation for submissions is published.

10.8 Timing of the regulatory determination process

10.8.1 Analysis

In the Chapter 6A rule determination, the timeframe for the regulatory determination process was limited to 11 months. The AEMC's intention was to promote efficient and timely regulatory decision-making. However, as described earlier in this chapter, the

⁴⁴⁴ AER, Directions Paper submission, 2 May 2012, p. 68.

⁴⁴⁵ Ibid.

environment for economic regulation of network services has changed since the Chapter 6A rule determination and 11 months appears to be inadequate.

As noted in sections 10.4 to 10.6 in this draft rule determination, new additions to the regulatory determination process will require consequential changes to the existing 11-month regulatory determination process timeframe.

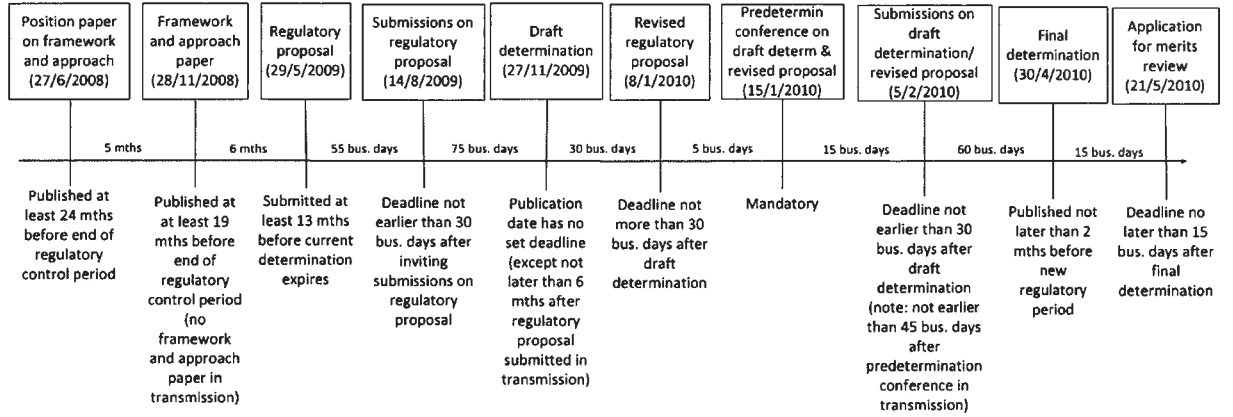
In addition, NSPs have proposed for the time for the NSP to prepare its revised regulatory proposal to be extended. In setting the current 30 business day timeframe in 2006, the AEMC considered that this would be sufficient for the NSP. It was considered that this reflected the limited scope of matters that would be addressed in the revised regulatory proposal. It was also considered that this would provide the discipline to submit in a timely manner. However, the Commission accepts that a lack of resources over the Christmas to New Year period, if applicable, may mean that the 30 business days are insufficient. That said, the NSP must still provide its revised regulatory proposal within a specified timeframe and limit these to matters identified by the AER in the draft regulatory determination. The NSP should not circumvent the existing requirements.

Recognising the burden placed on the NSP, the Commission will allow for an additional 15 business days to the current 30 business day period in which the NSP must submit its revised regulatory proposal.⁴⁴⁶ This should provide the NSP with a more reasonable opportunity to prepare and submit a complete revised regulatory proposal. The timeframes have been calibrated to address the Christmas to New Year period problem for the NSP in preparing its revised regulatory proposal under both the financial year and calendar year timeframes. It has also been adjusted for other stakeholders in responding to the revised regulatory proposal.

A total additional 120 business days, or approximately six months, will be required for the overall regulatory determination process timeframe. This is to account for the extension in time for existing stages in the process and the addition of new stages. The Commission does not consider it appropriate to reduce this additional period as proposed in submissions. This is because it would most likely reduce the timeframe for the AER to make its decisions, which would likely reduce the robustness of the AER's decisions. As a result, a NSP will now need to submit its regulatory proposal to the AER at least 19 months, instead of 13 months, before the end of the current regulatory period.

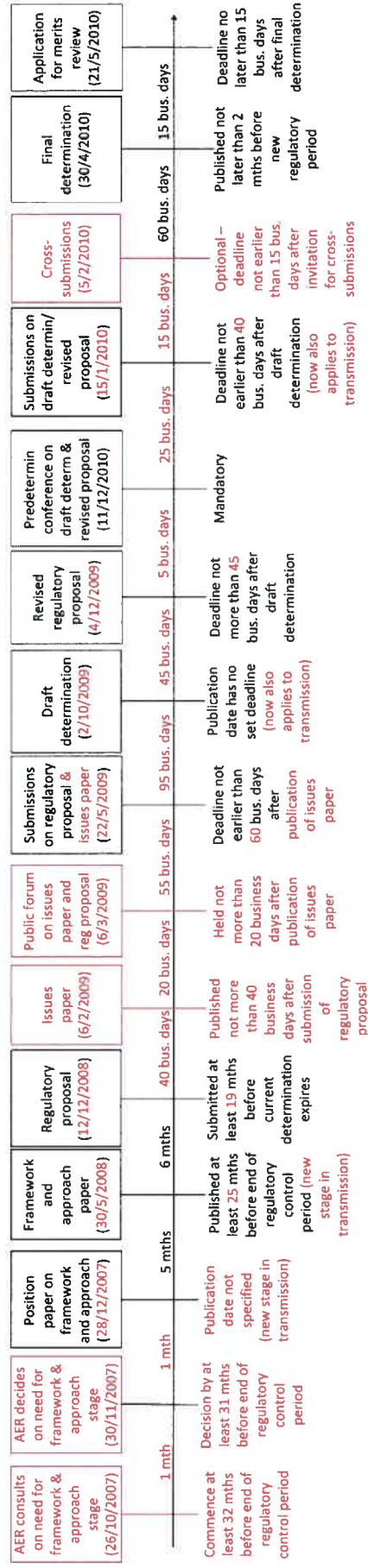
⁴⁴⁶ The Commission notes that NSPs propose an additional period of between 10 to 15 business days to prepare their revised regulatory proposals.

Figure 10.1 Example of the current regulatory determination process applicable to DNSPs



Note: the dates used in Figure 10.1 are hypothetical and are only used to illustrate the differences between the existing timeframe in this figure and the new timeframe shown in Figure 10.2. The diagram is unique to distribution. Where there are differences with transmission, this has been noted in the diagram.

Figure 10.2 Example of the new regulatory determination process applicable to DNSPs and TNSPs



Note: changes to the current regulatory determination process are highlighted in red text.

A concern with commencing the regulatory determination process earlier is the reduction in accuracy of forecasts for expenditure. This means that the information is more likely to be out-dated when the final regulatory determination is made. However, commencing the regulatory determination process earlier will allow for additional processes to promote further stakeholder engagement and transparency. It will also allow for more time for the existing processes, which should lead to more robust decision-making, more comprehensive and timely submissions, and reduce late material. For these reasons, the Commission considers that the benefit of commencing the regulatory determination process earlier by six months outweighs the risk of less accurate and available information for forecasts.

A comparison with some other jurisdictions and their regulatory processes would suggest that the new AER regulatory determination timeframe is now substantially longer than in those jurisdictions.⁴⁴⁷ On the other hand, the AER regulatory determination process is still shorter than the standard 24 month timeframe provided by Ofgem in Great Britain.⁴⁴⁸ However, it is somewhat misleading to compare the overall timeframe for the AER regulatory determination process with other jurisdictions, given the differences between the regulatory processes. For example, the degree of prescription is quite extensive with respect to the regulatory determination process for the AER, including statutory deadlines, while Ofgem has almost no prescription on any aspect of the determination process.⁴⁴⁹ Another difference includes the scope of the regulatory determination such as determining the cost of capital which is required for the AER regulatory determination, but not required in New Zealand.⁴⁵⁰ There are also historical reasons for the differences, noting that the economic regulation of network services was transferred from various jurisdiction-specific regulatory processes into a single NEM-wide regulatory process.⁴⁵¹

In reviewing the timeframe of the existing regulatory determination process, the Commission considered aligning the regulatory determination process timeframes for transmission and distribution. For consistency, the Commission has decided to make consequential changes where it does not consider there should be any difference and should have a minimal impact on stakeholders. As a result the changes include:

- removing the deadline for the making of the draft regulatory determination for transmission. There is currently no such deadline for distribution. In contrast, the

⁴⁴⁷ The jurisdictions considered were IPART in New South Wales, ERA in Western Australia, Commerce Commission in New Zealand, Ontario Energy Board (OEB) in Ontario and Rhode Island Public Utilities Commission (RIPUC) in Rhode Island. For further information, see The Brattle Group, *Framework for assessing capex and opex forecasts as part of a "building blocks" approach to revenue/price determinations*, June 2012, p. 4.

⁴⁴⁸ Here, the regulatory determination process starts from the date when a regulatory proposal is submitted to the regulator to the date that a final regulatory determination is made by that regulator.

⁴⁴⁹ The Brattle Group, *Framework for assessing capex and opex forecasts as part of a "building blocks" approach to revenue/price determinations*, June 2012, paragraph 12.

⁴⁵⁰ Ibid.

⁴⁵¹ Id., paragraph 27.

deadline for the publication of the draft regulatory determination in transmission is currently set for no later than six months after the regulatory proposal has been submitted. Removing this deadline allows the AER some flexibility in making the draft regulatory determination, which may be desirable given the different individual circumstances of NSPs; and

- changing the deadline for receipt of submissions on the draft regulatory determination for transmission to be no earlier than 40 business days after the publication of the draft regulatory determination. For transmission, this is currently set at no earlier than 45 business days after the date specified by the AER with respect to the predetermination conference on the draft regulatory determination. For distribution, this is currently set at no earlier than 30 business days after the date specified by the AER with respect to the predetermination conference on the draft regulatory determination.

Given that the above consequential changes are not set to specific dates, the AER will still have some flexibility in adjusting the timeframe for specific milestones as it currently does. However, in continuing to allow for flexibility in changing those timeframes, the AER will still be constrained to meeting the final deadline for publishing the final regulatory determination.

10.8.2 Guidance on draft rule

Commencing the regulatory determination process 120 business days earlier, as can be seen in Figure 10.1 and Figure 10.2, will allow for:

- 40 business days for the AER to prepare the issues paper following receipt of the NSP's regulatory proposal;
- 20 business days for the AER to hold a public forum following the issues paper;
- an additional 20 business days for the AER to prepare its draft regulatory determination;
- an additional 15 business days for the NSP to submit its revised regulatory proposal;
- an additional 10 business days for other stakeholders to consider the NSP's revised regulatory proposal and draft regulatory determination; and
- 15 business days for a cross-submissions consultation stage.

10.9 Framework and approach paper

10.9.1 Analysis

Need for a framework and approach paper

In the directions paper, the Commission considered the NSPs' proposal for a new framework and approach paper to be discretionary if there are no material changes to a particular component of the framework and approach paper.⁴⁵² In such a case, there would be no need to revisit such component(s), and the then existing framework and approach paper would be sufficient. This is because the consultation on that component(s) would not provide any additional benefit. As a result, the administrative costs would be reduced by making the process more efficient and flexible. The Commission maintains this position.

Specifying the circumstances when a framework and approach paper is necessary will provide stakeholders with a clear understanding of when the framework and approach would need to be consulted upon. Stakeholders' submissions would also be taken into account prior to the AER making the decision whether or not to proceed with a framework and approach paper.

NSPs also proposed that it should be either the AER or NSP that triggers the framework and approach paper. The MEU, on the other hand, suggested that it should be a tripartite approach and include other stakeholders. Upon further consideration, the Commission considers that, as the administrative decision-maker, the AER should be responsible for deciding whether to trigger the framework and approach paper. It would be at the AER's discretion to determine how much weight should be given to the NSP's input over other stakeholders with respect to initiating a framework and approach paper. However, it would be most likely that the NSP's input would be the most relevant, given that it has the knowledge of its own network and other matters relevant to the forthcoming regulatory period.

For consistency, the framework and approach paper process will also apply to transmission. Moreover, the draft rule omits the provisions in Chapter 6A that relate to submission guidelines. This is because all of the information requirements of submission guidelines as set out in NER clause 6A.10.2 can be met under a regulatory information instrument.

Incentive schemes

The Commission notes the AER's concern that consulting on incentive schemes in the framework and approach paper would be unnecessary and inefficient. However, the Commission maintains its position from the directions paper to retain incentive schemes as part of the framework and approach paper. This is because there has previously been reasonable stakeholder engagement on incentives schemes. Even so, by not requiring a new framework and approach paper with respect to such incentive schemes unless there is to be a change in the way they are applied, the AER's concern should be alleviated. The Commission considers this provides the appropriate balance between flexibility and administrative efficiency on the one hand, and certainty in the framework and approach paper stage on the other.

⁴⁵² Under the draft rule, the components will include incentive schemes, service classifications, form of the control mechanisms, formulaic expressions of the control mechanisms, dual function assets, and methodology for forecasting expenditure.

Control mechanism - only relevant to distribution

The AER's proposal highlighted the potential mismatch in the thresholds for changing the control mechanism and the service classification following the relevant framework and approach paper for distribution. This could cause a problem where the service classification changes but the control mechanism is not able to be changed as a result. In the directions paper, the Commission took the view that the AER may need some flexibility to adjust the control mechanism following the framework and approach paper when unforeseen circumstances occur. Following further clarification from the AER regarding the differences between the form of control mechanism and the formulaic expression of the control mechanism, the Commission has decided to revisit this issue.

For clarity, clause 6.2.5(b) of the NER lists the available options for the form of control mechanisms, which are:

- a schedule of fixed prices;
- caps on the prices of individual services e.g. a price cap;
- caps on the revenue to be derived from a particular combination of services e.g. a revenue cap;
- a tariff basket price control e.g. a weighted average price cap (WAPC);
- a revenue yield control e.g. an average revenue cap; or
- a combination of any of the above.

The formulaic expression of the control mechanism is the formula associated with that form of control mechanism. An example of the formulaic expression of the control mechanism is provided in Appendix B to illustrate the clear distinction between the "formulaic expression" of the control mechanism and the "control mechanism" itself.

The joint submission of ETSA, CitiPower and Powercor stated in an earlier submission that they support providing some flexibility to revisit the formulaic expression of the control mechanisms.⁴⁵³ However, they consider that the form of the control mechanisms should be fixed in.⁴⁵⁴ Otherwise, this would create an unacceptable degree of regulatory uncertainty for the NSP, place a prohibitive administrative burden on NSPs, and may constrain the NSP's ability to properly assess any new proposed form of control mechanism.⁴⁵⁵ The AER and NSPs clarify their support for the joint submission of ETSA, CitiPower and Powercor's in the second round of consultation.

The Commission accepts that the amount of time required for a NSP to accommodate changes to the form of control mechanism would be significant. As a result, the form of

⁴⁵³ ETSA, CitiPower and Powercor, Consultation Paper submission, 8 December 2011, p. 37.

⁴⁵⁴ Ibid.

⁴⁵⁵ Ibid.

control mechanism should be fixed in the framework and approach paper. However, if the formulaic expression of the control mechanism was able to be amended, a measure of flexibility would be afforded. The joint submission of ETSA, CitiPower and Powercor supports this approach, and notes that the AER has previously observed the benefits of a change to the formulaic expression of the control mechanism.⁴⁵⁶ This includes in the South Australian distribution regulatory determination regarding the WAPC, and in the Victorian distribution regulatory determination regarding the S factor true-up correction factor. It would appear that the burden on a NSP to accommodate a change to the formulaic expression is not so great as to be prohibitive of this approach.

The benefit of this approach is that there would be sufficient flexibility in being able to change the formulaic expression of the control mechanism during the regulatory determination process. This flexibility is balanced with certainty in fixing in the form of the control mechanism at the framework and approach paper stage. In addition, the formulaic expression of the control mechanism could be changed when the service classification is changed, addressing the AER's concern.

Threshold for changing service classification and formulaic expression of the control mechanism in regulatory determinations - only relevant to distribution

In respect of changes to service classification, the Commission maintains its position from the directions paper that the threshold to allow the AER to depart from its framework and approach paper will be in the event of unforeseen circumstances.

In contrast to the term "unforeseen circumstances", the Commission considers that the term "good reasons" and "persuasive evidence" are unclear and ambiguous, and are open to differing interpretations. What the AER considers to be "good reasons" or "persuasive evidence" may differ from the NSP. This creates unnecessary uncertainty in the process. On the other hand, the threshold of "unforeseen circumstances" has a more definitive meaning, and has been applied in other parts of the NER.⁴⁵⁷ The "unforeseen circumstances" threshold should therefore narrow the scope for protracted debate over interpretation. This provides a degree of certainty compared to the "good reasons" and "persuasive evidence" thresholds, and also allows the AER some flexibility where "unforeseen circumstances" arise. The "unforeseen circumstances" threshold would not allow for changes due to reasons which ought to reasonably have been considered at the time that the decision was made in the framework and approach paper.

In addition, the Commission confirms its view in the directions paper that the threshold for departing from the service classification should be the same as that for departing from the formulaic expression of a control mechanism. Otherwise, a mismatch between the two triggers may mean an appropriate formulaic expression of

⁴⁵⁶ Ibid.

⁴⁵⁷ For example, the term "unforeseen circumstances" appears under NER rule 3.7A(p)(3) and clause 11.30.2(i)(3). In addition to this, the term "unforeseen" appears under clauses 5.6.2A(b)(7), 5.6.5C(a)(1), 5.6.5C(b), 5.6.5C(c), and S8.11.1(b).

the control mechanism would not be able to be set for an altered service classification. Given the approach taken to service classification, this suggests an "unforeseen circumstances" test for the formulaic expression of the control mechanism as well. This provides the necessary consistency to properly change both components.

10.9.2 Guidance on draft rule

Triggering the framework and approach paper

The AER is being given the discretion to trigger the framework and approach paper stage. The circumstances in which the framework and approach stage would be required are if:

- there is no previous framework and approach paper on a particular component; or
- it may be necessary or desirable for a particular component from the previous framework and approach paper to be amended or replaced.

The circumstances above ensure that there must always be in place a framework and approach paper on a particular component, even if that is a previously existing framework and approach paper. A corollary of this is that, where a framework and approach paper on a particular component has previously been put in place, the requirement for a framework and approach paper on that particular component can be bypassed if the existing framework and approach for that component is still appropriate. In other words, the framework and approach paper would only be reopened for the particular components that the AER decides should be consulted upon. In other words, the framework and approach paper would not need to be reopened on all matters.

The AER will be given the responsibility to consider all stakeholder comments, including the relevant NSP's, on whether a revised framework and approach paper is necessary to address a particular component. This will be done prior to the AER making a decision on whether to trigger the framework and approach paper stage. This will give relevant stakeholders, and especially the relevant NSP, an opportunity to make a submission to the AER. It will also promote transparency in the process.

To this end, the draft rule requires the AER to issue an invitation for comment at least 32 months before the end of the current regulatory period. The draft rule also requires that stakeholders, including the relevant NSP, provide their comments on the need for a revised framework and approach. The AER would then be required to consider any stakeholder proposals and must decide whether to trigger the process at least 31 months before the end of the current regulatory period. Alternatively, the AER may not receive any submissions on triggering a framework and approach paper, but could still decide to trigger the framework and approach paper stage.

If there is to be a framework and approach paper stage on a particular component, then the AER must issue a notice to this effect by at least 31 months before the end of the

current regulatory period. The AER must then commence consultation on the framework and approach paper on that particular component. By at least 25 months prior to the end of the current regulatory period, the AER must have completed and published the framework and approach paper.

As there must be a framework and approach paper in respect of dual function assets, it is necessary for the determination on the price regulation of dual function assets to be brought forward to be aligned with the framework and approach paper process. To give the AER enough notice, the value of the relevant dual function assets will need to be advised to the AER before it commences consultation on whether to initiate a framework and approach paper. This means that this value will need to be advised to the AER at least 33 months prior to the end of the current regulatory control period. Given that the value ascribed to the relevant dual function assets must correspond to an opening value for a regulatory year, the time as at which this value must be determined will need to be 36 months prior to the end of the current regulatory period.

Threshold for departing from a component in the framework and approach paper

Except as described above, the AER can depart from the framework and approach paper in respect of the components covered by it during the regulatory determination process. For example, service classifications and the formulaic expression of the control mechanisms can depart from the framework and approach paper for unforeseen circumstances. Another example is the AER can depart from the relevant framework and approach paper for the application of incentive schemes during the regulatory determination stage, although it should give reasons for doing so. However, the form of the control mechanism and dual function assets will continue to be set in the framework and approach paper.

An example of how the "unforeseen circumstance" threshold could be applied may be with respect to a pending judicial decision where a service classification is contingent on that decision. Here, the pending judicial decision is one event and the actual judicial decision is another event. Although it may be argued that the pending judicial decision is foreseeable, the actual judicial decision could probably not be reasonably foreseen until the decision has been made. The service classification would have to be based on what is known at the time the framework and approach paper is made, but could be departed from once the actual judicial decision is made.

11 Diverse issues

Summary

- The capex reopener and contingent project mechanisms will be introduced in Chapter 6 of the NER (distribution) to allow for efficient costs to be recovered for unexpected events. A materiality threshold of one per cent of the annual revenue requirement will apply to cost pass through applications in distribution. These changes bring the uncertainty regime for distribution into line with transmission.
- The AER's decision-making timeframe for applications made under the uncertainty regime will be aligned between distribution and transmission. Some flexibility will be given in the timeframe to account for complex or difficult issues, and waiting on information from certain third parties. This will provide the appropriate balance between certainty and finality with flexibility in the process.
- The AER's power to revoke and substitute a decision for a material error or deficiency under Chapter 6A will be limited to "computational" errors by the AER or false or misleading information provided to the AER by another party. This brings into line the AER's power with Chapter 6, as well as providing for finality and certainty in the process.
- The AER will be given the power to establish shared assets cost adjustment mechanisms. This will apply to existing assets where those assets provide distribution or transmission services as well as other services. The mechanism will be designed in accordance with specific principles and guidelines. This will allow for innovation by NSPs and cost reflectivity for customers of the regulated service.
- Balancing the promotion of innovation and flexibility in regulation with good regulatory practice, the AER will be able to develop small scale pilot or test incentive schemes. This will allow the potential impact of such an incentive scheme to be understood before full implementation.

The AER has raised in its rule change request certain diverse issues. These relate to:

- the appropriateness of applying particular uncertainty regime mechanisms in distribution and aligning decision-making timeframes for the uncertainty regime mechanism (section 11.1);
- when the AER can revoke and substitute regulatory determinations to address material errors (section 11.2);
- how shared assets should be regulated (section 11.3); and
- the development of small scale incentive schemes (section 11.4).

11.1 Uncertainty regime

11.1.1 Introduction

For the purposes of this draft rule determination, the "uncertainty regime" under the NER comprises contingent projects, capex reopeners and pass through events. These mechanisms deal with expenditure that is required to be undertaken during a regulatory period but which is not able to be predicted with reasonable certainty at the time of preparing or submitting a regulatory proposal to the AER for the start of the next regulatory period. A more accessible uncertainty regime will, on the one hand, facilitate certain capex or opex projects being undertaken, though on the other hand it may reduce the incentive to undertake only efficient capex and opex in some circumstances. An appropriate uncertainty regime will contribute to efficiency of investment by allocating risks to the party best able to deal with them, including appropriately sharing the risks of external events.

Capex reopeners and contingent projects

The AER proposes to include capex reopener and contingent project provisions in Chapter 6 of the NER.⁴⁵⁸ In general, these would operate in distribution in the same way as they currently operate in transmission in Chapter 6A.

The threshold for a capex reopener would be five per cent of the value of the roll-forward RAB for the first year of the period, as in transmission. The threshold for a contingent project in distribution would be \$10 million; however, the AER has also proposed that it have the ability to specify a different threshold for both distribution and transmission contingent projects in guidelines.

In respect of pass through events, the AER's proposal is that a materiality threshold of one per cent of the annual revenue requirement should be applied to distribution.⁴⁵⁹

The AER has also proposed that, where as a result of a pass through application the AER allows capex which is fully recovered during the regulatory period in which the relevant event occurs, the capex should not be rolled forward into the RAB at the next regulatory determination.

The Commission received a related rule change request from Grid Australia on the cost pass through arrangements in Chapter 6A of the NER. The final rule determination was published on 2 August 2012 and is available on the AEMC's website. While that rule change request does not directly relate to the issues proposed by the AER in the current rule change request, there is some overlap in respect of pass through events. The Commission has taken into account that rule determination as part of this rule making process.

⁴⁵⁸ AER, Rule change request, Part B, 29 September 2011, pp. 46-52.

⁴⁵⁹ *Id.*, p. 50.

Timeframes for AER decision-making under the uncertainty regime

When the AER receives an application for cost pass throughs, contingency projects or capex reopeners, it has a set time to make its decision which varies according to the type of application.⁴⁶⁰ The AER considers that it does not have enough time for more complex applications, and proposes that it should have the ability to extend these time limits up to a set maximum period, as well as that the current decision-making periods across all types of applications should be aligned. In particular, the AER proposes a common default decision-making period of 40 business days from the date the application is received for positive pass throughs, negative pass throughs, contingent projects and capex reopeners.⁴⁶¹ For complex or difficult applications or where the AER requires further information from the NSP, the AER proposes to extend this decision-making period by an additional maximum period of 60 business days.⁴⁶²

11.1.2 Submissions

Capex reopeners and contingent projects

Most submissions maintain their objection from first round submissions to the proposed inclusion of the capex reopener and contingent project mechanisms in distribution.⁴⁶³ Their reasons were similar to those provided by the MCE SCO in developing Chapter 6 of the NER.⁴⁶⁴ That is, distribution projects are significantly different to transmission; being smaller in size, greater in volume, with shorter lead times, and more integrated and therefore difficult to divide.⁴⁶⁵ To introduce such mechanisms may increase the administrative burden on the NSP, cause delays in projects, and avoid the merits review process.⁴⁶⁶

In addition to NSPs, consumer representative groups continue to express concern that extending the uncertainty regime would lead to a potential increase in intra-period determinations, an administrative burden placed on them to participate in each application, and a weakening of the expenditure discipline and price or revenue cap regime.⁴⁶⁷ As an alternative, some consumer representative groups suggest that the

⁴⁶⁰ An exception to this is for negative pass throughs which have no set time limit.

⁴⁶¹ AER, Rule change request, Part B, 29 September 2011, p. 100.

⁴⁶² *Id.*, pp. 99-100.

⁴⁶³ Ausgrid, Directions Paper submission, 16 April 2012, p. 7; ENA, Directions Paper submission, 16 April 2012, pp. 27-28, 34-35; Essential Energy, Directions Paper submission, 20 April 2011, p. 8; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp. 30-32; IPART, Directions Paper submission, 16 April 2012, pp. 9-10; Jemena, Directions Paper submission, 16 April 2012, p. 24; MEU, Directions Paper submission, 17 April 2012, pp. 47-48, 60; SP AusNet, Directions Paper submission, 16 April 2012, p. 5.

⁴⁶⁴ *Ibid.*

⁴⁶⁵ *Ibid.*

⁴⁶⁶ *Ibid.*

⁴⁶⁷ Ethnic Communities Council of NSW, Directions Paper submission, 16 April 2012, p. 3; EUAA, Directions Paper submission, 16 April 2012, pp. 24, 26.

NSP should be better at reprioritising or substituting its projects to avoid seeking cost recovery through the uncertainty regime mechanisms.⁴⁶⁸

Notwithstanding the general opposition against contingent projects in distribution, there continue to be mixed responses from NSPs as to whether the threshold is too low or high. Some consider the mechanism would be too resource intensive if the threshold is too low.⁴⁶⁹ Others consider the threshold to be so high that the mechanism would be rarely utilised.⁴⁷⁰ The Vic DPI has previously proposed in first round submissions that the contingent project threshold and the other thresholds for capex reopeners and cost pass through applications should be indexed by inflation.⁴⁷¹

With respect to the materiality threshold for cost pass through applications in distribution, some DNSPs suggest various thresholds including \$1 million.⁴⁷² Other DNSPs have previously suggested in first round submissions that the threshold should remain flexible to capture all non-trivial matters, and reflect less lumpy capex in distribution, failing which they would be exposed to unrecoverable risks.⁴⁷³

NSPs maintain the position from first round submissions that the current uncertainty regime for transmission is not effective.⁴⁷⁴ They suggest this may be to do with the regime not being: applied in full or at all; practical and efficient; or sufficiently flexible.⁴⁷⁵ Further, they consider that uncertainty regime applications are inappropriate for addressing projects based on meeting customer or network demand, which may require a short lead time.⁴⁷⁶

Timeframes for AER decision-making under the uncertainty regime

Most NSPs maintain support for their previous proposal from first round submissions to include a "stop the clock" mechanism with respect to the AER's decision-making timeframe for complex circumstances relating to uncertainty regime applications.⁴⁷⁷ This would cater for circumstances which require more time than proposed by the AER e.g. as where the AER is awaiting a decision by a third party or requires further information.⁴⁷⁸

⁴⁶⁸ MEU, Directions Paper submission, 17 April 2012, pp. 47-48, 60.

⁴⁶⁹ Ausgrid, Directions Paper submission, 16 April 2012, p. 7.

⁴⁷⁰ SP AusNet, Directions Paper submission, 16 April 2012, p. 5.

⁴⁷¹ Vic DPI, Consultation Paper submission, 8 December 2011, pp. 5, 8.

⁴⁷² ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, pp. 31-32.

⁴⁷³ Ausgrid, Consultation Paper submission, 8 December 2011, pp. 30-32.

⁴⁷⁴ ENA, Directions Paper submission, 16 April 2012, pp. 27-28, 34-35.

⁴⁷⁵ Ibid.

⁴⁷⁶ Ibid.

⁴⁷⁷ ENA, Directions Paper submission, 16 April 2012, pp. 80-81; Ergon Energy, Directions Paper submission, 16 April 2012, p. 17; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 53; Grid Australia, Directions Paper submission, 16 April 2012, p. 13; Jemena, Directions Paper submission, 16 April 2012, p. 58.

⁴⁷⁸ Ibid.

Upon further consultation on the NSPs' proposed "stop the clock" mechanism, the AER also supports this but considers that the mechanism should be limited to uncertain circumstances which cannot be resolved within an extended but limited timeframe.⁴⁷⁹ In particular, the "stop the clock" mechanism should only apply to more uncertain circumstances related to waiting on information from third parties, awaiting the outcome of an external event impacting on the assessment, or where the AER has to make a relevant inquiry as part of its assessment and that enquiry requires additional time.⁴⁸⁰

With respect to contingent projects, the AER submits that it has experienced circumstances where contingent projects have required further assessment where there has been a change in scale, scope and schedule which requires it to assess the application afresh e.g. as receiving external advice on a detailed examination of a change in the expenditure profile associated to the expenditure allowance for the project.⁴⁸¹ However, Grid Australia suggests that the "stop the clock" mechanism should not apply to contingent projects.⁴⁸²

Some NSPs support the Commission's proposal to introduce a notification step where the NSP would be required to notify the AER if it was aware that there may be external events that could have an impact on an application before the NSP makes its application.⁴⁸³ However, most NSPs do not support this, suggesting that the AER provide guidelines on its expectations.⁴⁸⁴

11.1.3 Analysis

Background

In the AEMC's Chapter 6A rule determination, the AEMC considered that, like most businesses, a TNSP operates in an uncertain environment.⁴⁸⁵ Uncontrollable external events can alter the quantity and nature of services required to be provided.⁴⁸⁶ In a normal competitive environment, production and pricing behaviour would adjust to respond to these changes where efficient producers can recover their costs and should generally earn at least a normal return on their investments.⁴⁸⁷ The regulatory arrangements, including the uncertainty regime, attempt to mimic the competitive

479 AER, Directions Paper submission, 2 May 2012, pp. 63, 75-77.

480 Ibid.

481 Id., pp. 75-76.

482 Grid Australia, Directions Paper submission, 16 April 2012, p. 13.

483 ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 53.

484 ENA, Directions Paper submission, 16 April 2012, pp. 80-81.

485 AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, p. 54.

486 Ibid.

487 Ibid.

market by allowing the TNSP to alter its production behaviour to meet market demand and undertake unexpected investment in new network capacity.⁴⁸⁸

For distribution, contingent projects and capex reopeners were excluded from Chapter 6 by the MCE SCO because it was considered that distribution projects were different to transmission with respect to their nature and profile of capex.⁴⁸⁹ The MCE SCO considered that uncertainty around capex projects could be dealt with via pass through provisions to the extent the DNSP can demonstrate that the cost is outside of its control.⁴⁹⁰ Further, the MCE SCO considered that this would strike a reasonable balance between not penalising the DNSP for events outside its control and ensuring appropriate operation of the incentives regime within the regulatory framework.⁴⁹¹

Need for capex reopeners and contingent projects in distribution

As described in other parts of this draft determination, the Commission's starting point is that chapters 6 and 6A of the NER should be consistent unless there are substantive reasons for a difference. In respect of the uncertainty regime, the directions paper set out a range of reasons why the TNSP and DNSP face similar levels of uncertainty. Unlike competitive businesses, which are better able to adjust their behaviour in response to uncontrollable factors, the TNSP and DNSP are both generally obliged to continue to supply services even where their equipment is exposed to significant risks. In the absence of an uncertainty regime, the added risk for a regulated business would be factored into the cost of capital, forcing it up. A regulated business might also have more of an incentive to increase the forecast of capex or opex in its regulatory proposal to factor in circumstances which it cannot predict.

The Commission accepts that there are certain disadvantages of an expanded uncertainty regime. It could dampen the incentive effects of an ex ante allowance in certain circumstances. It could also create administrative burden for the AER and stakeholders in responding to "mini-determinations" during the regulatory period. On balance, however, the Commission has decided to maintain its position from the directions paper and include contingent projects and capex reopener mechanisms for distribution. This would better harmonise transmission and distribution, as well as making the NSP more accountable rather than relying on cost pass through applications for uncertain circumstances.

By setting the thresholds for these mechanisms at the correct level, as further discussed below, only the largest projects or events, which could be expected to have longer lead times, would be captured. Accordingly the administrative burden on stakeholders would be limited. In addition, experience with the uncertainty regime in Chapter 6A

488 Ibid.

489 MCE SCO, *Response to stakeholder comments on the Exposure Draft of the National Electricity Rules for distribution revenue and pricing*, 1 August 2007, pp. 29, 48.

490 Id., p. 29.

491 Id., p. 48.

indicates that the incentive effects of the ex ante allowance provided under the regulatory determination process would not be substantially weakened.⁴⁹²

In respect of whether pass throughs provide sufficient protection, capex reopeners are intended to fulfil a different function by extending protection to very large events which are more difficult to predict and are more difficult to fully provide for as pass through events. Contingent projects, on the other hand, apply to a matter which is more specific to a particular business and more likely to occur than a pass through.

In addition to NSPs, other stakeholders, including consumer representative groups, are concerned with the potential increase in intra-period determinations, administrative burden placed on them to participate in each application, and weakening the expenditure discipline and price/revenue cap regime.⁴⁹³ As an alternative, some suggest that a NSP should be using up its existing expenditure allowance, or reprioritising or substituting its projects, to avoid seeking cost recovery through the uncertainty regime mechanisms.⁴⁹⁴ In general, the Commission would expect a NSP to act in this way in respect of smaller projects. The threshold for capex reopeners and contingent projects means that these can only be used for larger projects. For such projects, it will be more difficult for the NSP to accommodate these within the existing allowance.

Finally, NSPs also suggest that the current uncertainty regime for transmission is not effective.⁴⁹⁵ However, the Commission is of the view that it is outside the scope of this rule making process to review the effectiveness of the uncertainty regime for transmission. Issues specifically associated with the effectiveness of the cost pass through regime have been addressed as part of another rule change process. If there is any reason that the current threshold in transmission should be changed, it should be addressed in another rule change request.

Threshold for capex reopener and contingent project applications in distribution

For contingent projects, the AER proposed a threshold of \$10 million which it considered was consistent with the AEMC's original intention in 2006 to align this with the regulatory test threshold.⁴⁹⁶ There have been mixed responses from DNSPs; some suggesting the contingent project threshold is too low, while others suggesting it is too high.⁴⁹⁷ The Commission maintains its position from 2006 and considers that the threshold should be aligned to the regulatory test threshold i.e. the RIT-T and the

⁴⁹² It is noted that under Chapter 6A, these mechanisms have not so far created a significant burden, given that contingent project has been used twice while capex reopeners have never been used.

⁴⁹³ Ethnic Communities Council of NSW, Directions Paper submission, 16 April 2012, p. 3; EUAA, Directions Paper submission, 16 April 2012, pp. 24, 26.

⁴⁹⁴ MEU, Directions Paper submission, 17 April 2012, pp. 47-48, 60.

⁴⁹⁵ ENA, Directions Paper submission, 16 April 2012, pp. 27-28, 34-35.

⁴⁹⁶ The regulatory test threshold in transmission has now been superseded by the Regulatory Investment Test for Transmission (RIT-T).

⁴⁹⁷ Ausgrid, Directions Paper submission, 16 April 2012, p. 7; SP AusNet, Directions Paper submission, 16 April 2012, p. 5.

proposed Regulatory Investment Test for Distribution (RIT-D). For this reason, it is unnecessary for guidelines to be produced to vary the contingent project threshold or for the contingent project threshold to be indexed by inflation.⁴⁹⁸ The contingent project threshold will now be directly linked to the estimated capital cost of the most expensive option to address the identified need under the RIT-T, as varied, for transmission and the proposed RIT-D, as varied, for distribution.⁴⁹⁹

By aligning the contingent project threshold with the estimated capital cost of the most expensive option to address the identified need under the RIT-T and the proposed RIT-D, in addition to alternative threshold of five per cent of the maximum allowed revenue (MAR) or annual revenue requirement, whichever is higher, the contingent project threshold will have a practical application as it can be applied to transmission and distribution projects which would be considered significant enough to warrant regulatory scrutiny and administrative resources. Therefore, the concerns raised in submissions with respect to the inappropriateness of applying contingent projects in distribution should be addressed as the threshold will be consistent with the proposed RIT-D.⁵⁰⁰ The Commission notes this is consistent with ETSA, CitiPower and Powercor's joint proposal of a \$5 million threshold for contingent projects in distribution.⁵⁰¹

Materiality threshold for cost pass through applications in distribution

The materiality threshold for cost pass through applications in transmission was seen as important to promote stability and predictability of the revenue cap regime for both the regulator and the NSP.⁵⁰² Without such a threshold, it was considered that this would lead to greater uncertainty and an increase in administrative costs for the AER to determine a material event.⁵⁰³ Hence, it was determined that the threshold should be one per cent of the MAR for transmission.

Some DNSPs propose that the materiality threshold for distribution should not be set as a value in the NER.⁵⁰⁴ Instead, they consider that it should remain flexible to capture all non-trivial matters and reflect less lumpy capex in distribution.⁵⁰⁵ Otherwise, the DNSP would be exposed to unrecoverable risks.⁵⁰⁶ However, the Commission is of the view that such an approach introduces an undesirable degree of subjectivity into cost pass through determinations, and gives the DNSPs too much of

498 Vic DPI, Consultation Paper submission, 8 December 2011, pp. 5, 8.

499 In distribution, this value is equivalent to the estimated capital cost to the NSP affected by the RIT-D project of the most expensive potential credible option to address the identified need of \$5 million. In transmission, this value is equivalent to the estimated capital cost of the most expensive option to address the identified need which is technically and economically feasible of \$5 million.

500 ENA, Directions Paper submission, 16 April 2012, pp. 27-28, 34-35.

501 ETSA, CitiPower and Powercor, Consultation Paper submission, 8 December 2011, pp. 75-76.

502 AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, p. 106.

503 Ibid.

504 Ausgrid, Consultation Paper submission, 8 December 2011, pp. 30-32.

505 Ibid.

506 Ibid.

an avenue to submit applications, which may or may not be trivial in nature. On balance, the Commission considers that a materiality threshold needs to be specified to provide for greater certainty to both the regulator and the DNSP.

The Commission understands that the AER has applied the one per cent threshold in practice for distribution, even though it is prescribed only for transmission. Therefore, there should not be a significant impact on DNSPs in codifying existing AER practices. Further, there does not appear to be a reason for a difference between transmission and distribution. For similar reasons expounded by the AEMC in 2006 for transmission, the Commission considers that there should be a one per cent materiality threshold for distribution. This will provide for consistency, transparency, predictability and certainty on when the AER would be required to consider cost pass through applications.

Double recovery of capex arising from cost pass through applications

The AER has raised the issue that there would be a potential double recovery of capital costs through both cost pass through applications and including that incurred capex again when establishing the roll-forward RAB for the next regulatory period. The Commission maintains its support from the directions paper for the AER's proposal to avoid this potential unintended double counting. This will be done by the draft rule excluding the capital costs recovered through approved cost pass through applications during the current regulatory period from the calculation of the roll-forward RAB for the next regulatory period.

Timeframes for AER decision-making under the uncertainty regime

In the directions paper, the Commission considered extending the timeframe for decision-making on cost pass throughs and capex reopeners, but not in respect of contingent projects. Upon further reflection, it would be appropriate to align the extended timeframes for all three of these mechanisms, including contingent projects. In addition to the benefits that come from consistency in general, the AER's submission provides evidence of the detail and complexity that may be involved in the AER's assessment of contingent project applications.⁵⁰⁷ This includes an example of an ElectraNet contingent project application where the expenditure sought after the trigger event had occurred was significantly different from what had been envisaged in the determination. Assessing such applications may require a contractor to be engaged, adding to assessment time. This appears to justify the same changes being made for the assessment time for contingent projects as for cost pass throughs and capex reopeners.

In considering the circumstances in which the AER may extend its decision-making time and the extent of time required, sufficient certainty and finality must be taken into account. To a certain extent, fixing the timeframe will promote certainty and finality; however, it would not necessarily allow the NSP the ability to recover efficient costs for unforeseen events if there is a substantial delay that is outside of the NSP's control. For this reason, the Commission supports the AER's suggested principle that the "stop the

⁵⁰⁷ AER, Directions Paper submission, 2 May 2012, pp. 75-76.

clock" mechanism should apply in those circumstances which are outside of the AER or NSP's control. Such circumstances would be where the AER is waiting on the provision of information by a governmental authority, or is waiting on a judicial body or royal commission to make relevant information publicly available.

With respect to the time taken for the AER to wait on additional information from the NSP, the default decision-making time of 40 business days will be subject to the later of the date that the AER receives the NSP's information or any additional information associated with the NSP's written application. This requirement for the NSP to provide the AER with additional information the AER requires to make a determination under the uncertainty regime is currently unique for negative cost pass throughs, and has now also been extended to positive cost pass throughs, capex reopeners and contingent projects. This way, it is unnecessary to apply an extended decision-making timeframe to circumstances where the AER is waiting for additional information from the NSP.

Where the issues being considered are complex or difficult, but the AER has all the information that it needs, then the AER should be able to determine the issues within a set timeframe, albeit perhaps an extended timeframe. The Commission considers that the AER's proposal for an extended timeframe in these circumstances would provide the appropriate balance between giving the AER flexibility and offering some degree of finality and certainty in relation to the making of a decision by the AER. For these purposes, the draft rule adopts similar wording to that in section 107 of the NEL, which describes the relevant issues as being of sufficient complexity or difficulty to warrant an extension of time.

The Commission had also proposed an option to introduce a notification step where the NSP would be required to notify the AER if it was aware that there may be external events that could have an impact on the application before it makes its application. However, given the flexibility that has now been built into the timeframe, such a notification appears unnecessary. Nevertheless, the Commission encourages NSPs to notify the AER in advance of its application if it becomes aware of matters that could potentially delay the AER in making its decision. This will assist in allowing the application to be processed more efficiently.

Some NSPs had proposed in first round submissions that the AER should issue a draft of its decision where there are complex circumstances.⁵⁰⁸ However, to the extent the complex circumstances or any lack of information preclude the AER from forming a view, there does not seem to be any value in requiring the AER to make a draft decision at that stage. The Commission considers that it would be difficult to expect the AER to prepare a draft decision in these circumstances and will not be prescribing such a requirement. Nevertheless, the AER may also wish to seek to informally consult in the course of considering such matters.

508 ETSA, CitiPower and Powercor, Consultation Paper submission, 8 December 2011, pp. 196-197.

11.1.4 Guidance on draft rule

Capex reopener and contingent projects in distribution

Generally, the Commission has decided to align the uncertainty regime in distribution with transmission. This means that the capex reopener, contingent project and cost pass through arrangements will be broadly the same.

Threshold for capex reopener and contingent project applications in distribution

For capex reopeners, the threshold for distribution will be capex that exceeds five per cent of the value of the roll-forward RAB for the first year of the regulatory period. This ensures that the same threshold applies to both transmission and distribution.

As noted earlier, the original intention of the contingent project threshold was for it to be aligned with the regulatory test and five per cent of the MAR, whichever is higher. Under the regulatory test for transmission, the threshold was \$10 million. With the implementation of the RIT-T, with a threshold of \$5 million, this value was not updated to reflect either the lower threshold or the fact that the RIT-T threshold could be varied by the AER. Therefore, the Commission has updated the threshold for transmission to reflect the RIT-T. Similarly, the contingent project threshold for distribution will be linked to the proposed RIT-D threshold which is also \$5 million, taking into account that this threshold may also be varied by the AER, and five per cent of the annual revenue requirement, whichever is higher.

Materiality threshold for cost pass through applications in distribution

The materiality threshold for cost pass through applications in distribution has now been defined by the draft rule to be one per cent of the NSP's annual revenue requirement. This brings it into line with the threshold applied in transmission.

Other aspects of cost pass through applications

Under the existing rules, the roll-forward RAB for the next regulatory period must include all capital costs incurred in the current regulatory period. This may unintentionally include pass through amounts associated with capital costs which have already been approved for under the cost pass through arrangements. For clarity, the NER will be amended to reflect the fact that cost pass through amounts that have already been recovered in a regulatory period cannot be recovered again in the roll-forward of the RAB for the next regulatory period.

For the reasons explained above, the timeframe for the AER to make a decision on applications related to cost pass throughs, contingent projects and capex reopeners will be aligned at 40 business days from the time the AER receives the application and any additional information it requires from the NSP. This timeframe can be extended by up to a further 60 business days if the AER determines that there are issues of sufficient complexity or difficulty that warrant such an extension. Such issues may require the AER to seek expert advice or consult with interested parties on a particular matter.

If the decision needs to be delayed to wait for further information from a third party, then a "stop the clock mechanism" will apply. Such a third party may be a governmental authority from which the AER has requested information or a judicial body or a royal commission that the AER anticipates will make publicly available information that is relevant to the NSP's application.

In the case of either a time limit extension or the application of the "stop the clock" mechanism, the AER must notify the NSP of the extension or delay and also publish notice of this on its website no later than ten business days before the date that the AER would normally have to make its default decision. The AER must also advise the NSP when the "stop the clock" mechanism has ceased to apply, in which case it must again publish a notice on its website to this effect.

Case scenario – example of the "stop the clock" mechanism and extending timeframe by 60 business days

- On 1 July 2013, the AER receives from a NSP in New South Wales an application for a positive cost pass through within 90 business days of the positive event occurring. The application relates to a bushfire.
- At the time of the application, the AER is informed by the NSP that there is a royal commission on the bushfire and the outcome of the decision by the royal commission may have an impact on whether the NSP can recover for that cost pass through and, if allowed, potentially also the amount that the NSP can recover. The royal commission decision will not occur until after the normal decision-making timeframe for the AER i.e. more than 40 business days after the AER received the NSP's application and such additional information regarding the application as the AER requires from the NSP.
- On 15 July 2013, the AER notifies the NSP that in order to determine the NSP's application, it requires information that it anticipates will be made publicly available by the royal commission. This notification occurs no later than ten business days before it would have had to make the default decision. The AER also publishes a notice on its website stating that the clock has stopped.
- On 29 November 2013, the royal commission publishes its decision. As a result of this, the "stop the clock" mechanism ceases to apply. The AER would inform the NSP and publish a notice on its website stating that the clock has restarted. The Commission would also expect the AER to state in that notice the date on which the AER will make its decision. In this case, it will be 30 business days after 29 November 2013, which will be 15 January 2014, taking into account public holidays. This is because ten business days have already elapsed between 15 July 2013 and the time the clock stopped.
- However if, upon reviewing the royal commission decision, the AER determines that it requires more time to address a complex question related

to the application, the AER could extend the decision-making period by a maximum period of a further 60 business days. To do so, the AER would need to notify the NSP of its decision to extend by no later than ten business days before it would otherwise have had to make its decision on 15 January 2014. Therefore, the AER would need to give its notice, with respect to extending the period by the maximum of 60 business days, no later than 31 December 2012. The AER would also need to publish notice of the extension on its website as soon as reasonably practicable. The maximum additional period for the AER to make its decision will then expire on 10 April 2014.

- Note: In the scenario above, the "stop the clock" mechanism could only be triggered by the royal commission. The "stop the clock" mechanism does not apply to considering complex or difficult questions on the matter, where the timeframe can only be extended by a maximum additional period of 60 business days.

Given the introduction of capex reopeners and contingent projects for distribution, the timeframes for the AER to decide on these applications will also be aligned with those in transmission.

Another consequential change relates to the decision making timeframe for negative cost pass through applications. The Commission notes that there is currently no set decision-making timeframe for this type of application, although a timeframe exists on when the application needs to be made. Previously in the Chapter 6A rule determination, the AEMC noted that there are asymmetries between positive and negative pass through applications that justify a difference in their treatment. However, with respect to decision-making timeframes, there should be no difference as the AEMC in 2006 recognised for capex reopeners and contingent projects. The decision-making timeframe for negative pass through applications has therefore been aligned so that there is a "standard" 40 business day timeframe with an option to extend as with the other types of applications. In addition, the AER is now expressly required to notify all NSPs of the occurrence of a negative change event if that event is not notified by the NSP to the AER and the AER proposes to determine a pass through amount.

However, unlike for positive change events, if the AER fails to make a pass through determination in respect of a negative change event within the 40 business day time limit, then the AER will be taken to have determined a zero pass through amount, noting that this 40 business day period can still be extended to accommodate issues that are difficult, and that the "stop the clock" mechanism will still apply where the AER is waiting on information from a governmental authority, judicial body or royal commission. As noted above, the reason for the different treatment of a default decision for negative cost pass throughs compared to positive cost pass throughs is due to the asymmetries between positive and negative pass through applications.

11.2 Material errors

11.2.1 Introduction

The NER allow the AER to revoke and substitute regulatory determinations where a material error arises. Depending on whether it is a distribution or transmission regulatory determination, there are different types of material errors which allow for revocation and substitution of regulatory determinations.

The AER is concerned that there may be the potential for a material error that is outside the currently prescribed list for distribution regulatory determinations.⁵⁰⁹ In transmission, uncertainty is created by the power to correct material errors caused by false or misleading information provided by the TNSP as there is no express limit placed on correcting such errors only to the extent necessary.⁵¹⁰ There may also be circumstances in which it may be more preferable or appropriate to amend a regulatory determination, as opposed to revoking and substituting the entire regulatory determination.⁵¹¹

The AER seeks to remove these differences by broadening its ability to revoke and substitute for material errors in Chapter 6 of the NER. In particular, the AER proposes to replace the prescribed list of material errors in Chapter 6 with a more general reference to material errors or deficiencies.⁵¹² The AER also proposes to limit changes related to false and misleading information under Chapter 6A "only to the extent necessary".⁵¹³ The AER also sought to expand the circumstances for revoking and substituting regulatory determinations to address deficiencies, in addition to material errors, under Chapter 6A.⁵¹⁴ The AER also proposes to have the ability to amend, in addition to revoke and substitute, regulatory determinations in response to material errors.⁵¹⁵

11.2.2 Submissions

NSPs maintain their previous position from first round submissions that the current scope for material errors should be retained under Chapters 6 and 6A, and that the AER should not be given the ability to "amend" for a material error.⁵¹⁶ They consider

509 AER, Rule change request, Part B, 29 September 2011, pp. 95-96.

510 Ibid.

511 Ibid.

512 Id., p. 96.

513 False and misleading information is already limited in Chapter 6 in this way. For further information, see AER, Rule change request, Part B, 29 September 2011, p. 96.

514 "Deficiency" is already included in Chapter 6. For further information, see AER, Rule change request, Part B, 29 September 2011, p. 96.

515 AER, Rule change request, Part B, 29 September 2011, p. 96.

516 ENA, Directions Paper submission, 16 April 2012, pp. 78-79; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 52; Grid Australia, Directions Paper submission, 16 April 2012, p. 13; Jemena, Directions Paper submission, 16 April 2012, pp. 57-58.

that the current scope of material errors is sufficient and no evidence has been provided to suggest otherwise.⁵¹⁷ Instead, they consider that there have been instances where the AER should have revoked and substituted regulatory determinations for material errors, but the AER did not do so.⁵¹⁸ Specific to transmission, Grid Australia agrees with limiting corrections related to false and misleading information only to the extent necessary.⁵¹⁹

The AER also maintains the position from its original proposal that it prefers the broader scope for material errors under Chapter 6A over Chapter 6 to allow it to make corrections for material errors, especially once the merits review process takes place.⁵²⁰ To balance the broad scope available under Chapter 6A for correcting material errors and to allow for some certainty and finality in the process, the AER proposes a six month time limit following the final regulatory determination.⁵²¹

11.2.3 Analysis

Scope for material errors

The Commission considers that the AER has essentially proposed to broaden the scope of material errors under Chapter 6. In the directions paper, the Commission sought supporting evidence to justify broadening the scope for material errors under Chapter 6, in particular as proposed by the AER. There has been no evidence provided to support the view that the AER's current powers have constrained its ability to revoke and substitute a regulatory determination for material errors.

NSPs state that there may have been opportunities for a material error to be corrected in a draft regulatory determination, but the AER has not always utilised its discretion to address the material error.⁵²² In respect of examples about where the AER has previously been constrained by the NER in correcting material errors, no evidence has been provided that the AER has been constrained in this way. The AER itself observes that the circumstances justifying correction of a material error would be exceptional.⁵²³ On this basis, the Commission maintains the view from the directions paper that, after the final regulatory determination is made, the regulatory determination should only be able to be changed as a result of merits review outcomes or in very clear and exceptional circumstances. Therefore, the Commission is in favour of keeping the scope of the material error provisions under Chapter 6 narrow and focussed on "computational" errors by the AER or situations where the AER has received false or

⁵¹⁷ ENA, Directions Paper submission, 16 April 2012, pp. 78-79; Jemena, Directions Paper submission, 16 April 2012, p. 57.

⁵¹⁸ Ibid.

⁵¹⁹ Grid Australia, Directions Paper submission, 16 April 2012, p. 13.

⁵²⁰ AER, Directions Paper submission, 2 May 2012, pp. 63, 74.

⁵²¹ Ibid.

⁵²² ENA, Directions Paper submission, 16 April 2012, pp. 78-79; Jemena, Directions Paper submission, 16 April 2012, pp. 57-58.

⁵²³ AER, Directions Paper submission, 2 May 2012, p. 74.

misleading information. Provisions such as pass throughs, capex reopeners and contingent projects are the appropriate means by which more substantive changes to the regulatory determination should be made.

In addition, the AER proposal would detract from the finality of its decisions. That said, the AER has expressed its support for the need for finality in a regulatory determination and proposes limiting the timeframe for correcting material errors to six months following the making of the final regulatory determination, which would balance off the AER's proposed expansion of the scope of material errors.⁵²⁴ Given the Commission's decision to maintain a narrow scope for material errors under Chapter 6, this proposed time limitation for addressing material errors does not warrant further consideration. However, this leaves the question of whether the current scope for material errors under Chapter 6A is still appropriate.⁵²⁵

In the Chapter 6A rule determination, the AEMC stated that the circumstances in which a regulatory determination can be revoked and substituted for a material error under Chapter 6A need to be clear.⁵²⁶ This would increase certainty, transparency and maintain the incentives built into the framework. Subsequent to this, the MCE SCO developed Chapter 6 and prescribed more specific circumstances for when a regulatory determination can be revoked and substituted for a material error.

To further expand on its previous position in 2006, the Commission considers that in addition to providing certainty and transparency and maintaining the incentives built into the framework, the finality of the regulatory determinations must be preserved. Consistent with this position, the Commission considers that the Chapter 6 provisions provide more certainty and finality in the framework than the equivalent provisions under Chapter 6A. Further, there should be no reason why Chapters 6A and 6 should be any different with respect to these types of material errors, which should only relate to computational errors or situations where the NSP has submitted false or misleading information. Therefore, the Commission has decided that the broader Chapter 6A provisions should be narrowed down and aligned with the narrower Chapter 6 provisions. Consequently, the AER's proposal for a six month limitation for correcting material errors will also be unnecessary for Chapter 6A.

Associated with aligning the Chapter 6A provisions with the Chapter 6 provisions, submissions support limiting material errors in regulatory determinations caused by false or misleading information by reference to "to the extent necessary". This is currently the case for distribution regulatory determinations, but not for transmission revenue determinations. The Commission has therefore decided to align the Chapter 6A provision, by aligning the Chapter 6A provisions in this regard with the Chapter 6 provisions.

A further approach to promote certainty and finality in the final regulatory determination is to not permit it to be revoked and substituted for material errors. This

524 Ibid.

525 Grid Australia, Directions Paper submission, 16 April 2012, p. 13.

526 AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, p. 122.

204 Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

has been the approach of the regulator Ofgem in the Great Britain. However, in the Australian environment, the Commission considers that there should be a limited degree of flexibility for the AER to address errors in its final regulatory determinations in very clear and exceptional circumstances.

Amending material errors

The AER proposes that it should be able to amend, as an alternative to revoking and substituting, a regulatory determination as a result of a material error or deficiency where it is more preferable or appropriate to do so. In the directions paper, the Commission considered that the power to amend regulatory determinations will impact on the NSP's ability to have any such amendments reviewed in a merits review, as noted in some submissions.⁵²⁷ The Commission maintains its view from the directions paper that the provisions relating to material errors should not be changed to include a power for the AER to amend a determination as a result of a material error.

11.2.4 Guidance on draft rule

Aligning the Chapter 6A provisions with the Chapter 6 provisions with respect material errors will mean that the AER may now only revoke and substitute a transmission revenue determination or amend a pricing methodology for the following kinds of material errors or deficiencies:

- a clerical mistake or an accidental slip or omission;
- a miscalculation or misdescription;
- a defect in form; or
- a deficiency resulting from the provision of false or materially misleading information provided to the AER by another party.

As with Chapter 6, for Chapter 6A the substituted revenue determination or amended pricing methodology will only be able to be varied from the revoked revenue determination or existing pricing methodology to the extent necessary to correct the relevant material error or deficiency.

11.3 Shared assets

11.3.1 Introduction

In this draft rule determination, shared assets refer to assets used to provide both regulated and unregulated services. For distribution, the shared asset could be providing a combination of standard control services, alternative control services, or

⁵²⁷ ENA, Directions Paper submission, 16 April 2012, pp. 78-79; Grid Australia, Directions Paper submission, 16 April 2012, p. 13.

unregulated services. For transmission, the shared asset could be providing both prescribed transmission services and unregulated services. This issue is likely to become more relevant in light of the potential for electricity network assets, such as poles and pits, to be used to provide access for the National Broadband Network (NBN).

The AER proposes shared assets cost adjustment mechanisms to allow consumers to benefit where distribution assets are used to provide non-standard control services, including alternative control services and unregulated services.⁵²⁸ One option is for an ex ante forecast revenue adjustment to the annual revenue requirement. Alternatively, there could be an ex post control mechanism adjustment. This approach could entail an adjustment to annual prices, as opposed to ex ante adjustment to the annual revenue requirement, which could reflect the portion of revenue from the unregulated service. The AER did not propose equivalent changes for transmission assets.

11.3.2 Submissions

In general, stakeholders support the concept that where assets used to supply standard control services are shared with other services, consumers should receive some benefit. Similarly, there was also some support for this concept to be included in transmission. However, there are differences in views on how a shared assets cost adjustment mechanism should operate.

Grid Australia and the Vic DPI consider that the existing cost allocation principles under the NER could be used or, if not, modified to take into account shared assets in transmission and distribution.⁵²⁹ Aurora Energy also suggests that the term "distribution services" in the NER could include use of assets for non-electrical purposes.⁵³⁰

A number of NSPs consider that the shared assets cost adjustment mechanism should be flexible.⁵³¹ Ergon Energy and ENERGEX considered that no shared assets cost adjustment mechanism should be prescribed in the NER.⁵³² UE and MG do not support the AER's proposal on the basis that it is tantamount to transferring the value of existing assets out of the roll-forward RAB, and network prices should be insulated from the profits and losses in unregulated activities.⁵³³ Jemena proposes that the shared assets cost adjustment mechanism should be based on an annual revenue

⁵²⁸ AER, Rule change request, Part B, 29 September 2011, p. 60.

⁵²⁹ Grid Australia, Directions Paper submission, 16 April 2012, p. 2; Vic DPI, Consultation Paper submission, 8 December 2011, p. 9.

⁵³⁰ Aurora Energy, Consultation Paper submission, 15 December 2011, p. 11.

⁵³¹ ENA, Consultation Paper submission, 8 December 2011, pp. 38-39; ENERGEX, Consultation Paper submission, 8 December 2011, p. 4; Ergon Energy, Consultation Paper submission, 8 December 2011, p. 14; Jemena, Directions Paper submission, 16 April 2012, pp. 26-27, 31-32.

⁵³² ENERGEX, Consultation Paper submission, 8 December 2011, p. 4; Ergon Energy, Consultation Paper submission, 8 December 2011, p. 14.

⁵³³ UE and MG, Consultation Paper submission, 8 December 2011, p. 18.

forecast with an ex post true-up adjustment.⁵³⁴ The joint submission of ETSA, CitiPower and Powercor states that, in order to maintain predictability and transparency, the AER should be required to set out its approach to any adjustment in a framework and approach paper, and adhere to this approach unless there are any unforeseen circumstances or circumstances to justify departing from it.⁵³⁵

NSPs consider that alternative control services should be excluded from the uses of assets which would result in additional compensation to consumers as their costs are already recovered through a separate control mechanism.⁵³⁶ However, the AER considered that excluding alternative control services from a shared assets cost adjustment mechanism would prevent customers of alternative control services from being compensated if those services were provided by a shared asset.⁵³⁷

Submissions also suggest that there should be guiding principles for the exercise of the AER's discretion. These might include: any adjustment should be subject to a positive commercial outcome having been achieved; the level of compensation should take into account the risks involved; incentives should be maintained for the NSP to apply assets to non-regulated activities; regulatory oversight should only be imposed where benefits exceed costs; the mechanism should be administratively simple to implement; legacy arrangements and maturity of the market for alternative arrangements should be recognised; the adjustment should be proportionate to the benefits; the adjustment should apply only to revenues after netting of all relevant costs; and there should be an exemption for sharing of new forms of unregulated services for an initial short period.⁵³⁸

11.3.3 Analysis

General position

The Commission maintains its position from the directions paper that customers who pay for one type of regulated service that is provided by a shared asset should not be paying for the full cost of the asset. Instead, those customers should be receiving some benefit from the asset being used for a service other than a regulated service.

Submissions also generally support this concept; however, there are differences in views regarding the appropriate sharing mechanism that should be used.

⁵³⁴ Jemena, Consultation Paper submission, 8 December 2011, pp. 107-109.

⁵³⁵ ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 35.

⁵³⁶ Ausgrid, Consultation Paper submission, 8 December 2011, p. 33; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 35; Jemena, Directions Paper submission, 16 April 2012, pp. 26-27, 31-32.

⁵³⁷ AER, Directions Paper submission, 2 May 2012, pp. 33-35.

⁵³⁸ Ausgrid, Consultation Paper submission, 8 December 2011, p. 33; ENA, Consultation Paper submission, 8 December 2011, p. 39; ENA, Directions Paper submission, 16 April 2012, pp. 36-37; ENERGEX, Consultation Paper submission, 8 December 2011, p. 4; ENERGEX, Directions Paper submission, 16 April 2012, pp. 2-3; ETSA, CitiPower and Powercor, Consultation Paper submission, 8 December 2011, pp. 23, 97-98; Jemena, Consultation Paper submission, 8 December 2011, pp. 107-109; Jemena, Directions Paper submission, 16 April 2012, pp. 26-27, 31-32.

In a competitive market, a business would seek ways to provide its customers with the lowest possible price, in order to retain its existing customers and gain new ones. One way to do this could be to make more efficient use of the business' assets by employing them for new services. This would increase the number of customers having access to the asset, and allow the business to spread the fixed costs of the asset over this greater number of customers, therefore reducing costs for consumers of the services.

Where a business in a competitive market innovates in this way, it would usually be able to increase its profits for a short period of time, as it would have reduced its average costs below those of its rivals. This provides the incentive for the business to seek such innovations. Over time, however, competitive rivals would employ similar cost-reducing practices, and the additional margin would be competed away so that consumers gained the full benefit of the cost reductions.

Whilst there are differences between a regulated network service and a typical competitive market which mean that a comparison has limits, the key principles still apply. In this case, the competitive market comparison is instructive in highlighting that both the business and consumers of the regulated service should gain some benefit from cost savings brought about by innovations such as sharing of assets. If a NSP uses an asset to provide more than one service, any sharing mechanism should allow the NSP to keep some of the reward for making efficiency gains, but would require the reduction in costs to be passed onto consumers of the regulated service in the long term.

Making prices cost reflective should encourage the NSP to make efficient use of its existing assets. Further, cost reflectivity in prices should result in customers of the regulated service not subsidising the provision of unregulated services. Therefore, by incentivising the NSP to be innovative in its investments by retaining some of the benefits, but also requiring it to reduce the costs to consumers to reflect this innovative use, the shared assets cost adjustment mechanism will be in the long term interests of consumers and promote the NEO.

In the directions paper, the Commission noted that a shared assets cost adjustment mechanism could apply to transmission as well as distribution. This is consistent with the overall principle of harmonising Chapters 6 and 6A of the NER. There were submissions both in support of, and opposed to, this approach.⁵³⁹ Grid Australia has commented that the cost allocation principles in transmission already provide for asset sharing.

However, the cost allocation principles only allocate costs for future assets, as opposed to existing assets. This creates a problem when an existing asset that is used to provide a regulated service later becomes used to also provide an unregulated service. Under the cost allocation principles, as the costs have already been allocated to this asset, the mechanism cannot accommodate this change in circumstances, unless there has been a reclassification of service.

⁵³⁹ AER, Directions Paper submission, 2 May 2012, p. 34; Jemena, Directions Paper submission, 16 April 2012, pp. 26-27, 31-32; MEU, Directions Paper submission, 17 April 2012, p. 62.

For these reasons, a shared assets cost adjustment mechanism should be available to the AER to apply to existing assets that provide both distribution or transmission services and any unregulated service. To avoid any doubt, in developing any shared assets cost adjustment mechanism the AER must have regard to the cost allocation principles and the NSP's cost allocation method, and any incentives under the NER.

Restrictions on the shared assets cost adjustment mechanism

As discussed in the directions paper, the AER proposed two shared assets cost adjustment mechanisms in the form of an ex ante revenue adjustment and an ex post control mechanism adjustment.⁵⁴⁰ It stated that the control mechanism adjustment could be used for sharing a proportion of the pre-tax profits from the unregulated activities with the users of the regulated services.⁵⁴¹

The Commission does not consider a shared assets cost adjustment mechanism that shares a portion of the profit or revenue from unregulated services will be possible. By transferring a portion of this profit or revenue to customers of regulated services, the mechanism would be limiting the revenue that the NSP could earn from the unregulated service. This would have the same effect as regulating the unregulated service, which does not appear to be permitted under the NEL and NER.

Shared assets cost adjustment mechanism – cost reduction

Instead, the shared assets cost adjustment mechanism should operate in a way that is not based on the profit or revenue received by the NSP from the unregulated service. The best way this could work is if the sharing was implemented through a reduction in the costs of the shared asset that are recovered from consumers of the regulated service. That is, instead of recovering 100 per cent of the costs of the shared asset from consumers of the regulated service, a lower proportion would be recovered. A number of principles would be taken into account by the AER in determining this proportion, discussed further below, one of which could be the revenue received by the NSP from the unregulated service. However, the shared assets cost adjustment mechanism would not apportion part of the revenue or profit from the unregulated service.

Sharing the benefit resulting from the asset being used to provide an unregulated service, as well as a regulated service, via a reduction in the costs recovered from the consumers of the regulated service, rather than by passing through a portion of the revenue or profits received from the unregulated service, means that there will be a limit on the amount of benefit sharing that is possible. For example, if the costs of the shared assets that are recovered from standard control service customers each year are \$1 million in the absence of any sharing, but revenue from the unregulated use is \$3 million per year, the maximum benefit that could accrue to standard control service customers would be \$1 million per year.

⁵⁴⁰ AER, Rule change request, Part B, 29 September 2011, p. 60.

⁵⁴¹ Id., p. 61.

Where the shared assets cost adjustment mechanism takes the form of a reduction in costs apportioned to consumers of the regulated services, a control mechanism adjustment including annual pricing adjustments would not appear to be appropriate. A control mechanism adjustment would only be appropriate if the adjustment was linked to an external factor, such as the amount of profit or revenue received under a contract with a third party, and this could be converted into a price or revenue adjustment in the control mechanism in a "mechanistic" way without the AER having to make a subsequent decision. Such an approach would be administratively inefficient, given that the AER would be required to annually make these adjustments, and would create too much uncertainty for the NSP.

Instead of an adjustment to the control mechanism, the reduction in the costs allocated to consumers of the regulated services will feed through the building block determination into the annual revenue requirement. This reduction will be determined by the AER at a regulatory determination according to guidelines based on the principles set out below. It should reflect the part of the costs of the relevant asset which are being recovered through charging for the provision of the unregulated service. By reducing the annual revenue requirement for the NSP, the amount recovered from consumers will also be reduced. By including the decision in a regulatory determination, the cost reduction will be fixed for the regulatory period covered by that determination, which provides certainty for the NSP. In addition, this decision would be subject to the scrutiny that comes from consultation as part of the regulatory determination process and any subsequent merits review.

Timing

The cost reduction would only be implemented at a regulatory determination, regardless of when the sharing arrangement actually commences. This means that the NSP would be required to disclose information on its shared assets as part of its regulatory proposal to the AER. It would be possible for the reduction to occur in respect of a sharing arrangement which had not yet commenced, provided it was known with enough certainty at the time of the regulatory determination. If it was not known with enough certainty then the reduction could not apply until the next regulatory determination, even if the sharing arrangement commenced prior to that determination. There would be no reconciliation or "ex post adjustment" in respect of any sharing arrangement that was put in place during the middle of a regulatory period; the cost reduction would only start from the beginning of the next regulatory period. However, the historical use or revenue of the asset could be used as a factor to forecast future sharing of such an asset. Overall, this should provide the NSP who has a sharing arrangement some certainty as to what cost reduction could be expected. The proposed shared assets cost adjustment mechanism could also take into account Jemena's proposal for an exemption period to be given to newly shared assets for a period of several years.⁵⁴²

⁵⁴² Jemena, Consultation Paper submission, 8 December 2011, p. 107; Jemena, Directions Paper submission, 16 April 2012, pp. 26-27, 31-32.

In respect of proposals for an ex post adjustment, or "true up", once the actual benefits in a period of a sharing arrangement are known, the Commission considers that this should not be necessary.⁵⁴³ First, if the sharing arrangements are set on the basis of a contract the revenue received should be relatively easy to predict. Second, the revenue received will be only one factor to consider in setting the cost reduction for consumers, which must be based on the cost of assets shared. Third, to the extent revenues received through the sharing arrangements change, the cost reduction can be adjusted at the next regulatory determination for the next regulatory period.

Other issues

As referred to in the AER's original proposal, shared assets cost adjustment mechanisms currently exist under jurisdictional arrangements.⁵⁴⁴ The approach that has been previously used in Queensland has been grandfathered in NER clause 11.16.3. This grandfathering extends until the next Queensland distribution determination in 2015. Since the mechanism applied is a forecast revenue adjustment made to the building blocks, this could be accommodated under the proposed rules. In South Australia, a profit sharing mechanism has been used, with a portion of the profits from unregulated activities passed onto regulated service users of the shared asset.⁵⁴⁵ As described above, such a mechanism would not seem to be permitted under the general NEL and NER provisions.

In respect of distribution, the above approach only addresses the situation where the one use of the asset is to provide standard control services and another use is to provide an unregulated service. The AER also points out that there may be the circumstance where the asset is used to provide both alternative control services and unregulated services.⁵⁴⁶ The Commission accepts that alternative control service customers of a shared asset should be paying costs reflective of its use for the provision of alternative control services, and agrees with the AER that there should be no reason why standard control service customers benefit from the use of a shared asset to provide unregulated services, while alternative control service customers do not.

Nevertheless, some submissions state that the AER's proposal would result in customers of alternative control services being over-compensated through a revenue decrement as well as a separate control mechanism, and that alternative control services should be excluded.⁵⁴⁷ The Commission considers that the AER has considerable discretion in setting the control mechanism for alternative control services under NER clauses 6.2.6(b)-(c) and 6.2.5(a)-(b) and so may impose requirements that only permit the NSP to recover such costs associated with the provision of alternative

⁵⁴³ AER, Rule change request, Part B, 29 September 2011, p. 61; Jemena, Directions Paper submission, 16 April 2012, pp. 26-27, 31-32.

⁵⁴⁴ AER, Rule change request, Part B, 29 September 2011, p. 59.

⁵⁴⁵ Ibid.

⁵⁴⁶ AER, Directions Paper submission, 2 May 2012, pp. 34-35.

⁵⁴⁷ Ausgrid, Consultation Paper submission, 8 December 2011, p. 33; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 35; Jemena, Directions Paper submission, 16 April 2012, pp. 26-27, 31-32.

control services as are appropriately allocated to those services. Therefore, in respect of distribution, the shared assets cost adjustment mechanism to be created only deals with the circumstance where the asset is used to provide a standard control service.

Where one use of the asset is for standard control services and the other use is for alternative control services, the standard cost adjustment described above should still apply for the costs recovered from the standard control service customers.

Guidelines and principles

Bearing in mind the shared assets cost adjustment mechanism described above, the Commission considers that to facilitate NSPs seeking out and entering into sharing arrangements of the kind discussed here, NSPs will need some certainty about how the AER would determine the cost adjustment appropriate for a particular sharing arrangement.

Part of this certainty will be provided by principles guiding the AER's determination, and which will be set out in the NER. NSPs raised a number of principles that could be applied in this regard.⁵⁴⁸ In setting these principles, consistent with the NEO, the Commission takes the view that the approach to a shared assets cost adjustment mechanism should:

- provide clarity and certainty on how the AER would approach sharing the costs;
- provide cost reflective prices to consumers;
- promote innovation in NSP investments; and
- be able to be implemented in practice.

On this basis, the principles to which the AER must have regard are:

- the NSP should be encouraged to use assets that provide standard control services for the provision of other kinds of services where that use is efficient and does not materially prejudice the provision of standard control services;
- a shared assets cost adjustment should not be dependent on the NSP deriving a positive commercial outcome from the use of the asset other than for standard control services;
- a shared assets cost adjustment should be applied where the use of the asset other than for standard control services is material. This means the benefit of

⁵⁴⁸ Ausgrid, Consultation Paper submission, 8 December 2011, p. 33; ENA, Consultation Paper submission, 8 December 2011, pp. 38-39; ENA, Directions Paper submission, 16 April 2012, pp. 36-37; ENERGEX, Directions Paper submission, 16 April 2012, pp. 2-3; Ergon Energy, Consultation Paper submission, 8 December 2011, p. 14; ETSA, CitiPower and Powercor, Consultation Paper submission, 8 December 2011, pp. 23, 97-98; Jemena, Consultation Paper submission, 8 December 2011, pp. 107-109; Jemena, Directions Paper submission, 16 April 2012, pp. 26-27, 31-32.

sharing the cost of the asset based on use should outweigh the administrative costs of implementing the shared asset cost adjustment mechanism;

- the manner in which costs have been recovered or revenues adjusted in respect of the relevant asset in the past and the reasons for adopting that manner of recovery or adjustment should be taken into account;
- a shared assets cost adjustment should be compatible with the cost allocation principles and cost allocation method; and
- a shared assets cost adjustment should be compatible with incentives that the NSP may have under the NER.

The Commission considers that the above principles promote its objectives on what the shared assets cost adjustment mechanism should achieve.

With respect to determining the appropriate portion of costs for the purposes of a shared assets cost adjustment, the most obvious approach is for the AER to base this on the relative use of the asset for the provision of the different kind of services such as the technical use or physical use. Another possible way could include using the ratio between the proportion of revenue from the asset for standard control services and the proportion of revenue from the asset for other than for standard control services over the current regulatory period. However, this should not be taken as precluding the AER from considering other possible bases for sharing the costs of the asset.

The Commission does not accept the principle that the NSP should only have to pass on the benefit of a shared asset if it receives a net profit as a result. This was proposed to recognise the associated risks of the NSP with sharing arrangements.⁵⁴⁹ In general, the NSP should bear the risk so it takes this into account when deciding whether to enter a sharing arrangement. The NSP is the party best able to assess and manage this risk.

In addition, for added certainty, the draft rule requires the AER to set out in guidelines what its approach will be for determining the appropriate cost reduction for sharing arrangements, having regard to the above principles. Such guidelines may, for example, set out a particular methodology which the AER intends to use.

In the directions paper, the Commission considered including a draft rule requiring the AER to specify the shared assets cost adjustment mechanism at the framework and approach paper stage. Given that the shared assets cost adjustment mechanism will now be prescribed in the NER, with supporting guiding principles and guidelines, it is unnecessary for a framework and approach paper to deal with this matter. This means the NSP would need to submit information on its shared assets to the AER in the regulatory proposal.

⁵⁴⁹ Ausgrid, Consultation Paper submission, 8 December 2011, p. 33; ENA, Consultation Paper submission, 8 December 2011, pp. 38-39; Jemena, Directions Paper submission, 16 April 2012, pp. 26-27, 31-32.

For the reasons previously given, the Commission has also decided that a similar regime regarding shared assets should be implemented in the context of transmission.

11.3.4 Guidance on draft rule

The following case study is provided in this section to explain how the shared assets cost adjustment mechanism would work.

Case scenario

- In year 2 of a regulatory period the NSP enters into a commercial agreement with NBN Co to allow NBN Co to use electricity poles currently used for standard control service purposes. The rate is \$2,000 per pole per year. The NSP's costs are \$500 per pole per year.
- Given that this occurs during a regulatory period, no shared assets cost adjustment mechanism is applied until the next regulatory determination.
- In its regulatory proposal for the next regulatory determination, the NSP provides details of the shared assets in accordance the AER's regulatory information instrument.
- During the regulatory determination process, the AER decides whether to apply the shared assets cost adjustment mechanism in respect of the NBN arrangements for the next regulatory period. In making this decision, the AER takes into account the guidelines on how to apply the shared assets cost adjustment mechanism and the principles on whether a shared assets cost adjustment mechanism should apply. Some considerations at this point could include the materiality of the shared asset.
- Next, the AER would need to decide on the reduction in the costs for the assets that should not be recovered from standard control customers based on the guidelines. However, it would not directly pass through any of the profits or revenue gained from the NSP as a result of providing NBN Co access to its asset. A possibility could be to base this decision on the number of customers who will benefit from the electricity poles being used to provide NBN services compared to the number of customers who receive standard control services through the use of those electricity poles. For the purposes of this exercise, it may be too difficult to determine the number of customers, but it may be easier to determine that there is an equal share in the technical and/or physical use of that pole for standard control services and NBN services. It may decide the cost reduction should be on a pole by pole basis over the forthcoming regulatory period.
- Once the AER determines the appropriate reduction of costs for standard control service customers, the AER needs to incorporate this into its building block determination. This determination leads to adjustments being made to the annual revenue requirement and therefore being

reflected in pricing to customers in the annual pricing approval process. In this case, based on the asset being shared according to physical and/or technical use, which has been attributed at 50 per cent, the reduction in the annual revenue requirement is \$250 per pole per year. This reduction only starts to apply from the following regulatory period and there would be no cost reduction for the period in which the commercial agreement was first put in place.

11.4 Small scale incentive schemes

11.4.1 Introduction

The AER proposes that it should have the power to develop incentive schemes outside of those already provided for in the NER.⁵⁵⁰ The AER also proposes to amend Chapter 6A of the NER such that it would have discretion to decide whether or not to apply the existing incentive schemes to NSPs at the time of the regulatory determination.⁵⁵¹ The Commission's initial view as set out in the directions paper was that the NER should allow the AER to develop small scale pilot or test incentive schemes within an environment that limits the sum of money at risk and the length of time of the scheme.⁵⁵² In addition, it suggested that it is appropriate for the AER to have discretion to determine whether or not incentive schemes should apply at the time of a regulatory determination in Chapter 6A of the NER, consistent with Chapter 6.

11.4.2 Submissions

In response to the directions paper, the AER maintains that it should be given discretion to introduce new incentive schemes, not just small scale pilot or test incentive schemes.⁵⁵³ It suggests that small scale pilot or test incentive schemes will not be effective and will make the process of introducing new incentive schemes even more cumbersome than the current arrangements.⁵⁵⁴ NSPs consider that there is merit in allowing the AER to develop small scale pilot or test incentive schemes.⁵⁵⁵ Their views are generally reflected by the ENA which is not supportive of giving the AER a broad power to develop new incentive schemes.⁵⁵⁶ Most of the consumer representative groups that responded and IPART query the ability of small scale pilot or test incentive schemes to establish the effectiveness of an incentive scheme. No

⁵⁵⁰ AER, Rule change request, Part B, 29 September 2011, pp. 56-58.

⁵⁵¹ *Id.*, p. 57.

⁵⁵² AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, p. 62.

⁵⁵³ AER, Directions Paper submission, 2 May 2012, pp. iii, 31.

⁵⁵⁴ *Id.*, pp. 31-33.

⁵⁵⁵ Ergon Energy, Directions Paper submission, 16 April 2012, p. 8; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 33-34; Jemena, Directions Paper submission, 16 April 2012, p. 25-26.

⁵⁵⁶ ENA, Directions Paper submission, 16 April 2012, p. 36.

stakeholders commented on giving the AER discretion to apply the current incentive schemes at the time of a determination.

11.4.3 Analysis

The Commission maintains its position to allow the AER to develop small scale pilot or test incentive schemes. The AER should have the ability to innovate in this way without having to go through the full rule making process, which may be overly burdensome. It is good regulatory practice to test or pilot a scheme before full implementation as incentive schemes could otherwise be introduced that lead to unexpected and perhaps unwelcome outcomes as identified by Professor Littlechild.⁵⁵⁷ A permanent scheme should, however, be subject to the rule making test given the potential impact of the scheme.

The extent of a small scale incentive scheme should be limited by the sum of money at stake, i.e. revenue at risk, and the period for which the scheme lasts. In addition the scheme should be subject to consultation with relevant NSPs and other stakeholders before being implemented.

The sum of money at stake should balance the need to be high enough to understand how the scheme is likely to operate but not so high that there is a significant impact on a NSP if the scheme does not operate as intended. The Commission considers that this balance would be met if the revenue at stake was one per cent of revenue for a regulatory year if the NSP agrees with the scheme, or up to 0.5 per cent of revenue for a regulatory year if the NSP does not agree with the scheme. The lower revenue at risk that can be placed on the scheme if the NSP does not agree to it is to reflect that the NSP will have no choice as to whether a scheme is applied to it and the scheme will not have been subject to the rule making process. The AER should also be able to undertake paper trials, i.e. a scheme in which no money is at risk, as part of its discretion. Concerns have been raised by stakeholders about the ability of small scale incentive schemes to establish the effectiveness of an incentive scheme.⁵⁵⁸ The limits described above should be high enough such that the effectiveness of a scheme will be able to be determined.

In terms of a restriction on the period of a scheme, any scheme should last for a maximum of two regulatory periods. If the AER wishes the scheme to continue after this point then it will need to apply for the scheme to be made permanent through the rule change process. This length of time should be long enough for the AER to make a decision on whether the scheme is effective and therefore whether it should be a permanent scheme in the NER.

⁵⁵⁷ Stephen Littlechild, Advice to the AEMC on Rule Changes, 11 February 2012, p. 19.

⁵⁵⁸ AER, Directions Paper submission, 2 May 2012, pp. 31-33; Consumer Action Law Centre, Directions Paper submission, 16 April 2012, p. 5; EUAA, Directions Paper submission, 16 April 2012, p. 25; IPART, Directions Paper submission, 16 April 2012, p. 10; UnitingCare Australia, Directions Paper submission, 9 May 2012, p. 48.

In addition to these requirements, the ENA suggested that there should be a draft rule requiring the AER to seek the agreement of the NSP before commencing the trial and that a scheme should be limited to only parts of a NSP's operations, for example, certain regions or certain classes of customers. The Commission does not agree that the draft rule should require the AER to seek the agreement of the NSP before commencing the trial as this would simply give the NSP a right of veto. However, as noted above, the revenue that can be put at risk from the scheme is lower if the NSP does not agree to the scheme. Restricting the scheme to only parts of a NSP's operations would also overly restrict the AER.

Consistent with the general approach in respect of this rule change, the AER should have to take into account certain factors when developing these schemes. The principles developed for capex sharing schemes are broadly appropriate here. These address key issues, such as the fact that a scheme should not penalise efficient NSPs. At the same time, the principles are broad so that they do not overly restrict the AER. These factors are also in line with those put forward by the AER for its proposed power to develop other incentive schemes.⁵⁵⁹ The Commission considers that those factors put forward in the joint submission of ETSA, CitiPower and Powercor are too restrictive.⁵⁶⁰

The Commission maintains that it is appropriate to allow the AER to have discretion to determine whether incentive schemes should apply at the time of a regulatory determination in Chapter 6A of the NER, consistent with Chapter 6.

11.4.4 Guidance on draft rule

The draft rule is intended to give the AER a broad discretion as to the schemes it may design. The schemes are intended to provide for incentives not already covered by the existing incentive schemes in the NER and may cover matters not related to expenditure by NSPs. For example, the AER could design a scheme which provides rewards for NSPs which engage more effectively with consumers. The draft rule is intended to provide broad discretion so that the AER could develop any type of scheme that contributes to the NEO.

The AER will apply the schemes consistently with the way that other incentive schemes are applied. That is, the AER will set out its likely approach to the application of a scheme to a particular NSP in the framework and approach paper for the NSP. The NSP would then set out in its regulatory proposal how it proposes the scheme should apply, including any proposed values. The AER would then set out how the scheme will apply to the NSP in the draft and final determination for the NSP.

⁵⁵⁹ AER, Rule change request, Part B, 29 September 2011, p. 57.

⁵⁶⁰ ETSA, CitiPower and Powercor, Consultation Paper submission, 8 December 2011, pp. 22, 90-91.

12 Proposed transitional arrangements

12.1 Introduction

The draft rule provides for significant changes regarding capital expenditure incentives, the determination of the rate of return and the overall regulatory determination process. The latter will involve changes in timing as well as substance.

The package of changes included in the draft rule requires a period of time for implementation. For example, the rate of return provisions involve the AER, and the ERA, making a number of guidelines, schemes and instruments, including one which is the reference point for the NSP's proposal on what it considers should be its allowed rate of return. Also, the AER must make capex incentive guidelines, setting out how the AER proposes to apply the capex incentive tools generally. The draft rule allows varying periods of up to 12 months for the making of the first versions these guidelines, given the complexity of the subject matter and the requirement to consult thoroughly with stakeholders.

These implementation tasks will not be finalised by the time a number of NSP regulatory proposals are due, which would make the application of the draft rule to these particular regulatory determination processes problematic. Therefore, additional provisions are required to enable these NSPs to transition to the new arrangements. Some transitional provisions are also required for certain gas service providers.

12.2 Commission's general approach to transitional arrangements

The Commission's intention is that the package of provisions contained in the draft rule would commence and be applied to the maximum extent possible for each NSP's next regulatory determination, once a final rule determination is made in mid-November 2012. For reasons of practicality, timing and fairness, however, arrangements are required to transition NSPs to the provisions contained in the draft rule.

The Commission intends to release a paper on transitional arrangements by mid-September 2012.

Abbreviations

ACCC	Australian Competition and Consumer Commission
ACT	Australian Competition Tribunal
ADIs	Australian Deposit-taking Institutions
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
APIA	Australian Pipeline Industry Association
Brattle	The Brattle Group
capex	capital expenditure
CAPM	Capital Asset Pricing Model
CIA	corporation initiated augmentation
CICW	customer initiated capital works
Commission	see AEMC
CPA	Competition Principles Agreement
CPI	consumer price index
CUAC	Consumer Utilities Advocacy Centre
DBNGP	Dampier to Bunbury Natural Gas Pipeline
DBP	See DBNGP
DNSP	distribution network service provider
DRP	debt risk premium
EBSS	efficiency benefit sharing scheme
ENA	Energy Networks Association
ERA	Economic Regulation Authority of Western Australia

ERA	Economic Regulation Authority of Western Australia
ESAA	Energy Supply Association of Australia
ESCOSA	Essential Services Commission of South Australia
ESCV	Essential Services Commission of Victoria
EUAA	Energy Users Association of Australia
EURCC	Energy Users Rule Change Committee
GDP	Gross Domestic Product
GFC	global financial crisis
IPART	Independent Pricing and Regulatory Tribunal
LMR	Limited Merits Review
MAR	maximum allowed revenue
MCE	Ministerial Council on Energy
MEU	Major Energy Users
NBN	National Broadband Network
NEL	National Electricity Law
NEM	National Electricity Market
NEO	national electricity objective
NER	National Electricity Rules
NGL	National Gas Law
NGO	national gas objective
NGR	National Gas Rules
NPV	net present value
NSP	network service provider
NSW T-Corp	New South Wales Treasury Corporation

OEB	Ontario Energy Board
Ofgem	Office of Gas and Electricity Markets
Ofwat	Office of Water Services Regulation Authority
opex	operating expenditure
OTTER	Office of the Tasmanian Economic Regulator
PIAC	Public Interest Advocacy Centre
QCA	Queensland Competition Authority
QTC	Queensland Treasury Corporation
RAB	regulatory asset base
RIIO	Revenue = Incentives + Innovation + Outputs
RIN	Regulatory Information Notice
RIPUC	Rhode Island Public Utilities Commission
RIT-D	Regulatory Investment Test for Distribution
RIT-T	Regulatory Investment Test for Transmission
RPP	Revenue and Pricing Principles
SA DMITRE	South Australian Department of Manufacturing, Innovation, Trade, Resources and Energy
SCER	Standing Council on Energy and Resources
SCO	Standing Committee of Officials
SFG	Strategic Finance Group Consulting
SKM	Sinclair Knight Merz
SORI	Statement of Regulatory Intent
STPIS	service target performance incentive scheme
TEC	Total Environment Centre
TNSP	transmission network service provider

UE and MG	United Energy and MultiNet Gas
Vic DPI	Victorian Department of Primary Industries
WACC	Weighted Average Cost of Capital
WAPC	weighted average price cap

A Detailed examples of potential capex sharing schemes

This appendix includes a non-exhaustive list of possible ways in which the AER might design a capex sharing scheme under the draft rules.⁵⁶¹

Figure A.1 below presents two different models: Model 1 presents a stylised example similar to that provided by the ENA's consultants of a capex efficiency carry-over scheme with a five year carry-over period using a WACC of 7.5 per cent; Model 2 presents a stylised example of the ex-ante or fixed incentive rate scheme previously used by Ofgem.

Figure A.1 Examples of efficiency carryover scheme and ex ante incentive rate scheme with periodic true-up

Year	1	2	3	4	5	6	7	8	9	10
Model 1: ESC "capex efficiency carry over" scheme										
Forecast capex	300	330	270	300	330					
Actual capex	280	310	300	290	320					
Underspend	20	20	-30	10	10					
Annual financing benefit	1.50	1.50	-2.25	0.75	0.75					
Year 1 benefit	1.50	1.50	1.50	1.50	1.50					
Year 2 benefit		1.50	1.50	1.50	1.50	1.50				
Year 3 benefit			-2.25	-2.25	-2.25	-2.25	-2.25			
Year 4 benefit				0.75	0.75	0.75	0.75	0.75		
Year 5 benefit					0.75	0.75	0.75	0.75	0.75	
Benefit / Carry over	1.50	3.00	0.75	1.50	2.25	0.75	-0.75	1.50	0.75	0.00
Discount factor (to end of year 5)	1.38	1.29	1.20	1.11	1.04	0.96	0.90	0.83	0.78	0.72
Total benefits (PV at end year 5)	39.02									
DB benefits (PV at end year 5))	12.73									
Incentive rate	32.62%									
Model 2: Ex-ante incentive rate with true-up at start of regulatory period										
Annual underspend	20	20	-30	10	10					
Total Benefits (PV at end year 5)	39.02									
Target share of underspend (PV at end	12.73									
Benefit already received										
Cumulative underspend	20	40	10	20	30					
Financing benefit from underspending	1.5	3	0.75	1.5	2.25					
Total benefit already received (PV at end	10.84									
Additional benefit required (PV at end	1.88									
Realised incentive rate	32.62%									

In the Model 1 scheme, the business has a total underspend across the five years of \$30 million in nominal terms. This has a present value of \$39 million at the end of year 5. In keeping with earlier Australian schemes the benefit to the business is taken to be the financing cost forgone from having underspent the capex allowance contained in the allowed revenue requirement. This has a present value of \$12.7 million (at the end of year 5) leading to the business retaining 32.6 per cent of the available benefit.

The Model 2 scheme is designed to achieve the same incentive rate as that obtained from Model 1, namely 32.6 per cent, for illustrative purposes. Again, the NSP obtains a financing benefit from having underspent its capex allowance although in this case that only goes through to the end of the current regulatory period. Again the present value of the underspend is \$39 million (at the end of year 5) and the NSP receives a financing benefit of \$10.8 million through to the end of the regulatory period. To achieve the specified incentive rate of 32.6 per cent the NSP requires total benefits of \$12.7 million in present value terms (at the end of year 5) meaning an additional benefit of \$1.9

⁵⁶¹ These examples have been developed with advice from Economic Insights.

million will have to be given to the NSP in the form of additional allowed revenue requirement at the start of the next regulatory period.

Figure A.2 provides a stylised example of how a scheme involving an annual true up of efficiency gains and losses (as Ofgem plans to use) might work (Model 3).

Figure A.2 Example of ex ante incentive rate scheme with lagged annual true-up

Model 3: Ex-ante incentive rate with annual lagged true-up										
Year	1	2	3	4	5	6	7	8	9	10
Forecast capex	300	330	270	300	330					
Actual capex	280	310	300	290	320					
Underspend	20	20	-30	10	10					
Year 1 effect										
Underspend	20									
Total Benefits (PV at end year 2)	22.29									
DB's target share of benefit	7.27									
Benefit already received										
Financing benefit from underspending	1.50									
Benefit already received (PV at end year 2)	1.67									
Additional benefit required (PV at end year 2)	5.60									
Year 2 effect										
Underspend		20								
Total Benefits (PV at end year 3)		22.29								
DB's target share of benefit		7.27								
Benefit already received										
Financing benefit from underspending		1.50								
Benefit already received (PV at end year 3)		1.67								
Additional benefit required (PV at end year 3)		5.60								
Year 3 effect										
Underspend			-30							
Total Benefits (PV at end year 4)			-33.44							
DB's target share of benefit			-10.91							
Benefit already received										
Financing benefit from underspending			-2.25							
Benefit already received (PV at end year 4)			-2.51							
Additional benefit required (PV at end year 4)			-8.40							
Year 4 effect										
Underspend				10						
Total Benefits (PV at end year 5)				11.15						
DB's target share of benefit				3.64						
Benefit already received										
Financing benefit from underspending				0.75						
Benefit already received (PV at end year 5)				0.84						
Additional benefit required (PV at end year 5)				2.80						
Year 5 effect										
Underspend					10					
Total Benefits (PV at end year 6)					11.15					
DB's target share of benefit					3.64					
Benefit already received										
Financing benefit from underspending					0.75					
Benefit already received (PV at end year 6)					0.84					
Additional benefit required (PV at end year 6)					2.80					
Summary										
Financing benefits (nominal)			1.67	1.67	-2.51	0.84	0.84			
Financing benefits (PV at end year 5)			2.08	1.93	-2.70	0.84	0.78			
Total financing benefits (PV at end year 5)						2.93				
Additional benefits required (nominal)			5.60	5.60	-8.40	2.80	2.80			
Additional benefits required (PV at end year 5)			6.96	6.47	-9.03	2.80	2.60			
Total additional benefits required (PV at end year 5)										
Total DB benefits (PV at end year 5)						9.80				
Total DB benefits (PV at end year 5)						12.73				
Realised incentive rate										32.62%

Again the same data as used in Models 1 and 2 are used and the same ex-ante incentive rate of 32.6 per cent is chosen for illustrative purposes. The underspend from year 1 is now trued-up at the start of year 3 and so on leading to the year 5 underspend being trued-up at the start of year 7. The NSP now effectively only retains one year of financing benefits on a rolling basis through the regulatory period. In Model 3 the year 1 true-up is done at the start of year 3 in present value terms at the end of year 2, the year 2 true-up is done at the start of year 4 in present value terms at the end of year 3 and so on.

Converting the smaller financing benefits to present values terms at the end of year 5 for comparison with Model 2, the NSP has retained benefits of \$2.9 million out to year 7. Converting the larger additional benefits required series to present value terms at the end of year 5, the NSP requires additional revenue of \$9.8 million (delivered in a series of annual revenue requirement additions in years 3 through to 7) to achieve the specified ex-ante incentive rate.

The main difference between Models 2 and 3 is that the periodic true-up in Model 2 allows the financing benefit to make up most of the NSP's overall benefit whereas the lagged annual true-up in Model 3 requires most of the NSP benefit to come from additional allowances.

B Example of a formulaic expression of a control mechanism

The formulaic expression of the control mechanism is the formula associated with that form of control mechanism. For example, for a WAPC (a form of control mechanism), the formulaic expression is a formula such as in Figure B.1.⁵⁶²

Figure B.1 Example of a formulaic expression of a control mechanism

$$\frac{\sum_{i=1}^n \sum_{j=1}^m p_t^j \times q_{t-2}^j}{\sum_{i=1}^n \sum_{j=1}^m p_{t-1}^j \times q_{t-2}^j} \leq (1 + CPI_t) \times (1 - X_t) \times (1 + S_t) \times (1 + L_t)$$

where a DNSP has n distribution tariffs, which each have up to m distribution tariff components, and where:

regulatory year "t" is the *regulatory year* in respect of which the calculation is being made;

regulatory year "t-1" is the *regulatory year* immediately preceding *regulatory year "t"*;

regulatory year "t-2" is the *regulatory year* immediately preceding *regulatory year "t-1"*;

p_t^j is the proposed *distribution tariff* for component j of *distribution tariff i* in *regulatory year t*;

p_{t-1}^j is the *distribution tariff* being charged in *regulatory year t-1* for component j of *distribution tariff i*;

q_{t-2}^j is the quantity of component j of *distribution tariff i* that was delivered in *regulatory year t-2*;

CPI_t is calculated as follows:

The Consumer Price Index, All Groups Index Number (weighted average of eight capital cities) published by the Australia Bureau of Statistics for the March Quarter immediately preceding the start of *regulatory year t*,

divided by

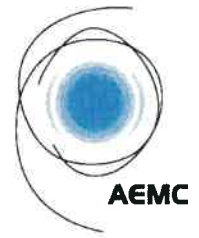
The Consumer Price Index, All Groups Index Number (weighted average of eight capital cities) published by the Australia Bureau of Statistics for the March Quarter immediately preceding the start of *regulatory year t-1*;

X_t to be determined using the building block approach;

S_t is the Service Target Performance Incentive Scheme factor to be applied in *regulatory year t*, and

L_t is the *licence fee pass through adjustment* to be applied in *regulatory year t*.

⁵⁶² AER, *Framework and approach paper for Victorian electricity distribution regulation*, May 2009, p. 140.



RULE CHANGE

Australian Energy Market Commission

RULE DETERMINATION

National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012

National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012

Rule Proponents

Australian Energy Regulator
Energy Users Rule Change Committee - Amcor, Australian Paper, Rio Tinto, Simplot, Wesfarmers, Westfield and Woolworths

29 November 2012

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AEMC 2012, Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services, Final Position Paper, 29 November 2012, Sydney

About the AEMC

The Council of Australian Governments (COAG), through its then Ministerial Council on Energy (MCE), established the Australian Energy Market Commission (AEMC) in July 2005. In June 2011, COAG established the Standing Council on Energy and Resources (SCER) to replace the MCE. The AEMC has two principal functions. We make and amend the national electricity, gas and energy retail rules, and we conduct independent reviews of the energy markets for the SCER.

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Executive Summary

Overview

The Australian Energy Market Commission (AEMC or Commission)¹ has made a series of amendments to the National Electricity Rules (NER) and the National Gas Rules (NGR) in response to the economic regulation of network services rule change requests.

This final determination sets out the amendments that have been made to the NER and the NGR and the Commission's reasons for these amendments. It also sets out the transitional arrangements to implement the new rules. This final determination and the final rules reflect the Commission's position as foreshadowed in final position paper published on 15 November 2012.

The amendments made will provide the Australian Energy Regulator (AER), for gas and electricity, and the Economic Regulation Authority (ERA), for gas, with additional strength and flexibility in setting revenues and prices for electricity and gas network service providers (service providers). The most significant changes are in the way the regulator determines the rate of return that service providers can earn on their assets. Other changes relate to how the size of the regulatory asset base (RAB) is determined and the process for making determinations.

The amendments are in response to rule change requests submitted by the AER and a group of large energy users (the Energy Users Rule Change Committee (EURCC)). These requests were made following one full application by the AER of the existing NER to each service provider. The areas covered by the rule change requests were:

- rate of return (under the NER and NGR);²
- capital expenditure incentives (under the NER);
- capital and operating expenditure allowances (under the NER); and
- regulatory determination process (under the NER).

In general, the Commission has found that the NER and NGR can be improved and strengthened. The Commission has made a series of changes that will or are likely to

¹ In general in this document the term "AEMC" is used in respect of administrative actions or former decisions of the Australian Energy Market Commission, whereas the term "Commission" is used when referring to the considerations and decisions leading up this final position paper.

² The AER's gas rule change request covers only how the rate of return is set under the NGR. The NGR also apply to the economic regulation of pipeline services in Western Australia. The ERA of Western Australia applies the rules in that State.

contribute to the national electricity objective (NEO) and the national gas objective (NGO) (as relevant) taking into account the revenue and pricing principles.³

The amendments comprise a package that, at a general level:

- promote flexibility and adaptability, to allow the regulator to make decisions in changing circumstances, and for service providers with different characteristics, such as network size and geography;
- improve the regulatory determination process to allow the regulator adequate time for decision making, to improve consumer engagement, and to improve transparency and accountability; and
- address ambiguities and clarify provisions, to put beyond doubt the interpretation of certain provisions, particularly in the NER.

Changes to address problems identified

The Commission has made a number of amendments in response to the rule change requests from the AER and the EURCC. These amendments have been informed by numerous submissions from stakeholders, various reports and other material, including the Commission's own analysis. Extensive consultation has been carried out as part of the consideration of these rule change requests, including the transitional arrangements. The Commission wishes to express its gratitude for the level of engagement by stakeholders as part of this rule change process.

The Commission's conclusions on the major issues covered are summarised below.

Rate of return

Overall approach

The most significant changes made in response to these rule change requests relate to how the rate of return for service providers is determined under the NER and the NGR.

The amendments in relation to the rate of return provisions in the NER and NGR provide for a common framework that enables the regulator to make the best possible estimate of the rate of return at the time a regulatory determination is made. When making the estimate the regulator must take into account the market circumstances, estimation methods, financial models and other relevant information.

Given the capital intensity of energy networks, the rate of return is one of the key determinants of the network prices that consumers pay. The nature of the energy

³ The rule making tests are set out in section 88 of the National Electricity Law (NEL) and section 291 of the National Gas Law (NGL). The revenue and pricing principles are set out in section 7A of the NEL and section 24 of the NGL. They set out a number of principles that concern matters such as the recovery of efficient costs, incentives to promote efficiencies and that prices should reflect returns commensurate with the risks involved in providing services.

network sector requires service providers to make significant investments in assets over time to maintain and improve their networks. The rate of return allows service providers to attract the necessary funds from capital markets for these investments and service the debt they incur in borrowing the funds.

Common framework

Under the existing rules, there are three different frameworks that have varying degrees of flexibility and prescription in how the rate of return should be determined. The Commission has concluded that there are disadvantages with each approach. The rate of return framework for electricity transmission is prescriptive about how the rate of return should be estimated and is not well suited to taking account of changes in market circumstances. The framework for electricity distribution has greater flexibility, but is still relatively prescriptive about how the rate of return should be estimated and varied as circumstances change. The application of the rate of return framework under the NGR has resulted in a similar approach to that taken for electricity, although the framework was intended to allow the approach to estimating the rate of return to better reflect changes in market circumstances.

The AER sought to have one rate of return framework in place, based on the electricity transmission model.

The Commission agrees that there is a strong case for a common framework under the NER, including as between transmission and distribution, and NGR for setting the rate of return. A common framework can minimise risks of distortions in capital allocation or investment decisions between the electricity and gas sectors. Yet, the framework must allow consideration of the different characteristics of service providers in each sector when estimating a rate of return. The Commission does not consider that any of existing frameworks represent the best approach to estimating the rate of return.

The common framework to be implemented requires the regulator to make an estimate of the rate of return that is consistent with an overall objective. The objective is focussed on the rate of return required by a benchmark efficient service provider, with similar risk characteristics as the service provider subject to the decision. Under this approach the regulator has the flexibility to adopt the approach it considers appropriate to estimate the rate of return, provided it considers relevant estimation methods, financial models, market data and other information. This is so that the best estimate of the rate of return can be obtained that reflects efficient financing costs of the service provider at the time of the regulatory determination.

In this way, the regulator can better respond to changing financial market conditions, particularly where volatile market conditions impact on a service provider's ability to attract sufficient capital to finance the expenditure necessary to provide a reliable energy supply to consumers.

Guidelines

While providing for flexibility, the Commission recognises that it is important for investor, service provider and consumer confidence in the framework that the

regulator is transparent about its approach, and consults extensively, when determining the allowed rate of return.

To supplement the considerations at each regulatory determination, the new framework requires the regulator to develop rate of return guidelines setting out the approach it intends to take in estimating the allowed rate of return. This must be undertaken no less than every three years and involves consultation with stakeholders. Consultation on the guidelines will give all stakeholders an opportunity to contribute to discussions about how the regulator should approach the overall rate of return estimate.

As part of the framework, the Commission has not included any preferred methods for estimating components of the rate of return consistent with the overall objective. Instead the Commission has provided high-level principles to guide the estimation and left the judgement as to the best approach to the regulator to make, consistent with achieving the overall allowed rate of return objective. This involves the regulator making judgements about methodologies, analytical techniques and evidence to use to make the estimate of the rate of return.

Return on debt

As part of its assessment of the rate of return framework, the Commission has found that the estimation of the return on debt component can be improved by allowing consideration of alternative ways of determining the efficient debt servicing costs of electricity network service providers (NSPs).

Both the AER and the EURCC claimed that the current regulatory approach in the NER is not delivering a satisfactory estimate of the cost of debt for NSPs. In its rule change request the EURCC proposed changing the rules from estimating a forward-looking return on debt to using a trailing average of observed historical debt costs of benchmark NSPs.

The Commission agrees with the AER and the EURCC that the current approach in the NER is problematic for some NSPs, depending on their characteristics and debt management strategies. A number of other approaches to estimating the return on debt were suggested to the Commission by stakeholders.

A number of different approaches to estimating the return on debt may meet the overall rate of return objective. Consistent with the new framework, the Commission is of the view that the regulator is in the best position to determine the best methodology to estimating a return on debt. This is consistent with the regulator deciding the characteristics of benchmark efficient firms under the rate of return framework. The regulator may decide there should be more than one definition of a benchmark efficient firm across electricity transmission, distribution and the gas sector.

The common framework to be implemented provides that the regulator can use a range of different methodologies to undertake this task. The rules include factors to which the regulator should have regard when determining the best approach to estimating the return on debt. Amongst those factors is the potential impact on the cost

of equity of the approach to estimating the return on debt. For example, if the approach for estimating the return on debt differs materially from the efficient financing approach for a benchmark efficient firm then it may increase the refinancing risk for equity holders. So approaches that minimise this refinancing risk for businesses with particular benchmark efficient characteristics could be passed on to consumers in a cost of equity that is lower than it otherwise would be.

As part of its rule change request, the EURCC proposed that the return on debt for state-owned NSPs to be determined differently from privately-owned NSPs.⁴ The Commission has considered this and does not support this aspect of the EURCC's rule change request. The interest rates that State treasury corporations can secure reflect the credit rating of the relevant state government and not the service provider. If state-owned service providers were to access debt capital markets directly then they would face debt financing costs that reflect their stand-alone credit ratings. If such costs are not reflected in the regulatory framework then investment and resource allocation decisions may be distorted. The Commission considers that the most appropriate benchmark to use in the regulatory framework for all service providers, regardless of ownership, in general is the efficient private sector service provider.

Capital expenditure incentives (electricity)

The Commission has amended the NER to include a number of "tools" that the AER can apply to provide adequate incentives for NSPs to spend capital expenditure efficiently, having regard to an overall capital expenditure objective. The objective describes what the capital expenditure incentive regime, as a whole, should aim to achieve. That is, only capital expenditure that is efficient should enter the RAB to be recovered from consumers in future periods.⁵

The tools will include:

- applying capital expenditure sharing schemes to provide incentives to incur efficient capital expenditure. These are to be designed by the AER;
- undertaking reviews of efficiency of past capital expenditure, including the ability to preclude inefficiently incurred expenditure from being rolled into the RAB; and
- deciding whether to depreciate the RAB using actual or forecast expenditure.

In designing and applying these tools, the AER will be required to take into account a number of principles and factors.

⁴ Note that the term "state-owned" encompasses a variety of terms such as government-owned, and publicly-owned. The term "privately-owned" encompasses a variety of terms such as privately-owned and non-state owned. It is considered that state-owned and privately-owned are the most appropriate and accurate to use and are, therefore, adopted throughout this document.

⁵ In this context, references to the RAB are to the RAB that is rolled forward from one regulatory period to another.

The amendments include a requirement on the AER to make guidelines setting out its approach to incentives. These guidelines must be made in consultation with stakeholders.

These amendments are in response to the AER's concerns as well as the Commission's own further analysis. The AER was concerned that there are incentives for NSPs to spend more than the capital expenditure allowances set by the AER as part of their regulatory determinations for a regulatory period. The Commission has identified two key issues with capital expenditure incentives in the NER:

- the power of the incentive to incur capital expenditure efficiently declines during a regulatory period; and
- capital expenditure above the allowance is not subject to any regulatory scrutiny which means that there is a risk that expenditure above the allowance may be inefficient.

Also, there are factors outside of the NER that may provide for additional expenditure to be incurred.

The Commission has identified a range of potential drivers for spending above a capital expenditure allowance. NSPs exhibit different expenditure practices. There are clearly legitimate circumstances in which expenditure above capital expenditure allowances could occur, but often mitigation action such as reprioritising projects could be taken by the NSP to ensure that, overall, capital expenditure is within the allowance set by the regulator. Amongst some NSPs there is a tendency to defer capital expenditure to the end of the regulatory period. For some this practice is not so obvious. A range of tools (see above) that the AER can apply as appropriate is the best way to address such differences.

As highlighted above, the tools include a review of the efficiency of past capital expenditure coupled with the ability to preclude inefficiently incurred expenditure from being rolled into the RAB. Ex ante incentives are the primary means to reveal the efficient level of capital expenditure. Such incentives are an important part of the overall approach to the treatment of capital expenditure. The introduction of reviews of the efficiency of past capital expenditure should not be seen as diminishing the role of ex ante incentives. Rather, such reviews are to address a gap in the lack of supervision of capital expenditure that *has* occurred. The ability to reduce the capital expenditure rolled into the RAB is intended for obvious cases of inefficiency, and not as the main means of achieving efficient levels of capital expenditure. While the AER can review any past capital expenditure, the ability to reduce the amount to be rolled into the RAB is limited to the amount of expenditure above the capital expenditure allowance.⁶

This ability will apply to capital expenditure incurred in any regulatory year commencing after the first guidelines are finished.

⁶ Unless it relates to within period capitalisation policy changes or inefficient related party margins, which may also be precluded from being rolled into the RAB.

The benefits of a review of the efficiency of past capital expenditure include:

- providing information to other stakeholders regarding the efficiency of the NSP;
- contributing to the AER's analysis in setting capital expenditure allowances for the NSP's next regulatory period; and
- providing a necessary companion to any capital expenditure sharing schemes in place. While effective, capital expenditure sharing schemes may not always provide adequate assurance that capital expenditure is efficient. The review provides a further and final check on the efficiency of capital expenditure forming part of the RAB.

When considered alongside the amendments made to the capital expenditure and operating expenditure allowances outlined below, this package of tools can be used by the AER to provide incentives as required so that only investment that is necessary is incurred and rolled into the RAB. If this occurs, consumers will pay as part of their network charges only for investment that was necessary to provide reliable network services.

Capital expenditure and operating expenditure allowances (electricity)

The Commission has made amendments to the NER to clarify and remove ambiguities regarding the powers of the AER to interrogate, review and amend capital expenditure and operating expenditure proposals submitted by NSPs. The AER will be required to publish annual benchmarking reports, setting out the relative efficiencies of NSPs based on the information available to it.

These amendments have been made after having considered the AER's concerns that restrictions in the NER have resulted in capital expenditure and operating expenditure allowances of NSPs that are not efficient. It should be noted here that what the AER approves in this context is expenditure allowances, not projects.

Increases in the rate of return and expenditure allowances have both been significant factors contributing to higher network charges for consumers, although some increases in expenditure have been necessary.

In clarifying the AER's powers, the Commission has confirmed its overall approach to capital expenditure and operating expenditure allowances. The NSP's proposal is necessarily the starting point for the AER to determine a capital expenditure or operating expenditure allowance, as the NSP has the most experience in how its network should be run. Under the NER the AER is not "at large" in being able to reject the NSP's proposal and replace it with its own since it must accept a reasonable proposal. Nonetheless, the AER should determine what is reasonable based on all of the material and submissions before it.

This reflects the obligation that all public decision makers have to justify their decisions. In addition, the NER do not place any restrictions on the analytical techniques that the AER can use to scrutinise and, if necessary, amend or substitute the

NSP's capital expenditure or operating expenditure forecasts. From a practical perspective the NER reflect the approaches of other regulators.

The Commission considers that benchmarking is a critical exercise in assessing the efficiency of a NSP and approving its capital expenditure and operating expenditure allowances. Benchmarking should take into account differences in the environments of the different NSPs, being those factors that are outside the control of the NSP. The Commission will remove any potential constraints in the NER on the way the AER may use benchmarking.

Whilst benchmarking is a critical tool for the regulator, it can also be of assistance to consumers, providing them with relative information about network performance on NSPs. Benchmarking information would be useful to consumers when participating in the regulatory determination process and merits reviews, and also in their informal interactions with NSPs.

Regulatory determination process

The Commission has also made a number of detailed changes to the regulatory determination processes in Chapters 6 and 6A of the NER. Consideration of these rule change requests highlighted the difficulties consumers and their representatives experience in participating in the regulatory determination process.

These amendments follow the consideration of a series of process related issues raised by the AER. Those issues relate largely to the ability of stakeholders to engage effectively in the regulatory determination process.

The Commission considers that the process needs to be transparent and timely. This is so that all parties have a clear understanding of their rights and obligations at the outset, as well as ample opportunity to participate. This is a key contributor to confidence in the overall outcomes from the perspective of both the NSP and consumers.

The changes include:

- lengthening the regulatory determination process to commence four months earlier, for both electricity distribution and transmission NSPs. This will provide time for the AER to prepare and publish a mandatory issues paper and hold a public forum. It will also provide time for a cross submissions stage later in the process, if required;
- the application of an optional framework and approach paper as part of the electricity transmission and distribution regulatory determinations processes. This document can be used, where necessary, to settle a number of issues prior to regulatory proposals being submitted. Examples include information that needs to be provided by the NSP, and the capital expenditure incentive package that the AER proposes to apply to the NSP; and

- improving transparency and accountability by requiring NSPs to nominate to the AER the reasons why it classifies material as confidential. The AER will be required to publish a report of the NSP making confidentiality claims as well as indicating the proportion of material that the NSP claims to be confidential.

The Commission considers that the consultation process in the regulatory determination process that will apply in the NER is the minimum that would be required. The Commission encourages greater engagement and interaction between the NSP and consumer representative groups, and the NSP and the AER outside of the formal regulatory determination process set out in the NER.

Differences between draft rules and final rules

The final rules substantially reflect the draft rules, although there are some changes. Key differences include:

- clarification of the drafting of the return on debt factors;
- in respect of precluding any capital expenditure from being rolled into the RAB for overspends, it may only be applied for capital expenditure undertaken in regulatory years that commence after the capital expenditure incentive guidelines have been published;
- the powers of the AER to interrogate and amend expenditure proposals have been further clarified (clauses 6.12.3(f) and 6A.13.2(a) have been deleted entirely);
- the obligation on NSPs to comply with AER expenditure forecasting methodologies has been adjusted so that NSPs may instead provide expenditure assessment information required by the AER separate to their regulatory proposal;
- the new regulatory process has been shortened by two months (meaning it will only be four, rather than six months, longer than at present);
- the framework and approach process may be triggered by a NSP and not just by the AER; and
- the contingent project threshold has been changed to \$30 million or 5% of the annual revenue requirement / maximum allowed revenue (whichever is higher).

Transitional arrangements

The Commission has included transitional arrangements in the final rules to enable the regulators to apply the new rules as soon as possible. This will allow the benefits of the new rules to flow through to consumers more quickly.

Transitional arrangements are required due to overlap between the timing of guidelines required under the new rules and that of upcoming regulatory processes,

which must follow the guidelines. Transitional arrangements are included in the final rules for both electricity and gas. As well as allowing the new rules to be applied as soon as possible, the transitional arrangements are designed to minimise the resourcing burden on stakeholders and minimise price volatility.

Transitional arrangements will apply to regulatory processes until mid-2016, when Aurora and Powerlink are due to submit regulatory proposals. Different transitional arrangements have been designed for different service providers, and in general, the scale of the transitional arrangements reduces as time progresses.

Consumer engagement and participation

A number of the amendments made also attempt to address a lack of focus on consumer engagement and participation. The changes in this regard are broad and varied.

They include requiring:

- the NSP to indicate in its regulatory proposal the extent to which it has engaged with consumer representatives. The NSP must also include an overview paper in its proposal for consumers;
- the AER to publish an issues paper after receiving the regulatory proposal. The purpose of this paper will be to assist consumer representative groups to focus on the key preliminary issues on which they should engage and comment;
- the AER to publish a benchmarking report that informs consumers on the relative efficiencies of NSPs; and
- the AER, when determining the capital expenditure and operating expenditure allowances, to take into account the extent to which the NSP has engaged with consumers in preparing its forecasts.

Drivers for effective regulation

The Commission is of the view that the package of amendments made to the NER and NGR provides the regulator with additional tools to carry out its functions. The effectiveness of the NER and the NGR in terms of the overall price and service outcomes experienced by consumers is dependent on two drivers:

- the effective application of the NER and NGR by the regulator and review body; and
- the effective corporate governance of the NSPs providing services which are subject to economic regulation.⁷

⁷ Corporate governance here refers to governance at both the management and shareholder level.

The efficiency with which network services are provided depends on the way in which the drivers work together. Only when these aspects are operating as intended will the best outcomes for consumers be achieved.

The interpretation and application of the rules by the regulator is crucial. This final rule determination provides examples and illustrations of how the rules could be interpreted and applied to address problems that exist currently, as well as how their application could adapt when the circumstances change. In drafting the final rules, the Commission liaised with the AER regularly to be as certain as possible that the rules are correct, clear, and able to be applied by the AER, consistent with the Commission's position. The AER has reviewed the final rules and in its view, the final rules can be applied by the AER, consistent with the Commission's final position as set out in this final determination. The next section discusses the role of merits review in effective application of the NER and NGR.

Management and shareholders of service providers also play a critical role in the efficient provision of network services. They do this through a variety of means, such as approving proposals to be submitted to the regulator, given the significance of AER decisions for these businesses. They also create incentives within the business to encourage efficient outcomes.

Merits review

While the Commission has been considering these rule change requests, the Standing Council on Energy and Resources (SCER) decided to bring forward the review of the Limited Merits Review (LMR) regime in the NEL and the NGL. In April 2012 a panel was appointed to undertake the review. On 9 October 2012 the panel published its final stage two report.

The LMR Panel has observed that a narrower, and more formalistic approach to merits review has developed than what was originally intended. In its view this approach has been relatively detached from:

- the focus on the overall objectives set out in the NEL and NGL; and
- encouraging outcomes that are in the long term interests of consumers.

The LMR Panel has proposed in its final stage two report that the NER and the NGR could be amended to clarify that decisions under those rules should be more holistic and broader, focussing on overall outcomes rather than component elements.

The recommendations in the final stage two report that seek to encourage a greater focus on objectives and overall outcomes are consistent with the final position in this rule change and are supported by the Commission. Where possible, the final position rule seeks to allow and encourage the regulator to approach decision-making more holistically to meet overall objectives consistent with the NEO, NGO and RPPs. In line with this overall approach, the Commission is supportive of the review body being

constituted, empowered, staffed and resourced in such a way as to be able to take the same holistic approach to the review of decision-making.

The Commission supports the need for accountability of the regulator through some form of merits review. Outcomes for consumers are likely to be improved if the proposed changes in the LMR Panel report to encourage a greater focus on objectives and overall outcomes by the review body are implemented. However, this final rule determination and the final rule proceed on the basis of the merits review arrangements existing at this point in time. As noted by the LMR Panel final report, to the extent that the merits review arrangements change, there may also need to be further rule changes to align the rules with the changes to the NEL and NGL regarding issues such as the definition of a reviewable decision.

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1 Network regulation rule change requests

1.1 Rule change requests

In September 2011 the Australian Energy Regulator (AER) submitted two rule change requests seeking to amend the rules for the economic regulation of network services. The areas identified by the AER as deficient and requiring improvement are:

- For electricity: the capital and operating expenditure framework, capital expenditure incentives, rate of return provisions and the efficiency of the regulatory process, as set out in the National Electricity Rules (NER); and
- For natural gas: the rate of return provisions in the National Gas Rules (NGR).

In October 2011, the Energy Users Rule Change Committee (EURCC), a committee of large energy consumers, comprising Amcor, Australian Paper, Rio Tinto, Simplot, Wesfarmers, Westfield and Woolworths, also submitted a rule change request. The EURCC's rule change request relates to one area of the rate of return on capital under the NER, being the cost of debt. The EURCC sought changes to the NER relating to the methodology for the calculation of the return on debt component and a differential cost of debt for state-owned and privately-owned network service providers (NSPs).⁸

1.2 Rationale for the rule change requests

This section sets out, at a high level, the major problems with the current NER and NGR, as reflected in the AER's and the EURCC's rule change requests.

In the AER's view, the rules, in particular the NER, have hindered its ability to appropriately regulate the electricity networks, to ensure that the regulated electricity networks invest efficiently and earn appropriate commercial returns, and to respond to changing circumstances.⁹ These conclusions have followed at least one application of the Chapter 6 and Chapter 6A NER frameworks for each of the electricity NSPs, and the equivalent provisions of the NGR for gas service providers. The main problems identified by the AER are as follows:

- capital expenditure and operating expenditure allowances (electricity) - the AER referred to restrictions under the NER on its ability to interrogate and amend the capital expenditure (capex) and operating expenditure (opex) forecasts of NSPs and the requirement that the regulator must accept a forecast if it reasonably reflects certain criteria listed in the NER. The AER considered that the NER invite upwardly biased forecasts and limit its ability to interrogate and amend forecasts provided by NSPs;

⁸ In this final rule determination a reference to "service providers" includes both gas and electricity service providers, while a reference to "NSP" refers only to an electricity network service provider.

⁹ AER Executive Briefing, 29 September 2011, p. 1.

- capex incentives (electricity) – the AER considered that there are problems with the current NER in respect of capex incentives. This is because they provide for all actual capex incurred within a regulatory control period to be rolled into the regulatory asset base (RAB) regardless of whether or not the capex allowed for in the determination was efficient. This roll forward model, in the AER’s view, creates incentives for NSPs to incur more than efficient levels of capex;
- rate of return (electricity and gas) – the AER’s electricity and gas rule change requests referred to the problems associated with having different rate of return frameworks for electricity distribution, electricity transmission and gas. In the AER’s view these frameworks have required repeated assessments of similar arrangements and evidence for each determination or access arrangement process, creating an administrative burden. For gas, the AER stated that the NGR create uncertainty in that they do not specify a particular framework for determining the rate of return;
- cost of debt (electricity and gas) – the AER stated that the current approach to assessing the cost of debt has become difficult to apply under changing financial market conditions. The EURCC also considers this approach is problematic in the case of electricity, along with the lack of a differential cost of debt for state-owned and privately-owned NSPs; and
- regulatory determination process (electricity) – the AER has raised a number of process issues that largely concern the ability of stakeholders to engage effectively in the regulatory determination process. For example, NSPs provide submissions on their own regulatory proposals. In the AER’s view this may result in stakeholders having insufficient time to consider additional material from the NSP.

1.3 Solutions proposed in the rule change requests

The rule proponents proposed a number of amendments to the NER and the NGR to address the problems they have identified. In short, the solutions may be described as follows:

- capex and opex allowances – the AER proposed amendments to the NER to set its own estimate of capex and opex, using a range of inputs;
- capex incentives – the AER proposed for inclusion in the NER a sharing mechanism that would apply to any expenditure above the regulatory allowance. 60 per cent of this expenditure above the allowance would be rolled into the RAB for the next regulatory control period, with the remainder excluded from that asset base and funded by shareholders. It also proposed being given the discretion in transmission to determine whether to adopt forecast or actual depreciation; and to disallow capex for related party margins and as a consequence of capitalisation policy changes;

- rate of return – the AER proposed a single framework for electricity and gas which most closely aligns with the current framework for electricity transmission set out in Chapter 6A of the NER; that is, the outcomes of periodic rate of return reviews must apply and cannot be departed from in subsequent determinations and access arrangements made before the next rate of return review. The AER would also amend the NER and the NGR to provide it with increased discretion in how to determine certain individual parameters forming part of the rate of return and would remove the need for persuasive evidence before amending them. For gas in particular, the AER proposed that the NGR would prescribe that the rate of return would be calculated as a nominal post-tax vanilla weighted average cost of capital, using the capital asset pricing model to determine the return on equity. This means the rate of return provisions for electricity and gas would be in line;
- cost of debt - the AER proposed that the methodology for setting the debt risk premium should be included in the periodic rate of return reviews undertaken by the AER, rather than being prescribed in the NER. The EURCC proposes a new rules-prescribed methodology for calculating the cost of debt, having regard to the "actual debt costs" of electricity NSPs. The return on debt for state-owned electricity NSPs would be determined differently to non-state owned NSPs; and
- regulatory determination process - the AER considered that aspects of the current regulatory determination process under the NER could be improved to enable more timely submission and consideration of material by all relevant stakeholders prior to the AER making its decisions.

1.4 Consultants

The Commission) has engaged a number of consultants to assist it with the analysis of issues raised in the rule change requests from the AER and the EURCC. These consultants have provided reports to the AEMC which are available on the AEMC's website.

Over the course of the rule change process the AEMC engaged the following consultants to undertake analysis and provide reports:

- Professor Stephen Littlechild, Professor George Yarrow - assistance in the area of capex and opex allowances, capex incentive and regulatory process;
- Strategic Finance Group Consulting (SFG) - assistance on the rate of return including a specific report return on debt methodologies and advice on issues raised in the draft rule determination.
- The Brattle Group (Brattle) – on approaches to assessing capex and opex forecasts;
- Covec - on related party margins;

- Economic Insights – on the use of actual and forecast depreciation; and
- Parsons Brinckerhoff – on capital expenditure practices of NSPs.

These reports of these consultants have been published on the AEMC's website.

In making its final rule determination on the rule change requests, the Commission has been informed by the material prepared by these consultants.

1.5 Commencement of rule making process and extensions of time

On 20 October 2011, the Commission published a notice under section 95 of the NEL and section 303 of the NGL advising of its intention to commence the rule making processes and first round of consultation on the AER's rule change requests. A consultation paper prepared by AEMC staff identifying specific issues and questions for consultation was also published with the rule change requests.

Given that the proposals raised issues in the rules on similar subject matter, on 3 November 2011, the AEMC gave notice under section 93(1)(a) of the NEL to consolidate the EURCC's rule change request with the AER's electricity rule change request. The result of this consolidation was the creation of a new consolidated rule change request which would run to the same process and timetable as the original AER rule change request.

Due to the complex nature of these rule change requests, the AEMC issued notices under section 107 of the NEL and section 317 of the NGL to extend the length of the rule change process in this case. Accordingly, on 20 October 2011 and 3 November 2011, the AEMC issued notices to extend the period of time for the making of the draft rule determinations on these rule change requests to 26 July 2012. On 21 June 2012, the AEMC issued further notices under section 107 of the NEL and section 317 of the NGL to extend the period of time for the making of the draft rule determinations to 23 August 2012.

On 15 November 2012, the AEMC issued notices under section 107 of the NEL and section 317 of the NGL to extend the timeframe for making its final rule determination to 29 November 2012 in order to allow for additional consultation and analysis on transitional arrangements for its implementation. The Commission also published a final position paper on 15 November 2012. The final position paper stated the Commission's final position in relation to each of the matters raised in the rule change requests. The final position paper was intended to inform stakeholders at the earliest possible opportunity of the Commission's position in response to consultation on the draft rule determination while transitional arrangements to implement the changes were being finalised.

The Commission also published a version of the final position rule that reflected its conclusions and decisions as contained in this final position paper. The final position paper and the final position rule were not subject to consultation.

1.6 Consultation on rule change requests

On 20 October 2011 the AEMC issued a consultation paper on the AER rule change request and on 3 November 2011 it issued a consultation paper on the EURCC rule change request. The AEMC held a public forum in Brisbane on 23 November 2011 to facilitate discussion on the - rule change requests. Submissions on the two consultation papers closed on 8 December 2011.

On 2 March 2012, the AEMC published a directions paper on the consolidated rule change request and the AER's gas rule change request.¹⁰ The directions paper explained the AEMC's initial positions on, and set out its next steps to progress these rule changes requests. A series of workshops were also held on 2 April 2012 in Melbourne to discuss some of the key issues raised in the directions paper. Submissions on the directions paper closed on 16 April 2012. A summary of these submissions is published on the AEMC's website.

The AEMC held a public forum in Sydney on 9 May 2012 with Professors Littlechild and Yarrow. Professors Littlechild and Yarrow presented on the papers they provided for the AEMC's directions paper, which provided stakeholders with the opportunity to raise questions with them.

The AEMC held workshops in Sydney on 18 May 2012 and 13 July 2012 on cost of debt issues. The AEMC also invited written submissions on cost of debt issues which closed on 5 July 2012.

On 23 August 2012 the AEMC published its draft rule determination and draft rules. Submissions on the draft rule determination and draft rules closed on 4 October 2012. A summary of these submissions is published with this final rule determination.

On 14 September 2012 the AEMC published a consultation paper on transitional issues and then on 25 September it published consultation rules on transitional issues. On 26 September 2012 a workshop on transitional issues was held.

This document represents the Commission's final rule determination on the network rule change requests under the NER and the NGR

¹⁰ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012.

2 Final Rule determination - electricity

2.1 Commission's final rule determination

In accordance with section 102 of the NEL the Commission has made this final rule determination in relation to the rules proposed by the AER and the EURCC as part of the consolidated rule change request.

The Commission has determined that it should not make the rule proposed by the AER and the EURCC, but rather, to make a more preferable rule.¹¹

The Commission's reasons for making this final rule determination are set out in chapters 6 to 12.

The more preferable rule that the Commission has made (final rule) is attached to and published with this final rule determination. The final rule includes rules for transitional arrangements that will apply to certain NSPs to transition them into the new rules. The key features of the final rules are described in chapters 6 to 12 of this final rule determination.

2.2 Commission's considerations

In assessing the consolidated rule change request the Commission considered:

- its powers under the NEL to make the final rule determination;
- the consolidated rule change request;
- submissions received during initial consultation on the consolidated rule change request and following publication of the directions paper and draft rule determination;
- comments made by stakeholders as part of workshops and forums held as part of the consultation undertaken for the consolidated rule change request;
- consultants reports;¹²
- the ways in which the proposed rule will, or is likely to, contribute to the achievement of the national electricity objective (NEO);
- discussion papers and reports published by the Limited Merits Review Panel;

¹¹ Under section 91A of the NEL the AEMC may make a rule that is different (including materially different) from a market initiated proposed rule (a more preferable rule) if the AEMC is satisfied that, having regard to the issue or issues that were raised by the market initiated proposed rule (to which the more preferable rule relates) the more preferable rule will or is likely to better contribute to the achievement of the national electricity objective.

¹² Referred to in chapter 1.

- previous decisions of the Commission, including the 2006 Chapter 6A rule determination;¹³
- relevant documents published by the Ministerial Council on Energy (MCE) regarding the development of Chapter 6 of the NEL; and
- relevant merits review decisions of the Australian Competition Tribunal (ACT).

There is no relevant MCE Statement of Policy Principles relating to the consolidated rule change request.

2.3 Commission's power to make the rule

The Commission is satisfied that the final rule falls within the subject matter about which the Commission may make rules as set out in section 34 of the NEL and in schedule 1 of the NEL. The final rule is, among other things, within:

- section 34(1)(a)(iii), as it relates to the activities of persons participating in the National Electricity Market (NEM) or involved in the operation of the national electricity system; and
- the matters set out in items 15-24 and 25-26I of schedule 1, as they relate to transmission and distribution system revenue and pricing.

2.4 Rule making test

2.4.1 NEO

Under section 88(1) of the NEL the Commission may only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the NEO. This is the decision making framework that the Commission must apply.

The NEO is set out in section 7 of the NEL as follows:

“The objective of this Law is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- (a) price, quality, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system.”

For the consolidated rule change request the Commission considers that the relevant aspects of the NEO is the promotion of efficient investment in electricity services for

¹³ AEMC, Economic Regulation of Transmission Services, Rule Determination, 16 November 2006, Sydney.

the long term interests of consumers with respect to price. More particularly, efficient investment requires:

- there being a level of investment in network infrastructure so that safety and reliability standards are met in circumstances where consumers pay no more than is necessary for the network services they receive;
- the costs NSPs incur in providing network services to their customers reflecting efficient financing costs. This is to allow NSPs to attract sufficient funds for investment while minimising the resultant costs that are borne by consumers;
- the establishment of certain, robust and transparent regulatory environment. Investors will have more confidence and may be more likely to invest in monopoly infrastructure where the regulatory process is certain and robust, with appropriate checks and balances in place. Consumers will also have more confidence that the outcomes are better in such an environment; and
- regulatory certainty in the application of the improved and strengthened rules.

2.4.2 Assessment of the final rule against the NEO

The Commission is satisfied that the final rule will, or is likely to, contribute to the achievement of the NEO for the reasons set out below.

2.4.3 Rate of return

The final rule introduces a new framework for determining the rate of return. It provides that the allowed rate of return for a NSP must meet an objective related to the efficient financing costs of a benchmark efficient NSP with a similar degree of risk as that which applies to the NSP subject to the decision. The final rule provides the regulator with sufficient discretion on the methodology for estimating the required return on equity and debt components but also requires the consideration of a range of estimation methods, financial models, market data and other information so that the best estimate of the rate of return can be obtained overall that achieves the allowed rate of return objective.

The final rule also provides for the allowed rate of return to reflect changing circumstances so that the application of the framework should result in the best overall estimate of the rate of return in any case that is commensurate with efficient financing costs. This should ensure sufficient funds are attracted for network investment, while minimising costs for electricity consumers.

Approach to capex and opex

The final rule confirms the discretion the regulator has to review and scrutinise NSPs' capex and opex proposals to better achieve the objective that allowances set are efficient. The regulator can adopt a range of analytical techniques to determine the

ultimate capex and opex allowances for a NSP. The final rule also provides for a suite of ex ante incentive mechanisms that could be used to encourage NSPs to incur only capex which is efficient. As NSPs are different the final rule provides the regulator with discretion to determine an appropriate capex incentive package for each NSP. As a final check, the final rule also provides for the regulator to undertake a review of past capex for efficiency.

This establishes a package of tools to allow the regulator to set efficient allowances in the first place, to establish an appropriate ex ante incentive regime to encourage efficient capex and finally, to undertake a review of past expenditure and to preclude inefficient expenditure being rolled into the regulatory asset base. This package should mean that only investment that is necessary is incurred and rolled into the asset base. This means that consumers will pay as part of their network charges only for investment that was necessary to provide network services to them.

Regulatory determination process

The final rule makes a number of changes to the process for making determinations. It provides more time for consumers and other stakeholders to participate meaningfully in the regulatory determination process, as well as giving the regulator more time towards the end of the process to consider material presented to it. The final rule also provides for increased transparency and accountability regarding confidentiality claims over material submitted as part of the process.

The regulatory determination process changes increase the likelihood of better overall outcomes, as there should be more time to consider information, and resolve issues at an earlier stage where possible. This will help increase confidence in the regulatory determination process.

Transitional arrangements

The final rule includes transitional rules that allow the regulator and NSPs to apply the new rules as soon as possible with minimal administrative cost and regulatory uncertainty. This should mean consumers will benefit as soon as possible from efficient pricing outcomes consistent with their long term interests.

2.4.4 Implementation costs

The final rule provides for a range of significant changes to Chapters 6 and 6A of the NER. There will be implementation costs for NSPs and other stakeholders, including consumers, in adjusting to these changes. For the regulator there will be implementation costs as it develops the guidelines and schemes necessary for the successful application of this package of rules.

Having said this, the Commission is of the view that these costs are minor when compared with the potential benefits associated with the final rule. The costs will be outweighed by the outcomes of the determination process.

2.4.5 AEMO's declared network functions

Under section 91(8) of the NEL the Commission may only make a rule that has effect with respect to an adoptive jurisdiction if satisfied that the proposed rule is compatible with the proper performance of Australian Energy Market Operator's (AEMO) declared network functions. The final rule is compatible with AEMO's declared network functions because it is not related to and does not affect these functions.

2.5 More preferable rule

Under section 91A of the NEL, the AEMC may make a rule that is different (including materially different) from a market initiated proposed rule (a more preferable rule) if the AEMC is satisfied that, having regard to the issue or issues that were raised by the market initiated proposed rule (to which the more preferable rule relates), the more preferable rule will, or is likely to, better contribute to the achievement of the NEO.

Having regard to the issues raised by the proposed rules in the consolidated rule request, the Commission is satisfied that the final rule will, or is likely to, better contribute to the achievement of the NEO than the proposed rules for the following reasons:

- the final rule encourages more holistic, overall decision-making by the regulator. In particular, the rate of return provisions and the capex incentive provisions of the final rule allow the AER to adopt an approach that is consistent with the achievement of a specified objective without prescribing the precise approach which the AER must adopt;
- the final rule provides the regulator with discretion to consider the changing circumstances of each NSP, and make decisions on a case by case basis so that the best outcomes can be achieved - at the same time, the regulator must do so in an accountable and transparent manner. For the rate of return provisions, the final rule also enables the regulator to have regard to any changes in financial market conditions that could have a positive or negative impact on a NSP's rate of return at the time of its decision;
- the final rule amends the regulatory process so that it commences earlier and includes additional steps. This gives the regulator more time to make better decisions and other stakeholders more time to participate in the process more effectively; and
- the final rule includes transitional arrangements to allow application of the new rules to all NSPs as soon as possible.

Chapters 6 to 11 explain in greater detail how the Commission considers that the final rule is likely to better contribute to the achievement of the NEO than the rules proposed in the consolidated rule request. Chapter 12 discusses the rules on transitional arrangements.

The final rule also includes a number of provisions that are necessary or consequential (as permitted by section 91B of the NEL).

2.6 Other requirements under the NEL

In applying the rule making test in section 88 of the NEL, the Commission has taken into account the revenue and pricing principles (RPP) as required under section 88B of the NEL as the final rule relates to matters specified in items 15 to 24 and 25 to 26J of Schedule 1 to the NEL.

In respect of the transitional arrangements, the Commission has also taken into account five broad principles that, in its view, represent the most important considerations for the new rules. These principles include:

1. the final rules should apply to all service providers as soon as possible;
2. where any transitional arrangements are made regarding determination processes that require consultation, the arrangements should allow for sufficient time for stakeholder consultation;
3. the transitional arrangements should provide service providers with a reasonable opportunity to recover at least the efficient costs they incur in the provision of regulated services;
4. the transitional arrangements should be practicable having regard to the regulator's resourcing constraints, as well as the resourcing capacity of other stakeholders; and
5. the transitional arrangements should minimise the potential for one-off price shocks for consumers.

The Commission believes these five broad principles for transitional arrangements are consistent with the NEO and the RPP. The Commission has borne these principles in mind when assessing the various proposals that have been made about the form that the transitional arrangements should take.

The next section below explains how the RPP have been taken into account.

2.6.1 Recovery of efficient costs

Section 7A(2) of the NEL – a NSP should be provided with a reasonable opportunity to recover at least the efficient costs it incurs in providing network services and in complying with a regulatory obligation or requirement or making a regulatory payment.

Rate of return

This principle requires that the rate of return reflects efficient financing costs necessary to attract sufficient investment capital to maintain a reliable electricity supply while minimising the cost to consumers. The rate of return must therefore only reflect efficient financing costs of a benchmark efficient NSP to ensure that the service provider can retain the benefits from adopting more efficient financing arrangements than assumed by the regulator, and consumers are protected if a service provider is inefficient in their financing practices.

Capex/opex allowances and capex incentives

A NSP's proposal must set out the NSP's capex and opex requirements for the regulatory period. While this final rule determination clarifies the discretion the regulator has to interrogate and amend a NSP's forecasts, it also confirms the significance of the NSP's proposal for the regulator's determination. In terms of capex incentives, any scheme implemented by the regulator is likely to allow an increase above a NSP's capex allowance (or at least be neutral) for an efficient NSP. In addition, any efficient costs of a NSP should be rolled into the RAB following a review of the efficiency of past capex by the regulator.

Regulatory determination process

The regulatory determination process changes increase the likelihood of better overall outcomes, as there should be more time to consider information, and resolve issues at an earlier stage where possible.

Transitional arrangements

In the context of transitional arrangements, the Commission has expressly considered the RPP on recovery of at least efficient costs as one of the key principles. The transitional arrangements have been put in place so that those NSPs that are in the process of preparing their regulatory proposals for the next regulatory period, or will be required to submit their regulatory proposals while the AER determines its approach to certain issues under the new rules, have certainty as to how the rules are to apply to them.

2.6.2 Effective incentives

Section 7A(3) of the NEL – a NSP should be provided with effective incentives to promote economic efficiency with respect to the services the NSP provides. The economic efficiency that should be promoted includes efficient investment in the systems used to provide network services, efficient provision of those services, and efficient use of the systems that provide those services.

Rate of return

Efficient outcomes in terms of investment, operation and use of network services are most likely to be obtained when the best estimate of the rate of return is obtained. Achievement of the overall allowed rate of return objective will promote effective incentives as the rate of return determined should be commensurate with benchmark efficient financing costs.

Capex/opex allowances and capex incentives

The combination of an appropriately set ex ante allowance for capex and a range of capex incentives (including a review of the efficiency of past capex) will create effective incentives to promote economic efficiency. In addition, the final rule gives the regulator the power to establish small scale incentive schemes to test innovative approaches to incentives.

Transitional arrangements

In order to create effective incentives that promote economic efficiency, the new rules apply to all NSPs as soon as possible. The transitional arrangements have been developed to progressively apply the new rules to NSPs as they approach their regulatory determinations for the next regulatory period. Different arrangements have been put in place for different NSPs, depending on when their next regulatory period begins. This means that improved incentives can be provided to NSPs going forward.

2.6.3 Charges for network services

Section 7A(5) of the NEL – the price or charge for the provision of a network service should allow for a return commensurate with the regulatory and commercial risks involved in providing the network service.

Rate of return

Having regard to this principle involves the estimated rate of return being commensurate with the risks involved in providing the service, which is what is sought from the rate of return estimation process. This principle can best be met by obtaining the best possible rate of return estimate.

Capex/opex allowances and capex incentives

As described above, the regulator should take into account the NSP's proposal as part of the process of setting expenditure allowances. In addition, the final rule clarifies the discretion the AER has in interrogating and amending the NSP's proposal. Appropriately set capex and opex allowances should allow for a return commensurate with regulatory and commercial risks.

2.6.4 Economic costs and risks of potential for under and over investment

Section 7A(6) of the NEL – regard should be had to the economic costs and risks of the potential for under- and over-investment by a NSP in the systems used to provide network services.

Rate of return

If the rate of return estimate is set to the efficient required return, there will be no incentive for under- or over- investment. Such incentives for inefficient investment become more pronounced when the rate of return estimate differs from the efficient required return.

Capex/opex allowances and capex incentives

Capex and opex allowances that are set too high or too low can create the risk of under- or over- investment. By clarifying the discretions the regulator has, the final rule determination contributes to expenditure allowances that better reflect efficient costs. More effective capex incentive arrangements, including reviews of the efficiency of past capex, may also mitigate the risk of over-investment.

Regulatory determination process

The final rule provides more time for consumers and other stakeholders to participate meaningfully in the regulatory determination process, as well as giving the regulator more time towards the end of the process to consider material presented to it. This should better allow economic costs and investment risks to be brought to the attention of the regulator and considered.

Transitional arrangements

The transitional arrangements principles one and two encapsulate this RPP. By putting in place appropriate transitional arrangements to apply the new rules to NSPs as soon as possible, the regulator is given greater powers to achieve efficient outcomes. This could reduce the risk of potential over or under-investment.

2.6.5 Economic costs and risks of potential for under and over utilisation

Section 7A(7) – regard should be had to the economic costs and risks of the potential for under- and over-use of the networks used to provide network services.

Rate of return

If the rate of return estimate is set to the efficient required return, then prices are (by definition) set at the efficient level and there is no distortive effect on usage due to mis-pricing.

Capex/opex allowances and capex incentives

Capex allowances set to an efficient level allow an appropriate level of capex to be undertaken. This should also then allow networks to sustain the use that is made of them.

Transitional arrangements

Prices should not be distorted when moving from the previous rules to the new rules, unless the underlying economic costs of the NSPs change. The transitional arrangements seek to minimise the potential for one-off price shocks for consumers in this regard and therefore provide appropriate price signals to consumers.

3 Final Rule determination - gas

3.1 Commission's final rule determination

In accordance with section 311 of the NGL the Commission has made this final rule determination in relation to the rule proposed by the AER.

The Commission has determined that it should not make the rule proposed by the AER but rather to make a more preferable rule.¹⁴

The Commission's reasons for making this final rule determination are set out in chapters 6 and 7. The Commission's reasons for the transitional arrangements are discussed in chapter 13.

The more preferable rule that the Commission has made (final rule) is attached to and published with this final rule determination. The final rule includes rules for transitional arrangements that will apply to certain gas service providers to transition them into the new rules. The key features of the final rules are described in chapters 6 and 7 of this final rule determination. The Commission's reasons for the transitional arrangements are discussed in chapter 13.

3.2 Commission's considerations

In assessing the rule change request the Commission considered:

- its powers under the NGL to make the final rule determination;
- the rule change request;
- submissions received during initial consultation on the rule change request and following publication of the directions paper and draft rule determination;
- comments made by stakeholders as part of workshops and forums held as part of the consultation undertaken for the rule change request;
- consultants reports;¹⁵
- the ways in which the proposed rule will, or is likely to, contribute to the achievement of the national gas objective (NGO);
- discussion papers and reports published by the Limited Merits Review Panel;

¹⁴ Under section 296 of the NGL the AEMC may make a rule that is different (including materially different) from a market initiated proposed Rule (a more preferable rule) if the AEMC is satisfied that, having regard to the issue or issues that were raised by the market initiated proposed rule (to which the more preferable rule relates), the more preferable rule will or is likely to better contribute to the achievement of the national gas objective.

¹⁵ Referred to in chapter 1.

¹⁶ Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

- previous decisions of the Commission, including the 2006 Chapter 6A determinations;
- relevant documents published by the MCE regarding the development of Chapter 6 of the NER; and
- relevant merits review decisions of the ACT.

There is no relevant MCE Statement of Policy Principles relating to this rule change request.

3.3 Commission's power to make the rule

The Commission is satisfied that the final rule falls within the subject matter about which the Commission may make rules as set out in section 74 of the NGL; in particular section 74(1)(a)(i) and (ii) relating to access to, and the provision of, pipeline services and items 41, 49 and 50 of schedule 1 of the NGL relating to the building block approval and the AER's economic regulatory functions and powers.

3.4 Rule making test

3.4.1 NGO

Under section 291(1) of the NGL the Commission may only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the NGO. This is the decision making framework that the Commission must apply.

The NGO is set out in section 23 of the NGL as follows:

“The objective of this Law is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.”

For the rule change request the Commission considers that the relevant aspects of the NGO are the efficient investment in natural gas services for the long term interests of consumers with respect to price. Efficient investment requires that the costs gas service providers incur in providing services to their customers should reflect efficient financing costs. This is to allow gas service providers to attract sufficient funds for investment while minimising the resultant costs that are borne by consumers.

3.4.2 Assessment of the final rule against the NGO

The Commission is satisfied that the final rule will, or is likely to, contribute to the achievement of the NGO because the final rule provides that the allowed rate of return for a benchmark efficient gas service provider must meet an objective related to the efficient financing costs of a gas service provider with a similar degree of risk as that

which applies to the gas service provider subject to the decision. The final rule also provides the regulator with sufficient discretion on the methodology for estimating the required return on equity and debt components but also requires the consideration of a range of estimation methods, financial models, market data and other information so that the best estimate of the rate of return can be obtained overall that achieves the allowed rate of return objective..

The final rule also provides for the allowed rate of return to reflect changing circumstances so that the application of the provisions of the rule should result in the best overall estimate of the rate of return in any case, reflecting efficient financing costs.

The final rule also includes transitional rules that allow the regulator and gas service providers to apply the new rules as soon as possible with minimal administrative cost and regulatory uncertainty. This should mean consumers will benefit as soon as possible from efficient pricing outcomes consistent with their long term interests.

All of these factors should allow sufficient funds to be attracted for network investment, while minimising costs for gas consumers, thereby promoting efficient investment which is also in the long term interests of gas consumers.

3.4.3 Implementation costs

The final rule provides for a range of significant changes to the rate of return provisions of the NGR. There will be implementation costs for gas service providers and other stakeholders, including consumers, in adjusting to these changes. For the regulator, there will be implementation costs as it develops the rate of return guideline necessary for the successful application of the final rule.

Having said this, the Commission is of the view that these costs are minor when compared with the potential benefits associated with improving the process for determining the allowed rate of return. The costs will be outweighed by the outcomes of this improved determination process.

3.5 More preferable rule

Under section 296 of the NGL, the AEMC may make a rule that is different, including materially different, from a market initiated proposed rule (a more preferable rule) if the AEMC is satisfied that, having regard to the issue or issues that were raised by the market initiated proposed rule, to which the more preferable rule relates, the more preferable rule will, or is likely to, better contribute to the achievement of the NGO.

Having regard to the issues raised by the proposed rule, the Commission is satisfied that the final rule will, or is likely to, better contribute to the achievement of the NGO than the proposed rule for the following reasons:

- the final rule gives primacy to an overall rate of return objective. This objective is directly linked to the NGO by focussing on estimating a rate of return required by a benchmark efficient entity;

- the final rule requires the regulator to take a more holistic approach in estimating the return on equity and debt and the overall allowed rate of return;
- the final rule provides the regulator with discretion to use the best approach to estimating return on equity and return on debt to meet the overall rate of return objective on a case by case basis, but at the same time it must do so in an accountable and transparent manner;
- the final rule allows the regulator to have regard to any changes in financial market conditions that could have a positive or negative impact on a gas service provider's rate of return at the time of its decision;
- the final rule includes a requirement for the development and periodic review of rate of return guidelines to provide an interactive process between regulator, gas service provider, consumers and other stakeholders about the best approaches to estimating the rate of return; and
- the final rule includes transitional arrangements to allow application of the new rules to all gas service providers as soon as possible.

Chapters 6 and 7 explain in greater detail the respects in which the Commission considers that the final rule is likely to better contribute to the achievement of the NGO than the proposed rule. Chapter 13 discusses the rules on transitional arrangements.

The final rule also includes a number of provisions that are necessary or consequential (as permitted by section 297 of the NGL).

3.6 Other requirements under the NGL

As required under section 293 of the NGL, the Commission has also taken into account the revenue and pricing principles (RPP) as the final rule relates to item 41 of schedule 1 of the NGL.

The RPP have been taken into account as follows:

- Section 24(2) – a gas service provider should be provided with a reasonable opportunity to recover at least the efficient costs it incurs in providing reference services and in complying with a regulatory obligation or requirement or making a regulatory payment. This principle requires that the rate of return reflects efficient financing costs necessary to attract sufficient investment capital to maintain a reliable natural gas supply while minimising the cost to consumers. The rate of return must therefore only reflect efficient financing costs of a benchmark efficient gas service provider to allow the service provider to retain the benefits from adopting more efficient financing arrangements than assumed by the regulator, and consumers are protected if a service provider is inefficient in their financing practices.
- Section 24(3) – a gas service provider should be provided with effective incentives to promote economic efficiency in investment in, and the operation

and use of, the pipeline for the provision of pipeline services. Efficient outcomes in terms of investment in, and the operation and use of, pipeline services are most likely to result when the best estimate of the rate of return is obtained.

- Section 24(5) – the reference tariff charged for a reference service should allow for a return commensurate with the regulatory and commercial risks involved in providing the reference service. Having regard to this principle involves the estimated rate of return being commensurate with the risks involved in providing the service, which is what is sought from the rate of return estimation process. This principle can best be met by obtaining the best possible rate of return estimate.
- Section 24(6) – regard should be had to the economic costs and risks of the potential for under- and over-investment by a gas service provider in a pipeline that is used to provide pipeline services. If the rate of return estimate is set to the efficient required return, there will be no incentive for under- or over-investment. Such incentives for inefficient investment become more pronounced when the rate of return estimate differs from the efficient required return.
- Section 24(7) – regard should be had to the economic costs and risks of the potential for under- and over-utilisation of a pipeline that is used to provide pipeline services. If the rate of return estimate is set to the efficient required return, then prices are by definition set at the efficient level and there is no distortive effect due to mis-pricing.

In respect of the transitional arrangements, the Commission has also taken into account five broad principles that, in its view, represent the most important considerations for the new rules. These principles include:

1. the final rules should apply to all gas service providers as soon as possible;
2. where any transitional arrangements are made regarding determination processes that require consultation, the arrangements should allow for sufficient time for stakeholder consultation;
3. the transitional arrangements should provide service providers with a reasonable opportunity to recover at least the efficient costs they incur in the provision of regulated services;
4. the transitional arrangements should be practicable having regard to the regulator's resourcing constraints, as well as the resourcing capacity of other stakeholders; and
5. the transitional arrangements should minimise the potential for one-off price shocks for consumers.

The Commission believes these five broad principles for transitional arrangements are consistent with the NGO and the RPP. They have been taken into account as follows:

- Section 24(2) – the Commission has expressly considered the RPP on recovery of at least efficient costs as one of the key principles. The transitional arrangements have been put in place so that those gas service providers that are in the process of preparing their regulatory proposals for the next regulatory period, or will be required to submit their regulatory proposals while the regulator determines its approach to rate of return as part of the preparation of the rate of return guidelines, have certainty as to how the rules are to apply to them.
- Section 24(3) – in order to create effective incentives that promote economic efficiency, the new rules apply to all gas service providers as soon as possible.
- Section 24(6) – the transitional arrangements principles one and two encapsulate this RPP. By putting in place appropriate transitional arrangements to apply the new rules to NSPs as soon as possible, the regulator is given greater powers to achieve efficient outcomes. This could reduce the risk of potential over or under-investment.
- Section 24(7) – prices should not be distorted when moving from the previous rules to the new rules, unless the underlying economic costs of the gas service providers' change. The transitional arrangements seek to minimise the potential for one-off price shocks for consumers in this regard and therefore provide appropriate price signals to consumers.

The Commission has borne these principles in mind when assessing the various proposals that have been made about the form that the gas transitional arrangements should take.

4 Commission's reasons

4.1 Introduction

A number of problems have been raised in the rule change requests. They have been considered against submissions, various reports and other material, and the Commission's own analysis. The Commission has concluded that there are problems in the NER and, in the case of rate of return, the NGR, and rule changes are required to address those problems.

The solutions set out in this final rule determination and included in the final rules are a positive contribution to the overall effectiveness of the economic regulation of network services generally under Chapters 6 and 6A of the NER, and the application of the rate of return under the NGR. They comprise a package of changes that, at a general level:

- promote flexibility and adaptability, enabling the regulator to make decisions in changing circumstances, and for service providers with different characteristics;
- improve the regulatory determination process to allow the regulator adequate time for decision-making, to improve consumer engagement, and to improve transparency and accountability; and
- address ambiguities and clarify provisions, to put beyond doubt the interpretation of provisions, particularly in the NER.

The Commission's detailed analysis and consideration of issues is contained in the subsequent chapters. This chapter sets out the Commission's analysis and articulation of the problems and amendments to the NER and NGR at a high level.

4.2 Summary of assessment of issues

The rule change requests raised four broad areas of problems with the rules, as set out in chapter 1. Taking each in turn, the Commission draws the following conclusions as set out below.

4.2.1 Rate of return

Overall framework

The AER referred to problems associated with having different rate of return frameworks for electricity distribution, electricity transmission and gas. It sought to have one rate of return framework put in place, based on the electricity transmission model. The Commission's initial views were that the current rate of return rules for electricity transmission are not satisfactory as they do not provide sufficient flexibility to deal with changing circumstances. Having undertaken considerable analysis in this

area, the Commission has concluded that none of the existing rate of return frameworks under the NER and NGR has the characteristics necessary to best meet the NEO and NGO, taking account of the RPP.

There is a strong case for a common framework under the NER, including as between transmission and distribution, and NGR for setting the rate of return. A common framework can minimise any risks of distortions in capital allocation or investment decisions between the electricity and gas sectors, although the framework contemplated here would provide scope for the regulator to consider the different characteristics of NSPs in each sector when determining a rate of return for each NSP.¹⁶

Under the new approach the regulator must determine a rate of return (the allowed rate of return) that is consistent with that required by a benchmark efficient firm with similar risk characteristics to the service provider in question. A key feature of the new framework is that the allowed rate of return is effectively determined on a "determination by determination basis".¹⁷ This will enable the regulator to better respond to changing financial market conditions, particularly where volatile market conditions impact on a service provider's ability to attract sufficient capital to finance its expenditure requirements.

While providing for flexibility, the Commission recognises that it is important for investor, service provider and consumer confidence in the framework that the regulator is transparent about its approach to determining the allowed rate of return. Further, it is also important that all stakeholders should have an opportunity to contribute to discussions about how the regulator will determine the overall rate of return, including how it will estimate the return on equity and debt components of the overall allowed rate of return.

To supplement the considerations at each determination, the new rate of return framework requires the regulator to develop rate of return guidelines that set out the approach it intends to take to estimating the allowed rate of return for service providers. These guidelines must be reviewed at least every three years. This will allow all stakeholders to periodically consider and comment on new evidence or analytical techniques that may allow better estimates of the rate of return to be made. This process should provide a smooth evolutionary process for estimation techniques to develop as new evidence and thinking emerges.

The effectiveness of the Commission's framework for the determination of the allowed rate of return depends, to a significant degree, on how the regulators and the appeal body interpret the new rules. The Commission has taken the opportunity in this final rule determination to explain how the new rules are to be interpreted. Most importantly, the new rules allow the regulator (and the appeal body) to focus on

¹⁶ In this chapter of the document, the term "NSP (network service provider)" is used to refer generally to electricity network service providers under the NER and gas service providers under the NGR, unless the context requires otherwise.

¹⁷ In this document generally, in the context of the rate of return, the term "determination" refers both to regulatory determinations under the NER and access arrangement determinations under the NGR.

whether the overall rate of return meets the allowed rate of return objective, which is intended to be consistent with the NEO, the NGO and the RPP.

The Commission has not included in the new rules any preferred methods for determining a rate of return consistent with this objective, but instead has left the judgement as to the best approach to the regulator to make consistent with achieving that objective.

Return on debt

As part of its assessment of the rate of return framework, the Commission has found that the estimation of the return on debt component can be dramatically improved to allow consideration of alternative ways of determining the efficient debt servicing costs of electricity NSPs.

Both the AER and the EURCC have claimed that the current regulatory approach in the NER is not delivering a satisfactory estimate of the cost of debt for NSPs. In its rule change request the EURCC proposed changing the rules from estimating a forward-looking return on debt to using a trailing average of observed historical debt costs of benchmark NSPs.

The Commission agrees with the AER and the EURCC that the existing approach in the NER is problematic for some NSPs, depending on their characteristics and debt management strategies. A number of other approaches to estimating the return on debt were suggested to the Commission by stakeholders.

A number of different approaches to estimating the return on debt may meet the overall rate of return objective. Consistent with the new rate of return framework, the Commission is of the view that the regulator is in the best position to determine the best approach to estimating a return on debt for different types of service providers. The new rule gives the regulator the ability to use a range of different approaches to undertake this task.

As part of its rule change request, the EURCC also argued for the return on debt for state-owned NSPs to be determined differently from privately-owned NSPs. The Commission has considered this proposal in detail and has concluded that it would be inappropriate for the rules to make such a distinction. The Commission maintains its view that the EURCC's arguments in support of its proposal are misplaced, and ignore the competitive neutrality principles that apply to state-owned NSPs.

4.2.2 Capital expenditure and operating expenditure allowances and related issues

Capex and opex allowances

This first issue concerns the ability of the AER to interrogate and amend capex and opex proposals. The AER stated that restrictions in the rules have resulted in capex and

opex allowances forming part of determinations for NSPs that are higher than they should be. Since publication of the directions paper the Commission has undertaken further work to assess this issue from two perspectives – analysing any further evidence provided to it of the drivers of prices, as well as engaging consultants to reconsider the original approach to expenditure allowances in Chapter 6A of the NER, dealing with the economic regulation of electricity transmission services. From this the Commission has concluded:

- increases in the rate of return and expenditure allowances have both been significant factors contributing to higher network charges; and some increases in expenditure have been necessary. On the basis of information provided to the Commission it is not possible to tell if constraints on the AER's ability to amend NSPs' expenditure forecasts have caused inefficient increases in expenditure allowances; and
- from a practical perspective the approach in respect of expenditure allowances in Chapter 6A of the NER reflects the approach of regulators in other jurisdictions in Australia and overseas. There are, however, some areas for improvement in the NER, largely to clarify that approach, and to remove any ambiguities.

The Commission remains of the view that the essential features of the capex and opex allowances provisions in the NER are appropriate. The NSP's proposal is necessarily the starting point for the AER to determine a capex or opex allowance, as the NSP has the most experience in how its network should be run. Under the NER the AER is not "at large" in being able to reject the NSP's proposal and replace it with its own since it must accept a reasonable proposal. But the AER should determine what is reasonable based on all of the material and submissions before it. This reflects the obligation that all public decision makers have to justify their decisions. In addition, the NER do not place any restrictions on the analytical techniques that the AER can use to scrutinise and, if necessary, amend or substitute the NSP's capex or opex forecasts.

Having confirmed that base, the Commission has identified some provisions that may be causing constraints in an unintended way, particularly clause 6.12.3(f). As a result, it has determined to remove the clause.

The Commission views benchmarking as a critical exercise in assessing the efficiency of a NSP and in approving capex and opex allowances. Benchmarking should take into account differences in the environments of the different NSPs, being those factors that are outside the control of the NSP. The Commission has removed any potential constraints in the NER on the way the AER may use benchmarking.

Annual benchmarking report

One of the problems associated with the current regulatory determination process is the difficulties consumers and their representatives experience in participating effectively. The final rule includes a number of provisions designed to improve the ability of consumers to participate in the regulatory determination process, a number of which are considered below. Whilst benchmarking is of critical importance to the

regulator, it can also be of assistance to consumers, providing them with relative information about network performance. This would be useful to consumers when participating in the regulatory determination process and merits reviews, but also in their informal interactions with NSPs. On this basis the AER should publish annual benchmarking reports, setting out the relative efficiencies of distribution network service providers (DNSPs) and transmission network service providers (TNSPs), taking into account the exogenous factors that distinguish them.

Other issues

The rule change requests and further submissions have raised other issues relating to:

- increased consultation on expenditure models – the AER will be required to publish expenditure forecast assessment guidelines and determine how it will be applied at the framework and approach paper stage, which will also apply to TNSPs, see below and section 8.4.3. NSPs will be required to submit complying information with their regulatory proposals. In addition, NSPs are to advise the AER of their approach to preparing expenditure forecasts at the framework and approach stage. This will encourage stakeholders to discuss the model at an earlier stage and before proposals are submitted; and
- capex and opex factors – the AER must have regard to the capex and opex factors when assessing capex and opex proposals. The process-related aspects of these factors are more appropriately located elsewhere as they are of a different character to the other factors in that they deal with the materials presented to or obtained by the AER in the course of the regulatory process. Further changes to the capex and opex factors are necessary to address a variety of incidental issues such as to take into account the various incentive schemes provided for in the NER. Finally, a factor has been included to require the AER to have regard to the extent to which NSPs have considered what consumers seek. The more confident the AER can be that consumers' concerns have been taken into account, the more likely the AER can be satisfied that a proposal reflects efficient costs.

4.2.3 Capex incentives

Sharing schemes, reviews and depreciation

The AER raised concerns about what it considers to be incentives for NSPs to spend more than efficient levels of capex, that is, above the capex allowances made as part of their determinations, for a regulatory period. To address this problem in its rule change request, the AER recommended the introduction of a requirement in the NER that only 60% of any expenditure incurred by a NSP above its capex allowance would be rolled into the RAB and, therefore, be recoverable. Related to this the AER also requested that it be given the discretion to roll forward the RAB using depreciation based on actual or forecast expenditure.

After undertaking initial analysis, the Commission concluded that the NER does not provide incentives for NSPs to spend more than their allowance, although factors outside the NER may provide for such additional expenditure. The Commission did identify two key issues with capex incentives in the NER:

- the powers of the incentive not to incur expenditure above capex allowance declines during a regulatory period, which has implications for efficiency incentives, timing of capex and substitution between capex and opex; and
- capex above the allowance is not subject to any regulatory scrutiny which means that there is a risk that expenditure above the allowance may be inefficient.

Following the directions paper the Commission undertook further analysis of actual capex by NSPs; engaging consultants to assist. Both the work of the consultants and the Commission's own analysis have identified a range of theoretical drivers as to why a NSP might spend more than its capex allowance. The consultants also identified different expenditure practices of NSPs. There are clearly legitimate circumstances in which expenditure above capex allowances could occur, but often mitigation action could be taken so that, overall, capex is within the allowance. Amongst some NSPs there is a tendency to defer capex to the end of the regulatory period. For some this practice is not so obvious.

Given the problems identified and the results of the further analysis, the Commission's approach is to provide the AER with a number of "tools" that it can apply as it considers necessary to provide adequate incentives on NSPs to spend capex efficiently, having regard to an overall capex objective and consistent with the NEO and the RPP. The tools are: capex sharing schemes to be designed by the AER, efficiency reviews of past capex and deciding whether to depreciate the RAB using actual or forecast expenditure to establish a NSP's opening RAB. This package should also be viewed alongside the ability of the AER, on an ex ante basis, to scrutinise effectively, and if necessary amend, proposed capex allowances as part of the determination process so that allowances set in the first place are efficient.

An overall capex incentive objective will describe what the capex incentive regime, as a whole, should aim to achieve – both in respect of the guidelines that the AER must make setting out its proposed approach to application of the capex incentive "tools" provided in the NER and how it applies a capex incentive regime to an individual NSP. The AER will also be required to take into account a number of principles and factors when designing and applying the capex tools.

Regarding the reviews of the efficiency of past capex, the Commission is of the view that this is the most appropriate way to address the lack of supervision of incurred capex. Such a review is also a necessary companion to any capex sharing schemes in place. While effective, capex sharing schemes will not necessarily mean that capex incurred is efficient. A further and final check on the efficiency of expenditure that is rolled into the RAB is in the long term interests of consumers.

The AER may use the analytical techniques it considers appropriate to undertake such reviews, in much the same way as it can when assessing capex proposals. The AER will

be required to undertake a review of the efficiency of past capex for all NSPs as part of the determination process and include a statement on the efficiency of expenditure going into the RAB. The AER will also have the discretion to preclude inefficient past capex being rolled into the RAB to the extent of any over expenditure above the capex allowance for the previous regulatory period. This discretion should not be seen as diminishing the role of ex ante incentives. Rather, such reviews are to address a gap in the lack of supervision of capital expenditure that has occurred. The ability to reduce the capital expenditure rolled into the RAB is intended for obvious cases of inefficiency, and not as the main means of achieving efficient levels of capital expenditure.

Related party margins and capitalisation policy changes

In addition to the broader capex incentive issue discussed above, the AER considers that there are two additional capex incentive issues in the NER relating to related party margins and changes to capitalisation policies during a regulatory period.

Work undertaken (including modelling undertaken by consultants) appears to confirm that there is a potential incentive for NSPs to incur inefficient related party margins, even with capex sharing schemes in place. This incentive could encourage NSPs to enter into commercial arrangements that are not the most efficient. The Commission considers that the issue should be dealt with by reviewing the capex after it is undertaken. Therefore the Commission will give the AER discretion to preclude inefficient related party margins being rolled into the RAB, regardless of whether the NSP spent more than its allowance overall. In assessing this type of expenditure, the AER should take a flexible approach, recognising the differing incentive power in different circumstances.

The Commission accepts that there is a potential incentive for a NSP to change its capitalisation policy so that it can classify opex as capex and recover the same expenditure twice: once in forecast opex; and again through depreciation and return on capital once the expenditure is rolled into the RAB. The strength of such an incentive would be affected by other factors, such as the requirements of statutory accounting and capex sharing schemes. Ex ante incentives will not necessarily deal with the issue, however, so the AER should be able to review the relevant capex after it is incurred.

Similar to related party margins, the Commission's final rule gives the AER discretion to preclude expenditure being rolled into the RAB to the extent that expenditure reflects operating expenditure that was capitalised as a result of changes to the NSP's capitalisation policy during the regulatory period. The AER should have this discretion regardless of whether the NSP has spent more than its allowance overall or not.

4.2.4 Regulatory determination process

Steps in the process

The AER raised a series of process-related issues, largely relating to the submission of material by NSPs late in the regulatory determination process. The AER's concern in this regard was that there is inadequate time to review and comment on this material, both from the AER's and other stakeholders' perspectives. The Commission has reconsidered the regulatory determination process as set out in the NER, under both Chapters 6 and 6A. This has been undertaken taking into account other aspects of the consolidated rule change request. Also relevant is, on the one hand, the need for the regulator and other stakeholders to have adequate time to consider and respond to material and, on the other hand, the need in some circumstances for material to be submitted later in the process.

A number of detailed changes have been made to address these issues, with a view that the regulatory determination process needs to be transparent and timely to ensure that all parties have a clear understanding of their rights and obligations at the outset, as well as ample opportunity to participate. This is a key contributor to confidence in the overall outcomes from both the perspective of the NSP and consumers. The changes include:

- lengthening the regulatory determination process by four months, for both electricity distribution and transmission. This provides for time for the regulator to prepare and publish an issues paper as well as time for a cross submissions stage later in the process if required;
- the application of an optional framework and approach paper for electricity transmission as well as distribution. Also that documents can be used, where necessary, to settle a number of issues prior to regulatory proposals being submitted. Examples here include information that needs to be provided by the NSP, and the capex incentive package that the AER proposes to apply to the NSP; and
- improving transparency and accountability by requiring NSPs to identify specific confidentiality claims in their regulatory proposals and the AER to report on such claims and also late or out-of-scope material from NSPs.

Some of these changes should also improve the ability of consumers to participate in the regulatory determination process.

It is important to note that the Commission considers the regulatory determination process set out in the NER as a minimum. The Commission encourages engagement and interaction between NSPs and consumers, and the AER and NSPs outside of the formal processes.

Diverse issues

The AER raised a number of diverse issues. Firstly, the AER proposed a broader uncertainty regime in distribution to balance its proposals for stronger capex incentives and more discretion in respect of capex and opex allowances, including defining the materiality threshold for cost pass through events. Secondly, the AER proposed to align and extend the timeframes for it to make decisions on applications under the uncertainty regime for distribution and transmission. Thirdly, the AER proposed to broaden the type of material errors or deficiencies by which the AER could revoke and substitute a regulatory determination and also be able to amend the regulatory determination. Fourthly, the AER proposed to introduce a shared assets mechanism to allow it to decide on whether to apply a revenue adjustment or control mechanism adjustment for assets which are shared for services related to standard control and other services. Finally, the AER proposed for it to be given the ability to create incentive schemes outside of those prescribed in the NER.

The general approach the Commission took with these particular proposals was, where they were adopted, to seek to achieve consistency between Chapters 6 and 6A unless there are substantive reasons for a difference. In respect of the AER's proposals, the Commission has made the final rule to include the following:

- for increased accountability on the NSP and to allow the NSP to recover efficient costs for unexpected events, the capex reopener and contingent project regimes that apply in transmission will now also apply in distribution;
- to build in flexibility, the decision-making timeframe for applications under the uncertainty regime will be extended for complex or difficult issues;
- the AER's power to revoke and substitute a decision for a material error or deficiency under Chapter 6A will be limited as currently provided under Chapter 6;
- to promote innovation whilst also providing for cost reflectivity to consumers, a shared assets cost adjustment mechanism may apply to assets that share standard control services or prescribed transmission services with any unregulated services; and
- to promote innovation and flexibility, the AER will be able to develop small scale pilot or test schemes to ensure that the potential impact of such a scheme is understood before full implementation.

4.2.5 Transitional arrangements

The Commission has included transitional arrangements in the final rules to enable the regulators to apply the new rules as soon as possible. This will allow the benefits of the new rules to flow through to consumers more quickly.

Transitional arrangements are required due to overlap between the timing of guidelines required under the new rules and that of upcoming regulatory processes, which must follow the guidelines. For example, the final rate of return guidelines may not be complete until November 2013, which is after Ausgrid would otherwise be required to submit its regulatory proposal, in May 2013. Delays to the timing for the regulatory process for the NSPs due to submit in 2013 create congestion for the AER for later regulatory processes, which must then also be delayed.

Transitional arrangements are included in the final rules for both electricity and gas. As well as allowing the new rules to be applied as soon as possible, the transitional arrangements are designed to minimise the resourcing burden on stakeholders and minimise price volatility.

Different transitional arrangements have been designed for different service providers, and in general, the scale of the transitional arrangements reduces as time progresses:

- the current rules have been preserved for SP AusNet (transmission) for three years;
- for most other NSPs whose regulatory control periods are due to commence between 2014 and 2016, the regulatory period remains the same but the AER's decision is delayed by a period of time. An interim determination is made for the first year of the period and a true up is applied at a later stage;
- no transitional arrangements are required for NSPs with regulatory control periods commencing post 2016; and
- two gas service providers in Western Australia will have their next access arrangement reviews delayed to accommodate the development of the rate of return guidelines by the ERA and ActewAGL will have its gas access arrangement review delayed by 12 months to accommodate the 12 month delay to its electricity determination.

5 Approach to general issues

5.1 General approach

The issues raised in the consideration of the rule change requests are many and varied. At a general level, they relate to:

- a lack of flexibility and ability to adapt to changing external environments and different circumstances of NSPs;
- a limited ability to review or scrutinise, on the part of the regulator, the efficiency of capital expenditure before it becomes part of the regulatory asset base;
- a lack of opportunity for meaningful consumer engagement in the determination process; and
- ambiguity and a lack of clarity in some areas of the NER which has been impacting on the regulator's ability to scrutinise, review and, if necessary, revise capex and opex forecasts.

Taking these problems into account, the Commission's general approach in the context of the rule change requests can be described as follows:

- providing the regulator with the discretion to make decisions appropriate to the circumstances of each NSP in a changing environment. However, certain elements should be prescribed in the rules, such as the minimum requirements of the overall regulatory process to be followed;
- improving transparency and accountability in discretionary decision-making by requiring the regulator to address relevant factors and considerations;
- raising the level of decision-making to encourage a focus on the overall outcome - this is particularly evident in the area of capex incentives and the rate of return;
- requiring transparency and accountability on the part of NSPs by requiring them to provide more explanations for their proposals and decisions to consumers and to report to the regulator on the reasons for taking or not taking certain actions;
- encouraging more timely and meaningful consumer engagement;
- facilitating more productive and earlier engagement between the NSPs and the regulator;
- removing any identified ambiguities or lack of clarification or precision in the NER and NGR; and
- harmonising the approach in Chapters 6 and 6A of the NER, unless there are substantive reasons for a different approach.

Where the solutions involve providing increased discretion to the regulator, generally additional provisions have been included to require the regulator to take into account certain factors and considerations. These additional requirements have been included for a number of reasons, including:

- they are reflective of good regulatory practice as they improve transparency and accountability;
- they are consistent with the broader governance framework established by the NEL and the NGL which contemplate distinct roles for the rule maker and regulator; and
- together with the discretionary elements they reflect the appropriate balance for the current electricity regulatory environment (in place since 2006), bearing in mind that there has been only one full application by the AER of the current NER to each NSP. Chapters 6 and 6A can be regarded as a prescriptive and detailed articulation of the approach to incentive based regulation for electricity. The changes made by this final rule determination involve a departure from that approach only in so far as is warranted by recent developments and the current circumstances.

That is not to say, however, that the approach taken here could not evolve over time, as confidence in the application of the rules increases. As stated previously, including in the directions paper and the draft rule determination, these matters need to be considered on a case by case basis.

Amendments have been made to the rules where it has been demonstrated that a clear problem exists. Where evidence of a problem has not been provided, or is not conclusive, then the Commission has not made any changes. A good example in this regard is the area of capex and opex allowances. In this area, the evidence provided of the problem was not conclusive and, on that basis, the Commission's changes are limited to addressing ambiguities and a lack of clarity.

5.2 Drivers for effective network regulation

The Commission is of the view that the package of amendments that have been made to the NER and NGR as part of this final rule determination provide the regulator with additional tools to carry out its functions. The effectiveness of the NER and the NGR in terms of the overall price and service outcomes experienced by consumers are dependent on two drivers:

- the effective application of the rules by the regulator; and
- the effective corporate governance of the NSPs providing services which are subject to economic regulation.

The efficiency with which network services are provided depends on the way in which the drivers work together. Only when these aspects are operating as intended will the best outcomes for consumers be achieved.

Regarding the first driver, the interpretation and application of the rules by the regulator is crucial. This final rule determination provides examples and illustrations of how the final rules could be interpreted and applied to address problems that exist currently, but also how their application could adapt when the circumstances change.

In their submissions on the draft rule determination, NSPs have proposed greater prescription in the rules. This appears to be driven by a lack of certainty about how the AER would apply increased discretion. The Commission's view is that rules that are made should assume a regulator that follows good administrative decision-making practice with adequate resources, and strives to make the best possible decisions.

In its submission in response to the draft rule determination, the AER stated that the Commission's draft rules represent a significant improvement on the existing NER and address the major issues highlighted in the AER's rule change requests. The AER also referred to some further amendments that would, in its view, improve the operation of the draft rules. Some of these amendments concerned the implementation of the draft rules. The AER suggested some amendments that, in its view, would better achieve the outcomes intended by the Commission.

As for all submissions received, the Commission has carefully considered the AER's comments made in response to the draft rule determination. Particular attention has been given to the AER's comments on the implementation of the rules given its role as regulator and the body primarily responsible for application of the rules. The Commission has carefully drafted the rules to reflect its overall position. In this context, the Commission has also consulted with the AER regularly on matters of drafting to be as certain as possible that the rules are correct, clear, and able to be applied by the AER, consistent with the Commission's position. The AER has reviewed the final rules. In its view, the final rules can be applied by the AER, consistent with the Commission's final position as set out in this final rule determination.

In respect of the second driver, management and shareholders of service providers also play a critical role in the efficient provision of network services. They do this through a variety of means, such as approving proposals to be submitted to the regulator, given the significance of AER decisions for these businesses. They also create incentives within the business to encourage efficient outcomes. Without a shareholder seeking a commercial return for its investment the management of a service provider will not in practice face the strength of the incentive that would otherwise occur. This is because a shareholder seeking a below commercial rate of return provides the management with an ability to tolerate inefficiencies.

5.3 Merits review

While the Commission has been considering these rule change requests the Standing Council on Energy and Resources (SCER) decided to bring forward the review of the

Limited Merits Review (LMR) regime in the NEL and the NGL. In April 2012 a panel was appointed to undertake the review. On 9 October 2012 the panel published its final stage two report.

The LMR Panel has observed that a narrower, and more formalistic approach to merits review has developed than what was originally intended. In its view this approach has been relatively detached from both the focus on the overall objectives set out in the NEL and the NGL and also encouraging outcomes that are in the long term interests of consumers. The LMR Panel has proposed in its final stage two report that the NER and the NGR could be amended to clarify that decisions under those rules should be more holistic and broader, focussing on overall outcomes rather than component elements.

It is noted that, as a group of experts engaged by the SCER, the LMR Panel can only make recommendations, and it is up to the SCER to determine whether it will implement these recommendations, and if so how. It is worth noting, though, that the recommendations in the final stage two report that seek to encourage a greater focus on objectives and overall outcomes are consistent with this final rule determination. Where possible, the final rule seeks to allow and encourage the regulator to approach decision making more holistically. The main examples of this are requiring the regulator to focus on meeting overall objectives in relation to capex incentives and the rate of return that are linked to the NEO or the NGO and the RPP. In line with this overall approach, the Commission is supportive of the review body being constituted, empowered, staffed and resourced in such a way as to be able to take the same holistic approach to the review of decision-making.

The Commission supports the need for accountability of the regulator through some form of merits review. Outcomes for consumers are likely to be improved if the proposed changes in the LMR Panel report to encourage a greater focus on objectives and overall outcomes by the review body are implemented. This final rule determination and the final rule, however, proceed on the basis of the merits review arrangements existing at this time. To the extent that the merits review arrangements change, there may need to be further rule changes as a result. These could include rule changes that arise directly out of such changes, some of which have been suggested by the LMR Panel.¹⁸ They may also include consequential rule changes to align the rules with the changes to the NEL and the NGL regarding issues such as the definition of a reviewable decision.

5.4 Role of consumers

In its rule changes request on electricity, the AER identified what it claimed were specific deficiencies in the way the regulatory process operates. Among other things, it stated that these deficiencies are denying some stakeholders the ability to have input into the regulatory process. On the basis of this and other claims in the rule change requests, the Commission has addressed the regulatory process in a holistic way to best deal with such deficiencies. This is discussed further in chapter 10.

The final rules do not attempt to address perceived problems of engagement of consumers generally. For a start, this would go beyond the scope of the problems raised in the rule change requests and would therefore be beyond the Commission's rule-making powers. More conceptually though, this issue is fundamentally about how NSPs and the AER interact with consumers. While the final rules in some areas, such as the expenditure forecasting assessment guidelines, require engagement to occur in a certain way, the rules should provide for the outcomes of engagement, not the engagement itself. Forcing parties to interact is unlikely to be successful in most cases. What is needed is a cultural shift towards greater engagement, and this can only come from the parties themselves. What the final rules provide for in terms of engagement should be seen as a minimum. However, importantly the final rules provide the AER with the ability to have regard to the nature of consumer engagement undertaken by NSPs when evaluating their regulatory proposals.

On the basis that dealing with consumer engagement generally is outside the scope of this rule change, SCER may wish to consider the issue of consumer engagement for processes under the NER or the NGR.

5.5 The relationship between objectives and factors

The final rules in a number of places are based on a structure which contains objectives and factors. For example, this structure can be found in both the rate of return provisions and the capex incentive provisions. There are other areas where, although there is no overall objective, there are factors for the regulator to consider. While the relationship between the objectives and factors is clearly expressed in the rules, its significance to the overall outcomes is such that it is further described here. In general the final rules give the regulator greater discretion than it has currently. The objectives and factors show the regulator what it must bear in mind when it exercises that discretion.

The role of the objective is to indicate what the regulator should be *seeking* to achieve in the exercise of its discretion. Some stakeholders appear to have understood the objectives as imposing on the regulator a requirement and that failure to comply with this would mean the regulator is in breach of the rules. This is not the case. Although the language of an obligation is used in some objectives, it is not necessarily expected that the substance of the objective will always be fully achieved, but rather the regulator should be striving to achieve the objective as fully as possible. Where it is used in rate of return and capex incentives, the objective has primacy over other matters which the regulator is directed to consider.

These other matters include factors which the regulator is directed to consider. The rules use language such as "have regard to" and "take into account" to direct the regulator to consider certain factors. Throughout this rule change process there has been discussion over the respective meanings of these phrases. The Commission's approach is that these phrases mean the same thing and nothing is implied by the use

18 LMR Panel, *Review of the Limited Merits Review Regime, Stage Two Report, Report for the SCER*, 30 September 2012, pp. 57-58.

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of one rather than the other. The Johnson Winter & Slattery advice attached to the Australian Pipeline Industry Association (APIA) submission¹⁹ includes a useful guide to how the phrases should be interpreted. The regulator must actively turn its mind to the factors listed, but it is up to the regulator to determine how the factors should influence its decision. It may, indeed, consider all of them and decide none should influence its decision. It is not intended that the regulator's decision is solely dependent on how it applies any or all of those factors. The intention is that where the rules require the regulator to consider certain factors in conjunction with an overall objective, it should explain its decision including how it has had regard to those factors in making a decision that meets the objective.

The objective, where one exists, should indicate to the regulator how the factors should influence its decision. The regulator should not assume that it may consider the factors (or other relevant provisions) and that this will of itself mean that the objective has been achieved. The overriding consideration for the regulator is the objective.

5.6 Approach to the following chapters

The directions paper and draft rule determination included summaries of responses to consultation in this rule change process. Unless indicated, in this final rule determination, where submissions are discussed, the discussion builds on the previous summary and focuses on new points made by stakeholders.

The draft rules specified the timing of the first guidelines required to be produced by the regulator under the draft rules. On the basis that this is not an ongoing provision of the rules, the timing of the first guidelines is now dealt with as part of the transitional arrangements, and is discussed further in chapters 12 and 13.

¹⁹ APIA, Draft Rule Determination submission, 4 October 2012, p. 11.

6 Rate of return framework

Summary

- There is a strong case for a common framework under the NER and NGR for determining the rate of return.
- A new common rate of return framework will be implemented that requires the regulator to determine a rate of return (the allowed rate of return) that meets an overall objective focussed on the efficient financing costs a benchmark efficient service provider. The allowed rate of return will be estimated on a determination by determination basis to allow the regulator to better respond to changing financial market conditions.
- The new framework requires the regulator to develop and review rate of return guidelines that set out the approach it intends to take to determining the allowed rate of return. This will supplement the considerations at each regulatory determination/access arrangement. The guidelines must be reviewed at least every three years.
- The framework is intended to allow the regulator and the appeal body to focus on whether the overall estimate of the rate of return meets the overall objective for the allowed rate of return, which is closely linked to the NEO, the NGO and the RPP. While the regulator may choose to determine the rate of return by estimating other values to contribute to the allowed rate of return, the Commission considers that assurance that the overall objective is met can only be gained by considering whether the overall rate of return arrived at meets the stated objective.
- Estimating the rate of return ultimately requires a regulator to exercise judgement about the analytical techniques and evidence to use to make an estimate that is commensurate with efficient financing costs. The new framework does not prescribe methodologies or lock-in specific benchmark characteristics other than providing high-level principles that should be taken into account when estimating various components, such as return on equity and debt. While the judgement as to the best approach is left to the regulator, the preferred methods must be developed to meet the overall allowed rate of objective.

Difference between draft rule and final rule

- The final rule closely reflects the draft rule. To the extent submissions have raised concerns about the level of prescription and details in the draft rule, the Commission has considered them in this final rule determination. The final rule strikes an appropriate balance between flexibility and certainty for all stakeholders.
- The final rule includes some minor drafting modifications from the draft

rule to further reinforce the primacy of the overall objective when estimating the rate of return. The rules have also been re-ordered to better reflect the factors that the regulator must have regard to in estimating the return on equity and return on debt components in achieving the allowed rate of return objective.

6.1 Introduction

The return on capital often represents the largest component of the revenue/pricing determinations of service providers. Therefore, the rules on how the rate of return is determined are a key element of the network charges that consumers pay. Under the building block approach to regulating revenues/prices, the return on capital is determined by applying a rate of return to the RAB (electricity) or projected capital base (gas) to determine the return on capital allowance to be included in the revenue requirement in each year of a service provider's regulatory determination or access arrangement.²⁰

The current frameworks for estimating the rate of return for electricity transmission, electricity distribution and gas service providers differ in a number of respects. Differences include the extent of discretion available to the regulator and whether the estimate is made at each determination or in a periodic review. The current frameworks are in Chapter 6A of the NER for electricity transmission, Chapter 6 of the NER for electricity distribution, and rule 87 of the NGR for gas service providers.

A summary of the current frameworks, including the policy rationale for the frameworks when they were put in place, was provided in the AEMC's directions paper.²¹ The directions paper also explained the AER's rule change request for the rate of return frameworks for electricity and gas transmission and distribution.²²

Further analysis was provided in the draft rule determination, which also set out the draft rule provisions proposed to give effect to the Commission's conclusions on the AER's rule change request.²³

This chapter does not include a discussion on issues relating to the estimation of return on debt although it is an integral part of determining the overall rate of return. Such a discussion is included in chapter 7 of this final rule determination.

The remainder of this chapter is structured as follows:

- section 6.2 summarises the Commission's position in the draft rule determination;

²⁰ See NER clauses 6A.6.2(a) and 6.5.2(a). See also NGR rule 76(a).

²¹ See AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, pp. 67-71.

²² *Id.*, pp. 71-73.

²³ See AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Draft Rule Determination, 23 August 2012, pp. 32-61.

- section 6.3 summarises the submissions received in response to the Commission's draft rule determination;
- section 6.4 provides the Commission's analysis of issues in response to submissions received on the draft rule determination; and
- section 6.5 provides guidance on the final rule.

6.2 Directions paper and draft rule determination

6.2.1 Assessment of existing frameworks

Chapter 6A of the NER

The Commission retained its initial view from the directions paper that the rate of return framework under Chapter 6A of the NER is insufficiently flexible to be the best framework for achieving the NEO and RPP in the future.²⁴ This assessment was based on the view that fixing WACC parameters for long periods produces results that may not reflect current market conditions. Further, it limits the set of information available for estimating parameter values.

The global financial crisis and its continuing impact through the European sovereign debt crisis have highlighted the inherent dangers in an overly rigid approach to estimating a rate of return in unstable market conditions. This is because the framework in Chapter 6A does not allow for a WACC review outside of the periodic schedule. In addition, the Chapter 6A framework does not permit decisions made at a WACC review to be subject to merits review.

The Commission also expressed concern that the provisions create the potential for the regulator and/ or appeal body to interpret that the best way to estimate the allowed rate of return is by using a relatively formulaic approach. This may result in it not considering the relevance of a broad range of evidence, and may lead to an undue focus on individual parameter values rather than the overall rate of return estimate.

Chapter 6 of the NER

The Commission's conclusion on the rate of return framework under Chapter 6 of the NER was that, while it was more flexible than the Chapter 6A framework, it had shortcomings that meant it was not the best available framework for achieving the NEO, the RPP and the RPP in future.²⁵

²⁴ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers, Draft Rule Determination*, 23 August 2012, pp. 39-40; AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers, Directions Paper*, 2 March 2012, pp. 78-80.

²⁵ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers, Draft Rule Determination*, 23 August 2012, pp. 40-41.

⁴⁰ Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

The Commission made three specific points on the lack of suitability of the current Chapter 6 rate of return framework as a foundation for a common rate of return framework:

- the rules should allow the inter-relationships between parameters to be appropriately considered. This will encourage the regulator to focus on whether its overall estimate of the rate of return is appropriate;
- the rules and their interpretation have led to an undue focus on individual values rather than the overall estimate of the rate of return; and
- the persuasive evidence test is problematic. Although regulatory certainty is desirable, it should not be attained at the expense of limiting the regulator's ability to make the highest-quality rate of return estimate at any particular time.

Part 9 of the NGR

In contrast to the electricity frameworks, the Commission concluded that the NGR rate of return framework provides considerable discretion and flexibility, and is intended to be focussed on obtaining a good overall estimate of a rate of return.²⁶ The Commission considered that the approach of the rate of return framework in the NGR is better aligned with one that could best achieve the NEO, the NGO and the RPP. This is because the NGR specifies an overall objective for the rate of return that directly aligns the estimation process towards achieving the NGO and the RPP.

However, it was noted that the considerable flexibility of this framework did not appear to have been taken advantage of in practice. This may be due to approaches from the more prescriptive electricity regimes influencing the gas regime. Moreover, recent decisions of the Tribunal have interpreted the NGR rate of return framework to apply in such a way as to reduce the range of information that can be used in estimating the rate of return.²⁷ Such application could lead to the adoption of relatively formulaic approaches to determining the rate of return rather than focussing on the overall estimate.

The Commission observed that under the current NGR rate of return framework, stakeholders would have to participate in every access arrangement decision to influence the regulator's methodology, which may involve relatively high costs.²⁸ For

²⁶ Id., pp. 41-43

²⁷ *Application by WA Gas Networks Pty Ltd (No 3)* [2012] ACompT 12 and *Application by DBNGP (WA) Transmission Pty Ltd (No 3)* [2012] ACompT 14. The Tribunal's decisions in both cases concerned a number of issues with direct relevance to the rate of return provisions in the NGR. Among those issues, the Tribunal considered what it termed the "rule 87 construction issue", which pertained to the proper interpretation of the operation NGR rules 87(1) and 87(2).

²⁸ In the draft rule determination, it was noted the regulator may decide to have a separate consultation, as the Economic Regulation Authority (ERA) did when it developed its bond yield approach for estimating the return on debt that it proposed in recent decisions. See ERA, *Measuring the Debt Risk Premium - A bond yield approach*, Discussion Paper, 1 December 2010; ERA, *Final decision on WA Gas Networks Pty Ltd proposed revised access arrangement for the Mid-West and South-West Gas Distribution Systems*, 28 February 2011; ERA, *Final decision on proposed revisions to the*

some stakeholders, such as consumer representative groups, this could impose such significant costs that it acts as a barrier to participation. On the other hand, developments in the regulator's methodology through gradual learning in each access arrangement process can be good regulatory practice.

Overall, the Commission considered that the policy objective of the rate of return framework in the NGR was most consistent with the NEO, the NGO and the RPP. However, recent interpretation of specific rules by the Tribunal meant that the Commission could not be confident that, without amendment, the current NGR framework would be likely to deliver outcomes that best meet the NEO, the NGO and the RPP.

Conclusion

The Commission took the view that none of the existing rate of return frameworks are capable of best fulfilling the requirements of the NEO, the NGO and the RPP. The Commission considered that a new rate of return framework is therefore needed.²⁹

Moreover, the new framework should be common across the NER and the NGR. The Commission noted that it has not seen any convincing evidence to support the view that there are features of the electricity and gas sectors that would justify different frameworks for estimating the rate of return for each sector.

The Commission recognised that each sector currently has a different framework, and there can be benefits from stability of frameworks over time. However, given the concerns with each of the existing frameworks, the benefits of a common one appeared to significantly outweigh any potential benefits from preserving the stability of any of the existing frameworks.

In the directions paper, the Commission proposed that a good rate of return framework would be one that:

- is based around estimating a rate of return for a benchmark efficient service provider;
- allows methodologies for parameters to be driven by principles and to reflect current best practice;
- allows flexibility to deal with changing market conditions and the availability of new evidence;
- recognises the inter-relationships between parameter values; and

Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline, 31 October 2011 (as amended on 22 December 2011). The Commission notes that both the access arrangement decisions have amended in accordance with the Tribunal's recent decisions.

²⁹ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Draft Rule Determination, 23 August 2012, p. 43.

⁴² Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

- creates a framework of accountability for both the regulator and the service provider in determining an appropriate rate of return.³⁰

There was broad agreement amongst stakeholders about the appropriateness of these five attributes.³¹

In the draft rule determination, the Commission decided that two further key attributes should be considered, which were:

- certainty for service providers and their investors as to how the regulator will react to changes in market circumstances and make decisions on an appropriate rate of return; and
- a rate of return framework that allows for more effective consumer participation.

6.2.2 Features of a new common rate of return framework

Estimating a rate of return for benchmark efficient service provider

The draft rule determination stated that the primary objective of the allowed rate of return is to provide service providers with a return on capital that reflects efficient financing costs. A rate of return that reflects efficient financing costs will allow a service provider to attract the necessary investment capital to maintain a reliable energy supply while minimising the cost to consumers. The Commission also stated that it is important for recovery of financing costs to be based on benchmark efficient finance costs. This is to provide incentives for firms to adopt efficient financing arrangements and to protect consumers from the effects of inefficient ones.

It was also highlighted that there is a need to bring the focus of the rate of return estimate in the rules back to the NEO, the NGO and the RPP. The Commission's proposed rate of return framework therefore had an overall objective for the allowed rate of return. In order to meet the NEO and the NGO, this objective reflected the need for the rate of return to "correspond to" the efficient financing costs of a benchmark efficient entity, this entity being one with similar circumstances and degree of risk to the service provider.

Methodologies driven by principles and reflecting current best practice

Achieving the NEO, the NGO, and the RPP requires the best possible estimate of the benchmark efficient financing costs. The Commission stated that this can only be achieved when the estimation process is of the highest possible quality. The draft rule determination stated that this meant that a range of estimation methods, financial models, market data and other evidence must be considered. At the same time, the

³⁰ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, pp. 91-92.

³¹ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Draft Rule Determination, 23 August 2012, p. 44.

regulator requires discretion to give appropriate weight to all the evidence and analytical techniques considered.

The Commission considered that the approach in the NGR rate of return framework provides a sound basis on which to build a new rate of return framework. The less prescriptive nature provides sufficient flexibility to consider alternative methodologies. It can also allow the regulator to consider new evidence as it emerges and adjust or adapt its methodologies if justified.

Flexibility to deal with changing market conditions and new evidence

It was determined that a robust and effective rate of return framework must be capable of responding to changes in market conditions. If the allowed rate of return is not determined with regard to the prevailing market conditions, it will either be above or below the return that is required by capital market investors at the time of the determination. The Commission was of the view that neither of these outcomes is efficient nor in the long term interest of energy consumers.

The Commission concluded that the NGR rate of return framework potentially provides the flexibility needed to take account of changing market conditions and the availability of new evidence. The NGR rate of return framework achieves this by allowing the rate of return to be determined during each access arrangement decision, unconstrained by outcomes of any review. However, it was also of the view that this approach did raise concerns about the ability of all stakeholders, including consumers and their representative groups, to participate in rate of return determinations on an ongoing basis.

As a result, the Commission's proposed rate of return framework required the rate of return to be determined at the time of each regulatory determination under the NER and each access arrangement decision under the NGR. The Commission considered that a requirement for guidelines (discussed below) on rate of return methodologies to be developed by a regulator would provide the ideal mechanism to achieve both effective consumer engagement and regulatory predictability.

Inter-relationships between parameter values

In its draft rule determination, the Commission stated that, for a rate of return estimate to be reliable, it must properly reflect any interactions between the parameters in the estimation process. In some financial models, two or more parameters are either mathematically linked (ie the relationship between them can be expressed in the form of a mathematical formula) or they may be linked in other ways due to the underlying assumptions made in estimating various parameters. The Commission noted that proper implementation of a model would require that any relationship between parameters be recognised when estimating those parameters as part of deriving the overall rate of return estimate.

Stakeholders suggested that the existing Chapter 6 rate of return framework allowed for such inter-relationships to be taken into account. However, the Commission saw very limited evidence of how this occurs in practice.

The Commission's proposed new rate of return framework explicitly recognised such parameter inter-relationships by requiring the regulator and the service provider to have regard to them.

Accountability for both the regulator and the service providers

The decision was taken that, in developing a new rate of return framework, accountability of the regulator and the service provider is important. The Commission's proposed rate of return framework in the draft rule determination achieved this accountability in a number of ways:

- the return on equity estimate was proposed to be derived from a range of different estimation methods, financial models, market data and other evidence, ensuring that it is informed by and tested against the range of relevant evidence;
- the framework required the regulator and the service providers to be continually measuring their choice and application of estimation methods, financial models, market data and other relevant evidence against the overall objective of a rate of return that corresponded to the efficient financing costs of a benchmark efficient service provider; and
- the regulator would be required to develop rate of return guidelines as part of a transparent consultative process and periodically review those guidelines.

In addition, the fact that the proposed rate of return framework would be part of a reviewable decision meant that service providers are able to seek merits reviews of the regulator's decision.

Regulatory certainty

During consultation, regulatory certainty was highlighted by many service providers and investor groups to be an important aspect of the rate of return framework. The Commission recognised that there is some tension between having flexibility and certainty in the framework. On the one hand, investors require certainty in the regulatory regime on how the rate of return will be determined in the future. On the other hand, investors also require certainty that where market conditions change, the regulatory regime will provide enough flexibility to the regulator to make the necessary adjustments to determinate an appropriate rate of return.

In its draft rule determination, the Commission stated that the NGR rate of return framework represented a stronger attempt at ensuring that the determination of the rate of return meets the NEO, the NGO and the RPP. This was because it placed primary importance on determining an overall rate of return that promotes efficient use and investment, ensuring that a desire for certainty and predictability does not inhibit this being achieved.

The Commission also gave consideration to a suggestion from NSPs that if a rate of return framework based on the NGR determination by determination approach were to be adopted, then there should be an "inertia principle" included in the rules. This

would require the parameter values of previous regulatory determinations to be binding until variation is sought that passes some form of persuasive evidence test. It was suggested that some parameters by their nature are subject to significant ongoing discussion and that two experts could look at the same material and come up with multiple answers. It was suggested that use of this type of "evidence" would reduce certainty, stability and transparency in the regulatory framework.

In its draft rule determination, the Commission took the view that inclusion of an inertia principle would undermine the strength of its proposed rate of return framework. The Commission further noted that its proposed non-binding rate of return guidelines would safeguard the framework against the problems of an overly-rigid prescriptive approach that cannot accommodate changes in market conditions. Instead, sufficient flexibility would be preserved by having the allowed rate of return always reflecting the current benchmark efficient financing costs.

The non-binding nature of the guidelines would not work against regulatory predictability (or the inertia principle). Rather, it would promote it since the regulator would, in practice, be expected to follow the guidelines unless there had been some genuine change in the evidence. The regulator would also need to explain why it was deviating from the guidelines. Similarly, service providers would need to explain in their regulatory proposals why they are proposing a different approach to the regulator's guidelines if they wished to advocate a different approach. This would not limit a service provider's ability to submit that there was a change in evidence or circumstances that required a variation. Additionally, each regulatory determination would remain subject to merits review as a reviewable decision, allowing the appeal body to maintain appropriate oversight over the regulator's decision.

More effective consumer participation

It was noted in the draft rule determination that one of the key drawbacks of the NGR rate of return framework was that it may not allow for more effective consumer participation. That is because it operates on a determination by determination basis. This is particularly so where there are a lot of relatively small consumers and their representative groups have resource constraints which limit their ability to effectively engage on that basis. Accordingly, the Commission would prefer to have a rate of return framework that provides both periodic consultation and a mechanism for allowing consumer consultation to be given proper effect.

The Commission considered that a useful way to achieve effective consumer engagement would be through the use of guidelines, which also helps to address concerns about regulatory certainty. The rate of return guidelines can play the role of outlining the methodologies that the regulator proposes to use in determining the allowed rate of return at the time of a regulatory determination. The guidelines could be developed and thereafter reviewed periodically, using an extensive consultation process. This would allow consumers to effectively engage in the creation and review of such guidelines.

6.2.3 Nominal post-tax rate of return

In proposing a new common rate of return framework, the Commission had to consider whether the mandated nominal post-tax approach in the NER should be extended to the NGR framework. In the draft rule determination, the Commission considered the rationale the AEMC provided in prescribing a nominal post-tax approach in Chapter 6A, in its 2006 Chapter 6A determination. The Commission noted that the nominal post-tax approach was prescribed in the NER because:

- the post-tax approach addressed concerns regarding overcompensation for tax in the early years of an asset's life, due to accelerated depreciation provisions for tax purposes which continue to apply to some TNSP assets; and
- convergence in modelling approaches across different energy businesses would improve the ability to compare returns across different regimes, whereas allowing differences in the frameworks applying to TNSPs and DNSPs would not aid in such a convergence.³²

The draft rule determination noted that the pre-tax and post-tax approaches produce equivalent outcomes provided that the effective company tax rate is properly calculated under the pre-tax framework. Generally, where a pre-tax approach has been adopted, regulators have adopted either the statutory tax rate or a simple and conservatively high assumption for the effective tax rate.

The Commission also gave weight to comments from the AER and the Economic Regulation Authority (ERA). Both submitted that the use of the company tax rate and a conservatively high assumption of the effective tax rate can lead to systematic overcompensation for company tax. The AER also submitted that eliminating the potential for overcompensation requires the precise calculation of an effective tax rate, which is administratively burdensome. Moreover, the calculation of an effective tax rate requires cash flows to be modelled in post-tax terms and then converted into pre-tax equivalents. That is, the regulator would perform a post-tax calculation in either case. As a result, the Commission took the view that a common rate of return framework across the NER and NGR should apply the nominal post-tax approach.

The nominal post-tax approach is already applied consistently under the NER. Prescribing a nominal post-tax approach in the NGR offers benefits such as:

- streamlining the access arrangement review process;
- providing certainty for gas service providers as to the basis on which the regulator will determine the allowed rate of return;
- allowing convergence in modelling approaches across the different sectors; and
- improving the ability to compare returns across the different sectors.

³² AEMC, *Draft national electricity amendment (Economic regulation of transmission services) rule 2006 - Transmission revenue: rule proposal report*, February 2006, pp. 63-64.

As observed by the AEMC in its Chapter 6A determination, allowing differences in the frameworks applying to different types of service providers would not aid in such a convergence.

6.2.4 Implications of the Tribunal decision in the ATCO Gas and DBP cases

In developing the new rate of return framework for the draft rule determination, the Commission also provided reasons for why it had not adopted the broad architecture of the NGR rate of return framework given it exhibited a number of the identified key features of a good rate of return framework. The Commission was not convinced that the existing NGR rate of return framework would best meet its proposed approach in light of the recent decisions of the Tribunal in the ATCO Gas and DBP merits reviews and their implications for how the Commission intends its framework to be interpreted.

In both the ATCO Gas and DBP cases, the Tribunal rejected the contention of the applicants that giving primary emphasis to rule 87(1) would reflect the NGO and the RPP.³³ Such a conclusion does not reflect the approach of the Commission to determining an appropriate rate of return. The Commission considers that the primary consideration should be whether or not the overall allowed rate of return reflects benchmark efficient financing costs. A focus on the overall estimate of the rate of return is the key objective of the new framework.

The Tribunal suggested in both of these cases that rule 87(1) lacks guidance as to how the objective is to be achieved. Further, it stated that in the interests of regulatory consistency, it is desirable that such guidance be provided, and that rule 87(2) serves that function in describing how the rate of return is to be achieved.³⁴

The Tribunal also held that "implicit (or explicit) criticisms of modelling... must be minimised, if not negated, by the requirement that the approach and the model used must be well accepted by those who undertake and use such approaches and models for that purpose".³⁵ As a result "it is almost inherently contradictory then to say that the approach or the model is not likely to produce a reliable output - assuming that the inputs are appropriate - if that approach and that model are well accepted".³⁶

The Commission considered that this conclusion presupposes the ability of a single model, by itself, to achieve all that is required by the objective. The Commission is of the view that any relevant evidence on estimation methods, including that from a range of financial models, should be considered to determine whether the overall rate of return objective is satisfied.

³³ *Application by WA Gas Networks Pty Ltd (No 3)* [2012] ACompT 12; *Application by DBNGP (WA) Transmission Pty Ltd (No 3)* [2012] ACompT 14.

³⁴ *Application by WA Gas Networks Pty Ltd (No 3)* [2012] ACompT 12, [61] - [63]; *Application by DBNGP (WA) Transmission Pty Ltd (No 3)* [2012] ACompT 14, [81]-[83].

³⁵ *Application by WA Gas Networks Pty Ltd (No 3)* [2012] ACompT 12, [63]; *Application by DBNGP (WA) Transmission Pty Ltd (No 3)* [2012] ACompT 14, [84].

³⁶ *Ibid.*

The Commission therefore emphasised that a focus on the overall estimate of the rate of return was a key objective of the new rate of return framework. The Commission considered that requiring the regulator to have regard to relevant information on estimation methods, financial models, market data and other evidence, and allowing the regulator more capacity to achieve the overall objective, combined with a strengthened emphasis on achieving this objective, is more likely to achieve the NEO and the NGO than the current approaches.

The Tribunal also highlighted its concerns regarding insufficient prescription:

“The measure of prevailing conditions in the market for funds, and of the risks involved in providing reference services - without prescribing finally how that is done - would be fraught and vulnerable to an evolutionary and possibly idiosyncratic series of regulatory decisions. It would provide less certainty. It would expose the process of selection of rate of return on capital to the risk of prolonged debate about the relevant factor, their empirical measurement and their weightings.³⁷”

The Commission stated that it was mindful of the potential consequences of removing prescription and allowing the regulator increased discretion. However, the Commission noted that the potential consequences must also be balanced against potential benefits. Regulatory discretion is an important feature of every regulatory regime and guidance that is too prescriptive runs the risk of unnecessarily limiting the achievement of the NEO and the NGO. The focus should be on the outcome of the process rather than on individual steps of the process itself. The Commission considered that no one method can be relied upon in isolation to estimate an allowed return on capital that best reflects benchmark efficient financing costs.

The Commission took the view that a mechanism for addressing, or at least mitigating, the Tribunal’s concerns regarding "idiosyncratic series of regulatory decisions", "less certainty" and "prolonged debate" was the use of guidelines on rate of return methodologies under the new framework.

6.3 Submissions

6.3.1 Views on the level of prescription in the rules and level of detail required by the guidelines

Two closely-related issues that attracted significant comments in most submissions are the level of prescription in the draft rule and the level of detail required in the rate of return guidelines. Views expressed on these two issues are wide-ranging.

The AER suggests that the overall objective for the allowed rate of return is better achieved by removing from the draft rule the requirements for how the overall rate of

³⁷ *Application by WA Gas Networks Pty Ltd (No 3)* [2012] ACompT 12, [68]; *Application by DBNGP (WA) Transmission Pty Ltd (No 3)* [2012] ACompT 14, [89].

return is determined.³⁸ It suggests that such requirements are better cast as criteria to which the regulator must have regard.

By contrast, the ERA takes the view that not specifying a rule like the existing rule 87(2) in the NGR would lead to a prolonged debate through the process of appeal to the Tribunal.³⁹

The ENA submits that the AER should be required to provide sufficient details in the proposed rate of return guidelines to enable stakeholders to derive proxy estimates of the rate of return.⁴⁰ This call for greater detail being required in the guidelines has widespread support among submissions from electricity NSPs predominantly but not exclusively.⁴¹

Gas service providers are generally opposed to any detail being mandated in the proposed rate of return guidelines that could potentially lead to "locking-in" of parameter values. Gas service providers are nonetheless of the view that the draft rule should be further strengthened to require the regulator to use multiple methods, models and evidence in estimating the rate of return.⁴²

That there is nothing in the draft rule that prevents the regulators from continuing their reliance on CAPM is a common concern.⁴³ Some submissions advocate that the regulator should be required to assign weights to the financial models that it intends to use and to explain its rationale for both these weights and the choice of models.⁴⁴

In general, consumer representative groups are satisfied with additional flexibility being provided in the draft rule to the regulator.⁴⁵ However, the MEU is particularly concerned that the rule should define a benchmark efficient entity and the basis on which this is to be identified.⁴⁶ The EUAA approached the issue of discretion and prescription from a different perspective, submitting that, on the basis of its analysis of past performance of the regulator on the level of rate of return set, it is unlikely that

³⁸ AER, Draft Rule Determination submission, 5 October 2012, pp. 16-17.

³⁹ ERA, Draft Rule Determination submission, 4 October 2012, pp. 5-6.

⁴⁰ ENA, Draft Rule Determination submission, 4 October 2012, p. 2.

⁴¹ See, for example, SP AusNet, Draft Rule Determination submission, 4 October 2012, pp. 2-3; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, pp. 13-14; Jemena, Draft Rule Determination submission, 4 October 2012, pp. 23-26; UE and MG, Draft Rule Determination submission, 4 October 2012, pp. 10-11; QTC, Draft Rule Determination submission, 4 October 2012, pp. 5-6.

⁴² APIA, Draft Rule Determination submission, 4 October 2012, pp. 10-15; APA Group, Draft Rule Determination submission, 4 October 2012, p. 3; DBP, Draft Rule Determination submission, 9 October 2012, pp. 2-4; ATCO Gas, Draft Rule Determination submission, 4 October 2012, pp. 6-13

⁴³ See, for example, The Financial Investor Group, Draft Determination submission, 4 October 2012, pp. 17-19; APIA, Draft Rule Determination submission, 4 October 2012, pp. 10-12; QTC, Draft Rule Determination submission, 4 October 2012, pp. 4-5.

⁴⁴ See, for example, QTC, Draft Rule Determination submission, 4 October 2012, pp. 6-7; Ergon Energy, Draft Determination submission, 7 October 2012, p. 5.

⁴⁵ Consumer Action Law Centre, Draft Rule Determination submission, 5 October 2012, p. 3.

⁴⁶ MEU, Draft Rule Determination submission, 4 October 2012, pp. 11-12.

⁵⁰ Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

greater discretion for the AER will significantly impact on the regulator's ability to (potentially) set lower rates of return.⁴⁷ This view is shared by other consumer representative groups who commented on the draft rule determination.⁴⁸

6.3.2 Departure from the rate of return guidelines

Electricity NSPs and the ENA suggest that the removal of a persuasive evidence test from the NER rate of return frameworks skews the balance too far toward flexibility from transparent and evidence-based decisions.⁴⁹ The electricity service providers are concerned that the Commission's draft rule was increasing the AER's discretion at the same time as evidentiary thresholds were being removed.⁵⁰ These submissions called for stronger requirements on a party proposing departure from the rate of return guidelines to justify its reasons and evidence for doing so, based on sound theoretical arguments and verifiable evidence.⁵¹

By contrast, the APIA and other gas service providers are not particularly in favour of the draft rule requirement for the regulator and the service provider to explain departure from the guidelines as they are concerned that this would result in a tendency for regulators to adhere to guidelines, even in the face of evidence for departure at the time of an access arrangement decision.⁵² Arguments were made that though the rate of return guidelines would not be mandatory in their application, they would clearly have presumptive force, leading to concerns that the rate of return guidelines could "inadvertently become a way of entrenching non-reviewable errors".⁵³

6.3.3 Development of the rate of return guidelines

Some stakeholders are concerned about the adequacy of the proposed consultation procedures for the periodic review of the rate of return guidelines. For example, some submissions suggested that thirty business days was insufficient time for responding to consultation papers or draft guidelines, and the consultation period should be

⁴⁷ EUAA, Draft Rule Determination submission, 3 October 2012, pp. 6-7.

⁴⁸ ATA, Draft Rule Determination submission, 4 October 2012, pp. 7-8; UnitingCare Australia, Draft Rule Determination submission, October 2012, pp. 7-8.

⁴⁹ See, for example, ENA, Draft Rule Determination submission, 4 October 2012, pp. 12-13; Grid Australia, Draft Rule Determination submission, 4 October 2012, p. 3; SP AusNet, Draft Rule Determination submission, 4 October 2012, p. 2; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, pp. 11-12.

⁵⁰ See for example, SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p. 3.

⁵¹ See for example, ENA, Draft Rule Determination submission, 4 October 2012, pp. 12-13; Grid Australia, Draft Rule Determination submission, 4 October 2012, p. 3; SP AusNet, Draft Rule Determination submission, 4 October 2012, p. 2; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, pp. 11-12.

⁵² See, for example, APIA, Draft Rule Determination submission, 4 October 2012, p. 14; ATCO Gas, Draft Rule Determination submission, 4 October 2012, pp. 10-13.

⁵³ ATCO Gas, Draft Rule Determination submission, 4 October 2012, p. 12.

increased to at least sixty business days.⁵⁴ APIA is of the view that, given the introductory nature and the broad range of matters to be considered, the proposed timetable for the first set of rate of return guidelines is too short.⁵⁵ Another concern raised by APIA is the absence of a consultation step before the regulator issues its draft guidelines.⁵⁶

Some submissions called for the review period of the guidelines to be lengthened to a four year cycle.⁵⁷

On a related issue, a question was raised as to which rate of return guidelines would apply to a regulatory determination, particularly given the frequency of guideline updates. For example, the submission from SA Power Networks (formerly ETSA Utilities), CitiPower and Powercor claimed that the draft rule was ambiguous as to which rate of return guidelines would apply to a service provider where the guidelines were issued between the draft and final regulatory determinations. These NSPs suggested that this issue could be resolved by amending the draft rule to mandate the application of the guidelines that are in force at the time the framework and approach paper is published.⁵⁸ Similarly, it was suggested that it is important that the first guidelines be finalised before any service provider is required to submit under it.⁵⁹

6.3.4 Nominal post-tax basis requirement

Generally, submissions that commented on the draft rule proposal to mandate the rate of return calculations on a nominal post-tax basis were seeking clarification that the AEMC's intention is to preserve the "vanilla WACC" approach currently adopted by the AER.⁶⁰

There were some submissions that did not support the Commission's draft rule proposal. ATCO Gas submits that there should not be a requirement in the rules to use a nominal post-tax approach, claiming that such a requirement would be inconsistent with the flexible approach intended by the Commission.⁶¹ Contrary to the ERA's previous submission to the rule change request, while it supported the specification of

⁵⁴ See for example, ENA, Draft Rule Determination submission, 4 October 2012, p. 15; QTC, Draft Rule Determination submission, 4 October 2012, p. 8; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p. 4.

⁵⁵ APIA, Draft Rule Determination submission, 4 October 2012, p. 12.

⁵⁶ APIA, Draft Rule Determination submission, 4 October 2012, p. 13.

⁵⁷ ENA, Draft Rule Determination submission, 4 October 2012, p. 15; Jemena, Draft Rule Determination submission, 4 October 2012, p. 25.

⁵⁸ SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p. 13.

⁵⁹ APA Group, Draft Rule Determination submission, 4 October 2012, p. 4.

⁶⁰ See for example, ENA, Draft Rule Determination submission, 4 October 2012, p. 10; SP AusNet, Draft Rule Determination submission, 4 October 2012, p. 2;

⁶¹ ATCO Gas, Draft Rule Determination submission, 4 October 2012, pp. 5-6.

⁵² Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

a post-tax rate of return under the NGR, it stated that there should be no requirement for the approach to be on a nominal basis.⁶²

The AER did not express any disagreement with a nominal post-tax approach being made mandatory under the draft rule.⁶³

6.3.5 Departure from NSP's proposal on rate of return

The ENA and some NSPs disagree with the Commission's proposal that the allowed rate of return decisions be removed from those decisions that the regulator must make on the basis of what the NSP proposes in its regulatory proposal. That is, they consider that the constraints that apply to the AER's decisions by virtue of clauses 6.12.3(f) under Chapter 6 and 6A.13.2(a) and 6A.14.3(b) under Chapter 6A should apply to the AER's rate of return decisions.⁶⁴

The ENA argue that, while a carve out from clauses 6.12.3(f), 6A.13.2(a) and 6A.14.3(b) might be appropriate for forecast opex and capex to discourage strategic behaviour, it is not necessary for rate of return since it is not affected by information asymmetry.⁶⁵ It was submitted that retaining the existing position would improve regulatory certainty and predictability given the increased uncertainty stemming from the increase in flexibility afforded to the regulator under the draft rule.⁶⁶

6.3.6 Other Issues

Though generally most submissions agree with the overall approach taken by the Commission in the draft rule determination and the draft rule, there were numerous submissions that either suggested the drafting could be improved to better give effect to the Commission's intention or that certain concepts required clarification.

A common suggestion is that the words "commensurate with" should be included as part of the words of the overall allowed rate of return objective. For example, the ENA states that unless there is a deliberate reason for not doing so, the allowed rate of return objective should ideally use terminology consistent with the NEL and the RPP, and not doing so could give rise to unintended consequences.⁶⁷

A related but distinct proposal calls for the reinstatement of "commensurate with the prevailing conditions in the markets for funds" as part of the proposed overarching

⁶² ERA, Draft Rule Determination submission, 4 October 2012, pp. 2-5.

⁶³ AER, Draft Rule Determination submission, 5 October 2012, p. 17.

⁶⁴ See, for example, ENA, Draft Rule Determination submission, 4 October 2012, pp. 19-21; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, pp. 12-13.

⁶⁵ ENA, Draft Rule Determination submission, 4 October 2012, p. 20.

⁶⁶ SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p. 13.

⁶⁷ ENA, Draft Rule Determination submission, 4 October 2012, p. 20.

allowed rate of return objective.⁶⁸ It was also recognised though that a potential adoption of the trailing average approach to debt for some NSPs may have necessitated the excision of this phrase.⁶⁹

In a similar vein, there is concern from gas service providers that the requirement for the return on equity estimation to "take into account" the prevailing conditions in the market for equity funds is not as strong as under the existing rule 87 of the NGR and argued that this needed to be strengthened.⁷⁰

Regarding this same draft rule provision, submissions from the ENA and others suggest that the Commission should clarify that it is not seeking to prevent the consideration of historical or realised returns.⁷¹

The QTC submits that it is important to clarify that references to "best estimates" relate to those which best promote the NEO, the NGO and the RPP, rather than the most accurate estimate from a purely statistical perspective.⁷²

Some stakeholders also query what the intention was regarding the proposed requirement in the draft rule for consistent application of estimates of financial parameters.⁷³

The submission from APIA seeks further clarity as to what was intended by "efficient financing costs". APIA suggests that efficient financing costs does not have a readily recognised meaning in the context of economic regulation. Similarly, APIA suggests that "benchmark efficient entity" requires clarification.⁷⁴ The MEU is strongly in favour of "efficiency" being defined in the NER and NGR as well as what it considered to be a "benchmark" entity and the basis on which this is to be defined.⁷⁵ ATCO Gas expressed the view that benchmarking should reflect the realities of the regulated entity.⁷⁶ A different approach is proposed by the Financial Investor Group (FIG), which recommends that "efficient entity" should be defined with reference to a benchmark network business in a competitive market.⁷⁷

68 APIA, Draft Rule Determination submission, 4 October 2012, pp. 8-9; DBP, Draft Rule Determination submission, 9 October 2012, p. 3.

69 APIA, Draft Rule Determination submission, 4 October 2012, pp. 9-10; APA Group, Draft Rule Determination submission, 4 October 2012, p. 3.

70 See, for example, APIA, Draft Rule Determination submission, 4 October 2012, p. 9.

71 ENA, Draft Rule Determination submission, 4 October 2012, p. 15; SP AusNet, Draft Rule Determination submission, 4 October 2012, p. 3.

72 QTC, Draft Rule Determination submission, 4 October 2012, p. 5.

73 See, for example, ENA, Draft Rule Determination submission, 4 October 2012, p. 10; ATCO Gas, Draft Rule Determination submission, 4 October 2012, pp. 7-8; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p. 11.

74 APIA, Draft Rule Determination submission, 4 October 2012, p. 7.

75 MEU, Draft Rule Determination submission, 4 October 2012, pp. 6-12.

76 ATCO Gas, Draft Rule Determination submission, 4 October 2012, pp. 3-5.

77 The Financial Investor Group, Draft Determination submission, 4 October 2012, pp. 17-19.

6.4 Analysis

This section responds to issues raised in submissions to the draft rule determination and sets out the Commission's reasoning for its final rule determination.

6.4.1 Level of prescription in the rules

There is broad support from stakeholders on the Commission's draft rule to introduce a flexible rate of return framework that is common across the electricity and gas transmission and distribution sectors. However, there is considerable concern about how the regulator may exercise the necessary discretion that comes with having a flexible framework that can evolve over time.

Therefore, a fundamental issue raised in submissions is how much prescription the NER and NGR and the rate of return guidelines should have to best allow the realisation of the Commission's policy intent. This section provides the Commission's response to some of the key aspects of this issue.

Flexibility and Certainty

The Commission explicitly recognised in the draft rule determination the potential tension between flexibility and certainty in the rate of return framework.⁷⁸ Resolving this tension must always be guided by what is most likely to achieve the NEO, the NGO and the RPP.

The Commission understands from submissions that much of the concern with the additional flexibility provided in the new framework reflects a lack of understanding from stakeholders about how the regulator will apply the new rules. Stakeholders also appear to be concerned about the direction on the various estimation techniques the regulator may take under the new framework. For instance, the current regulatory approach of using only the CAPM for estimating the return on equity was cited as an example that could be used to undermine the outcomes expected in the new framework. This would be where the regulator may choose to continue to justify using the CAPM without considering other models. To this end, varying suggestions were made to explicitly require the regulator to consider and provide weights to different financial models to improve the certainty of other models having some utility.

The Commission considers that the NER and the NGR in this context are about providing the regulator with the ability and necessary guidance to regulate the revenues and prices of monopoly networks service providers. In discharging their economic regulatory functions the AER and the ERA are required to consider their decisions in terms of achieving the NEO, the NGO and the RPP. The regulator should be expected to follow good administrative decision-making practice. In this context, such practice requires a full and considered explanation for decisions and adherence to due process, rigour and objectivity required under administrative law principles. That

⁷⁸ See, for example, AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Draft Rule Determination, 23 August 2012, p. 51.

the regulator would strive for the highest quality estimates to best achieve the NEO, the NGO and the RPP can be necessarily expected. If a service provider considers that the regulator has fallen short in this regard, then it can consider appealing the regulator's decision. The Commission is of the view that the NER and the NGR cannot, and should not, be an exercise in rigidly specifying actions for the regulator that are already incumbent upon it.

The Commission's focus has been to appropriately balance flexibility and certainty in the NER and the NGR. While certainty for investors and service providers is of considerable importance, it is not the only consideration. The certainty of which parameters should be estimated, how they should be estimated and once estimated, locking them in for substantial period of time is a feature of the existing NER frameworks. However, this approach to achieving certainty has considerable drawbacks.

The cost of this certainty through the prescriptive rigidity in the rules not only affects service providers when market conditions adversely change, but also consumer interests. This is not to suggest that providing certainty should not be an objective and cannot be achieved through other means. Indeed, the Commission has attempted to provide some level of certainty to balance the flexibility objective through requiring the regulator to develop and periodically review rate of return guidelines on the methodologies it intends to use to estimate the rate of return over a three year period. That is, certainty on the regulator's approach is provided through another mechanism that still preserves the level of flexibility that should naturally exist in rate of return estimations.

Rules

The Commission has taken the view that guidance in the NER and the NGR is beneficial unless it limits the flexibility of the regulator to make decisions more likely to achieve the NEO, the NGO and the RPP. The Commission disagrees with suggestions that the level of guidance included in the draft rule makes the AER less likely to be able to achieve these objectives than were there less prescription. Equally, the Commission disagrees that more prescription is needed than that provided by the draft rule. Rather, the Commission is of the view that the right level of balance has been struck by providing a framework for how the regulator should perform its duties, while at no stage undermining the primacy of the overall allowed rate of return objective.

The Commission has attempted to bring together a number of characteristics into a common rate of return framework that addresses many of the deficiencies in the current frameworks. One of the criteria the Commission has applied to determine the best framework for the NER and the NGR includes allowing methodologies for parameters to be driven by principles and to reflect current best practice.

Providing high level, principled guidance to the regulator in performing its task is an appropriate role for the NER and the NGR. Further, it enhances regulatory accountability, transparency and predictability. Nonetheless, such guidance must not impede the estimation of a high quality rate of return estimate that uses all relevant

evidence and methods. The Commission does not consider that a framework relying on a relatively mechanistic approach to estimating the rate of return will be best placed to achieve the NEO, the NGO and the RPP.

Guidelines

Responses from many service providers expressed a desire for more certainty from the proposed new rate of return framework. This includes more detail being required from the rate of return guidelines, including requiring the regulator to state specific parameter values in the guidelines.

While the Commission supports the rate of return guidelines having as much detail as possible, it is concerned that the guidelines should not be seen as a determinative instrument for calculating the rate of return without reference to the determination or access arrangement process. The role of the guidelines is to provide stakeholders with an opportunity to engage with the regulator to determine how it will estimate the rate of return at the time of the regulatory determination or access arrangement. That is, they are more about providing service providers, investors and consumers with certainty on the methodologies of the various rate of return components and how the regulator will assess the relevant estimation methods, financial models, market data and other evidence in meeting the overall allowed rate of return objective.

The guidelines also provide the regulator with an opportunity to specify how it will deal with any unpredictable changes in market conditions at the time of any regulatory determinations or access arrangements. The Commission expects that the guidelines will provide service providers and other stakeholders with an ability to make a good estimate of the rate of return for particular businesses at particular points in time. The Commission recognises that the guidelines could allow this to occur in a number of ways, including through the way the methodologies are explained and/or by providing ranges of possible outcomes.

Continued reliance on CAPM

A major concern expressed in numerous submissions is that under the proposed changes the regulator would still be able to, in effect, make exclusive use of the CAPM when estimating a rate of return on equity. The Commission understands this concern is potentially of considerable importance given its intention is to ensure that the regulator takes relevant estimation methods, models, market data and other evidence into account when estimating the required rate of return on equity.

As discussed above, the Commission takes the view that the balance between flexibility and prescription has been adequately achieved in the final rules. It would be counterproductive to attempt to prescribe a list of models and evidence, which would almost certainly be non-exhaustive and could lead to rigid adherence to them in a mechanistic fashion.

Similar problems exist with assigning weights that must be given to relevant estimation methods, financial models, market data and other evidence. In many circumstances it could be the case that the likelihood of achieving the NEO or the NGO

may be increased by examining a range of methods and data and making judgements aided by, for example, the location and/or clustering and/or statistical precision of estimates. That is, formulaic rules such as giving particular methods a fixed weighting may not be the best way to assess the information.

6.4.2 Departure from the guidelines

The Commission has considered suggestions from the ENA and other service providers to strengthen the role of the guidelines. This would be through a requirement that the regulator (and service providers) to provide “reasons and evidence” or some other definable evidentiary threshold when seeking a departure from the guidelines.

The intention of the rate of return guidelines is *not* to be binding on either the regulator or the service provider. The role of the guidelines is to be distinctly different to how the existing Statement of Regulatory Intent (SORI) on WACC operates under the current Chapter 6 and 6A rate of return frameworks of the NER. The rate of return guidelines are not intended to explicitly lock-in any parameters or methodologies from which departure would not be permitted. In order for the guidelines to have some purpose and value at the time of the regulatory determination or access arrangement process, they must have some weight to narrow the debate. However, there should not be any "inertia principle" or "persuasive evidence test" applying to the application of the guidelines. Requirements on the regulator (and service providers) of this nature to justify departures from the guidelines would undermine the purpose of them.

To this end, the Commission’s draft rule required the regulator to explain reasons for any departure from the guidelines in a regulatory determination decision and required service providers to explain reasons for any proposed departures from the guidelines in their regulatory submissions. The draft rule also required the regulator to have in place a rate of return guideline at all times after the publication of the first guidelines. This means that, under the Commission’s draft rule, there would be a guideline in force to act as a reference point both for the regulator and the service provider at any point in time. In this respect, the Commission is satisfied that its draft rule achieved the intended purpose and therefore the final rule reflects that approach.

6.4.3 Development of the guidelines

The Commission recognises that the preparation of the first rate of return guidelines will require extensive consultation. The transitional arrangements for the implementation of the final rules address the timeframes required for the development of the first rate of return guidelines under the NER and the NGR. As further discussed in the transitional rules chapters 12 and 13, a period of up to 12 months has been provided for finalisation of the first rate of return guidelines.

In the Commission's view, subsequent rate of return guidelines would likely involve more incremental changes in approach, and hence, the process may be shorter. Even where substantial changes are contemplated, these are likely to be limited to a small

number of parameters and/or methodologies. If complex issues are identified and greater time is required for consideration, the regulator has the ability to extend the process for reviewing the guidelines. This flexibility was provided in the draft rule. For the final rule, the Commission has retained the three-yearly review cycle for the guidelines so that they can be kept current and allow change to be more incremental. The Commission recognises that whenever the guidelines are being reviewed, there will be some service providers who will be required to submit their regulatory proposals at some point in the cycle.

In these circumstances, there could potentially be some uncertainty as to which version of the guidelines applies. However, the Commission is not convinced that mandating the application of the guidelines that was in force at the time of the framework and approach paper is the best way to deal with this uncertainty. Any mandated application of the rate of return guidelines undermines its flexibility and shifts the guidelines closer to a binding document.

A preferable way to address the issue is to retain the draft rule approach. This does not preclude the regulator from including in the new guidelines measures that provide certainty to those service providers that would be affected. Further, the draft rule provisions on the guidelines in the NER required the AER to consider transitional issues where there may be changes to regulatory approach in future determinations.⁷⁹

The draft rule provisions therefore provided the AER with sufficient flexibility to consider how changes to its guidelines would impact on those service providers that would be required to submit their regulatory proposals during the course of the finalisation of the guidelines. It would not be appropriate for the rules to mandate which guidelines should apply to service providers in the transitory phase. This is because the extent and impact of any changes to the guidelines resulting from the periodic review will vary from review to review, depending on the issues that are raised. Therefore, it would seem appropriate to give the regulator the ability to determine which rate of return guidelines should be applicable in any individual case. As the guidelines are not binding, the AER can apply them flexibly to take into account such timing issues.

Ultimately the rate of return framework is about making the best estimate of the rate of return. While the guidelines plays an important role in the process as the point of departure for the regulator, service providers and other stakeholders at the time of a determination or access arrangement, whether a previous or recently revised version of the guidelines is used as the point of departure should not fundamentally affect the ultimate aim of making the best possible estimate of the rate of return.

For the final rule, the Commission has not made any changes from the draft rule on this issue. However, the Commission acknowledges that no equivalent rule of NER

⁷⁹ See draft rule NER clauses 6.2.8(d) and 6A.2.3(d).

clauses 6.2.8(d) and 6A.2.3(d) existed or was proposed in the draft rule for the NGR.⁸⁰ The final rule for the NGR rate of return includes the equivalent NER clause for the AER and the ERA to consider transitional issues in making of the rate of return guidelines.

6.4.4 Nominal post-tax issues

Two specific issues were raised in response to the Commission's draft rule to prescribe the nominal post-tax approach. First, the ERA and some gas service providers did not support mandating the nominal post-tax approach, although on different grounds. Second, a number of submissions sought clarification of the definition of the nominal post-tax rate of return.

Prescribing a common approach

The Commission notes that there is widespread support among stakeholders to have a consistent and common rate of return framework across the three sectors covered under the NER and the NGR. However, the ERA and some gas service providers did not support mandating the nominal post-tax approach under the NGR, although on different grounds.

In the draft rule determination the Commission observed that, from a theoretical perspective, the choice of nominal or real or post-tax or pre-tax treatment of rate of return estimate should make no difference to outcomes for service providers or consumers. This issue has arisen from the fact that the AER currently uses a post-tax nominal framework for estimating the allowed rate of return for electricity NSPs under the NER. In contrast, a number of gas service providers have historically had their allowed returns determined using a pre-tax real framework, particularly those that have been regulated by the ERA.

Furthermore, the ERA submitted in response to the consultation paper that it was supportive of the proposal to adopt a common framework using a nominal post-tax basis. However, since that time the ERA has developed a new approach based on a hybrid real post-tax revenue model. The ERA submits that its hybrid real post-tax revenue model has some advantages over the AER's post-tax revenue model (PTRM).

The ERA submits that, relative to the AER's PTRM, its hybrid approach delivers:

- more regulatory revenue over the life of assets, as compared to the AER's approach;
- an identical present value of regulatory revenue as the full nominal approach under most circumstances over the life of the assets; and

⁸⁰ See final rule clauses 6.2.8(d) and 6A.2.3(d) of the NER that states that if a guideline indicates that there may be a change of regulatory approach in future regulatory determinations, the guideline should also (if practicable) indicate how transitional issues are to be dealt with.

- revenue that is aligned closely with the service providers 'actual' after tax position (as opposed to the regulatory tax position of the benchmark firm).

As a result, the ERA argues that the rate of return framework should also allow regulators the ability to adopt a rate of return approach which best reflects the efficiency objectives of the NGO. However, it is not clear that any of these differences would support the conclusion that the ERA's hybrid approach better meets the NGO or the NEO, and the ERA submits only that "there is evidence to suggest that the best form of post-tax model remains open to question".

The Commission has sought advice from SFG in relation to this issue.⁸¹ SFG notes the inconclusive nature of the ERA's view on how allowing alternative approaches to the nominal post-tax rate of return better meets the NGO. In SFG's view, there are a number of more compelling reasons to support retention of the draft rule approach. Specifically:

- the ERA submission does not suggest that the AER's PTRM is in any way inconsistent with the NEO or the NGO;
- the ERA submission does compare and contrast the PTRM against its hybrid approach in terms of consistency with the NEO or the NGO;
- retaining the Commission's draft rule mandating a nominal post-tax approach achieves the much supported objective of a common rate of return framework across all sectors; and
- a significant majority of service providers under the NER and the NGR are already regulated by the AER under the PTRM.⁸²

The AER has also responded to the ERA's submission on this issue, noting that the revenue differences identified by the ERA are driven by the adoption of specific modelling assumptions rather than whether a nominal rate of return or real rate of return framework is applied.⁸³ For example, the AER considers that the likely cause of the identified revenue differences are the result of employing different tax input modelling and cash flow timing assumptions between the AER's modelling approach and the ERA's modelling approach.⁸⁴

After considering SFG's advice and AER's views, the Commission considers that at this point, there is insufficient evidence to conclude that allowing the flexibility of using approaches other than a nominal post-tax framework as sought by the ERA would necessarily lead to outcomes that better meet the NGO or the NEO.

⁸¹ SFG Consulting, *Response to submissions on rule change proposals*, Report for the AEMC, 5 November 2012.

⁸² *Id.*, pp. 7-8.

⁸³ AER, Draft Rule Determination supplementary submission, 25 October 2012, p. 1.

⁸⁴ *Ibid.*

It is evident that the differences in views have arisen because of certain modelling assumptions, rather than any fundamental economic requirement to have different approaches being applied to different service providers to determine their efficient revenues/prices. Since the majority of service providers under the NER and the NGR are already subject to the nominal post-tax approach as applied by the AER, it would be more practical to have a common approach already in place extend to all service providers. A common approach will mean that the rate of return can be compared on a consistent basis. Further, as the AER notes, it also avoids the need to direct resources to maintaining different revenue models that deliver the same outcome in terms of the underlying rate of return framework.⁸⁵ Consequently, the final rule mandates the use of the nominal post-tax approach to rate of return under the NER and the NGR (see further below on clarification of the form of nominal post-tax approach).

The Commission has also considered comments from APIA that there may be some potential unintended consequence for those gas service providers requiring a transition from the real pre-tax basis to a nominal post-tax basis. APIA states that the nominal post-tax approach to a gas service provider's capital base will create a discontinuity in the cash flows. This is because of the implicit tax asset base under the pre-tax real calculations will not be the same as the capital base.

It is not the Commission's intention that gas service providers, or indeed consumers, face any unnecessary costs resulting from any transition from a real pre-tax approach. To the extent possible, the Commission would expect the impact on the limited number of gas service providers and their consumers from the change in approach to be neutral. In relation to the specific issue raised by APIA, advice from SFG indicates that there could potentially be a financial loss to a service provider due to expropriation of value from its asset base resulting from the change.⁸⁶ However, SFG did not suggest that this issue justifies not applying a common nominal post-tax approach. SFG suggests that this would be a transitional issue under a change of basis for determining the rate of return and could be dealt with by preserving the starting value of the affected gas service provider's capital base.⁸⁷

Based on SFG's advice, the Commission agrees with APIA that some form of transitional provisions should be considered for those gas service providers that would be affected by a change from the real pre-tax approach to the nominal post-tax approach. While APIA has proposed a specific method for addressing the specific potential unintended consequence that they have identified, the Commission considers that a more general approach would be appropriate.

As discussed in section 6.4.3, the final rule provides sufficient flexibility for the regulator to consider potential transitional issues either through the guidelines, or at the time of individual access arrangement reviews. The reason the Commission prefers leaving this issue for the regulator to address is that it is difficult to identify precisely

⁸⁵ Id., p. 2.

⁸⁶ SFG Consulting, *Response to submissions on rule change proposals* Report for the AEMC, 5 November 2012, pp. 9-11.

⁸⁷ Ibid.

what the impact will be on those gas service providers at this point in time. The potential effect will depend on the individual circumstances of the affected gas service provider and is better examined at the time of their access arrangement review to enable full consideration of the relevant information. As a result, through this general approach, the regulator could consider the transitory impact in greater detail when developing the rate of return guidelines and make any specific adjustments it considers appropriate tailored to the affected gas service provider at the time of its individual access arrangement decision.

On a related issue, the Commission notes that APIA has sought clarification that the actual tax position of the service provider is not relevant for the purposes of calculating tax. The Commission notes that the final rule (and the draft rule and the existing rule) clearly requires the rate of return framework to be applied to a benchmark efficient firm and not to the particular position of the specific service provider being regulated. For example, while this would be strictly a matter for the regulator to determine in accordance with the overall allowed rate of return objective, the Commission expects that in the same way the regulator would need to estimate the gearing and credit rating values with reference to a benchmark efficient firm, tax liabilities would also be calculated with reference to a benchmark efficient firm. This would provide the particular service provider with an incentive to beat the efficient benchmark and an effective penalty if it does not.

Clarification on the intended nominal post-tax approach

In the draft rule, the Commission intended that the AER would continue to use the same definition of WACC as it currently does under its PTRM, as required under the NER. Specifically, the Commission intended that the AER would continue to use the version of the post-tax nominal WACC that has become known as the “vanilla” WACC. To this end, the Commission adopted the same language in the draft rule as that which currently appears in Chapters 6 and 6A of the NER. However, it has become apparent that by removing the WACC formula that is specified in the existing Chapter 6 and 6A and retaining the “nominal post-tax” reference in the rules has the unintended effect of creating ambiguity as to which form of WACC computation would be permissible.

As noted in SFG's advice on this issue:

“[T]here are a number of different WACC formulas that can all be identified as post-tax nominal definitions of WACC. Officer (1994), in the paper that forms the basis for the regulatory rate of return framework, sets out four such definitions in the section of his paper titled “The after-tax cost of capital” (pp. 6-8). Each of these four definitions of the after-tax nominal WACC is coupled with a unique corresponding definition of the cash flows. The definitions of the after-tax nominal WACC differ in terms of whether the tax benefits of (a) the deductibility of interest payments, and

(b) the assumed effect of dividend imputation tax credits are incorporated in the WACC or in the cash flows.⁸⁸

After considering the potential consequences of retaining the draft rule wording of "nominal post-tax", the Commission has amended the wording in this final rule to clarify that the rate of return is to be determined a "nominal vanilla" basis. The final rule will ensure that those service providers regulated by the AER under the NER and NGR will continue to have their rate of return estimated on the same "vanilla" WACC framework. However, as discussed in the section above, those gas service providers regulated by the ERA will be impacted by this and will need to be transitioned from the real pre-tax WACC.

6.4.5 Internal consistency and interrelationships

As with the draft rule, the final rule requires the regulator to have regard to inter-relationships between financial parameters used in estimating the allowed rate of return.

A number of submissions have sought some clarification of the Commission's intentions in relation to the requirement for the regulator to have regard to any interactions between parameters within a model. In particular, some submissions expressed a concern that if the allowance in relation to the return on debt were estimated on the basis of historical averages, the allowance in relation to the return on equity would also have to be estimated based on the same historical averages. This is not the Commission's intention.

If a historical average is used to estimate the allowance for the return on debt, there is no requirement for the resulting estimate, or any part of it, to constrain the estimate of the allowance for the required return on equity. The return on equity must reflect the prevailing conditions in the market as it is a forward-looking financial concept. The estimation of an historical average is a different exercise altogether, and one estimate does not constrain the other. For example, the historical average of the risk-free rate (as part of the return on debt estimation) and the contemporaneous risk-free rate (as part of the return on equity estimation) are different parameters that need not take the same value. The return on debt estimation is discussed in more detail in the next chapter.

The final rule also requires that the return on equity estimation to have regard to the prevailing conditions in the market for equity funds. There is no corresponding requirement on the allowance for the return on debt, since the final rule (and the draft rule) allows the return on debt to be estimated with reference to an historical average as well to the prevailing conditions in the market.

The final rule makes clear the desirability of using an approach that leads to the consistent application of any estimates of financial parameters that are relevant to the estimates of, and that are common to, the return on equity and the return on debt.

88 *Id.*, p. 2.

6.4.6 Benchmark efficiency

Under the Commission's final rule, the regulator must determine a rate of return that is consistent with that required by a benchmark efficient firm with similar risk characteristics to the service provider in question.

The Commission believes that the concept of efficiency and the benchmark characteristics that relate to the risk of service providers should be left to the regulator to determine. It would be inappropriate for the NER and NGR to seek to define either the concept of efficiency or prescribe what the risk and benchmark characteristics should be.

The NEL and the NGL themselves do not seek to define efficiency in terms of the NEO and the NGO respectively. Including a particular definition in the NER and the NGR risks constraining the regulator's ability to make the best possible decisions.

Furthermore, the concept of a benchmark service provider and the risks that a benchmark service provider may face are not rigidly static and can change over time. As a result, it would be impossible to list all relevant characteristics in the NER and the NGR and expect them to remain appropriate. The Commission is of the view that the regulator and the industry should have an opportunity to discuss these matters periodically and make incremental changes to what constitutes a benchmark service provider as the risk profile changes. The periodic review of the rate of return guidelines provides the ideal forum for such matters to be examined in detail.

6.4.7 Departure from NSP's proposal

The Commission has given further consideration to whether or not the rate of return decisions should be subject to the constituent decision constraints of the NER. These constraints relate to the AER's ability to substitute any amount or value on the basis of the NSP's regulatory proposal and amended from that basis only to the extent necessary to enable it to be approved in accordance with the rules.⁸⁹

The ENA and other NSPs have not made a sufficient case as to why such a restriction should apply to constrain the AER's ability to determine the rate of return with reference to the NSP's regulatory proposal. Instructively, such a requirement does not exist in the NGR and gas service providers have not sought to have such a requirement included in the rate of return framework.

The AER's rate of return decision made at the time of the NSP's regulatory determination would be informed by its decisions in the rate of return guidelines and an assessment of evidence and market conditions at the time of the individual regulatory determination. This would include any reasons for departure from the guidelines provided by the NSP in its regulatory proposal. In order for the AER to make a decision on rate of return that best meets the overall allowed rate of return

⁸⁹ See NER clauses 6.12.3(f) and 6A.13.2(a).

objective, by necessity the AER must have the flexibility to consider information beyond that which is provided by NSPs in their proposals.

Furthermore, it is somewhat perplexing for NSPs to suggest that the AER should only limit its assessment of the rate of return with reference to whatever rate of return proposal NSPs make. Considerable comments have been made about the rate of return being a benchmark concept that is only relevant to any individual NSP to the extent that the assumed risks of the benchmark firm reflects the similar risk characteristics to the service provider.

The Commission's final rule clearly specifies that the allowed rate of return must meet the overall rate of return objective. In order for its final rule on the rate of return framework to work as intended under the NER, the AER should not be limited to assessing a rate of return proposal on the basis of what the service provider proposes, with any departure from that proposal being the minimum necessary for the rate of return to comply with the requirements set out in the NER.

The Commission has determined that these clauses should not apply for rate of return decisions. In addition, as section 8.4.1 of this final rule determination discusses, the Commission has determined that the restrictions these clauses place on the regulator in general are not appropriate, and has removed them from the NER altogether.

6.4.8 Other issues

The Commission has decided not to reference "prevailing conditions in the market for funds" in the overall rate of return objective. This is because the objective would then be in conflict with the allowance for the return of debt where it is estimated on a trailing average basis. The Commission considers that it is clear from the return on equity provisions that the "prevailing conditions" concept continues to apply there, and that it also does apply, to the extent possible, for the return on debt estimation.

Also, references to "prevailing conditions" are not meant to exclude from any consideration historical or realised returns. However, the Commission does not consider that any drafting changes to the draft rule are required for the final rule to give effect to this. The final rule (as with the draft rule) is drafted in sufficiently broad terms to allow for such financial concepts to be taken into account for the purposes of developing appropriate estimation methodologies.

In response to stakeholders concerns, the Commission has substituted the words "correspond to" in the draft rule allowed rate of return objective with "commensurate with" in the final rule. While the approach behind the use of "correspond to" in the draft rule was to make the wording plain English, the Commission recognises that "commensurate with" is well understood, and has been applied without an issue in the past. There is benefit in retaining existing terminology. For the avoidance of doubt, the Commission intends "commensurate with" to mean that the rate of return can only ever be estimated as a reasonable approximation rather than identified with total precision. Whether or not the estimated rate of return meets the allowed rate of return objective will invariably require some level of judgement, but this judgement should be based

with reference to all relevant estimation methods, financial models, market data and other evidence that could reasonably be expected to inform a regulator's decision.

6.5 Guidance on final rule

This section covers aspects of the final rule on the rate of return framework other than the return on debt, which is discussed in chapter 7.

The final rule provides a common rate of return framework for determining the return on capital for service providers. In determining the return on capital, the allowed rate of return would be estimated at the time of each regulatory determination of a TNSP or DNSP and each access arrangement decision of a gas service provider.

The final rule is structured to require the regulator to determine a rate of return consistent with an overall objective (the allowed rate of return objective). The allowed rate of return objective requires the rate of return to be commensurate with the efficient financing costs of a benchmark efficient service provider with similar degree of risk to the service provider whose rate of return is being determined.

The allowed rate of return objective incorporates the concept of a benchmark efficient service provider, which means that the regulator can conclude that the risk characteristics of the benchmark efficient service provider are not the same for all service providers across electricity transmission, electricity distribution and gas and/or within those sectors. The Commission would expect a regulator in developing its guidelines (discussed below) to explicitly consider this issue. Having said this, the Commission recognises that if a regulator concluded that the risk characteristics of a benchmark efficient service provider are different between, for instance, electricity and gas service providers, there may be challenges in all cases in identifying sufficiently precise measurements of the quantum of the difference for determining the rate of return.

In determining the allowed rate of return, the regulator would be required to consider the return on equity and the return on debt as the allowed rate of return comprises a weighted average of these two components. Although, for practical purposes, the regulator may turn its mind to separately estimating the return on equity and return on debt, the Commission considers that the process is a joint estimation exercise and that the regulator must ensure that the overall estimate of the rate of return satisfies the overall objective.

To determine the rate of return, the regulator is also required to have regard to relevant estimation methods, financial models, market data and other evidence. The intention of this clause of the final rule is that the regulator must consider a range of sources of evidence and analysis to estimate the rate of return. In addition, the regulator must make a judgement in the context of the overall objective as to the best method(s) and information sources to use, including what weight to give to the different methods and information in making the estimate. In doing so, the regulator should also have regard to taking an internally consistent approach and, to the greatest

extent possible, use consistent estimates of values that are common across the process, as well as properly respecting any inter-relationships between values used.

The final rule requires the allowed rate of return to be determined on a nominal vanilla WACC basis with proper regard to dividend imputation (gamma). This is also consistent with the existing WACC approach in the NER rate of return frameworks in that it requires a consistent treatment of cash flows and the discount rate to properly incorporate the gamma factor. The current prescription of the gamma value of 0.5 in clause 6A.6.4 has also been removed to allow the regulator the ability to estimate an appropriate value that reflects the best available evidence at the time of a decision and would therefore result in a rate of return that meets the overall objective.

In addition, since the vanilla version of the nominal post-tax rate of return framework will apply to gas service providers under the NGR, the Commission's final rule includes new provisions for the estimation of the cost of corporate income tax. This provision is similar to the provisions in Chapters 6 and 6A of the NER to allow for a common rate of return framework to be established. Furthermore, the Commission expects the regulator to address any transitional provisions for service providers that have had a basis other than a nominal post-tax basis for the rate of return. Any transitional adjustment required with the change in basis should seek to achieve a neutral financial impact on the affected service provider and consumers.

The final rule distinguishes between the allowed rate of return objective (ie the rate of return must be commensurate with the efficient financing costs of a benchmark efficient entity with similar degree of risk to the service provider whose rate of return is being determined) and other requirements that the regulator must have regard to.

The final rule has been structured in such a way as to reinforce the focus of the estimate of the rate of return to be on the achievement of the allowed rate of return objective. Estimating the return on equity and return on debt are likely to be necessary components to determine the overall rate of return that meets the overall objective. However, as achieving the overall objective has primacy the regulator would need to consider the overall estimate against the overall objective and not just add together and weight its estimates of the cost of equity and debt. Guidance has been provided in estimating both these components through factors that the regulator must have regard to.

In light of comments from stakeholders, the Commission has reordered the drafting from the draft rule in the final rule to better group the factors that should be considered as part of the determination of the rate of return that meets the overall objective. There is no change as to the intended operation of these clauses. While the final rule gives the regulator discretion in the factors it must have regard to, the Commission considers that the regulator must undertake the rate of return estimation process with rigour and transparency. In this regard, the Commission expects the regulator to use estimating practices that are robust and rely on transparent data sources. It is also expected that the regulator will clearly articulate how it has considered the factors it must have regard to in making its decision on the allowed rate of return that meets the overall objective. The role of factors that the regulator must

have regard to or take into account in achieving the objective is more generally discussed in section 5.5

There was some confusion from stakeholders on the draft rule's use of "have regard to" and "take into account" in the drafting structure for the new rate of return provisions. The Commission's view on this issue is also discussed in section 5.5.

Estimating return on equity

The final rule sets out two requirements for the return on equity estimation. The first is that the estimation must contribute to achievement of the allowed rate of return objective. The second is that the estimation have regard to the prevailing conditions in the market for equity funds.

The Commission has taken the view that it is preferable not to prescribe in the rules a list of particular models that should be considered or indeed prescribe characteristics that must be met by such a model. The Commission instead is requiring that the regulator have regard to relevant estimation methods, financial models, market data and other evidence and is leaving to the judgement of the regulator the relative weights to be given to methods, models and such information. Implicit in this requirement to consider a range of methods, models and information is that checks of reasonableness will be undertaken.

The second principal requirement is that the return on equity must take into account the prevailing conditions in the market for equity funds. It reflects the importance of estimating a return on equity that is sufficient to allow efficient investment in, and efficient use of, the relevant services. However, this requirement does not mean that the regulator is restricted from considering historical data in generating its estimate of the required return on equity. Rather, it ensures that current market conditions are fully reflected in such estimates to ensure that allowed rates are sufficient for efficient investment and use. In summary, the regulator must make its estimate in a way that contributes to the achievement of the overall objective and in doing so must have regard to the prevailing conditions in the market for equity funds.

Rate of return guidelines

The Commission expects the regulator to develop the rate of return guidelines with the intention to allow a more focussed discussion on wider issues around estimating the rate of return, including the choice of estimation methods, financial models, market data and other types of information that may be used, and how the regulator intends to apply them. This includes guidance from the regulator on how it proposes to deal with any new information or evidence at the time of the regulatory determination. The Commission also expects the regulator to widely engage with stakeholders, including consumers and consumer representative groups.

These guidelines must be reviewed at least every three years in accordance with the defined consultation procedures. The final rule requires the AER to develop separate guidelines for service providers in the electricity transmission, distribution and gas

sectors, though the intention of the Commission is to allow the AER to undertake a common process to the extent possible (and appropriate) for developing the guidelines.

In developing and reviewing the guidelines, the final rule requires the AER to follow the consultation procedures under Chapters 6 and 6A of the NER. The Commission's preference is for the distribution consultation procedures to apply both for TNSPs under Chapter 6A and DNSPs under Chapter 6 of the NER. Since the transmission consultation procedures differ in some respects from the distribution consultation procedures, the Commission's final rule amends the transmission consultation procedures to align them with the distribution consultation procedures, so as to allow the AER to undertake the review of the guidelines for TNSPs and DNSPs jointly and concurrently.

In addition, the final rule introduces a new rate of return consultative procedure in Part 3 of the NGR for the development and review of the rate of return guidelines. This provision mirrors the distribution consultation provisions of the NER. The NGR rate of return consultative procedure provisions will allow the AER to develop and review the guidelines under the NGR at the same time as under the NER. The ERA would also be required to produce separate guidelines for the gas service providers it regulates under the NGR through the new rate of return consultative procedure provisions.

The Commission expects that the creation and periodic review of the rate of return guidelines will involve a wide and thorough consultation with stakeholders. The consultation procedure timeframes are the minimum required under the rules and it is expected that the regulator will use the ability in the consultation procedures to extend the minimum consultation periods to provide stakeholders with an adequate opportunity to respond to any complex or significant issues that arise in any review period.

The Commission expects the guidelines to provide a detailed outline of the methodologies to which the regulator proposes to have regard in determining the rate of return. That is, within the guidelines the regulator would be expected to:

- detail the financial models that it would take into account in its decision, and why it has chosen those models rather than other models. This would extend to outlining its methodologies, estimation techniques and current estimates (where appropriate) of relevant parameters;
- detail any other information that it would expect to have regard to, and why it has chosen to have regard to that information and not to other information;
- provide guidance on how it would use such models and information in reaching its decision, including matters such as:
 - the relative weight (although not necessarily in a quantitative way) it would expect to place on various model estimates; and
 - what market data (or similar) it would use to ascertain lower bounds and/or reasonableness checks on the estimates;

- incorporate best practice in the application of financial models and market data; and
- be as transparent and open as possible.

In keeping with the Commission's objective of limiting unnecessary prescription, these guidelines will be non-binding. Though the guidelines will not be binding in the same way the current SORI is under the Chapter 6 and 6A rate of return frameworks, the Commission would expect service providers, consumers, the AER, the ERA, and the appeal body to have significant regard to them as a starting point for each regulatory determination or access arrangement. The Commission is of the view that the regulator should be allowed a fair degree of flexibility on the precise contents of these guidelines, but intends the guidelines to provide a meaningful signal as to the regulator's intended methodologies for estimating return on equity and return on debt components of the allowed rate of return. The guidelines should not be seen as a determinative instrument for calculating the rate of return.

The Commission anticipates that the guidelines would allow a service provider or other stakeholder to make a reasonably good estimate of the rate of return that would be determined by the regulator if the guidelines were applied. In other words, the methodologies to be adopted and the information sources to be used should be sufficiently well explained such that they could be applied with a reasonable degree of certainty and accuracy. The Commission considers that this could be achieved in a number of ways, including by providing indicative ranges for the rate of return estimate for particular types of service providers or through the way the approach to the estimate is explained.

The application of the rate of return guidelines at the time of a regulatory determination or an access arrangement decision is not mandatory. However, if the regulator makes a decision on any methodology for estimating the allowed rate of return that is not in accordance with the guidelines, the regulator must state, in its reasons for the regulatory determination or access arrangement decision, the reasons for departing from the guidelines.

The final rule places a similar obligation on the service providers. That is, a service provider must have regard to the most recent rate of return guidelines when proposing a rate of return as part of its regulatory proposal. However, where the service provider seeks to depart from the methodologies in the guidelines, it must state in its regulatory proposal the reasons for departing from the guidelines. The Commission expects that, in developing and reviewing the guidelines, the regulator will address any transitional issues for service providers who have either commenced their regulatory determination process or are close to finalising their regulatory proposal during the period when the guidelines are reviewed and updated.

7 Return on debt

Summary

- Consideration of return on debt methodologies other than the current prevailing market conditions approach has received broad support from stakeholders. Historical trailing average approaches have sufficient merit to be an option for regulators to consider.
- The best methodology for estimating return on debt may not be the same for benchmark efficient service providers with different characteristics. Therefore, the rules should not prescribe a particular methodology for estimating the return on debt component. However, the rules should provide some guidance as to how the best methodology should be determined. The rate of return guidelines will provide a forum to discuss and analyse the best approaches to estimating the return on debt.
- The Commission has not made a rule that would put in place a different approach to estimating the return on debt for privately-owned and state-owned service providers as proposed by the EURCC. The fundamental premise behind this proposal, that state-owned service providers borrow funds in debt capital markets at rates lower than comparable private-owned network service providers, is not correct. It is the treasury corporations of the respective state governments who are able to borrow at rates lower than the private sector due to their ability to issue government guaranteed bonds.
- The most appropriate benchmark to use in the regulatory framework for all service providers, regardless of ownership in general, is the efficient private sector service provider. If state-owned businesses issued their own bonds, without a government guarantee, they would face materially similar borrowing costs to privately-owned service providers. In the absence of competitive neutrality provisions, electricity consumers are unlikely to be better off from defining a separate benchmark for state-owned service. The most appropriate benchmark to use in the regulatory framework for all service providers, regardless of ownership in general, is the efficient private sector service provider.

Difference between draft rule and final rule

- The final rule largely reflects the position the Commission took in developing its draft rule. However, the criteria that the regulator must have regard to when considering the best methodology to estimating the return on debt have been refined in the final rule to better give effect to the Commission's intention.

7.1 Introduction

The existing Chapter 6 and 6A rate of return frameworks under the NER require weights to be applied to the return on equity and the return on debt to estimate the average return on capital. The weights are applied according to the gearing ratio – the relative proportions of equity and debt finance. The return on debt estimate represents the return that investors of debt capital would require from a benchmark efficient service provider. Aligning the return on debt estimate with the efficient expected cost of debt of a service provider is therefore an important element in determining the rate of return.

As the return on debt is part of the overall allowed rate of return, the Commission considers that the best way to meet the NEO, the NGO and the RPP for estimating the return on debt is the same as that discussed in the rate of return framework chapter. That is, the return on debt estimate should reflect the efficient financing costs of a benchmark efficient service provider. It should try to create an incentive for service providers to adopt efficient financing practices and minimise the risk of creating distortions in the service provider's investment decisions. If a service provider is run inefficiently then its shareholders, and not its customers, should bear the financial consequences of inefficient financing practices.

Under the current Chapter 6 and 6A of the NER, the return on debt is defined to be the nominal risk free rate plus the debt risk premium (DRP).⁹⁰ No such definition exists in the NGR. While the NGR does not mention the DRP, it states that the rate of return for gas service providers is to be commensurate with prevailing conditions in the market for funds and the risk involved in providing reference services.⁹¹

A more detailed discussion on the application of the current rules on return on debt, including the risk free rate and the DRP, was provided in the directions paper.⁹² It also explained the rule change requests from the AER and the EURCC on return on debt that have been consolidated by the Commission.⁹³

The remainder of this chapter is structured as follows:

- Section 7.2 summarises the Commission's position in the directions paper and draft rule determination;
- Section 7.3 summarises the submissions received in response to the Commission's draft rule determination;
- Section 7.4 provides the Commission's analysis of issues in response to submissions received on the draft rule determination; and

⁹⁰ NER clauses 6.5.2(b) and 6A.6.2(b).

⁹¹ See NGR rule 87(1).

⁹² See AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, pp. 97-98.

⁹³ *Id.*, pp. 98-101.

- Section 7.5 provides guidance on the final rule.

7.2 Directions paper and draft rule determination

7.2.1 Options to use different methodologies

In the lead up to the draft rule determination, the AEMC undertook extensive consultation with stakeholders on the merits of allowing the rate of return to consider a historical trailing average approach to estimating the return on debt. The Commission noted the widespread, though not unanimous, support for consideration of a historical averaging approach.⁹⁴ A case was made, for example by the QTC, New South Wales Treasury Corporation (NSW T-Corp) and Ausgrid, that the current regulatory position of calculating interest rates on debt over a 20 to 40 day period encourages risk management behaviour in service providers that, in general, would not likely occur in the absence of such regulation. They argued that it also comparatively disadvantages large service providers whose ability to hedge large volumes of interest rate risk over such a short period is severely limited by the size and liquidity of the relevant markets.⁹⁵ The Commission also noted that submissions against the introduction of an averaging approach were based on arguments that such an approach would not properly reflect service providers' efficient financing and risk management strategies.⁹⁶

To inform its analysis, the Commission engaged SFG to advise on the potential impacts of adopting a historical trailing average approach to estimating the return on debt. SFG was asked to consider the impact on the risks faced by the shareholders of the service providers and the impact on the incentives for service providers to undertake efficient capex. It is in these two ways that the introduction of a trailing average approach to estimating the return on debt could lead to more efficient outcomes to the benefit of consumers.⁹⁷

In its report, SFG highlighted that for a given definition of the return on debt for an efficient benchmark service provider (in particular, the assumed credit rating and term to maturity) the average cost of debt will be the same over the long run. This is regardless of whether the return on debt estimate is based on the prevailing debt cost spot rate or an average of that spot rate.⁹⁸ Changing to an averaging approach will not,

⁹⁴ See for example, ENA, Directions Paper submission, 16 April 2012, p. 56; Energex, Directions Paper submission, 16 April 2012, p.3; Ergon Energy, Directions Paper submission, 16 April 2012, pp. 13-14; Grid Australia, Directions Paper submission, 16 April 2012, p. 2; Ausgrid, Directions Paper submission, 16 April 2012, p. 13; UE and MG, Directions Paper submission, 16 April 2012, p. 11; MEU, Directions Paper submission, 17 April 2012, p. 32; EUAA, Directions Paper submission, 17 April 2012, pp. 31-32.

⁹⁵ QTC, Directions Paper Submission, 16 April 2012, p. 7; NSW T-Corp, Directions Paper submission, 16 April 2012, p. 3; Ausgrid, Directions Paper submission, 16 April 2012, p. 13.

⁹⁶ See for example, APIA, Directions Paper submission, 16 April 2012, pp. 20-21; APA Group, Directions Paper submission, 16 April 2012, p. 6.

⁹⁷ SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return*, Report for the AEMC, 21 August 2012.

⁹⁸ *Id.*, p. 4.

in itself, systematically reduce or increase the allowed return on debt in the long run. SFG observed that averaging approaches will, by definition, result in smoother estimates of the return on debt over time.⁹⁹

SFG was also requested to provide analysis of a number of different approaches to implementing a trailing average approach to estimating the return on debt that covered the range of approaches proposed during the rule change process. The options analysed by SFG took account of the proposed approaches of EURCC,¹⁰⁰ the QTC¹⁰¹ and SA Power Networks (previously ETSA Utilities), CitiPower and Powercor.¹⁰² SFG compared these approaches to the current approach, defined as an estimate of the return on debt for a service provider estimated at the time of each regulatory determination or access arrangement over a 20 to 40 day rate setting period. SFG's analysis isolated the impact of introducing different forms of a historical trailing average approach from the impact of different benchmark specifications for estimating the return on debt.

SFG also noted that the approach to setting the return on debt by the regulator cannot occur without regard to the service provider's financing practices. In particular, SFG considered that the regulatory framework should aim to provide incentives for service providers to engage in efficient financing practices. It should also seek to minimise distortions to the financing practices as well as to the incentives to undertake efficient capex.

In summary, SFG concluded that:

- The introduction of historical trailing average approaches for estimating the return on debt has the potential to reduce the risks faced by equity holders of some service providers. This is because a historical trailing average approach can allow a service provider to more closely match its debt servicing costs to the regulatory allowance for the return on debt.
- Currently service providers have varying abilities to match their debt servicing costs to the regulatory allowance for the return on debt. Some of the smaller privately-owned service providers appear able to hedge their interest rate very well, but larger state-owned service providers such as those in NSW and Queensland appear unable to enter into these hedges because the relevant financial markets are not sufficiently deep to meet their requirements. The reduction in risks for equity holders of moving to an historical trailing average approach is greater for those least able to currently match their debt servicing costs to the regulatory allowance. For those able to achieve a good match

⁹⁹ Id., p. 5.

¹⁰⁰ A method based on a five-year rolling average of the yield on five-year bonds, with annual updates during each regulatory period, no specified transition arrangements.

¹⁰¹ A method based on a ten-year rolling average of the yield on ten-year bonds, annual updates, transition arrangements, and provision for capital expenditure to earn a return based on the prevailing rate and not the historical average.

¹⁰² A method based on a ten-year rolling average of the debt risk premium on ten-year corporate bonds added to the five-year swap rate at the time of the determination.

currently the introduction of a trailing average approach may slightly increase the risks for equity holders.

- A historical trailing average approach to estimating the return on debt can lead to significant differences between the regulatory allowance for return on debt and the cost of debt in the market for funds at any point in time. Such a difference could impact the incentives for service providers to invest efficiently in capex. For example, if the cost of debt in the market for funds is higher than the regulatory allowance then the service provider may not invest as much as would be efficient. SFG noted that the QTC's proposal for a historical trailing average return on debt provided one way to address this risk.
- Service providers are likely to have entered into financial arrangements to mitigate their risk given the current approach to estimating the return on debt. Therefore, any change in approach could lead to some service providers gaining extra revenue or losing revenue as a result of unwinding those financial arrangements. Gains or losses of revenue of this type from changes in regulatory arrangements could be perceived by investors as increasing regulatory risk, and thereby lead investors to seek a higher rate of return. SFG therefore recommend that consideration be given to transitional arrangements when changing the approach to estimating the return on debt.

In its draft rule determination, the Commission noted that the apparent diversity of stakeholder views was consistent with modelling analysis from SFG. It suggests that, for service providers with significant refinancing risks, the cash flow volatility of equity returns can be substantially reduced by moving to a trailing average approach. However, for others, the current prevailing rate approach is slightly better at minimising the volatility of returns.¹⁰³

In its draft rule determination, the Commission considered that the long-term interests of consumers would be best served by ensuring that the methodology used to estimate the return on debt reflects, to the extent possible, the efficient financing and risk management practices that might be expected in the absence of regulation. In its draft rule, the Commission therefore proposed to make it unambiguous that the regulator can consider a range of approaches to estimating the return on debt to meet the overall rate of return objective. This would include a range of different approaches that involved using a "spot rate" methodology that used market data to reflect prevailing conditions in the market for funds or averaging estimates of the return on debt over historical periods, or some combination thereof.

The draft rule did not set the return on debt by reference to any particular base rate and DRP. The Commission took this view to allow the regulator sufficient flexibility to determine historical averages of either the entire return on debt or just the DRP component. Furthermore, the Commission's intention was to ensure that there is the flexibility to set a DRP against a base rate other than the Commonwealth government

¹⁰³ SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return*, Report for the AEMC, 21 August 2012, pp. 52-68.

bond rates (eg bank bill swap rates), if that was considered appropriate by the regulator. The Commission considered this flexibility to be important to allow the methodology used to estimate the return on debt to reflect the borrowing and risk management practices of an efficiently run service provider.

The Commission also noted that regulators in some overseas jurisdictions have adopted similar approaches to the type of historical trailing average approaches that were discussed during this rule change process. For example, Ofgem, as part of its transmission and gas distribution price controls to reflect the new RIIO (Revenue = Incentives + Innovation + Outputs) model, has applied an index to the return on debt allowance. Ofgem has noted that indexation, in and of itself, does not preclude regulated businesses from entering into any particular hedging strategy. Also, indexation ensures that efficiently financed debt is funded, even if the market cost of debt is above the return on debt allowance at the time of debt issuance.¹⁰⁴

The Commission's draft rule proposed some factors that the regulator must have regard to when considering the approach to estimating the return on debt. The purpose of these factors was to identify some factors that the Commission considered should be had regard to when the regulator considers the best methodology to use to estimate the return on debt, and if the service provider wants to propose a different methodology. The regulator is only required to have regard to the factors and the consideration of the factors is sub-ordinate to the regulator's estimate of the rate of return aiming to meet the overall rate of return objective.

Amongst such factors was the extent to which a particular approach to estimating the return on debt may affect the required return on equity for a service provider. If a particular approach to estimating the return on debt can reduce the refinancing risk of an efficiently financed service provider, then there may be scope to conclude that the return on equity should be lower than it otherwise would have been. Such an outcome would be to the benefit of consumers.

The impact on the incentives for efficient capex is also an important consideration. The incentives for efficient capex are stronger when the difference between the return on debt and the debt servicing costs of the service provider is minimised.

7.2.2 Specification of benchmark characteristics

In the directions paper the Commission sought views on the appropriate benchmark to use for estimating the return on debt. Given the evidence, in the draft determination the Commission considered that the regulator is best placed to assess the characteristics of a benchmark efficient entity consistent with the overall rate of return objective. Therefore, the Commission did not reach a view on whether the characteristics the regulators have used to define the benchmark were appropriate. Under the Commission's draft rule on the rate of return framework, the regulator would need to consider this issue as part of developing its rate of return guidelines,

¹⁰⁴ Ofgem, *Decision on strategy for the next transmission and gas distribution price controls - RIIO-T1 and GD1 Financial issues*, 31 March 2011.

and that process will provide an opportunity for all stakeholders to submit their views and discuss any differences of view.

Separately, the Commission considered how to measure the return on debt for particular characteristics of a benchmark efficient service provider. In this respect, the draft rule did not mandate the use of any particular measurement approach. The Commission was of the view that this flexibility would give the regulator the ability to consider the best information and evidence to inform such a measurement.

7.2.3 Return on debt for state-owned service providers

In the directions paper the Commission explained its preliminary view that it was not minded to adopt the EURCC's proposal that the return on debt for state-owned service providers be set differently than for investor-owned service providers.

A different view was taken to the EURCC on the application of the Competition Principles Agreement (CPA). Specifically, how the competitive neutrality principles to state-owned service providers are applied and the ability of the NER to legally affect the ability of jurisdictional governments to levy debt neutrality fees in accordance with the CPA.

Under the CPA, competitive neutrality principles must be applied by governments, where appropriate, to all significant state-owned businesses, including at the local government level.¹⁰⁵ The CPA also imposes a set of obligations on all governments in relation to taxation, debt and regulatory neutrality, full cost attribution and setting prices to earn a commercial rate of return.

Contrary to the EURCC's contention, the Commission's view was that the application of the CPA to state-owned service providers is not a relevant consideration under the NEO. Interpretation and application of the CPA is a matter for the state and territory governments who are signatories to it, and not the Commission. All jurisdictional governments that own service providers in the NEM apply the competitive neutrality principles to them as part of discharging their obligations under the CPA. Accordingly, each jurisdiction that has retained ownership of service providers has corporatised them and imposed similar commercial and regulatory obligations to those faced by the private sector, including:

- full Commonwealth, State and Territory taxes or tax equivalent payments;¹⁰⁶
- commercial rate of return requirements and an obligation to pay dividends;
- requirements that prices reflect the full cost of providing network services;
- debt guarantee charges to offset cost advantages of implied government borrowing guarantees; and

¹⁰⁵ Competition Principles Agreement subclause 3.(1).

- regulations applying to private sector competitors.

The most important factor to recognise is that state-owned service providers that are subject to the NER are required to pay debt neutrality or government guarantee fees to the jurisdictional government (via their state treasury corporations) as part of the application of the competitive neutrality principles. These fees are mandated in various state legislation and code of practice instruments.

The extent to which the debt neutrality or government guarantee fees are payable by state-owned network service providers is a policy matter for each jurisdictional government under the Competition Principles Agreement. In the draft determination the Commission also set out a number of other reasons as to why it would not be appropriate to set the return on debt allowance for state-owned network service providers differently to privately-owned network service providers. Briefly, some of the reasons include:

- the adoption of competitive neutrality principles can encourage greater commercial discipline on state-owned service providers. It will mean, for example, that state-owned service providers are better informed about the true standalone cost of borrowing in the debt markets, allowing for improved decisions on whether to borrow funds to undertake capex or pursue non-network solutions. The debt neutrality fees play an important role in ensuring that state-owned service providers do not face artificially lower cost of capital that may distort their investment decisions;
- it will potentially create artificial geographical market distortions in generation and network capacities across the NEM because of the pricing signals that would be created due to network ownership;
- it risks distorting the incentives of efficient capital financing structures of state-owned network service providers compared to privately-owned service providers. In such circumstances, there is likely to be a material impact on consumers as ownership changes are considered; and
- the separate roles of shareholders and taxing authority where governments are also the owners of the service providers.

7.3 Submissions

7.3.1 Options to use different methodologies

The Commission's draft rule determination to allow different methodologies to estimate the return on debt under a flexible rate of return framework received widespread support. However, submissions from service providers expressed concerns that, under the draft rule, a new methodology could potentially be imposed on them

¹⁰⁶ For example see sections 128 and 129 of the *Government Owned Corporations Act 1993* (Qld); section 15 of *State Owned Corporations Act 1989* (NSW); section 6 of the *Electricity Companies Act 1997* (Tas).

by the regulator that could be unsuitable to their financing practices. They argue that the choice of methodology should not be at the sole discretion of the regulator.¹⁰⁷ The main arguments they make in relation to this are that:

- some service providers' debt portfolios may make a trailing average approach untenable;¹⁰⁸
- a one-size-fits-all approach is inappropriate and the rules need to be flexible enough to accommodate different approaches across different service providers;¹⁰⁹ and
- service providers are better placed to judge optimal debt management strategies.¹¹⁰

The MEU is concerned that allowing service providers to seek a different return on debt estimation methodology, rather than having it imposed unilaterally by the regulator, would allow for "gaming" by the service providers.¹¹¹

Another key issue of concern for stakeholders is the criteria or factors proposed by the Commission for assessing the appropriate approach for estimating the return on debt. The QTC submits that it agrees broadly with three of the criteria but one of them is unnecessary.¹¹² APIA suggests that the factors are duplicative of the requirements of the NGO and the RPP and create either ambiguity or "double legislation" and are therefore redundant and should be removed.¹¹³ The ENA submits that the criteria do not provide adequate guidance to the regulator and some are unlikely to be consistent with the NEO, the NGO and the RPP.¹¹⁴

In particular, the ENA is concerned that some of the factors in the criteria:

- are ambiguous and the AEMC's stated intention has not translated to the rules;

¹⁰⁷ See, for example, ENA, Draft Rule Determination submission, 4 October 2012, pp. 22-27; QTC, Draft Rule Determination submission, 4 October 2012, p. 11; APIA, Draft Rule Determination submission, 4 October 2012, p. 17; SP AusNet, Draft Rule Determination submission, 4 October 2012, p. 3; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p. 16; APA Group, Draft Rule Determination submission, 4 October 2012, p. 3; Ergon Energy, Draft Rule Determination submission, 7 October 2012, pp. 5-6.

¹⁰⁸ See, for example, DBP, Draft Rule Determination submission, 9 October 2012, pp. 4-5; The Financial Investor Group, Draft Rule Determination submission, 4 October 2012, pp. 20-21.

¹⁰⁹ See, for example, ENA, Draft Rule Determination submission, 4 October 2012, pp. 23-25; The Financial Investor Group, Draft Rule Determination submission, 4 October 2012, pp. 20-21; APIA, Draft Rule Determination submission, 4 October 2012, p. 17.

¹¹⁰ See, for example, APIA, Draft Rule Determination submission, 4 October 2012, p. 17; ENA, Draft Rule Determination submission, 4 October 2012, p. 25; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p. 16.

¹¹¹ MEU, Draft Rule Determination submission, 4 October 2012, p. 18.

¹¹² QTC, Draft Rule Determination submission, 4 October 2012, p. 9.

¹¹³ APIA, Draft Rule Determination submission, 4 October 2012, p. 16.

¹¹⁴ ENA, Draft Rule Determination submission, 4 October 2012, p. 26.

- appear to be conflicting and do not provide any guidance as to how conflicts between them are to be resolved;
- does not include any measures to ensure service providers are afforded a reasonable opportunity to recover benchmark debt costs over the long term; and
- do not require the regulator to take into account legitimate business interests around transition and changes in methodology after transition.¹¹⁵

The ENA suggests that clearer rules-based guidance is essential.¹¹⁶ There is also a suggestion from some service providers that a higher level of prescription be included in the rules. For example, this should extend to setting out the form of debt (BBB+ Australian corporate bonds) and should include more directly relevant criteria against which to assess the proposed methodology.¹¹⁷

In a similar vein, there are also calls from some stakeholders that the rules should set out some details (eg benchmark gearing, credit rating, maturity) that the regulator should have to address in the rate of return guidelines.¹¹⁸ The QTC suggests that given the relationship between efficient debt strategies and efficient debt costs, the guidelines should describe the main characteristics of efficient debt funding and risk management strategies for infrastructure service providers.¹¹⁹ These characteristics would then need to be taken into account by the regulator when assessing a proposal and for determining the benchmark.¹²⁰

7.3.2 Specification of benchmark characteristics

The appropriate benchmark

The MEU suggests that there should be more emphasis on the concept of best practice to ensure that debt is secured in the most efficient way.¹²¹ The MEU also takes the view that the term of the debt used as the benchmark should be in line with the length of the regulatory period.¹²² It has no fixed view on the averaging period used for interest rates, other than it needing to be consistent and stable.¹²³

115 Id., pp. 22-23.

116 Id., p. 23.

117 SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p. 17.

118 ENA, Draft Rule Determination submission, 4 October 2012, p. 25.

119 QTC, Draft Rule Determination submission, 4 October 2012, p. 8.

120 Ibid.

121 MEU, Draft Rule Determination submission, 4 October 2012, p. 12.

122 Id., pp. 17-18.

123 Id., p. 19.

The main concern of the ERA is ensuring that the proposed rule changes do not preclude its bond yield approach.¹²⁴ It considered that it does not.¹²⁵

The QTC is concerned that broad regulator discretion could lead to debt benchmark characteristics that constrained the ability of service providers to adopt efficient debt financing and risk management strategies.¹²⁶ It suggests that the rules should require the regulator to demonstrate that their benchmark would not do this.¹²⁷

Gas service providers stress the individually distinct nature of gas pipelines, which implies the need for more than a one-size-fits-all approach to any benchmark.¹²⁸ ATCO Gas, for example, argues that:

- the benchmarking process should not be used to ignore or "assume away" risks;
- the benchmarking process should not treat unlike businesses as though they are alike;
- in general, credit ratings should not be benchmarked; and
- the benchmarking process should not be used to ignore market realities.¹²⁹

The joint submission from SA Power Networks, CitiPower and Powercor calls for the return on debt benchmark to be based on BBB+ 10-year Australian corporate bonds.¹³⁰ These NSPs argue that this has been the consistent definition in the past and does not require a change.¹³¹ They reiterate their suggestion that, in estimating the return, the regulator should have regard to a wide range of data, including BBB+ bonds with maturities less than 10 years and bonds with different credit ratings.¹³²

The ENA and some service providers suggest that the draft rules did not sufficiently distinguish between benchmark specification and estimation.¹³³

124 ERA, Draft Rule Determination submission, 4 October 2012, p. 6.

125 Ibid.

126 QTC, Draft Rule Determination submission, 4 October 2012, pp. 13-14.

127 Ibid.

128 See, for example, APA Group, Draft Rule Determination submission, 4 October 2012, p. 4; ATCO Gas, Draft Rule Determination submission, 4 October 2012, pp. 3-5.

129 ATCO Gas, Draft Rule Determination submission, 4 October 2012, pp. 4-5.

130 SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p. 15.

131 Ibid.

132 Ibid.

133 See, for example, Jemena, Draft Rule Determination submission, 4 October 2012, p. 26; ENA, Draft Rule Determination submission, 4 October 2012, p. 24.

Regulatory allowance for return on debt estimate compared to observed debt servicing costs

The MEU submits that the regulator should be required to examine the actual historical practice of service providers to assist in identifying the most efficient structure for debt financing.¹³⁴

The FIG is concerned that a number of provisions can be misinterpreted as suggesting that the cost of debt allowance should be adjusted to reflect the service provider's actual cost of debt. It considers that the rules should make it much clearer that the requirement is to set a benchmark cost of debt for an efficient firm.¹³⁵

7.3.3 Return on debt for state-owned service providers

The EUAA disagree with the arguments made by the Commission for why return on debt for state-owned service providers should not be different from that for privately-owned service providers.¹³⁶ It argues that:

- the absence of competitive neutrality fees could not be expected to have any meaningful impact on allocative efficiency;¹³⁷
- based on EURCC calculations, it was difficult to argue that taxpayers would be subsidising electricity users in the absence of competitive neutrality fees;¹³⁸
- income taxes should be counted as part of the return on equity for government-owned service providers;¹³⁹
- there is no meaningful level of competition between government-owned service providers and therefore the rationale for the application of the Competition Principles Agreement to these service providers is not valid; and¹⁴⁰
- just as the AEMC proposes to guard against transfer pricing arrangements between related parties it should do the same for competitive neutrality fees as they are substantially the same thing.¹⁴¹

Submissions from some other consumer and energy user representative groups either endorse the arguments of the EUAA or make substantially similar arguments.¹⁴²

134 MEU, Draft Rule Determination submission, 4 October 2012, p. 12.

135 The Financial Investor Group, Draft Rule Determination submission, 4 October 2012, p. 20.

136 EUAA, Draft Rule Determination submission, 4 October 2012, pp. 8-12.

137 Id., pp. 9-10.

138 Id., p. 10.

139 Id. pp. 10-11.

140 Id., p.11.

141 Ibid.

7.4 Analysis

7.4.1 Options to use different methodologies

Proposal for return on debt methodology by the service provider

The Commission considers that the regulator must have the ability to make the final decision, subject only to any appeal process under the NEL and NGL, about the approach for estimating the return on debt, as part of its estimation of the rate of return consistent with the rate of return objective. It is very important that NSPs and other stakeholders have an opportunity to set out their views during the development of the regulator's rate of return guidelines, and within each determination process. However, the Commission does not consider it appropriate for the regulator's discretion as to which approach to adopt to be constrained by a particular proposal put forward by the NSP or through the existence of a default approach if the NSP does not agree with the regulator's preferred approach.

Factors to consider as part of assessing methodologies

The inclusion of the factors in the rules is intended to provide direction to the regulator as to what factors it should consider for determining the best approach to estimate the return on debt.

The factors reflect a number of key issues raised by SFG in its analysis of different methodologies for estimating the return on debt, and other stakeholders during the rule change process.¹⁴³ These issues can be summarised as follows:

- efficient benchmarking service providers may have different efficient debt management strategies;
- the effect on the cost of equity of different methodologies for estimating the return on debt;
- the effect on incentives for efficient capex during the regulatory period of the methodology used to estimate the return on debt; and
- consideration of whether transition arrangements are required if there is a change in the methodology used to estimate the return on debt.¹⁴⁴

The first factor in the rule requires the regulator to have regard to the characteristics of a benchmark service provider and how this influences assumptions about its efficient debt management strategy. As highlighted by SFG in its report, debt management

¹⁴² UnitingCare Australia, Draft Rule Determination submission, October 2012, pp. 9-12; Ethnic Communities' Council of NSW, Draft Rule Determination submission, 4 October 2012, p. 1; MEU, Draft Rule Determination submission, 4 October 2012, pp. 13-17.

¹⁴³ SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return*, Report for the AEMC, 21 August 2012.

¹⁴⁴ *Id.*, p. 7.

practices tend to differ according to the size of the business, the asset base of the business, and the ownership structure of the business.¹⁴⁵

The current prevailing market conditions "one-size-fits-all" approach required under the NER, and applied under the NGR, may lead to various mis-matches between the regulatory estimate allowed by the regulator and the actual interest rate exposures of those service providers that employ debt management practices that are not closely aligned with the benchmark assumptions.

The second factor requires the regulator (and service providers when making their proposals) to have regard to any potential benefit to consumers that could flow from reduced financing risks that may result from different return on debt methodologies. The intention is to require consideration of the potential impact on the return on equity that may result from a return on debt methodology that reduces the overall volatility of cash flows to equity holders. As modelling results provided by SFG show, in certain cases the cash flow volatility to equity holders can be reduced by better matching the debt component of the regulated return with borrowing costs.¹⁴⁶

The third factor that requires the regulator to have regard to the incentive effects on capex recognises that any methodology for the return on debt allowance may affect service providers' incentives to make efficient investment decisions.

The purpose of the fourth factor is for the regulator to have regard to impacts of changes in the methodology for estimating the return on debt from one regulatory control period to another. Consideration should be given to the potential for consumers and service providers to face a significant and unexpected change in costs or prices that may have negative effects on confidence in the predictability of the regulatory arrangements.

It may be possible in many circumstances for the method to estimate the return on debt to take such concerns into account in the design of the method. Therefore, this criterion was intended to promote consideration of concerns raised by service providers with regard to transitions from one methodology to another. Its purpose is to allow consideration of transitional strategies so that any significant costs and practical difficulties in moving from one approach to another is taken into account.

The Commission has considered comments on how the factors were expressed in the draft rule and made some amendments in the final rule to improve the drafting.

145 Id., p. 21

146 Ibid.

7.4.2 Specification of benchmark characteristics

The appropriate benchmark

The Commission retains the view that the NEO, the NGO and the RPP are more likely to be met by a non-prescriptive flexible framework that allows the regulator to more accurately match debt conditions in the market for funds.

It should remain open to the regulator and service providers to consider that different sectors and different kinds of service providers have different risk characteristics that lead to different characteristics for efficient debt financing. The Commission therefore agrees that a one-size-fits-all approach to setting a benchmark should not be considered a default position. However, the benefits of benchmarking for incentivising efficient financing practices must be retained.

In developing its rate of return guidelines, it is expected that the regulator will take into account the views of stakeholders on the appropriate benchmark and take account of the latest evidence relevant to the issue.

Regulatory allowance for return on debt estimate compared to observed debt servicing costs

On this issue, the Commission retains its conclusions from the draft rule determination. There is nothing in the new rules that will prevent regulators from adding the actual historical debt financing practices of service providers to the range of evidence that it considers in developing its methodologies. The return on debt allowance must still be estimated in a manner consistent with the overall rate of return objective. That is, it must be a benchmark cost of debt for an efficient firm. It should not be misinterpreted as suggesting that it must reflect a service provider's actual cost of debt.

7.4.3 Return on debt for state-owned service providers

After carefully considering the arguments made by the EURCC, and now the EUAA, the Commission still maintains its draft rule determination position. The principal objection to state-owned service providers' return on debt allowance being set with reference to the private sector borrowing cost stems from a widely held view that state-owned service providers borrow funds in debt capital markets at rates lower than comparable private-owned network service providers. The Commission emphasises that this view is not correct.

State-owned service providers do not access debt capital markets directly, but rather, their debt is managed by the respective state government's treasury corporations through the issuance of government bonds, which is taxpayer backed bonds, directly in the market. It is the treasury corporations who have access to lower debt funding costs due to the government's higher credit ratings compared to private sector businesses. Governments can generally borrow at lower rates than private firms due to governments' ability to service the debt through taxation. The treasury corporations

and state treasurers lend these funds to the state-owned service providers at rates consistent with the risk inherent in the businesses as reflected in their stand-alone credit rating. The stand-alone credit rating is the measure of the businesses' credit worthiness independent of explicit or implicit financial support from the state governments.

This difference between the State's borrowing costs and the costs faced by the state-owned service providers, commonly referred to as debt guarantee fees, represents consideration due to state taxpayers for accepting the business' credit risk. This is not dissimilar to the fees charged by the Commonwealth Government for the guarantees it made available to Australian banks and state treasury corporations for their offshore term funding during the recent global financial crisis.

From the service providers' perspective, this mechanism ensures that they face borrowing costs that reflect the nature of their businesses, not the taxation powers of their government lenders. If state-owned service providers were to access debt capital markets directly, then they would face debt financing interest rates that reflected their stand-alone credit ratings. Under such a scenario, it is likely that the interest rates that state-owned service providers would secure would not be materially different from the interest rate that privately-owned network service providers with the same credit ratings would attract.

This competitive neutrality/government debt guarantee fee is applied to the state-owned service providers by jurisdictional governments under the CPA. These businesses compete with their private sector counterparts and with the rest of the economy more generally for inputs such as capital and labour. If state-owned service providers were not required to pay any competitive neutrality/debt guarantee fees to reflect their stand-alone credit ratings, taxpayers in general would effectively be subsidising electricity consumers. Taxpayers would be taking the financial risk of guaranteeing debt repayment by these businesses without any compensation.

Suggesting that the interest rates that treasury corporations can secure reflects the actual debt financing costs of network service providers is not correct and ignores the fact that credit risk represents a real cost that should be accounted for.

If state-owned service providers did issue their own bonds, without a government guarantee they would face similar borrowing costs to the private sector service providers and the value represented by the guarantee fees would be transferred to bond holders. It is therefore difficult to justify how electricity consumers would be better off if competitive neutrality principles did not apply to state-owned service providers. Consequently, contrary to the views of the EURCC and the EUAA, it can be argued that the application of the CPA does not impede on the long term interest of electricity consumers. In the absence of competitive neutrality provisions, the debt costs of state-owned service providers would be substantially the same as the costs that would be expected to be incurred by privately-owned service providers. This is the principal reason the Commission does not support the EURCC's rule change request on this issue.

The Commission is of the view that the most appropriate benchmark to use in the regulatory framework for all service providers regardless of ownership in general is the efficient private sector service provider. If public sector benchmarks were to be used, it can be equally argued that such government ownership cost distinctions should be extended to labour input markets. The consequences of such a distinction could be that benchmarking the efficiency of state-owned service providers would not take account of the performance of privately-owned service providers.

Another important consideration for the Commission in deciding not to distinguish state-owned service providers' debt costs is the potential effect on businesses' future network investment decisions. The use of private sector benchmark debt costs assists in adding pressure on state-owned service providers to apply commercial discipline to their borrowing to fund any capex requirements. Faced with an artificially lower cost of capital, state-owned service providers may view network capex solutions as comparatively lower cost to non-network solutions (such as embedded generation), as compared to their private sector counter-parts.

The Commission responds below to some individual arguments proposed in the EUAA submission.

Allocative inefficiency

The Commission rejects the assertion that its arguments in the draft rule determination with respect to the absence of competitive neutrality fees are internally inconsistent.¹⁴⁷ It is clear from the wording of the draft determination cited by the EUAA that the Commission is presenting two possible outcomes that could arise in response to a removal of the fees, where the actual result is dependent on the response of the governments.¹⁴⁸ Specifically, absent any response from the government, the service provider could be expected to overspend. Whereas under the assumption that governments would alter their behaviour, stated as "arguably more likely", the service provider could then be expected to underspend.¹⁴⁹

The Commission also disagrees with the EUAA's suggestion that it "erred because it has ignored the reality that service providers (that the governments own) are accountable to their government owners and so the cost of debt that they might see (after debt fees payable to their State Treasuries) is not relevant in their investment decision-making".¹⁵⁰ The EUAA conflates the role of shareholder management with the role of government. For privately-owned service providers the question is not as to what rate the shareholder can personally borrow at, but rather, as to what is the required rate of return given the risk of the businesses. There is no reason why tax-payers should not receive the same treatment. Just as it would be inappropriate for consumers to appropriate efficient returns made by private investors in risky assets, it

¹⁴⁷ See, EUAA, Draft Rule Determination submission, 4 October 2012, p. 9.

¹⁴⁸ Ibid.

¹⁴⁹ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Draft Rule Determination, 23 August 2012, p. 86.

¹⁵⁰ EUAA, Draft Rule Determination submission, 4 October 2012, p. 9.

is similarly inappropriate for consumers to appropriate efficient returns due to taxpayers.

Taxpayers subsidising users

In the Commission's view, the removal of competitive neutrality would mean taxpayers would be subsidising electricity consumers. If a service provider is provided debt at below market rate then, by definition, that constitutes a subsidy.

Taxes counted as return on equity

The Commission retains its position outlined in the draft rule determination that taxes are not a part of the return on equity. It further notes that the EUAA submission argues that distinguishing between tax receipts and return on equity is "to argue that administrative form should triumph over economic substance", at the same time as arguing that taxpayers should receive less return on risky assets than private investors.¹⁵¹

Competition or monopoly

The Commission does not agree that there is any concern with noting that, while service providers are generally monopolies, in some cases certain service providers may face some competition with other energy providers and may compete for inputs to their activities. The Commission notes that nothing turns on this as it does not reduce the validity of the argument that the removal of the competitive neutrality fees could lead to a mis-allocation of resources.

Regulatory authority

The Commission notes that the EUAA considers that there is a "double standard" at work predicated on its conflation of transfer pricing arrangements between related parties and the competitive neutrality fees charged by governments.¹⁵² The Commission does not accept the comparison as valid. Further, even if were to accept the argument, this would not mean that the Commission would consider it appropriate or feasible to attempt to circumvent the CPA.

7.5 Guidance on final rule

This section covers return on debt aspects of the new rate of return framework that the Commission has introduced, which was discussed in the previous chapter of this final rule determination.

This section should be read in conjunction with the section in the previous chapter that discussed the final rule for the overall rate of return framework, including how the final rule is to be interpreted. It is particularly important to note that the final rule places a requirement on the regulator to determine a rate of return that meets the

¹⁵¹ Id., p. 11.

¹⁵² Ibid.

overall allowed rate of return objective. This requirement can only be fully satisfied if the regulator considers its overall estimate against that objective. The Commission does not consider that the regulator could be satisfied it had met that overall objective if it made estimates about components or parameters that form part of the rate of return estimate in isolation and without considering the overall estimate against the overall objective. Therefore, those aspects of the final rule that relate to the return on debt estimate should be seen as part of the analysis to inform the estimate of an overall rate of return.

As with the draft rule, the Commission has not mandated any particular approach to estimating the return on debt in the final rule. Instead, the final rule sets out at a very broad level the characteristics of three approaches to estimating the return on debt that could reasonably be contemplated by a regulator. The three options are designed to reflect an approach to return on debt based on:

- the prevailing cost of funds approach;
- an historical trailing average approach; or
- some combination of these two approaches.

The Commission intends the regulator (and the service provider in its regulatory proposal or access arrangement proposal) to have the discretion to propose an approach that it considers best meets the overall allowed rate of return objective. This discretion for the regulator includes the detail of any approach, such as the period over which a prevailing cost of debt is observed, the length of any historical averaging period, and the form of measurement of the observed financing costs. In all cases the regulator's judgement is to be exercised in such a way as to be consistent with the overall allowed rate of return objective.

While the Commission considers that allowing the regulator to estimate the return on debt component of the rate of return using a broad range of methods represents an improvement to the current approach, it is a separate issue from that of benchmark specification and measurement. A historical trailing average approach still requires the regulator to define a benchmark and use appropriate data sources to measure it. Arguably, it is even more important that the benchmark is defined very clearly and can be measured, because it needs to be estimated periodically in the future. The measurability of the approach would be a factor that the regulator would have to consider as part of its assessment of different approaches.

The regulator will need to set out its approach(es) to estimating the return on debt in its rate of return guidelines. The Commission expects that the development of the guidelines will provide a forum for service providers, consumers and other stakeholders to propose different approaches to the estimation of return on debt, and for the regulator to discuss the merits of different approaches before setting out its proposed approach in the guidelines. The Commission intends that the regulator could adopt more than one approach to estimating the return on debt having regard to different risk characteristics of benchmark efficient service providers. Service providers will have an opportunity at the time of their determination or access arrangement to

propose an alternative approach to that proposed by the regulator in the guidelines, but the service provider will need to explain why its proposed approach is better than the approach proposed by the regulator in the guidelines.

The final rule includes a provision to allow an annual adjustment to the allowed revenue for the service provider in circumstances where the regulator decides to estimate the return on debt using an approach that requires the return on debt to be updated periodically during the regulatory period. The formula for calculating the updated return on debt must be specified in the regulatory determination or access arrangement and must be capable of applying automatically. Additional consequential amendments have been made in Chapters 6 and 6A of the NER to remove any impediments to allow the regulator to adjust its revenue/pricing determination during the regulatory period from the application of an annually updating return on debt estimate.

While the final rule provides the regulator with the discretion as to the approach to adopt to estimate the return on debt, consistent with meeting the overall rate of return objective, the Commission considers that regulatory accountability and transparency is very important. Therefore, the final rule includes factors that the regulator must have regard to when considering the approach to estimating the return on debt. It is not intended that these are the only factors the regulator can have regard to. In addition, the Commission has amended the factors slightly from that proposed in the draft rule to clarify its intentions.

8 Capex and opex allowances and factors

Summary

- The Commission has analysed evidence provided to it of the drivers of higher prices, which indicate that both the rate of return and expenditure allowances have been significant factors. However, it is not possible to discern if they have been inefficient, or if there is a problem with the NER.
- The approach to expenditure allowances was set by the AEMC in Chapter 6A in 2006. It includes that the NSP's forecast should be the starting point for the AER's analysis, but the AER is free to use a range of analytical techniques and should consider all material and submissions before it.
- Analysis confirms that the practices of the AER conform to good regulatory practice when compared with other regulators in Australia and overseas, and the Commission's view is that the NER reflects these practices.
- In general, the existing provisions of the NER provide the AER with appropriate discretion to set capex and opex allowances at an efficient level, assuming it has adequate information and uses appropriate analytical techniques.
- However, there are some areas for improvement to clarify the approach and remove ambiguities, specifically in relation to the AER's discretion and benchmarking.
- Benchmarking can play an important role in assessing the efficiency of a NSP's capex and opex forecasts. Any use of benchmarking should take into account differences in the operating environments of the different NSPs. The AER should be required to undertake annual benchmarking of NSPs.
- It is appropriate that the approach for assessing expenditure forecasts be set out in guidelines. NSPs will be required to submit complying information with their regulatory proposal. Early engagement on these models with the NSP's is beneficial and should be included as part of the framework and approach paper.

Difference between draft rule and final rule

- In the final rule, the AER's discretion has been further clarified by the removal of general restrictions on the AER's discretion, consistent with the Commission's overall approach in this rule change.
- The obligation on a NSP to submit forecast expenditure methodologies as required by the AER has been adjusted. Instead the NSP may provide assessment information required by the AER separate to its regulatory proposal.

8.1 Introduction

The capex and opex allowances are a key component of a NSP's regulatory proposal. They comprise the forecast expenditure required to undertake investments and operate and maintain the network. The level, rather than the specific contents, of the approved expenditure allowances underpin the incentive properties of the regulatory regime in the NEM. That is, once a level of expenditure is set, it is locked in for a period of time, and it is up to the NSP to carry out its functions as it sees fit, subject to any service standards.

The NER provide matters for the AER to take into account in approving this important aspect of a NSP's total revenue requirement. The AER claims that the NER have constrained its ability to interrogate and amend expenditure proposals, resulting in capex and opex allowances which are higher than they should be.¹⁵³ While there are legitimate reasons for increases in network charges, it states that these constraints are also driving up network charges.¹⁵⁴ The AER proposed to be able to independently develop forecasts to use in scrutinising and amending NSPs' proposals.

The AER must also have regard to the capex and opex factors when considering proposals from NSPs for capex and opex. The AER has proposed a number of discrete changes to these factors, though some of these factors relate to other changes considered, including benchmarking and incentive schemes.

The remainder of this chapter is structured as follows:

- Section 8.2 summarises the Commission's position in the directions paper and draft rule determination;
- Section 8.3 summarises the submissions received in response to the Commission's draft rule determination;
- Section 8.4 provides the Commission's analysis of issues in response to submissions received on the draft rule determination; and
- Section 8.5 provides guidance on the final rule.

8.2 Directions paper and draft rule determination

The draft rule determination proposed amendments in three areas:

- clarification of the rules regarding capex and opex allowances;
- annual benchmarking report and engagement on the expenditure forecasting model; and
- capex and opex factors.

¹⁵³ AER, Rule change request, Part A, 29 September 2011, p. 8.

¹⁵⁴ *Id.*, p. 6.

A summary of the analysis and decision in relation to each these areas follows in the sections below.

8.2.1 Clarifying the discretion of the regulator

Background analysis

The analysis in the directions paper began by examining evidence for problems. The Commission did not come to a conclusion as to whether constraints in the NER were driving up network charges. It also referred to a report by Bruce Mountain which offered a way of assessing the efficiency of DNSPs' expenditure. The Commission stated that a similar type of analysis could have been utilised by stakeholders to illustrate whether capex and opex allowances were related to deficiencies in the NER. It also called for further evidence about the nature of the problem and its causes from stakeholders.

The ENA included a critique of Bruce Mountain's report in its submission to the directions paper stating that the analysis is too simplistic to be robust.¹⁵⁵ In the draft rule determination, the Commission accepted that it may be possible to undertake a more sophisticated analysis, however, no analysis has been provided which would challenge its conclusion that the average privately-owned DNSP is more efficient than the average state-owned DNSP.

Other submissions to the directions paper provided important context about rising network charges. Specifically, the ENA's and AER's submissions showed that capex, opex and rate of return are driving up network charges. However, the mere fact of increases, or even significant increases, in capex and opex allowances from one period to the next does not of itself demonstrate a deficiency in the NER. The AER analysis of specific constraints and the Brattle report commissioned by the AEMC comparing the original intent behind Chapter 6A with regulatory practice in other jurisdictions, were more useful resources.

The AER's analysis claimed that the capex and opex allowed in its previous decisions may have been higher than efficient on the basis that it was constrained in its ability to replace a NSP's forecast with a lower amount. It appears that each time the constraint was based on clause 6.12.3(f). Leaving aside any ambiguity associated with that clause, the AER appears to have taken a somewhat conservative approach to interpreting it. If the AER is correct that the capex allowance may have been higher than was efficient, it is not clear this was due to a deficiency in the NER.

The Brattle report considered whether the overall approach to expenditure allowances in Chapter 6A of the NER, and the AER's practices in applying Chapter 6A, conform to good regulatory practice. In addition to the AER, Brattle considered the regulatory

¹⁵⁵ ENA, Directions Paper submission, Attachment B, 16 April 2012.

approaches in Great Britain, New Zealand, New South Wales, Western Australia, Ontario and Rhode Island.¹⁵⁶

Brattle did not identify any fundamental differences between the approach of the AER and the practices of regulators in the other jurisdictions. It noted that while the level of prescription in the rules differs among jurisdictions, the regulators operating under such rules do not undertake less analysis nor do they seem to be restricted in the choice of tools for the purposes of such analysis.¹⁵⁷ Rules may affect the weight put on the results of different analysis, but Brattle is not able to determine this conclusively.¹⁵⁸ On the basis of Brattle's conclusion, the Commission took the view that the approach to expenditure allowances in Chapter 6A, which generally reflects the AER's practices, remains fairly consistent with good practice as reflected in the practices of the other regulators examined by Brattle.

Brattle also made some observations about improvements to the NER. In some areas the approach could be clarified and the differences between Chapters 6 and 6A should only reflect fundamental differences in characteristics between transmission and distribution. For example, in respect of clause 6.12.3(f) of the NER, Brattle did not see how such a clause could constrain the AER, since a regulator will always use the NSP's proposal as a starting point, and will always explain its decision. However, the clause does not operate in a helpful way and could be clarified. In addition, Brattle did not see any reason to justify clause 6.12.3(f) in distribution given that there is no equivalent clause in transmission (Chapter 6A).

Brattle also highlighted the importance of good data for setting expenditure allowances at the right level. This includes annual data collection outside the determination process, and regular interaction with NSPs to ensure that the data collection process is operating effectively.¹⁵⁹

On the basis of the above analysis, the Commission formed the following views:

- increases in the rate of return and expenditure allowances are both significant factors contributing to rises in network charges;
- some increases in expenditure allowances have been necessary;
- on the basis of the material considered, it is not possible to conclude that the NER have constrained the AER's ability to consider and substitute NSPs' expenditure forecasts and have caused inefficient increases in expenditure allowances; and
- while the Chapter 6A approach to capex and opex allowances remains generally consistent with good regulatory practice, it could be enhanced in some ways, and

¹⁵⁶ The Brattle Group, *Framework for assessing capex and opex forecasts as part of a "building blocks" approach to revenue/price determinations*, June 2012, paragraph 74. This paragraph also explains why each of the four overseas jurisdictions was chosen.

¹⁵⁷ *Id.*, paragraphs 13, 30 and 31.

¹⁵⁸ *Id.*, paragraph 33.

¹⁵⁹ *Id.*, paragraph 44.

some changes for clarification reasons should be made so that Chapters 6 and 6A of the NER better reflect this approach.

As a result, the Commission determined to make a number of changes to clarify and remove ambiguity in the NER.

Proposed amendments

The Commission confirmed that the NER is drafted appropriately in many areas. With the exception of benchmarking, the capex and opex criteria remain valid. For example, the obligation to accept a reasonable proposal should reflect the AER's current practice. There is no reference to a reasonable range, which is appropriate.¹⁶⁰ The AER, whenever it determines a substitute for a NSP's proposal, is not constrained by the capex and opex criteria from choosing the best substitute it can determine.

In terms of whether it is appropriate for the process to start with the NSP submitting a proposal to the AER, Brattle has shown that this is accepted practice in most of the jurisdictions it surveyed.¹⁶¹ In jurisdictions where this did not occur, the regulator tended to be reviewing a large number of smaller businesses, such as in New Zealand. Of much more import is whether the AER has the necessary tools to scrutinise the NSP's proposal.

In the draft rule determination, the view was taken that the extent of the constraint imposed on the AER by clause 6.12.3(f) is unclear. This could be read as merely requiring the AER to treat the NSP's proposal as an input into its determination of a capex or opex allowance, or as preventing an AER substitute from moving away from a NSP's proposal beyond what is necessary to result in a reasonable allowance. NSPs stated that clause 6.12.3(f) is clear, but there have been few strong arguments about the benefits of this clause - and why it should be retained - in respect of capex and opex.¹⁶² On the other hand, the AER has interpreted these provisions as imposing a much greater constraint on it.¹⁶³ Brattle also observed problems with this provision:

“... it may be that neither 'adjusted only to the extent necessary' nor 'based on the NSP proposal' are helpful guides to the exercise of the regulator's judgment, in particular, if this were interpreted to rule out 'top down' adjustments.”¹⁶⁴

Therefore, the Commission determined it should be made clear that clause 6.12.3(f) does not apply to capex and opex allowances. The guidance provided by this clause, such as requiring the AER to take into account the NSP's proposal, would be achieved by other provisions anyway, and this clause represents a difference between Chapters

¹⁶⁰ Id, paragraph 42.

¹⁶¹ Id., paragraph 14.

¹⁶² ENA, Consultation Paper submission, Attachment C, 8 December 2011, p. 11; though note Ausgrid, Consultation Paper submission, 8 December 2011, p. 17.

¹⁶³ AER, Directions Paper submission, 2 May 2012, p. 11 and Appendix 2 generally.

¹⁶⁴ The Brattle Group, *Framework for assessing capex and opex forecasts as part of a "building blocks" approach to revenue/price determinations*, June 2012, paragraph 38.

⁹⁶ Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

6 and 6A for which there is no substantive benefit. The AER should not be limited to assessing a proposal on the basis of a "bottom up", engineering-based approach, and the AER should be free to determine a substitute amount on the basis of the information it has.

The AER proposed that the criterion relating to demand forecasts and cost inputs¹⁶⁵ was less important than the first two criteria and should be moved to the capex and opex factors. The view was taken in the draft rule determination that it would position demand forecasts and cost inputs as objectives rather than key elements of expenditure allowances that are relevant in a range of ways. The Commission therefore remained of the view that this criterion should remain where it is.

It was also determined that any impediments as to the use of benchmarking in the AER's analysis should be removed. The Commission views benchmarking as an important exercise in assessing the efficiency of a NSP and informing the determination of the appropriate capex or opex allowance. As a result, the Commission decided that the reference to "circumstances of the relevant NSP" should be removed from the capex and opex criteria. This was on the basis that there appears to be little doubt about how the AER should undertake a benchmarking exercise, including the circumstances that should be taken into account, and the reference to individual circumstances is likely to constrain the AER in an inappropriate way.

Other issues

The Commission shared the view expressed by Brattle that there could be greater consistency between Chapters 6 and 6A.¹⁶⁶ While recognising that these Chapters were developed by different organisations at different times, there should be no reason for any differences unless these are based on a fundamental difference between the characteristics of transmission and distribution networks or their owners. Differences in the NER not based on this may lead to ambiguity and a loss of clarity. In time, it may be possible for Chapters 6 and 6A to be merged into one. At present, changes are limited to those within the scope of the rule change process.

Certain issues raised by the AER, both in terms of expenditure allowances and the overall regulatory process, relate to the quality of the information available to the AER and the manner in which it is collected. For example, good quality information should make it easier for the AER to determine the reasonableness of capex or opex forecasts. There are notable differences in the provisions in Chapters 6 and 6A relating to information provision. Among other things, submission guidelines are part of Chapter 6A but may have been thought unnecessary in Chapter 6 with the advent of regulatory information orders and notices. The Commission therefore determined to adjust Chapter 6A to remove the rule requirement for the AER to prepare submission guidelines.

¹⁶⁵ See for example, clause 6.5.7(c)(3).

¹⁶⁶ *Id.*, paragraphs 21, 35 and 41.

In the directions paper, the Commission noted the concern raised by the AER that the use of the word "maintain" in the capex and opex objectives may mean the AER is constrained in its ability to adjust expenditure allowances in the event that jurisdictional standards, for example, were to decrease or be relaxed.¹⁶⁷ It was decided in the draft rule determination that a change to these objectives would be outside the scope of this rule change. The Commission has since received a rule change request from the SCER which it will be considering in due course.¹⁶⁸

8.2.2 Annual benchmarking reports and engagement on expenditure models

In the course of consulting on the rule change requests, other options for dealing with the original problems raised by the AER were identified. The Commission examined them and proposed in the draft rule determination to make changes in relation to:

- annual benchmarking reports; and
- engagement on the expenditure model.

Each of these is discussed below.

Annual benchmarking reports

The Commission considered that changes needed to be made to improve the information available to consumers. For example, comparative network performance as well as adequate information about individual network performance would be of benefit to consumers. The view was taken that having access to this type of information would assist consumers both in informal interaction with NSPs as well as engaging in the formal regulatory process and merits reviews. The Commission considered that many of these aims would be achieved if the AER was required to undertake annual benchmarking of NSPs, with its results published in a report that could be accessible by consumers. This would set out the relative efficiencies of distribution and transmission NSPs, taking into account the exogenous factors that distinguish them.

It was also noted that these reports would assist the AER in assessing capex and opex forecasts as part of a regulatory determination. Having undertaken the benchmarking on an annual basis, it should be much quicker for the AER to benchmark as part of its determination. This requirement would not impact the AER's ability to utilise other analytical techniques.

In order to undertake an annual benchmarking exercise, the AER should use the best information available to it. Brattle underlined the importance of annual data collection outside of the regulatory determination process, and noted the effort other regulators

¹⁶⁷ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers, Directions Paper*, 2 March 2012, p. 30.

¹⁶⁸ The Commission recommended in relation to NSW reliability standards that should a change be made to licence conditions, a rule change request should be submitted to address this issue. See, AEMC, *Review of Distribution Reliability Outcomes and Standards, Final Report – NSW workstream*, 31 August 2012, section 6.4.2.

have put into doing this.¹⁶⁹ It was noted that the AER does not undertake information gathering and benchmarking to the same extent as many other regulators but that may be limited by legal constraints on its information gathering powers.

Under section 28V of the NEL, the AER has the power to prepare network service provider performance reports. The annual benchmarking reports proposed in the draft rule are a subset of the reports the AER may publish under section 28V. However, there are limitations on using regulatory information instruments solely for the purposes of preparing network service provider performance reports: section 28F(3)(d) of the NEL. Changes to the NEL are outside the AEMC's power, however the SCER may wish to address this further. Changes to the NEL may also provide the AER with greater powers in this respect. It was noted that the AEMC proposed to the SCER as part of its work on total factor productivity possible rule changes which would require NSPs to provide benchmarking information to the AER.¹⁷⁰

Engagement on the expenditure model

The AER proposed in its submission on the directions paper a new solution for dealing with the problem raised in its rule change proposal of determining whether a NSP's capex or opex proposal is efficient.¹⁷¹ This solution would require consultation on expenditure models as part of the framework and approach paper. Once a model is set in the framework and approach paper, the NSP would be required to justify its expenditure forecasts based on it, including any departures it has made from the model. This would enable more time for the AER to understand NSPs' forecast models, as well as be able to compare NSPs on a similar basis.

The Commission noted that the AER currently has difficulty in requiring a NSP to use a particular model to prepare its expenditure forecasts. Even if the AER has a preferred approach, the NSP need not use it. This means that the AER must spend time after the NSP's regulatory proposal is submitted to understand the NSP's model and engage with the NSP in respect of it.¹⁷²

The Commission considered the best approach was to mandate the expenditure models to be used to prepare capex and opex forecasts. The view was taken that there were not any disadvantages in an approach which encouraged stakeholders to engage on the expenditure methodologies at an earlier stage. If the AER and stakeholders do not engage on the expenditure methodologies until after the regulatory proposal is submitted it will take up time during the evaluation stage. More critically, if the AER prefers a different methodology it may take the NSP some time to collect relevant information, putting pressure on the rest of the process. Instead, any expenditure methodology or methodologies preferred by the AER for a particular NSP should be included in the framework and approach paper. Importantly, for flexibility, it was

¹⁶⁹ The Brattle Group, *Framework for assessing capex and opex forecasts as part of a "building blocks" approach to revenue/price determinations*, June 2012, paragraph 44.

¹⁷⁰ The Commission has yet to receive a response from SCER in relation to this review.

¹⁷¹ AER, Consultation Paper submission, 12 December 2011, p. 12.

¹⁷² AER, Directions Paper submission, 2 May 2012, p. 12.

decided that there should be no restriction on a NSP also including expenditure forecasts generated using other methodologies in its regulatory proposal.

8.2.3 Capex and opex factors

The AER proposed a number of discrete changes to the capex and opex factors. Below is a summary of the Commission's proposal in relation to each.

Process-related changes

The Commission maintained its position in the draft rule determination from the directions paper to move the process-related changes from the capex/opex factors to the "procedural" provisions further back in Chapters 6 and 6A.¹⁷³ These provisions have a different character from the other factors in that they deal with the materials presented to, or obtained by, the AER in the course of the regulatory process, as opposed to facts or data. As such, they sit better with the other procedural provisions, such as clause 6.11.1.

The ENA raised a concern at law that the AER's proposed shift from "have regard to" wording to "consider" wording in respect of two of these factors will affect the overall decision-making process.¹⁷⁴ To accommodate this, the draft rule adopted the "have regard to" wording for all three factors.

The Commission further considered the views it presented in the directions paper regarding the requirement on the AER to consider analysis it has published.¹⁷⁵ It acknowledged the challenges in using merits review to test analysis published with a final regulatory determination, and notes that under section 16(1)(b) of the NEL the AER is required to inform NSPs of material issues under consideration, as raised in the ENA's submission.¹⁷⁶ However, the Commission maintained the position that because of the fixed time the AER has to reach a final regulatory determination there could be times when it is too difficult for the AER to consult on analysis prior to it. To balance the time constraints against the need for scrutiny of new material, the draft rule required the AER to use its best endeavours to publish analysis on which it proposes to rely, or which it proposes to refer to, prior to the making of the final regulatory determination. Further, in the event of any inconsistency between the NER and NEL, the NEL has priority over related provisions of the NER.

¹⁷³ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, p. 33.

¹⁷⁴ ENA, Directions Paper submission, Attachment F, 16 April 2012, p. 68.

¹⁷⁵ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, p. 32.

¹⁷⁶ ENA, Directions Paper submission, 16 April 2012, p. 41; ENA, Directions Paper submission, Attachment F, 16 April 2012, p. 69.

Non process-related changes

In the draft rule determination, the Commission maintained its view from the directions paper that the capex and opex factors should remain mandatory considerations. In respect of whether these factors are exhaustive, the Commission also maintained its position from the directions paper that the AER is not at present limited to the factors set out in the NER. At the same time, however, different clauses in the NER take an inconsistent approach to whether additional drafting was required to confirm that factors are exhaustive, and this could lead to ambiguity. To clarify this, an additional factor was added to the capex and opex factors allowing the AER to consider other factors. Since a NSP should be given the opportunity to address factors against which its forecast will be assessed, the draft rule included a requirement that the AER notify the NSP in advance of any such additional factor or factors. This reflects the AER's obligations in section 16(1)(b)(i) of the NEL.

Various other changes to the capex and opex factors were also proposed. One factor relates to the service target performance incentive scheme (STPIS) (see for example clause 6.5.6(e)(8)). The original intent behind this factor is that expenditure allowances with respect to labour costs should be sufficient to allow the NSP to respond to the incentives as part of the STPIS. The AER has suggested this factor could be broadened.¹⁷⁷ The Commission agreed with this and removed the reference to labour costs and broadened the scope of the incentive schemes covered. In addition, consequential amendments were proposed to the capex and opex factors in Chapter 6 to recognise the addition of the contingent projects regime.

It was also proposed that the factor relating to benchmarking¹⁷⁸ be expanded to refer to the annual benchmarking reports.

Finally, a factor was added that requires the AER to have regard to the extent to which NSPs have considered what consumers seek. NSPs should be engaging with consumers in preparing their regulatory proposals and should factor in the needs and concerns of consumers in determining, for example, their capex programs. What consumers want and are prepared to pay for, whether in terms of reliability or some other element, will assist in showing what is efficient. The more confident the AER can be that consumers' concerns have been taken into account, the more likely the AER could be satisfied that a proposal reflects efficient costs. A similar approach is taken in Great Britain by Ofwat in respect of water regulation.¹⁷⁹

¹⁷⁷ AER, Rule change request, Part B, 29 September 2011, p. 34.

¹⁷⁸ See for example clause 6.5.7(e)(4).

¹⁷⁹ See for example Ofwat, *Involving customers in price setting - Ofwat's customer engagement policy statement*, April 2011, p. 21.

8.3 Submissions

Submissions from consumer representative and large user groups are supportive of the changes proposed in the draft rule determination.¹⁸⁰ The AER is also strongly supportive of the changes. It states that the draft rules are a clear improvement by allowing it greater scope to reject excessive cost forecasts. However, it has raised concern over the remaining restrictions in clause 6.12.3(f) as well equivalent clauses in Chapter 6A (discussed below).¹⁸¹ Independent Pricing and Regulatory Tribunal (IPART), the Victorian Department of Primary Industries (Victorian DPI) and retailers are also supportive of the changes.¹⁸²

UE and MG support the changes to clarify the NER as well as benchmarking. However, like many of the NSPs, they do not support the changes in relation to an expenditure forecast methodology, which is also reflected in the ENA's submission.¹⁸³ The ENA also has concerns in relation to benchmarking and the amendments to clause 6.12.3(f).¹⁸⁴ Submissions on all three of these specific issues are discussed below.

8.3.1 Clarifying the discretion of the regulator

The AER supports the reasons for the amendments to clause 6.12.3(f) but states that it still restricts the AER from making overall decisions. It proposes for the clause to be deleted, as there have been no strong arguments to support the retention of the remaining restrictions. It states that without the clause it is still required under administrative law and other clauses in the NER to take into account a NSP's proposal and all relevant information.¹⁸⁵

SA Power Networks, CitiPower and Powercor submit that the clause should remain unchanged. It states that the clause is consistent with the recognition that the NSP's proposal is the most detailed and relevant evidence.¹⁸⁶ The ENA disagrees with the

180 MEU, Draft Rule Determination submission, 4 October 2012, p. 20; EUAA, Draft Rule Determination submission, 3 October 2012, p. 15; Ethnic Communities' Council, Draft Rule Determination submission, 4 October 2012, p. 2; Consumer Action Law Centre, Draft Rule Determination submission, 5 October 2012, p. 2; Alternative Technology Association, Draft Rule Determination, 4 October 2012, p. 8.; UnitingCare, Draft Rule Determination submission, 16 October 2012, p.15.

181 AER, Draft Rule Determination submission, 5 October 2012, p. 10; AER, Draft Rule Determination supplementary submission, 25 October 2012, pp. 8-9.

182 Victorian DPI, Draft Rule Determination submission, 2 November 2012, pp. 1-2; IPART, Draft Rule Determination submission, 2 October 2012, pp. 5-6; Origin Energy, Draft Rule Determination, 4 October 2012, p. 1; EnergyAustralia, Draft Rule Determination submission, 15 October 2012, p. 2.

183 UE and MG, Draft Rule Determination submission, 4 October 2012, pp. 11-14; ENA, Draft Rule Determination submission, 4 October 2012, pp. 29-33.

184 ENA, Draft Rule Determination submission, 4 October 2012, pp. 19-21, 33-36.

185 AER, Draft Rule Determination submission, 5 October 2012, pp. 10-13.

186 SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p.19.

carve out of rate of return from this clause.¹⁸⁷ This has been discussed in section 6.4.7 . The ESAA has also raised that by providing more discretion to the AER increases the risk that overall revenue is inadequate and the AER needs to carefully consider how it minimises this risk.¹⁸⁸

8.3.2 Benchmarking

UE and MG disagree with the draft amendment to remove the "individual circumstances" phrase. They state that an assessment of prudent and efficient expenditure requires consideration of the particular circumstances and that without it there is a signal that a NSP's circumstances are not relevant.¹⁸⁹ Likewise, SA Power Networks, CitiPower and Powercor disagree with the removal of the phrase, since the AER has been shown not to consider individual circumstances in cases before the Tribunal.¹⁹⁰ The ENA also disagrees with its removal stating that the phrase does not constrain benchmarking and that recognition of individual circumstances are a fundamental element for an assessment of forecasts.¹⁹¹ Grid Australia also disagrees with the removal of the phrase.¹⁹²

Grid Australia is concerned about the role of benchmarking and refers to the findings of the Total Factor Productivity Review (a form of benchmark regulation) which found that it is not appropriate to be applied to transmission.¹⁹³ Ergon Energy states that consideration should also be given to the costs of collection of additional information and that differences in networks mean it may not be possible to take into account all relevant factors. In that case, the AER should have discretion not to publish an annual report. If required to publish one, it should not be directed to have regard to the last one as there will be a lag with the data and as a result publication of such a report is likely to mislead less informed market participants.¹⁹⁴ SA Power Networks, CitiPower and Powercor have no objection to the preparation of benchmarking reports but consider further guidance useful, such as the relevant factors to consider.¹⁹⁵

The AER is supportive of the changes to benchmarking, as is Origin Energy.¹⁹⁶

187 ENA, Draft Rule Determination submission, 4 October 2012, pp. 19-21.

188 ESAA, Draft Rule Determination submission, 23 October 2012, p. 3.

189 UE and MG, Draft Rule Determination submission, 4 October 2012, pp. 13-14.

190 SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, pp. 18-19.

191 ENA, Draft Rule Determination submission, 4 October 2012, pp. 33-36.

192 Grid Australia, Draft Rule Determination submission, 4 October 2012, p. 11

193 Ibid.

194 Ergon Energy, Draft Rule Determination submission, 7 October 2012, pp. 6-7.

195 SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, pp. 17-19.

196 AER, Draft Rule Determination submission, 5 October 2012, pp. 12-13; Origin Energy, Draft Rule Determination submission, 4 October 2012, p.1.

8.3.3 Expenditure forecast methodology

SP AusNet states that the expenditure forecast methodology conflicts with the NSP's responsibility for preparing and submitting expenditure forecasts in its regulatory proposal. Furthermore, it states that an additional methodological approach in addition to the one preferred by the NSP will result in duplication.¹⁹⁷ Jemena also does not support a standard expenditure forecast methodology. It states that it is inconsistent with current sign-off requirements and will duplicate work where a NSP still needs to provide its own best forecast and the AER must evaluate both.¹⁹⁸ The ENA provides similar reasons in its submission, it states that it would be more appropriate to require NSPs to provide an informal briefing to the AER on their approaches at the framework and approach stage. The ENA provides alternative rule amendments consistent with its recommendations.¹⁹⁹

On the contrary, SA Power Networks, CitiPower and Powercor support the proposal to establish standard forecasting approaches. They state that it should encourage forecasting issues to be discussed upfront at the framework and approach stage. However, they state that the intention that NSPs are free to submit their own forecast based on methodologies other than those in the framework and approach paper is not sufficiently clear in the drafting and should be clarified.²⁰⁰

The AER is strongly supportive of the proposal stating that it will support benchmarking and its ability to determine an efficient estimate of forecast costs.²⁰¹

8.3.4 Capex and opex factors

SA Power Networks, CitiPower and Powercor states that "any other factor" should be identified at the framework and approach stage. Such an approach would ensure appropriate consultation and allow parties other than the NSP to be aware of what they may include.²⁰² In contrast, the AER has submitted that it should be able to consider any other factor prior to the submission of a revised proposal since other relevant factors may arise during the regulatory process after the submission of a regulatory proposal.²⁰³ Energex has also suggested that the factor to refer to the annual benchmarking report refer to benchmarking material more generally, as there may be other info that may be equally relevant.²⁰⁴ The Energy Supply Association of Australia (ESAA) submitted that in relation to the factor on consumer consultation, it

¹⁹⁷ SP AusNet, Draft Rule Determination submission, 4 October 2012, pp. 3-4.

¹⁹⁸ Jemena, Draft Rule Determination submission, 4 October 2012, pp. 10-14.

¹⁹⁹ ENA, Draft Rule Determination submission, 4 October 2012, pp. 29 -33.

²⁰⁰ SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, pp. 17-18.

²⁰¹ AER, Draft Rule Determination submission, 5 October 2012, pp. 11-12.

²⁰² SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p. 19.

²⁰³ AER, Draft Rule Determination supplementary submission, 25 October 2012, p. 6.

²⁰⁴ Energex, Draft Rule Determination submission, 4 October 2012, p. 2.

will be important to understand how the AER will evaluate supporting evidence. It states that consumer consultation is costly and cost recovery for such activities must also be taken into account.²⁰⁵

8.4 Analysis

This section responds to issues raised in submissions to the draft rule determination and sets out the Commission's reasoning for its final rule determination.

8.4.1 Clarifying the discretion of the regulator

In the draft rule determination the Commission amended clause 6.12.3(f) so it was made clear that the restrictions on the AER's discretion to make substitute decisions did not apply in respect of capex or opex allowances (or, as discussed in chapter 6, rate of return framework). This was determined on the basis that there is no equivalent clause in Chapter 6A and that the AER's interpretation of the clause was imposing a greater constraint on it than intended. Further, the Brattle report identified the wording of the clause as unhelpful, in particular if it were to be interpreted to rule out "top down" adjustments.²⁰⁶

Although the AER proposed the removal of the entire clause (as well as the equivalent clause in Chapter 6A), the Commission took the view that the ambiguity which was highlighted by the AER was primarily in relation to capex and opex allowances (chapter 6 includes a discussion regarding the rate of return issue with regard to this clause). The view was taken that an amendment similar to that which is contained in Chapter 6A, which excludes capex and opex from the same limitation, would clarify the intention of the clause and address the AER's concerns.

However, the AER's submission to the draft rule determination states that, despite the carve out of capex and opex allowances, restrictions on the remaining provisions may prevent it from making overall decisions in expenditure allowances. As a result, the AER maintains that the clauses should be deleted such that it can make overall decisions that are aimed at satisfying the NEO.²⁰⁷ It gives the following reasons:

1. Other decisions affect the capex and opex allowances, such as depreciation, cost inputs and demand forecasts which are subject to the restrictions. As components of the capex and opex allowances, to the extent they remain subject to restrictions, the AER remains restricted in determining the total values. At a minimum, the AER states it creates confusion and uncertainty around how these provisions may operate within a total determination decision.

²⁰⁵ ESAA, Draft Rule Determination submission, 23 October 2012, p. 3.

²⁰⁶ The Brattle Group, *Framework for assessing capex and opex forecasts as part of a "building blocks" approach to revenue/price determinations*, June 2012, paragraph 38.

²⁰⁷ AER, Draft Rule Determination submission, 5 October 2012, p. 10; AER, Draft Rule Determination supplementary submission, 25 October 2012, pp. 8-9.

2. Without capex, opex and rate of return allowances being subject to the clause it is unclear why the remaining restrictions are appropriate. The AER considers that no strong arguments have been put forward to support the retention of the remaining restrictions.
3. There is no clear rationale for the operation of the clauses once it is accepted that capex, opex and rate of return decisions should not be subject to these restrictions.²⁰⁸

The Commission accepts that there are many interrelationships between various inputs and values. For example, clause 6.12.1(10) which relates to any other appropriate amounts, values or inputs could be relevant to components of overall capex decisions such as unit rates or escalation factors. It would be difficult to specify those relationships within the framework of the NER with sufficient clarity to facilitate the intention of the carve out. As a result, relaxing the constraint on the overall capex decision would be inconsistent with leaving the constraints on potential inputs to that decision. Further, the constraint would still remain on overall revenue (clause 6.12.1(2)) which may potentially constrain the extent that capex, as an input to that decision, could be amended.

In this rule change process the Commission's overall approach is to give more discretion with appropriate accountability to the AER to make appropriate regulatory decisions. In many areas there are objectives or factors for the AER to consider. Indeed, in relation to capex and opex allowances there are considerations for the AER's decision making in the criteria, objectives and factors. The Commission is of the view that seeking to limit the AER's discretion in a general way is not consistent with this. The NSP's proposal is a significant input, but there should be other factors and information for the AER to consider.

Furthermore, the Commission shares the view that there is insufficient evidence to support the restriction on the remaining provisions. As the AER has pointed out:

“To the extent these clauses oblige the AER to take into account an NSP's proposal, this is already achieved by clauses 6.10(1)(b)(1), 6.11(1)(b)(1), 6A.12.1(a1)(1) and clause 6A.13.1(a1)(1). Further, administrative law requires the AER to have due regard to all relevant information before it when making decisions. The information in an NSP's proposal is *clearly* relevant information.²⁰⁹ [emphasis added]”

As discussed further below, all public decision makers must base their decisions on sound reasoning and relevant information. Therefore, the final rule does not include clause 6.12.3(f) and clauses 6A.13.2(a). The way that the AER exercises its judgment in respect of the proposal and the rest of the evidence may achieve the same result as clause 6.12.3(f), but the NER will no longer prescribe it.

²⁰⁸ AER, Draft Rule Determination submission, 5 October 2012, pp. 10-11.

²⁰⁹ *Id.*, p. 11.

8.4.2 Benchmarking

The Commission is of the view that the removal of the "individual circumstances" clause does not enable the AER to disregard the circumstances of a NSP in making a decision on capex and opex allowances. Benchmarking is but one tool the AER can utilise to assess NSPs' proposals. It is not a substitute for the role of the NSP's proposal. Should the phrase remain, it appears that the AER's interpretation of it may restrict it from utilising appropriate benchmarking approaches to inform its decision making.

The Commission considers that the removal of the "individual circumstances" phrase will clarify the ability of the AER to undertake benchmarking. It assists the AER to determine if a NSP's proposal reflects the prudent and efficient costs of meeting the objectives. That necessarily requires a consideration of the NSP's circumstances as detailed in its regulatory proposal.

Under the first expenditure criterion the AER is required to accept the forecast if it reasonably reflects the efficient costs of achieving the opex objectives. These include references to the costs to meet demand, comply with applicable obligations, and maintain quality, reliability and security of supply of services and of the system. These necessarily require an assessment of the individual circumstances of the business in meeting these objectives. So to the extent that different businesses have higher standards, different topographies or climates, for example, these provisions lead the AER to consider a NSP's individual circumstances in making a decision on its efficient costs.

The ENA states that the important function of the phrase is highlighted by the Tribunal case regarding Powercor's vegetation management.²¹⁰ SA Power Networks, CitiPower and Powercor also reference this case by highlighting that the AER is not immune to errors and that the phrase reminds it to have regard to those circumstances which are relevant to any benchmarking exercise. However, the Commission notes that the judgement does not explicitly state which clause, or phrase within a clause, it has based its decision to remit the decision back to the AER. Specifically, the Tribunal stated that the AER's consultant failed to pay proper account of the differences between Powercor's network and work program and those of the other DNSPs.²¹¹

Annual benchmarking reports

The Commission notes that most stakeholders are supportive of the annual benchmarking reports. It does not accept the reasons provided by Ergon that the AER should have discretion in respect of whether or not to produce/publish such reports.²¹²

The intention of a benchmarking assessment is not to normalise for every possible difference in networks. Rather, benchmarking provides a high level overview taking

²¹⁰ ENA, Draft Rule Determination submission, 4 October 2012, p. 35.

²¹¹ *Application by United Energy Distribution Pty Limited* [2012] ACompT 1, [666]

²¹² Ergon Energy, Draft Rule Determination submission, 7 October 2012, p. 7.

into account certain exogenous factors. It is then used as a comparative tool to inform assessments about the relative overall efficiency of proposed expenditure. This view is consistent with that put forward in a submission by Grid Australia to the consultation paper.²¹³ Further, it is intended that the annual benchmarking report will be a useful tool for stakeholders, such as consumers, to engage in the regulatory process and have better information about relative performance of their NSPs. An expectation of annual publication adds to that value. The Commission therefore determines that the annual benchmarking report remain an annual obligation.

The Victorian DPI also raised the issue that the ability to carry out meaningful benchmarking relies on gathering data from the NSPs. Specifically it states that:

“Without systematic and comparable data from all NSPs, the AER will not be able to draw inferences about an individual NSP's performance against a benchmark with sufficient rigor to support its use as an analytical tool informing decisions in pricing reviews. The mere fact of publication of a benchmarking report may not materially improve the AER's pricing determinations.²¹⁴”

The Victorian DPI noted that the SCER has not yet responded to the AEMC's recommendations for improved data collection in the TFP Review. As a result, the Victorian DPI has suggested that the AEMC make a substantially similar rule to support the AER's role in assessing efficient network expenditure.²¹⁵ The Commission is sympathetic to the Victorian DPI's concerns, however, it is not appropriate to include such provisions at this stage, as they would not have been subject to consultation. The Commission stresses the importance of quality data collection (including on an annual basis) by the AER to support the changes in this final rule. It notes that this is a point of difference between the AER's practice and that of best practice highlighted by Brattle.²¹⁶ As noted in the draft rule determination, the SCER may wish to consider changes to the NEL to facilitate annual data collection by the AER for the purposes of benchmarking reports.

8.4.3 Engagement on expenditure models

In the draft rule determination the Commission introduced a requirement for the AER to develop a standard expenditure forecasting methodology. The AER would determine at the framework and approach stage how the methodology should be applied by a specific NSP which it would be required to include in their regulatory proposals, in addition to any differing approach they may take. This was determined on the basis that it would facilitate engagement on the expenditure forecasting methodologies adopted by NSPs as well as enable the AER to compare information

²¹³ Grid Australia, Consultation paper submission, 8 December 2011, p. 9

²¹⁴ Victorian DPI, Draft Rule Determination submission, 2 November 2012, pp. 1-2.

²¹⁵ Id, p. 2

²¹⁶ The Brattle Group, *Framework for assessing capex and opex forecasts as part of a "building blocks" approach to revenue/price determinations*, June 2012, paragraph 28.

from NSPs on a similar basis. The AER is strongly supportive of the draft rule whereas NSPs are strongly opposed to the imposition of forecasting methodologies to address the problems raised.²¹⁷ However, there is agreement that early engagement on expenditure models is desirable.²¹⁸ Each of these issues is discussed in turn below.

Standard expenditure forecasting model

The ENA raises a number of concerns with the Commission's approach to impose a standard expenditure model. Primarily, these appear to centre around the NSP's role in managing its network and that linkage with the expenditure forecasts. Because of the NSP's role in daily planning and operation of the business, it should be able to produce the best information. Moreover, that the role and responsibility of developing the approach to forecasting should be consistent with the accountability for expenditure outcomes. The ENA further states that this is consistent with internal sign-off that the forecast expenditure reflects the expenditure which is truly required by the NSP.²¹⁹

The Commission accepts that responsibility for developing a NSP's proposal should remain with the NSP. This includes the development of an expenditure forecast in a manner that the NSP views as appropriate. It is the AER's role to assess the NSP's proposal using any tools it views as appropriate. Nevertheless, it remains important for the AER to receive information which enables it to effectively assess a NSP's proposal and be aware of how the NSP plans to forecast its expenditure. The ENA has proposed that the AER develop a guideline for its assessment techniques.²²⁰ The Commission sees merit in this approach.

As a result, the final rule requires the AER to develop guidelines on its assessment techniques. At the framework and approach stage the AER will determine how the guidelines apply to the particular NSP. The NSP is then required to submit information in compliance with the application of the guidelines as determined in the framework and approach paper *with* its proposal. This information would not form part of the NSP's formal proposal and therefore should not need to be subject to the same sign-off requirements as the proposal. There will no longer be a requirement to include in the proposal itself a forecast determined in a manner set by the AER. However, the final rule does not preclude the NSP from including the information in its proposal if it so chooses.

The assessment techniques included in the AER's guidelines are not an exhaustive list of all the techniques the AER may apply. In particular, after reviewing the NSP's regulatory proposal the AER may decide it wants to use additional assessment techniques it has not previously expected to use.

²¹⁷ AER, Draft Determination submission, 5 October 2012, p.12.; ENA, Draft Rule Determination submission, 4 October 2012, pp. 29-36; Jemena, Draft Rule Determination submission, 4 October 2012, pp. 10-14.

²¹⁸ ENA, Draft Rule Determination submission, 4 October 2012, pp. 29-36; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p. 19

²¹⁹ ENA, Draft Rule Determination submission, 4 October 2012, pp. 30-31.

²²⁰ *Id.*, p. 33.

The final rule should address the NSPs' concerns regarding internal sign-off as the information required is not part of the NSP's proposal. Further, the Commission notes that the rules do not require an overall executive level sign-off on the regulatory proposal. However, the rules do allow the AER to obtain the information it requires to assess the NSP's proposal.

Engagement on NSPs' expenditure forecasting models

The Commission remains of the view that early engagement on expenditure models is desirable. This view is shared by NSPs in submissions.²²¹ The ENA has proposed an alternative to the Commission's approach in the draft rule determination - that NSPs advise the AER of their forecasting methodologies at the framework and approach stage.²²²

The Commission agrees that engagement on expenditure models can be facilitated in ways other than that included in the draft rule. Indeed, a rule is not strictly required to enable engagement, as SP AusNet noted:

“in a cooperative approach to the conduct of the price review it is incumbent on the service provider and AER to meet early in the review process, and periodically, to discuss relevant matters, including the form of outputs from the service providers expenditure forecasting models.”²²³

The Commission is reluctant to formalise a requirement for engagement. However, expenditure models are an integral component in the assessment process such that mandating a minimum requirement for engagement provides a starting point in this important area. Therefore, the Commission's final rule determination is to adopt the ENA's proposal that NSPs will be required to advise the AER of its approach to expenditure forecasting. That is, the NSP and the AER will engage on the information requirements for the AER's assessment models, as well as how the NSP approaches expenditure forecasting.

The Commission views the early engagement with NSPs, as well as broader industry engagement in developing the guidelines, as beneficial. It will potentially save time and effort for both parties once the regulatory process has commenced.

8.4.4 Capex and opex factors

SA Power Networks, CitiPower and Powercor proposed that the inclusion of "any other factor" be identified in the framework and approach paper.²²⁴ The Commission

221 ENA, Draft Rule Determination submission, 4 October 2012, pp. 29-36; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p. 19; SP AusNet, Draft Rule Determination submission, 4 October 2012, pp. 3-4.

222 ENA, Draft Rule Determination submission, 4 October 2012, p. 33.

223 SP AusNet, Draft Rule Determination submission, 4 October 2012, p. 4.

224 SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2010, p. 19.

agrees that raising any other factor at the framework and approach stage is a reasonable suggestion as well being a convenient forum to discuss any additions. However, it notes that there are currently no limits on what the AER includes in the framework and approach paper so no rule is required for such an outcome to occur. It would not be appropriate to mandate such an approach. It is noted that clause 16(1)(b) of the NEL protects a NSP from any material change in the AER's analysis without notification.

The AER submitted that it should be able to raise any other factor prior to the submission of a revised regulatory proposal. This would allow it to consider other relevant factors which may arise after the submission of a NSP's regulatory proposal. It states that there appears to be no justification to exclude any relevant factors so long as the NSP is informed of them up to the cross submissions stage.²²⁵ The Commission sees the potential for relevant factors to arise following the submission of the proposal. However, it does not see that the AER should be able to raise a new factor up to the cross submissions stage. This stage is discretionary and designed to address matters raised in submissions. Accordingly, the clause will be amended to reflect that the AER can raise a new factor up to the submission of a revised regulatory proposal. The Commission considers that the existing capex and opex factors are sufficiently broad that it should be rare that the AER would need to consider additional factors.

Energex has proposed that the factor which requires the AER to have regard to the latest annual benchmarking report be broadened to refer to benchmarking material more generally.²²⁶ The Commission agrees that there may be other benchmarking information available to the AER, some of which may be more relevant than the annual benchmarking report. However, the AER's consideration of such material is not precluded from the rule as in addition to the most recent annual benchmarking report it also states the benchmarking expenditure that would be incurred by an efficient NSP. The consideration of a benchmark NSP enables consideration of broader benchmarking information. As such, the Commission's final rule determination is not to make any changes to this factor.

8.5 Guidance on final rule

8.5.1 Clarifying the discretion of the regulator

The NSP's proposal is necessarily the procedural starting point for the AER to determine a capex or opex allowance.²²⁷ The NSP has the most experience in how a network should be run, as well as holding all of the data on past performance of its network, and is therefore in the best position to make judgments about what expenditure will be required in the future. Indeed, the NSP's proposal will in most cases be the most significant input into the AER's decision. Importantly, though, it

²²⁵ AER, Draft Rule Determination supplementary submission, 25 October 2012, p. 6.

²²⁶ Energex, Draft Rule Determination submission, 4 October 2012, p. 2.

²²⁷ See also comments made in The Brattle Group, *Framework for assessing capex and opex forecasts as part of a "building blocks" approach to revenue/price determinations*, June 2012, paragraphs 14 and 71.

should be only one of a number of inputs. Other stakeholders may also be able to provide relevant information, as will any consultants engaged by the AER. In addition, the AER can conduct its own analysis, including using objective evidence drawn from history, and the performance and experience of comparable NSPs. The techniques the AER may use to conduct this analysis are not limited, and in particular are not confined to the approach taken by the NSP in its proposal.

While the AER must form a view as to whether a NSP's proposal is reasonable, this is not a separate exercise from determining an appropriate substitute in the event the AER decides the proposal is not reasonable. For example, benchmarking the NSP against others will provide an indication of both whether the proposal is reasonable and what a substitute should be. Both the consideration of "reasonable" and the determination of the substitute must be in respect of the total for capex and opex.

The criteria for determining capex and opex contain a requirement that the AER must accept a proposal that is reasonable. It seems almost to go without saying that the AER must accept such a proposal. Why the AER would ever need to reject a proposal that it has determined is reasonable is unclear. The idea of reasonableness was used at times in consultation in 2006 to refer to a "reasonable range".²²⁸ This is a concept that can be misleading in the context of the exercise the AER must conduct in determining a capex or opex allowance. The AER has confirmed that it does not generally approach capex and opex allowances by determining a maximum and minimum possible allowance, and indeed the lack of precision inherent in this exercise would mean this has little benefit.²²⁹ The use of the term "reasonable" merely reflects this lack of precision. Thus, the AER could be expected to approach the assessment of a NSP's expenditure (capex or opex) forecast by determining its own forecast of expenditure based on the material before it. Presumably this will never match exactly the amount proposed by the NSP. However there will be a certain margin of difference between the AER's forecast and that of the NSP within which the AER could say that the NSP's forecast is reasonable. What the margin is in a particular case, and therefore what the AER will accept as reasonable, is a matter for the AER exercising its regulatory judgment.

The Commission remains of the view that the AER is not "at large" in being able to reject the NSP's proposal and replace it with its own.²³⁰ The obligation to accept a reasonable proposal, reflects the obligation that all public decision-makers have to base their decisions on sound reasoning and all relevant information required to be taken into account. Some submissions have referred to the concept of an evidentiary burden, or onus of proof, as some submissions have termed it, that the AER has.²³¹ To the extent the AER places probative value on the NSP's proposal, which is likely given the NSP's knowledge of its own network, then the AER should justify its conclusions by reference to it, in the same way it should regarding any other submission of probative value. In circumstances where the NSP is required to provide information in support of

228 AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, p. 52.

229 AER, *Response to AEMC questions*, 2 February 2012, p. 10.

230 AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, p. 53.

231 EUAA, *Directions Paper submission*, 16 April 2012, p. 17.

its proposal, and the AER is required to explain its decision, an evidentiary burden does not appear to reside with one party more than another.

When the AER assesses an expenditure forecast it has certain criteria to assess the forecast against, and certain factors it must bear in mind. These criteria broadly reflect the NEO, and include the efficient costs of a prudent operator and a realistic expectation of demand. The AER assesses the total of the capex or opex forecast and is not required to consider individual projects. The Commission considers that the rules give the AER sufficient freedom to set capex and opex allowances that are efficient, assuming it applies appropriate analytical techniques and has access to an appropriate level of information.

8.5.2 Benchmarking

The final rule gives the AER discretion as to how and when it undertakes benchmarking in its decision-making. However, when undertaking a benchmarking exercise, circumstances exogenous to a NSP should generally be taken into account, and endogenous circumstances should generally not be considered. In respect of each NSP, the AER must exercise its judgement as to the circumstances which should or should not be included. However exogenous factors to be taken into account are likely to include:

- geographic factors: topography and climate;
- customer factors: density of the customer base (urban v rural), load profile, mix of customers between industrial and domestic;
- network factors: age, mix of underground and overhead lines, though this will depend on the extent to which this is at the election of the NSP; and
- jurisdictional factors: reliability and service standards.

If there are some exogenous factors that the AER has difficulty taking adequate account of when undertaking benchmarking, then the use to which it puts the results and the weight it attaches the results can reflect the confidence it has in the robustness of its analysis.

Endogenous factors not to be taken into account may include:

- the nature of ownership of the NSP;
- quality of management; and
- financial decisions.

It is also expected that similar considerations be made when undertaking the annual benchmarking report.

8.5.3 Engagement on expenditure models

The final rule requires the AER to develop expenditure forecast assessment guidelines. The guidelines will set out the types of assessments the AER will undertake in approving expenditure allowances and the information requirements from NSPs to facilitate those assessments. At the framework and approach stage the AER will document any deviations as well as specific information requirements as they apply to the NSP under review. The NSP will also be required to advise the AER of its approach to expenditure forecasting at least 24 months before the expiry of its existing determination. The timing is intended to coincide with the framework and approach stage and so the NSP could include a description of its intended approach in its submission to avoid a separate step and provide context for the AER's assessment approach.

When the NSP submits its proposal it is required to submit an accompanying document complying with the requirements of the expenditure forecast assessment guidelines, or as otherwise specified in the framework and approach paper. This document is not, nor does it form part of, a NSP's expenditure forecast as included in its proposal unless the NSP chooses to include complying information as part of its proposal. Therefore, the director certification requirements under clause S6.1.1(5) would not apply as it does not form part of the capex or opex forecasts. However, under the NER accompanying information can be requested to be resubmitted for non-compliance under clause 6.9.1.

The intention of this final rule is to facilitate early engagement on a NSP's expenditure forecast methodology and ensure that both the AER and NSPs are aware, in advance, of the information the AER requires to appropriately assess a NSP's proposal. It is intended to bring forward and potentially streamline the regulatory information notice stage(s) that currently occur, as well as to expedite the AER's understanding of the NSP's approach to expenditure forecasting. It does not restrict the AER's ability to use additional assessment techniques if it considers these are appropriate after reviewing a NSP's proposal.

8.5.4 Capex and opex factors

The "best endeavours" clause in the final rule for the AER to publish in advance analysis on which it proposes to rely, or to which it proposes to refer, for the purposes of the final regulatory determination means that the AER should publish such analysis unless there are time constraints or other reasons why it would be practically impossible for the AER to do so. The way this clause interacts with section 16(1)(b) of the NEL is critical. To the extent there is an inconsistency between those two provisions, the final rule is not intended to override the NEL, and indeed could not. The AER still has an obligation under the NEL provision to inform the relevant NSP of material issues under consideration and to give the NSP a reasonable opportunity to make submissions in respect of them.

As mandatory considerations, the AER has an obligation to take the capex and opex factors into account, but this does not mean that every factor will be relevant to every aspect of every regulatory determination the AER makes. The AER may decide that certain factors are not relevant in certain cases once it has considered them. In respect of the capex and opex factor that will be added which clarifies that the AER may consider additional factors, any additional factor must be notified to the relevant NSP prior to the NSP submitting its revised proposal.

In respect of the factor to be added which will allow for the AER to have regard to the extent to which NSPs have considered what consumers seek, there are various ways this could be relevant. For example, it may be the case that a majority of affected consumers are unhappy with the visual impact of a proposed new line. If the NSP engages with consumers, it may decide that the best way to address the concerns of consumers would be to build the line underground, even if this is a more expensive option. When the AER considers the NSP's overall capex proposal, it should take into account that the proposed option will provide a higher quality of service in line with consumers' preferences and willingness to pay, above less expensive options which fall below the level of service demanded by consumers. In general, a NSP that has engaged with consumers and taken into account what they seek could reasonably expect the AER to take a more favourable view of its proposal. The Commission expects that over time NSPs and the AER will, through their regulatory proposals and draft and final revenue determinations, develop examples of good practice by NSPs in engaging with consumers.

9 Capex incentives

Summary

- Incentives to seek efficiencies decline during regulatory periods and there is a lack of supervision of capex above the allowance.
- The Commission's approach to addressing these problems is to provide the AER with a number of "tools" which it can apply. These tools will include:
 - capex sharing schemes to be designed by the AER;
 - efficiency reviews of past capex, including the ability to preclude inefficient expenditure from going into the RAB up to an amount that is equal to the amount of expenditure above the allowance; and
 - deciding whether to depreciate the RAB using actual or forecast expenditure to establish a NSP's opening RAB.
- These tools should be viewed alongside the ability of the AER, on an ex ante basis, to scrutinise effectively, and if necessary amend, proposed capex as part of the determination process to set efficient allowances in the first place.
- An overall capex incentive objective describes what the capex incentive regime, as a whole, aims to achieve. The AER will be required to take into account a number of principles and factors when designing and applying the capex incentive tools.
- In addition, regardless of whether a NSP spent more than its allowance, the AER has the ability to preclude expenditure from being rolled into the RAB to the extent that expenditure comprises:
 - inefficient related party margins; or
 - capitalised expenditure as a result of within period changes to the NSP's capitalisation policy.
- Reviews of efficiency of past capex should not be seen as diminishing the role of ex ante incentives. Rather, such reviews are to address a gap in the lack of supervision of capex that has occurred. The ability to reduce the capex rolled into the RAB is intended for obvious cases of inefficiency, and not as the main means of achieving efficient levels of capex.
- A review of efficiency of past capex for the purpose of identifying inefficient expenditure to preclude from the RAB may initially consider benchmarking information and focus on the governance processes and procedures of the NSP. A NSP that follows good practice and governance

should be able to demonstrate that its capex is efficient. The presence of a strong ex ante incentive could also provide a high level of assurance that capex is efficient.

Difference between draft rule and final rule

- The AER will only be able to preclude capex from going in the RAB from the first regulatory year after the capex incentive guidelines commence. Any capex incurred prior to this time will not be subject to this provision.
- The AER will be required to set out in the capex incentive guidelines its approach to assessing whether capitalised expenditure is consistent with the NSP's capitalisation policy.

9.1 Introduction

The role of capex incentives is to encourage NSPs to incur efficient levels of capex - that is, to spend no more than necessary for a given level of reliability and broader service quality. Currently, a NSP is required under the NER to forecast its requirements for capex for the forthcoming regulatory control period. In the regulatory determination, the AER either approves this forecast or does not approve it and replaces it with its own forecast which then becomes the allowance.²³² This allowance is the basis of an incentive for a NSP. If a NSP spends more than its allowance, it bears the costs of this expenditure above the allowance for the remainder of the period.²³³ Conversely, if it spends less than its allowance it retains the benefit for the rest of the period.

The AER claimed that the NER provide an incentive for NSPs to spend more than efficient levels of capex for a regulatory control period.²³⁴ This is claimed to be the case particularly where the NSP's allowed rate of return was higher than its actual cost of capital and where the NSP was responding to non-financial incentives it may face. The AER proposed to prescribe in the rules an adjustment to the RAB roll forward such that a NSP could only recover 60 per cent of the cost of any over expenditure (the 60/40 sharing mechanism).²³⁵ It also requested that it be given the discretion to roll forward the RAB using depreciation based on actual or forecast capex as a means of providing an additional incentive. The AER currently has this discretion in Chapter 6 (distribution) but not in Chapter 6A (transmission).

In addition to the broader capex incentive issue, the AER considered that the NER provide an incentive for NSPs to inefficiently incur capitalised related party margins

²³² The AER does not approve augmentation capex for TNSPs in Victoria; this is determined instead by AEMO.

²³³ The cost the NSP bears is the cost of financing the extra capex, so these costs are for depreciation incurred and foregone return on the capex.

²³⁴ AER, Rule change request, Part B, 29 September 2011, p. 38.

²³⁵ In this chapter, phrases such as capex 'going into the RAB' or being considered at the 'RAB roll forward' are generally referring to the RAB which is adjusted and locked in for the next regulatory control period; *Id.*, p. 40.

and to replace opex with capex through changes to their capitalisation policies during a regulatory control period.²³⁶

The remainder of this chapter is structured as follows:

- Section 9.2 summarises the Commission's position in the directions paper and draft rule determination;
- Section 9.3 summarises the submissions received in response to the Commission's draft rule determination;
- Section 9.4 provides the Commission's analysis of issues in response to submissions received on the draft rule determination; and
- Section 9.5 provides the guidance on the final rule.

9.2 Directions paper and draft rule determination

9.2.1 Background analysis

In the draft rule determination the Commission did not consider that capex incentives in the NER provide an incentive for NSPs to spend more than their allowance. It noted in the directions paper that a NSP could make a judgement on a forward looking basis as to the possible difference between its allowed cost of capital and its true cost of capital. This could provide a basis to support an overspend, but capex incentives should not be designed to address cost of capital matters. However, there are factors outside of the NER that may provide incentives for capex beyond the allowance.²³⁷

Following on from this, the Commission identified two key issues with capex incentives in the NER. These were that:

- the incentive to make efficiency improvements declines during the regulatory control period, which has implications for the timing of capex and substitution between opex and capex; and
- capex above the allowance is subject to a lack of regulatory scrutiny, which means that there is a risk that any expenditure above this allowance may be inefficient.²³⁸

In addition, further work undertaken for the Commission by Parsons Brinckerhoff identified that there were a number of potential drivers for overspends during a regulatory control period by NSPs. These included for example corporate governance,

²³⁶ Id., pp. 53-56; AER response to AEMC queries on AER network regulation rule change proposals, 1 February 2012, pp. 7-10.

²³⁷ AEMC, *Consolidated Rule Request - Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, p. iii.

²³⁸ Id., pp. 34, 40, 43.

project delivery risks and uncontrollable events. The Commission observed that the majority of these drivers could be mitigated or at least partly controlled. Some drivers, however, such as unexpected growth in demand for new connections and compliance with unanticipated regulatory obligations or requirements appeared harder to control than others.²³⁹

Parsons Brinckerhoff considered that the ability to defer expenditure was one of the ways in which some of the more uncontrollable factors might be mitigated. Similarly, it suggested that a NSP was likely to look more closely at options for deferring capex the closer it gets to exceeding its allowance. Parsons Brinckerhoff also noted that:

“In practice actual project costs will be both more than and less than original regulatory submission forecasts, so the net effect is an increase in the business's ability to offset overspending in one area against unpredicted savings or efficiencies realised in another in order to stay at or below the regulated allowance levels.

The exception to this is where low probability high impact events such as extreme weather events, or geopolitical economic shocks have a material effect on Capex. Such exceptions would be better handled by dedicated regulatory tools such as Capex re-openers.²⁴⁰”

Nothing in the work that Parsons Brinckerhoff undertook indicated that the current regulatory framework provides NSPs with an incentive to overspend their allowances. However, Parsons Brinckerhoff noted that insufficient regulatory oversight would strengthen the potential for capex overspends through a lack of consequences.²⁴¹

Further work undertaken by the Commission also provided support that the NER provides an incentive to defer capex to the end of a regulatory control period - there was some evidence that both the Victorian DNSPs and Ausgrid had deferred capex until the end of a period.²⁴²

9.2.2 Overall approach

The Commission's approach to addressing these problems was to provide the AER with a number of "tools" which it can apply as it considers necessary to provide adequate incentives for NSPs to spend capex efficiently. These tools include:

- capex sharing schemes;
- reviews of efficiency of past capex; and

²³⁹ Parsons Brinckerhoff, *Report on capital expenditure overspends by electricity network service providers*, Report for the AEMC, 2 August 2012.

²⁴⁰ *Id.*, p. 33.

²⁴¹ Parsons Brinckerhoff, *Report on capital expenditure overspends by electricity network service providers*, Report for the AEMC, 22 June 2012, p. 33.

- whether to depreciate the RAB using actual or forecast expenditure to establish a NSP's opening asset base.

These tools should be viewed alongside the ability of the AER, on an ex ante basis, to scrutinise effectively, and if necessary amend, proposed capex as part of the determination process to set efficient allowances in the first place.

The Commission considered that the AER is generally best placed to determine which of the tools can be best used to create incentives for individual NSPs rather than specific approaches being included in the NER. The flexibility inherent in the proposed approach would allow the AER to tailor the incentives to individual NSPs and adapt them over time. This recognises that the best incentives for efficient capex may not be the same for all NSPs or the same over time. However, with greater discretion, there must also be appropriate accountability and transparency to help provide certainty for stakeholders and confidence that the outcomes are in the best interests of consumers.

In seeking to provide this accountability and transparency the draft rule provided for an overall objective for capex incentives that was consistent with the NEO and RPP. This objective describes what the capex incentive regime, as a whole, should aim to achieve. It guides the AER in the development and application of the capex incentive tools. It is also relevant for the appeal body to consider this objective when assessing any merits reviews on elements of the capex incentives regime.

In addition, the Commission determined that the AER should be required to set out its approach to capex incentives in guidelines. This is where the AER would set out the approach to capex sharing schemes, how it would undertake efficiency reviews of past capex and how it would determine whether to use actual or forecast expenditure for the purpose of depreciating the RAB. The draft rule also required the AER to set out how its approach to capex incentives overall met the capex incentive objective thereby requiring it to take a coordinated approach to capex incentives. The specific regulatory determination for each NSP would set out which approaches would apply to the NSP and how.

Finally, the draft rule also required the AER to consider principles in the NER when it develops and then applies each of the tools.

9.2.3 Capex sharing schemes

Capex sharing schemes allow for the sharing of efficiency gains and losses from capital expenditure between NSPs and consumers. In general regulators have approached such schemes by allowing NSPs to retain a set portion of any efficiency gains they make and bear a set portion of any efficiency losses it incurs against the benchmark. Often the benchmark is the allowance set by the regulator. The ratio of sharing of the efficiency gains and losses between the NSP and consumers is known as the incentive

242 AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Draft Rule Determination, 23 August 2012, p. 123-124.

rate. The AER could use capex sharing schemes to set incentives so that the most efficient NSPs earn the highest rewards and those that are inefficient are penalised.

The Commission identified the following benefits with capex sharing schemes in the draft rule determination:

- they encourage appropriate network investment;
- they encourage NSPs to look for efficiencies, such as by innovation;
- they provide an incentive for NSPs to reveal their efficient costs; and
- they can be designed to provide for a continuous incentive, that is, the incentives could be set so that the incentive power is the same no matter in which year of a regulatory control period an investment is made.

In this way, a capex sharing scheme can give the AER greater confidence that capex going into the RAB is efficient.

The Commission noted one potential problem with capex sharing schemes is that it can be difficult to identify whether reductions in capex are from efficiency gains or inefficient deferral. A capex sharing scheme should not encourage actions that would later lead to degradation of network quality and consequent reductions in service quality. It determined that while there may be difficulties in applying these schemes, the benefits should outweigh these difficulties. On balance, it considered there is room for further innovation in this area.

To provide for certainty the Commission considered that the AER should be required to take into account some principles in designing and applying capex sharing schemes. Importantly, the Commission did not support a principle that a capex sharing scheme should be continuous. Although in most cases a continuous incentive is preferable to a declining incentive it considered a principle of this nature could discourage some schemes which are appropriate. For example, a non-continuous scheme may be relevant when considered alongside the other capex incentive tools such as the reviews of efficiency of past capex.²⁴³

Similarly, the Commission did not consider it appropriate that the AER be required consider whether the a scheme should be "mathematically symmetrical".²⁴⁴Such an approach would be overly prescriptive and could prevent some schemes that would be beneficial.

²⁴³ A constant incentive power is relevant in capex in order to provide an equal incentive to invest in each year of a regulatory control period. Anything other than an equal incentive may provide incentives for NSPs to defer expenditure, even where it is not efficient to do so. In addition a declining incentive in capex and a constant incentive in opex may encourage inefficient substitution between opex and capex.

²⁴⁴ In this context, mathematical symmetry refers to an improvement or decline in capex relative to a benchmark which is of the same absolute value accruing the same reward or penalty in absolute value terms.

The Commission proposed that the AER should be able to apply schemes in a different way to different NSPs or even to apply different schemes to different NSPs. This would enable the AER to tailor its approach to individual NSPs. So, for example, the AER could apply what were regarded as stronger incentives for NSPs that traditionally spend more than their allowance and weaker incentives where the AER is concerned about inefficient deferral into future regulatory control periods. For the avoidance of doubt, the AER can also develop different schemes for DNSPs and TNSPs.

9.2.4 Reviews of efficiency of past capex

Reviews of the efficiency of past capex generally encompass the regulator determining whether to allow the future recovery of incurred capex. Reviews of the efficiency of past capex are found in many other jurisdictions, and have been widely adopted in Australia.²⁴⁵

The Commission took the view in the draft rule determination that reviews of efficiency of past capex are the most direct way of addressing the lack of supervision problem since they give the regulator the chance to check that the capex to be recovered is efficient. In addition, the risk of an inability to recover for inefficient expenditure would provide an incentive for NSPs to avoid inefficient capex. Ex ante incentives may not always provide adequate assurance that capex is efficient. A further check that what is rolled into the RAB is efficient would therefore be in the long term interests of consumers. The review of efficiency of past capex should also assist the AER in determining an appropriate ex ante allowance by permitting it to better understand how efficient a NSP has been in the previous period and what projects it has undertaken. It should also improve understanding of the reasons for any overspends.

Importantly, the Commission considered that if a NSP is well run and its management has in place robust processes for deciding which capex projects to undertake and regularly reviews and reassesses its capex program it should have nothing to fear from a review of its efficiency. Indeed, such a review should act to give the regulator greater confidence about the efficiency of the NSP's future capex projections. It was not convinced that the evidentiary burden for the AER would be any different from the evidentiary burden that the AER has when it considers ex ante allowances.

The Commission proposed two elements to the review of efficiency of past capex tool:

- reducing the amount of capex to go into the RAB; and
- a statement on the efficiency of past capex.

Reducing the amount of capex to go into the RAB for inefficient expenditure

The Commission proposed in the draft rule determination that the AER could only reduce the amount of capex to go into the RAB as a result of a review of efficiency of

²⁴⁵ Id., p. 134.

past capex if the NSP had spent more than its allowance for the relevant period. In addition, the amount of expenditure that the RAB could be reduced by would be restricted to the amount of any expenditure above the allowance for the same period. It would be the AER's decision as to whether it considers it appropriate in the specific circumstances to exercise this power.

The Commission considered that setting the best possible ex ante allowance for capex is important, and that the use of ex ante incentive mechanisms for capex has the potential to provide important incentives for efficiency and innovation in capex that may not occur if reliance was placed on reviews of the efficiency of expenditure after it has occurred. Therefore, it is appropriate for NSPs to only be at risk of capex not going into the RAB if they have overspent the ex ante allowance. This approach would also mitigate any potential for an increase in regulatory risk as a result of the introduction of this tool.

In addition, the Commission considered that if the capex undertaken is the same or very similar to that which the NSP set out in its regulatory proposal then the ex ante assessment of the projects should provide a degree of confidence about the likely efficiency of the expenditure below the allowance. That is, while the nature of the actual capex undertaken need not be identical to what was included in the ex ante allowance, that allowance represents an efficient quantum and expenditure below this amount could be expected to be efficient at an overall level.

Further, given that the ex ante allowance, as a total, represents a forecast of an efficient level of expenditure for the NSP there should be little need for the NSP to spend above this amount in normal circumstances. As the Parsons Brinckerhoff report indicated, while there are often unexpected additional costs for a NSP during a regulatory control period, there will also be unexpected reductions in costs.²⁴⁶ In addition, the NSP should be able to take mitigating actions, such as re-prioritising capex, to avoid spending over its allowance, or seek a cost pass through if the relevant test is met. Indeed, on this basis, the Commission suggested there was an argument that no capex above the level of the ex ante allowance should be rolled into the RAB. However, to accommodate unforeseen circumstances where a NSP legitimately spent more than its allowance, the AER should have the ability to make an assessment of the amount of any overspend that may be rolled into the RAB.

In this way, the focus in the draft rule on the overall amount to be rolled into the RAB was intended to encourage the AER to undertake a review of the efficiency of the total capex incurred by the NSP during the specified period rather than just looking at individual projects. The Commission noted that in undertaking a review the AER could consider, among other things, whether the NSP could have avoided spending more than its allowance for the period by deferring projects through re-prioritisation. The draft rule was intended to allow the AER to use a range of analytical techniques to assess the efficiency of capex including benchmarking and the assessment of individual projects. The AER could also consider the effectiveness of the NSP's planning and

²⁴⁶ Parsons Brinckerhoff, *Report on capital expenditure overspends by electricity network service providers*, Report for the AEMC, 2 August 2012, p. 33.

prioritisation processes for capex to try and gain assurance about the robustness of its decision-making.

The Commission proposed that the AER should set out in the capex incentive guidelines whether and how it intends to undertake reviews of efficiency to determine whether to reduce the amount of capex to go into the RAB. This approach should take into account the other tools it has.

The draft rule determination set out three key elements of the draft rule.

First, it is significant that the test in the draft rule that the AER must apply in determining whether to reduce the RAB as a result of inefficient expenditure is essentially the same as it is for assessing forecasts of capex on an ex ante allowance - that is, whether or not the expenditure reasonably reflects the capex criteria. This was the appropriate test for the efficiency of capex determined by the AEMC in 2006 and it continues to remain valid. The AER now has several years of experience in applying this test and a body of regulatory precedent has been developed.

Second, in determining whether to reduce the amount to be rolled into the RAB the AER should only take into account information and analysis that the NSP could reasonably be expected to have had access to at the time it undertook the capex.

Finally, whilst an AER decision to reduce the amount of capex to go into the RAB as a result of an inefficient capex overspend would not itself be a constituent decision, it would form part of the constituent decision as to the opening value of the regulatory asset base. As a result, this reduction would be subject to the same consultation process as the determination process and, more significantly, merits review.²⁴⁷ It is important for accountability that a NSP be able to seek an appeal body's review of any decision to reduce its capex rolled into the RAB in this way. While the decision would be subject to merits review, the Commission considered it is very important that any review of the AER's decision considers as a minimum the totality of its approach to capex incentives. This is because a decision that focussed only on the outcomes of the review of expenditure after it has been incurred, but did not have regard to, for example, any ex ante sharing mechanisms, may reach a conclusion that is not consistent with the overall capex objective and the NEO.

Statement on the overall efficiency of capex being rolled into the RAB

In addition to allowing the AER to reduce the amount of capex to go into the RAB as a result of a review of efficiency of past capex, the Commission proposed in the draft rule determination that the AER be required to make a statement on the overall efficiency of capex going into the RAB in its draft and final regulatory determinations for each NSP. This would require the AER to consider the overall efficiency of capex going into the RAB for all NSPs, not just those that have spent more than their allowance. This recognises the principle that capex below the allowance can still be inefficient.

²⁴⁷ What is subject to merits review in the future will depend on any changes agreed by the SCER after considering the LMR Panel report.

The Commission considered the obligation to make a public statement on the efficiency or otherwise of what is going into the RAB may be useful in terms of providing information and analysis to consumers and their representatives. Undertaking the review itself could be considered beneficial as a complement to ex ante reviews of capex. For a start, it is common practice that these reviews are carried out at the same time as the ex ante allowances are determined for the next regulatory control period. There are good reasons for this. As Brattle has observed in respect of the task of conducting reviews of the efficiency of past capex:

“in practice, this task is frequently carried out in parallel with reviewing capex forecasts, for example through the use of technical consultants, and perhaps because both tasks require the same data and expertise.²⁴⁸”

This obligation was incorporated as part of the overall approach towards a greater focus on the efficiency of NSPs in the NER. In line with the overall approach of giving the AER greater discretion and allowing flexibility, few requirements were included in the draft rule around how the AER must undertake this task. For consistency the overall test for efficiency is the same as that to be applied where the AER considers whether to make a reduction to the capex to be rolled into the RAB, and the same as that currently in the rules for the assessment of an ex ante forecast. The AER should, when it develops its Regulatory Information Notice (RIN), consider the information that it will require to assess the efficiency of capex that has been undertaken during the regulatory control period.

9.2.5 Depreciation

The Commission engaged Economic Insights to provide advice on the incentive effects of using actual versus forecast depreciation when rolling forward the RAB. Economic Insights designed a model to measure how much benefit is retained by a NSP over the life of the asset if it is able to make a saving against the capex allowance or how much is lost if the NSP overspends. This is the "incentive power" and is the portion of any efficiency saving that the NSP keeps. Similarly if the NSP overspends relative to the allowance, it is the proportion of that cost which it bears. The incentive power was calculated for asset lives of 10, 20, 30, 40 and 50 years using both forecast and actual depreciation for comparison.²⁴⁹

The results of Economic Insights' modelling indicate:

1. the incentive power under an actual depreciation approach is higher than the incentive power under a forecast depreciation approach. That is, a NSP will have a stronger incentive to minimise capex relative to the allowance under an actual depreciation approach;

²⁴⁸ The Brattle Group, *Framework for assessing capex and opex forecasts as part of a "building blocks" approach to revenue/price determinations*, June 2012, paragraph 54.

²⁴⁹ Economic Insights, *The use of actual or forecast depreciation in energy network regulation*, Report for the AEMC, 31 May 2012, pp. 14-15.

2. the incentive power under an actual depreciation approach differs depending on asset class whereas it is the same for all asset classes using forecast depreciation; and
3. the incentive to make any savings relative to the allowance declines through the regulatory control period and by year five results in no incentive to make savings.²⁵⁰

The modelling results confirmed the theoretical assessment of the relative incentive effects of depreciation approaches and analyses put forward in submissions.²⁵¹ Consequently, Economic Insights stated that:

“using forecast depreciation may be a preferable default as the use of actual depreciation is a second best substitute for having a capex EBSS [efficiency benefit sharing scheme], creates an incentive to substitute away from short life assets at a time when they may be becoming increasingly important to achieving efficient energy market outcomes and creates an incentive for NSPs to over-inflate their capex forecasts.²⁵²”

However, Economic Insights also conducted a review of recent Australian regulatory practice and found that the approach to depreciation varied across and within jurisdictions with regulators citing different reasons for using their chosen approach. In contrast, actual depreciation is the norm in the overseas jurisdictions surveyed. As a result, Economic Insights stated that:

“It has not been a case of 'one size fits all' and the approach used in each jurisdiction reflects the relative issues and concerns that have evolved in that jurisdiction.²⁵³”

Economic Insights thus concluded that it would be desirable to accord the AER flexibility in making the choice of depreciation approach in transmission as it currently has in distribution rather than prescribe a particular approach.

Further, the Commission decided that it was appropriate for the AER to have principles that it must take into account when exercising discretion on depreciation.

Therefore, the principles reflected the fact that depreciation is one component of a broader capex incentives arrangement, and that the incentives provided by the choice of depreciation methodology should be coordinated with other incentives for a NSP. For example any capex sharing scheme will be relevant, as this will directly increase

²⁵⁰ Note these results will differ slightly depending on the time of year it is assumed that capex is undertaken. Economic Insights have assumed that capex is incurred at the end of the year: *Id.*, p. 14.

²⁵¹ ENA, Directions Paper submission, 16 April 2012, p. 33 and ENA, Directions Paper submission, Attachment C, 16 April 2012, p. 8.

²⁵² Economic Insights, *The use of actual or forecast depreciation in energy network regulation*, Report for the AEMC, 31 May 2012, p. 42.

²⁵³ *Id.*, p. 33.

the power of the incentive. The power of the incentive for opex is also a relevant consideration to the extent that opex or elements of opex can be substituted with capex. The view was taken that it was undesirable to have incentives to reduce opex without corresponding incentives to reduce capex such that any reductions in opex can be offset by investments in capex. The draft rule determination also noted the importance that incentives to reduce capex do not provide an incentive that could lead to a decline in service standards below the level valued by customers; the incentives provided by the STPIS should also be considered.

It was noted that the differing incentive rates for assets with economic lives of different lengths under the actual depreciation approach will affect whether it is appropriate to have these differing incentives to the extent that they are substitutable.²⁵⁴ This was because, should they be substitutable, it may distort investment decisions on input use which may ultimately impact consumers. The Commission decided that it was relevant to also consider both the proportional value of short-lived assets in the asset base and their likely current and future strategic importance to gauge the significance of such a risk.

Finally, in considering the appropriate capex incentive, the Commission took the view that it was also relevant to consider the past performance of the NSP. The AER may wish to apply incentives in a different way to a NSP that has historically overspent due to being inefficient compared to one that has underspent.

The view was taken that the objective of the analysis was to arrive at a decision that would be consistent with the incentives for efficient capex under the overall regulatory framework whilst minimising any distortionary effects. The AER would then be required to set out in the capex incentive guidelines the manner in which it proposes to determine whether to use actual or forecast depreciation.

9.2.6 Related party margins and capitalisation policy changes

Related party margins

In a general sense, related parties are companies that are related to a NSP through common ownership.²⁵⁵ As identified by Covec, some NSPs engage related parties to perform various tasks. The related party margin refers to the difference between the contract price and the related party's actual direct costs to provide the service and may be capital in nature.²⁵⁶

The Commission acknowledged in the draft rule determination that there was a potential incentive for NSPs to incur inefficient capitalised related party margins. It noted that this incentive could be present regardless of whether a NSP spent more than

²⁵⁴ Id., p. 16.

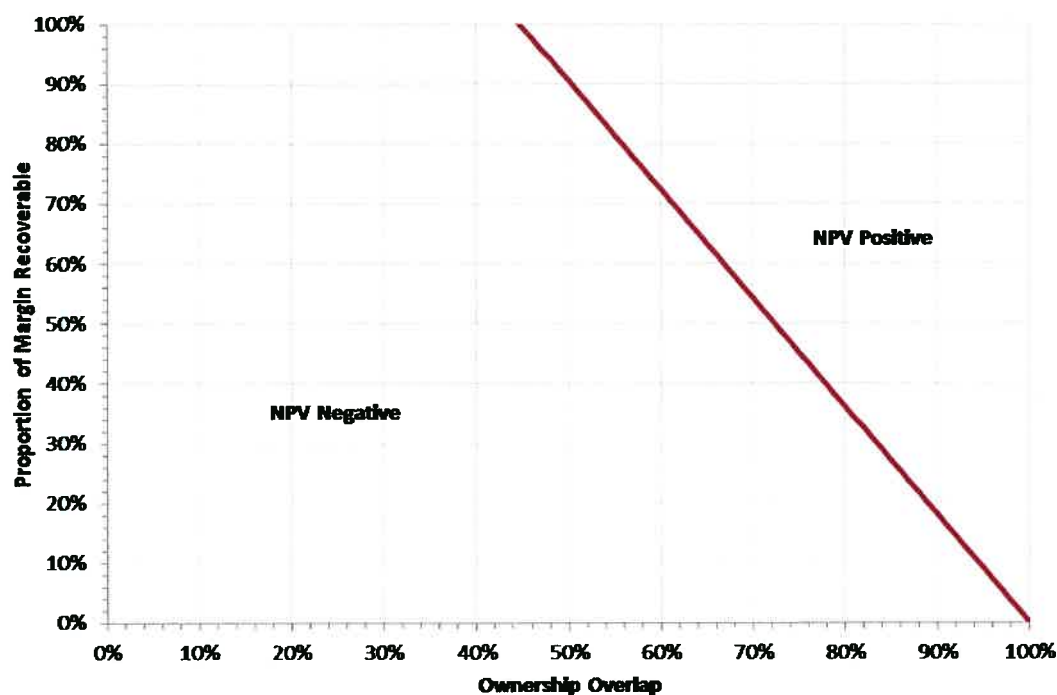
²⁵⁵ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, p. 54.

²⁵⁶ Covec, *Analysis of the Use of Related Parties by Electricity Network Service Providers*, Report for the AEMC, 31 May 2012, p. 1.

its allowance or not, and even where there were strong ex ante capex incentives in place such as a capex sharing scheme.

The results of a model developed for the Commission by Covec showed that when a NSP owns a large share of a related party it can be financially beneficial for the NSP to pay an inflated margin, even if something less than 100 per cent of that margin is allowed into the RAB.²⁵⁷ At smaller ownership shares it showed that it is not financially beneficial to pay an inflated margin, even if there is full pass through of the margin into the RAB.²⁵⁸ This is illustrated in Figure 9.1 below.

Figure 9.1 Incentives to pay related party margins



Source: Covec, *Analysis of the Use of Related parties by Electricity Network Service Providers*, Report for the AEMC, 6 June 2012, p. 21.

The Commission also referenced analysis undertaken by the AER on this issue.²⁵⁹ It suggested that this incentive could encourage NSPs to enter into commercial arrangements that are not the most efficient. It noted that the AER and Essential Services Commission of Victoria (ESCV) both felt that there was a need for additional measures to address excessive related party margins.²⁶⁰ To encourage NSPs to use the most efficient business structure the Commission determined that this issue should be addressed.

²⁵⁷ Covec, *Analysis of the Use of Related Parties by Electricity Network Service Providers*, Report for the AEMC, 6 June 2012, p. iii.

²⁵⁸ Ibid.

²⁵⁹ AER, Directions Paper submission, 2 May 2012, p. 28.

²⁶⁰ For a summary of the measures undertaken by the AER and the ESCV see Covec, *Analysis of the Use of Related Parties by Electricity Network Service Providers*, Report for the AEMC, 6 June 2012.

The Commission considered that the issue should be dealt with by reviewing the capex after it is undertaken. It therefore proposed to give the AER discretion to reduce the RAB by an amount that reflects the difference between:

- the margin that was paid; and
- the margin that the AER considers would have been paid if the related party margin had been referable to arrangements that had been on arm's length terms.

This is consistent with the capex factor in the NER that the AER must have regard to in determining the ex ante capex allowance.²⁶¹ The Commission considered that the AER should have this discretion regardless of whether the NSP spent more than its overall allowance. As noted above, a NSP could gain from inflating related party margins when it spends less than in its allowance as well as when it spends more than its allowance.

The Commission considered that a flexible or NSP-specific approach to determining the efficiency of related party margins would be optimal to recognise the differing incentive power in different circumstances. It put forward that the AER's current approach as described in the Covec report may lack the flexibility to take account of NSP specific circumstances.²⁶² That is, the AER could better tailor incentives to reflect the different circumstances, and so far as is reasonably possible provide an incentive for NSPs to deliver services in whichever way is most efficient, eg in house, related party providers or third party contractors. The Covec model was an example of how this approach could be developed.

The Commission proposed to require the AER to set out its approach to determining the efficiency of related party margins in the capex incentive guidelines. This would give NSPs and other stakeholders a chance to provide input on the AER's approach outside of the regulatory determination process, promote consistency in the application of the rule between NSPs, and provide greater certainty to NSPs as to how the AER will apply the rule.

Capitalisation policy changes

The Commission accepted that there was a potential incentive for NSPs to capitalise expenditure during a regulatory control period and thus recover the same expenditure twice: once in forecast opex and again through depreciation and return on capital once the expenditure is rolled into the RAB.²⁶³

Similar to related party margins, the Commission proposed to give the AER discretion to reduce the RAB by an amount that represents expenditure that has been capitalised as a result of within-period changes to the NSPs capitalisation policy. As per related

²⁶¹ See for example clause 6.5.7(e)(9).

²⁶² Covec, *Analysis of the Use of Related parties by Electricity Network Service Providers*, Report for the AEMC, 6 June 2012, pp. i, 8-9.

²⁶³ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Draft Rule Determination, 23 August 2012, p. 150.

party margins, the AER should have this discretion regardless of whether the NSP has spent more than its overall capex allowance not. This is because a NSP may gain from changing its capitalisation policy regardless of whether it spends more than its allowance or not. The Commission suggested that in general a NSP should be able to avoid having to capitalise expenditure as a result of a change in its capitalisation policy. First, changes to the capitalisation policy in the first two to three years of a forthcoming regulatory control period should be less likely on the basis that they could have been included in the earlier regulatory determination. Second, any changes that a NSP wants to make in the final two to three years of a regulatory control period could be delayed until the start of the next regulatory control period.

9.3 Submissions

This section provides a broad overview of submissions received on the draft rule determination. Specific issues that were raised in response to the draft rule determination are considered in section 9.4.

While NSPs support giving the AER the ability to apply a variety of tools they consider that having a capex incentive objective in the NER is unnecessary given the existence of the NEO.²⁶⁴ Where they commented, other stakeholders were supportive of the overall approach taken in the draft rule determination.²⁶⁵

There was broad support from stakeholders for enabling the AER to develop a capex sharing scheme as one of the capex incentive tools.²⁶⁶ However, NSPs maintain that the AER should at least be directed to consider the desirability of a continuous and symmetrical incentive in developing these schemes.²⁶⁷

There were mixed views on reviews of efficiency of past capex. NSPs maintain that allowing the AER to reduce the RAB as a result of a review of the efficiency of past capex would add to regulatory uncertainty and risk and may therefore encourage NSPs to inefficiently defer or avoid capex. They also note the administrative cost of the reviews. They suggest that if reviews of the efficiency of past capex are to be allowed for then there should be more guidance in the NER as to when and how the AER should apply them.²⁶⁸

²⁶⁴ ENA, Draft Rule Determination submission, 4 October 2012, pp. 50-51.

²⁶⁵ AER, Draft Rule Determination submission, 5 October 2012, p. 13; IPART, Draft Rule Determination submission, 2 October 2012, p. 2; MEU, Draft Rule Determination submission, 4 October 2012, p. 25; Energy Australia, Draft Rule Determination submission, 15 October 2012, p. 2.

²⁶⁶ See, for example, ENA, Draft Rule Determination submission, 4 October 2012, p. 55.

²⁶⁷ Ibid; The Commission defines a continuous incentive as one where the incentive power is the same no matter which year of a regulatory control period an investment is made. It considers that mathematical symmetry refers to an improvement or decline in capex relative to a benchmark which is of the same absolute value, accruing the same reward or penalty, in absolute value terms.

²⁶⁸ Id., pp. 50, 59-60.

The majority of other stakeholders that commented are broadly in support of reviews of efficiency of past capex.²⁶⁹ The IPART, MEU and the SA Minister for Mineral Resources and Energy consider that the mechanism should be broadened to allow the AER to reduce the amount of capex to go into the RAB when a NSP has spent within its allowance.²⁷⁰ On the other hand, the EUAA and UnitingCare Australia are sceptical about the effect that reviews of efficiency of past capex might have due to the practical difficulties for the regulator in undertaking them.²⁷¹ There was also a concern that NSPs may be able to claim higher rates of return as a result of the mechanism.²⁷²

Few stakeholders commented on the decision to give the AER discretion to use actual or forecast expenditure for the purpose of calculating depreciation to establish the opening regulatory asset base. Grid Australia support the AER having this discretion.²⁷³ Jemena suggest that forecast expenditure should be the default approach.²⁷⁴

Stakeholders broadly support the Commission's approach for dealing with capitalised related party margins and capitalisation policy changes.²⁷⁵

9.4 Analysis

This section responds to issues raised in submissions to the draft rule determination and sets out the Commission's reasoning for its final rule determination.

9.4.1 Overall approach

The capex incentive objective

The Commission maintains that the capex incentive objective in the draft rule is appropriate. The ENA's comment that the objective requires the AER to ensure that "no more than" efficient costs are recovered which is inconsistent with the RPP to provide a reasonable opportunity to recover at least efficient costs does not take into account that the objective is a goal that the NER aims to achieve and not a requirement.²⁷⁶ Further, the RPPs themselves are not requirements but matters that have to be considered by

²⁶⁹ See, for example, Consumer Action Law Centre, Draft Rule Determination submission, 5 October 2012, p. 3; Origin, Draft Rule Determination submission, 4 October 2012, p. 1.

²⁷⁰ IPART, Draft Rule Determination submission, 2 October 2012, pp. 1-4; MEU, Draft Rule Determination submission, 4 October 2012, pp. 4, 21-23; SA Minister for Mineral Resources and Energy, Draft Rule Determination submission, 15 October 2012, pp. 1-2.

²⁷¹ EUAA, Draft Rule Determination submission, 3 October 2012, pp. 13-14; UnitingCare Australia, Draft Rule Determination submission, 16 October 2012, pp. 13-14.

²⁷² Consumer Action Law Centre, Draft Rule Determination submission, 5 October 2012, p. 3; EUAA, Draft Rule Determination submission, 3 October 2012, pp. 13-14.

²⁷³ Grid Australia, Draft Rule Determination submission, 4 October 2012, p. 10.

²⁷⁴ Jemena, Draft Rule Determination submission, 4 October 2012, p. 20.

²⁷⁵ See, for example, *Id.*, p. 15; ENA, Draft Rule Determination submission, 4 October 2012, p. 63.

²⁷⁶ ENA, Draft Rule Determination submission, 4 October 2012, p. 51-52.

the AER in making a regulatory determination. There are a number of principles which for some matters have to be weighed up because they suggest weight be given to some factors that may be in conflict.

Content of the capex incentive guidelines

As identified in section 9.2.2 the Commission's general approach is to provide the AER with discretion as to the tools that it should use to provide for appropriate capex incentives and how it uses these tools. This allows the AER to tailor incentives to individual NSPs and adjust them over time. Requiring the AER to set out the criteria that it would use to select the mechanisms it would apply to each NSP as put forward in submissions by NSP would reduce the flexibility inherent in the proposed approach.²⁷⁷ For example, it could inappropriately restrain the AER from applying or not applying particular mechanisms to particular NSPs at the time of a determination. That said, the AER could elect to provide criteria in the guidelines if it wished to do so.

The process of applying the capex incentive guidelines

The Commission considers that the existing approach to the application of incentive schemes in Chapter 6 of the NER is appropriate for the application of capex sharing schemes and the AER's decision on whether depreciation should be calculated using actual or forecast expenditure for establishing the opening RAB. That is:

- the AER would set out its proposed approach at the framework and approach stage;
- the AER could change its approach during the regulatory determination process; and
- the NSP may propose a different approach during the regulatory determination process.

This will enable a different approach to be adopted if, during the regulatory determination process, it becomes apparent that another approach is more optimal. For example, the AER might want to change its approach to the application of any capex sharing scheme after having received and assessed a NSPs regulatory proposal. Similarly, a NSP may want to propose a different approach in developing its regulatory proposal. However, in general the Commission expects that the application of these aspects of the capex incentive guidelines will be determined at the framework and approach stage in practice. The Commission therefore does not support the position of SA Power Networks, CitiPower and Powercor that the AER should be required to make a final decision on the application of any capex sharing schemes and depreciation at the framework and approach paper stage.²⁷⁸

²⁷⁷ Id., p. 52.

²⁷⁸ SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p. 21.

The AER would decide at the time of a regulatory determination on whether to reduce the amount of capex to go into the RAB as a result of a review of the efficiency of past capex. This is discussed in more detail in section 9.4.3.

9.4.2 Capex sharing schemes

The Commission maintains that providing principles that require the AER to consider the need for a continuous and symmetrical incentive in developing a capex sharing scheme could discourage some schemes which are appropriate. This is particularly relevant when considering the capex regime as a whole. For example, the AER might want to adjust the strength of the incentive in certain years of the period to account for possible incentives regarding the timing of expenditure as a result of only allowing the AER to reduce the amount of capex to go into the RAB for inefficient expenditure above the allowance.

If an asymmetric capex sharing scheme is applied, NSPs consider that they should be able to receive compensation through the building block revenue allowance. They suggest that guaranteed service level payments are an example of this approach which provides a positive incentive for NSPs while ensuring consistency with the RPP. While the Commission does not consider that compensation to a NSP through the building block revenue would generally be required for the purpose of a capex sharing scheme, it considers this is something that the AER would decide on at the time of a regulatory determination. This is consistent with the Commission's overall approach to provide the AER with discretion on how to set capex incentives. NSPs also raised this issue in relation to small scale incentive schemes, which is discussed in chapter 11.

9.4.3 Reviews of efficiency of past capex

When the AER can reduce the amount of capex to go into the RAB

As noted in section 9.3, some stakeholders suggest that the AER should be allowed to reduce the amount of capex to go into the RAB when a NSP has spent within its allowance as well as when it spends more. The point was made that just because a NSP has spent less than its allowance it does not necessarily mean that the expenditure is efficient. For example, the reduced spending could have been due to a change in external circumstances during the period. On the other hand, SP AusNet put forward that expenditure as a result of incentives under the STPIS should be carved out when determining whether a NSP has spent more than its allowance.²⁷⁹

The Commission does not consider that the review of efficiency mechanism should be broadened as suggested by stakeholders. The approach to be taken is intended to encourage the AER to develop and apply ex ante incentives to reveal the efficient level of capex (including timing of expenditure), so that the review of efficiency of past capex is a last resort option. It would not be desirable that an ex post review becomes the only or main means of ensuring efficient levels of capex. Indeed, the ability to

²⁷⁹ SP AusNet, Draft Rule Determination submission, 4 October 2012, p. 5.

reduce the capex rolled into the RAB is intended for obvious cases of inefficiency, and not as the main means of achieving efficient levels of capex. This approach helps to encourage the development of ex ante incentives. It is also important for the ex ante allowance to have meaning, and if the review of efficiency can be used in the way suggested by these stakeholders the Commission is concerned that both the regulator and the NSP will not focus as much on setting an appropriate ex ante allowance. The ex ante allowance is important because it provides the basis for any ex ante incentives that are put in place and the prices that consumers pay.²⁸⁰

In addition, as noted earlier, the Commission considers that the ex ante allowance as a total represents a forecast of an efficient level of expenditure for the NSP and there should generally be little need for the NSP to spend above this amount in normal circumstances. In the event that external circumstances did change to the benefit of the NSP then a well-designed ex ante capex sharing scheme could provide an incentive for the NSP to be efficient. For example, a capex sharing scheme could provide financial incentives for a NSP to be efficient regardless of how much it is forecast to spend as generally the more efficiencies that are made the greater the financial reward for the NSP under such schemes. The ex ante incentive depends in part on how the AER exercises its discretion to implement a capex sharing scheme.

Similarly, the Commission does not consider it appropriate to allow for expenditure relating to incentives provided under the STPIS to be removed from the calculation of the overspending requirement in the NER. A NSP may spend more than its allowance in response to incentives provided under the STPIS and this expenditure may be efficient. However, it should be up to the AER to decide whether to take this into account. If the AER considers this is appropriate then it could set this out in the capex incentive guidelines. For example, the guidelines could set out that the AER would not reduce the amount of capex to be rolled into the RAB if overspending was the result of responding to incentives under the STPIS.

How the AER undertakes the reviews

As set out in the draft rule determination the Commission maintains that it is appropriate that the AER essentially applies the same test for efficiency as the ex ante test in the efficiency review when determining whether to reduce the amount of capex to go into the RAB. In addition, the AER will be required to only consider information that could have reasonably been available to the NSP at the time it undertook the capex.

The Commission notes concerns from some stakeholders on the practical difficulties of reviewing the efficiency of expenditure for the purposes of reducing the amount of capex to go into the RAB.²⁸¹ While there can be challenges in such a review the Commission notes that many regulators have undertaken such reviews in the past.

²⁸⁰ Even though there would be a subsequent adjustment to a NSP's revenue to reflect a decision to reduce the amount of capex to go into the RAB it would not necessarily be the same consumers who benefited from this subsequent adjustment as who paid the original charges.

²⁸¹ See, for example, EUAA, Draft Rule Determination submission, 3 October 2012, p. 13-14.

The Commission intends that if a NSP follows good practice and governance for making investment decisions it should be able to demonstrate to the AER that its capex overall is efficient and should be rolled in to the RAB. The presence of strong ex ante incentives for efficient capex could also provide the AER and customers with a relatively high level of assurance that any capex was likely to be efficiently incurred. The final rule allows the AER to develop ex ante incentives in part because the Commission expects that the use of such incentives could significantly reduce the likelihood of concerns that capex was inefficiently incurred. In this way, any reduction of capex to go into the RAB following a review of efficiency would be a relatively rare occurrence.

The Commission considers that good practice and governance would include a NSP being able to demonstrate that it had high quality processes in place to assess and make investment decisions, that it regularly reviewed future investment plans to assess whether they are still appropriate given changes in key assumptions such as demand forecasts, and that it actively sought the views of its customers about investment requirements. Bearing this overall approach in mind the Commission has set out some examples of how the AER could potentially approach undertaking the reviews of efficiency of past capex. Given that the capex incentive objective seeks to ensure that capex to go into the RAB meets the capex criteria in the NER, applying these techniques in a review of efficiency of past capex should enable this to be achieved.

By way of example, the AER could take a layered approach to undertaking the reviews. At the highest level the AER could consider the overall capex for the period under review and compare this expenditure with the expenditure incurred by other NSPs during the period. It could also consider whether capex is consistent with known changes in key factors affecting expenditure levels, such as forecasts of demand.

At the next level the AER could look at the governance arrangements of the NSP including the decision making processes and procedures that it had in place at the time the decision was made to undertake the capex. Better decision making processes for example could have resulted in better prioritisation and deferral of projects. This stage might also involve looking at the contracting processes used by the NSP - how flexible were the contracts entered into, how much contingency did they provide for?

Depending on the outcomes of the AER's assessments in the first two stages the AER could look at some individual projects to see whether any potential concerns identified in some of the governance and contracting arrangements appeared to raise concerns when applied to projects in practice. It could do this assessment for a sample of projects, bearing in mind that the AER can only reduce the RAB by an amount of any expenditure incurred above the NSP's capex allowance.

In extreme cases where the AER had found evidence of very poor governance processes and the initial sample of projects reviewed verified these concerns it may want to undertake a wider review of projects. While this wider review may not lead to any additional reduction in capex rolled in to the RAB it could provide valuable insights for the AER when reviewing a NSPs proposal for the next determination.

The Commission intends that the AER should not be limited to a bottom-up engineering assessment of individual projects to determine inefficiencies although this type of assessment would also have a potential role to play in any review. As explained above the Commission intends that the initial focus of reviews of efficiency of past capex would be on the governance processes and procedures of the NSP.

The Commission agrees with NSPs that the AER should have regard to the other capex incentives and measures that exist when considering the nature and extent of a review of efficiency.²⁸² In addition, the AER should also have regard to other factors such as the extent to which a NSP may have spent more than its allowance during previous regulatory control periods. The final rule adequately provides for this by requiring the AER to consider how all of the capex incentive tools taken together are consistent with the capex incentive objective when developing the capex incentive guidelines. This requires the AER to take a coordinated approach to capex incentives.

Capex that is precluded from the RAB that subsequently becomes used and useful

NSPs suggest that the NER need to allow for any disallowed capex to be carried forward where capex is subsequently used and useful.²⁸³ The Commission considers that determining whether capex was subsequently used and useful would be similar to optimising the RAB. As identified in the final rule determination on a rule change put forward by the MEU, the Commission does not support such a review.²⁸⁴ Amongst other things this would force the AER to take a project by project or asset by asset approach to reviews of efficiency of past capex assessments. Instead it should be an assessment of the total expenditure incurred. Having said this, the AER could take into account the extent to which it expected capex to later become used and useful in determining the amount of any reduction to capex to go into the RAB if it wished to do so. The AER should set this information out in its capex incentive guidelines.

Review of efficiency of past capex and capex undertaken previously

In its consultation paper on savings and transitional arrangements the Commission set out that the discretion for the AER to reduce the amount of capex to go into the RAB as a result of a review of efficiency of past capex would apply immediately following commencement of the final rule. That is, the AER would have the power to reduce the RAB as a result of a review of past capex as part of any regulatory determination which is made by the AER following the commencement of the final rule.²⁸⁵

282 ENA, Draft Rule Determination submission, 4 October 2012, pp. 59-60.

283 ENA, Draft Rule Determination submission, 4 October 2012, p. 60; Jemena, Draft Rule Determination submission, 4 October 2012, p. 20.

284 AEMC, *Optimisation of Regulatory Asset Base and the Continued Use of Fully Depreciated Assets*, Rule Determination, 13 September 2012.

285 AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Consultation Paper on Savings and Transitional Arrangements, 14 September 2012, p. 11.

NSPs did not support this approach. They implied that it would not be fair and reasonable and was not consistent with section 33 of schedule 2 of the NEL.²⁸⁶

The Commission considers that although NSPs should be undertaking capex in their current regulatory control periods in an efficient manner it agrees that it may not be reasonable to apply the mechanism to all capex incurred in the current regulatory period. This is because NSPs would not have known that the amount of capex to go into the RAB could be reduced as the result of an efficiency review when they undertook the capex for the whole of the current regulatory control period. Therefore NSPs may not have kept information and records that they would have if they had known that they would have been subject to a review. For example, a NSP whose next regulatory control period begins in 2015 would be subject to the possibility of having its opening RAB for the next period reduced to reflect inefficient capex incurred during its current regulatory control period (2010-2015). The NSP would not have known that it would be subject to an ex post efficiency test until the final rule commences in November 2012 and therefore may not have kept records and information on decision making for example to the level that it would have prior to then had it have known that it would be subject to a review.

An input into the consideration of the level of information and records that a NSP considers that it needs to maintain will depend on how the AER proposes to undertake the review as set out in the capex incentive guidelines. This is particularly relevant given that NSPs have no experience of the AER undertaking these types of review before. For these reasons, the Commission considers that it is appropriate that the AER should not be able to reduce the amount of capex to go into the RAB as a result of a review of efficiency of capex for capex that was incurred prior to the AER's first capex incentive guidelines being in place. However, as set out in the consultation paper on savings and transitional arrangements the Commission maintains that the final rules when made should apply to all NSPs as soon as possible.²⁸⁷ Therefore, the AER will be able to reduce the amount of capex to go into the RAB as a result of a review of efficiency of capex for capex that was incurred in the first regulatory year after commencement of the AER's first capex incentive guidelines. In addition, this change does not affect the requirement for the AER to make a statement on the efficiency of the capex to go into the RAB as part of its draft and final regulatory determination for each NSP - this provision will have immediate effect and will apply to all capex spent by the NSP during its current regulatory control period.

On the basis that rules that give effect to this approach are not needed on an ongoing basis, they are not included in the final rule and but are included in the transitional rules as discussed in chapter 12.

²⁸⁶ Energex, Draft Rule Determination submission, 4 October 2012, p. 2; Jemena, Draft Rule Determination submission, 4 October 2012, pp. 19-20; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, pp. 22-23.

²⁸⁷ AEMC, Consolidated Rule Request - Economic Regulation of Network Service Providers, Consultation Paper on Savings and Transitional Arrangements, 14 September 2012, p. 7.

The version of the guidelines that will have effect at the time the AER undertakes a review

NSPs have also commented on the version of the guidelines that the AER should be required to apply to reviews of efficiency of past capex. NSPs say the capex incentive guidelines in place at the beginning of the regulatory control period in which the capex being assessed was incurred should be applied - not those that were in place at the time it undertakes a review of efficiency. The ENA and SA Power Networks, CitiPower and Powercor make similar comments in relation to the rate of return guidelines, which are discussed in chapter 4, and related party margins, which are discussed below.

The Commission does not consider it is appropriate to provide this level of precision in the NER. This approach is inflexible and could lead to inefficient outcomes. For example, it would lock-in old versions of guidelines even where there have been improvements to the guidelines to recognise the experience of the AER in applying previous guidelines. It could also result in the AER applying different versions of the guidelines to different NSPs which could be difficult to do in practice and administratively burdensome. Further, the Commission notes that Chapter 6 of the NER provides that the AER should indicate how transitional issues are to be dealt with when it develops and changes its guidelines.²⁸⁸ The same provision will be added to Chapter 6A of the NER as part of this rule change. This is the appropriate means of dealing with any transitional issues arising from changes to the capex incentive guidelines.

9.4.4 Related party margins and capitalisation policy changes

Related party margins

The Commission maintains that the test in the draft rule for determining whether the RAB should be reduced for capitalised related party margins is appropriate. This is a specific issue pertaining to related party margins and is separate from the general review for efficiency. Among other things the trigger mechanisms are different. The AER does retain the discretion to make a reduction to what is added to the RAB and it might be expected that if a margin not on arm's length terms could otherwise be shown to be efficient the AER would consider this. The Commission's general starting point is that margins on arm's length terms are likely to be efficient. It therefore does not agree with Jemena that the test should be on the prudence and efficiency of the expenditure.²⁸⁹

ENA suggests that the AER should be required to take into account the capex incentive guidelines that are in place when the arrangements that gave rise to the margin being paid or payable by the NSP (not those that were in place at the time it undertakes a review of efficiency).²⁹⁰ Similarly, SA Power Networks, CitiPower and Powercor

²⁸⁸ NER clause 6.2.8(d).

²⁸⁹ Jemena, Draft Rule Determination submission, 4 October 2012, p. 15.

²⁹⁰ ENA, Draft Rule Determination submission, 4 October 2012, pp. 53-54.

consider that the AER should be required to apply the capex incentive guidelines in place at the beginning of the review period in relation to related party margins. As noted in section 9.4.3 the Commission considers it appropriate that the AER should apply the guidelines in place at the time of the review and that the AER has scope to consider transitional issues when revising the guidelines.²⁹¹

SA Power Networks, CitiPower and Powercor also wanted more detail as to what the AER should set out in the guidelines on its approach to determining the efficiency of related party margins.²⁹² The Commission does not consider that more detail in the NER on this issue is appropriate. It should be up to the AER to develop its approach on this issue taking account of the NEO, the RPP and the capex incentive objective.

Capitalisation policy changes

The draft rule provided that the AER could reduce the amount of capex to go into the RAB for expenditure that was capitalised and was not consistent with the NSP's capitalisation policy at the time of the regulatory determination in which the expenditure was incurred. NSPs consider the draft rule would remove the inappropriately classified expenditure from the RAB without acknowledging it as opex.²⁹³ NSPs suggest this is important because:

- actual opex is an important input into future allowances; and
- it will allow for the proper application of the efficiency benefit sharing scheme (EBSS).

The Commission agrees that actual opex is an important input into future allowances. Indeed actual opex incurred during any preceding regulatory control periods is a factor that the AER has to take into account in deciding whether it is satisfied with a NSP's opex forecast in its regulatory proposal.²⁹⁴ In principle, the Commission considers that it should be up to the AER to determine whether capitalised expenditure that is not allowed to go into the RAB should be recognised as actual opex for the purpose of setting the opex forecast for the next period. This would be determined by the AER through the regulatory determination process and will depend on the approach adopted by the AER in relation to the opex forecasts. It should also be up to the AER to adjust the allowances in the EBSS to take account of any capitalised expenditure that is not allowed to be rolled into the RAB. Again, it is appropriate that this be determined through the regulatory determination process.

The draft rule did not require the AER to set out its approach to determining whether expenditure has been capitalised consistently with the NSP's capitalisation policy in the capex incentive guidelines. This was because the Commission considered that this test did not require any further specification. In its response to the draft rule determination

²⁹¹ Ibid.

²⁹² Id., p. 25.

²⁹³ ENA, Draft Rule Determination submission, 4 October 2012, p. 63.

²⁹⁴ NER clause 6.5.6(3)(5) and 6A.6.6(e)(5).

NSPs suggest that the AER should be required to set out its approach to capitalised expenditure in the capex incentive guidelines.²⁹⁵ The Commission accepts that it is appropriate for the AER to set out its approach to assessing capitalised expenditure in the capex incentive guidelines given that this is a part of the capex incentive regime and that the capex incentive guidelines should set out the AER's overall approach to capex incentives in the guidelines.

9.5 Guidance on final rule

The final rule provides the AER with the capacity to use a range of different tools to provide assurance that the level of capex being incurred by NSPs is as efficient as reasonably possible. Given the scope of discretion being afforded to the AER, the Commission considers it helpful to provide some guidance as to how it intends the provisions of the final rule to operate.

9.5.1 Overall approach

The capex incentive objective was formulated to reflect the ex ante test for efficiency of capex that was developed by the Commission in 2006. This means that capex incentives should be designed with the aim that only capex that is efficient should be rolled into the RAB. Efficiency in this context would include trading off investment in new and replacement assets, maintenance of existing assets and other options such as demand side management.²⁹⁶ It also includes the efficient timing of capex and whether expenditure incurred reflects that which would have been incurred by a prudent NSP. The objective should not act as a mandatory requirement or a prohibition, but a source of direction for the capex incentives regime.

9.5.2 Capex sharing schemes

Process

The process of developing and applying a capex sharing scheme will be as follows:

- the AER may develop a capex sharing scheme or schemes that can be applied to any NSP. This will be set out in the guidelines, which should also explain how the scheme is consistent with the overall capex incentive objective;
- the AER must set out in the framework and approach paper for a NSP its proposed approach to applying any capex sharing scheme to the NSP;
- the NSP proposes how any applicable capex sharing scheme should apply to it in its regulatory proposal. For example, there may be elements that the NSP may propose that are discretionary in the scheme; and

²⁹⁵ ENA, Draft Rule Determination submission, 4 October 2012, p. 53.

²⁹⁶ In practice, efficiency can only be measured by comparison to other companies.

- the AER determines how any applicable capex sharing scheme will apply in its draft and final regulatory determinations for the NSP. For example, the AER could use this stage to set any incentive rate that is to be applied for a NSP.

Principles

The principles will reflect that the neutral position for a NSP achieving its regulated cost of capital is a NSP that is meeting its allowance and that broadly a NSP will be rewarded for improvements in efficiency that result in expenditure less than the allowance and penalised for expenditure more than the allowance. In this way, penalties should not be imposed on NSPs that undertake capex in an efficient manner. That is, the scheme should encourage NSPs to seek out and achieve efficiency improvements over and above those in the allowance. Those improvements should then be appropriately shared between NSPs and consumers. This means that achieving such efficiency improvements under the scheme should be expected to be net present value (NPV) positive for NSPs while also providing benefits for consumers.

While the principles will provide for rewards and penalties, and will not require that there be mathematical symmetry between those rewards and penalties. That is, NSPs should be rewarded with a set portion of any efficiency gains and should be penalised by a set portion of any efficiency losses. For example, a scheme may be designed so that where a NSP is able to undertake its capex program for a regulatory year at \$1 million less than the benchmark, 50 per cent of this saving, or \$500,000, is reflected in higher revenues. The same scheme may provide that where there is \$1 million over the benchmark, the NSP bears the cost of 30 per cent and only \$700,000 is recovered in revenues. The AER is required to explain in its guidelines how the scheme is consistent with the capex incentive objective.

The final rule requires the AER to take into account the interaction of the scheme with other incentives such as those relating to service performance, demand management and opex. For example, the AER should consider the impact of the mechanism on substitution of capex for opex. Similarly, it might want to consider adopting a higher powered scheme where it has access to extensive information on service standards. The AER must also take into account the capex objectives, and where relevant the opex objectives in the NER. These objectives include complying with regulatory obligations such as reliability and service standards.

In deciding whether to apply any scheme it has developed and the details of the scheme that should apply, the AER will also be required to take into account all of the same principles and factors that it has to take into account in designing a scheme. In addition, it will have to take into account the capex incentive objective and the relevant circumstances of the NSP. So for example, the AER could take into account the spending history of the NSP when determining whether to apply a scheme and the nature of any scheme. The final rule does not require that any scheme meet all of the factors that the AER is required to take into account, only that the AER takes into account or has regard to the factors. The Commission would expect the AER to explain how it had taken into account or had regard to the various factors. Further discussion on the intended role of objectives and factors is provided in section 5.5

The principles can accommodate different types of schemes. Examples of schemes that would be permitted by the final rule are described in Appendix A. These examples are not meant to limit the way the AER approaches setting capex incentives but to illustrate particular ways that the provisions on capex sharing schemes in the final rule could be implemented.

9.5.3 Reviews of efficiency of past capex

Reduction for inefficient expenditure

The final rule allows the AER to make a reduction in respect of any overspend in relation to the regulatory allowance for a specified period. The process requires that the AER must set out in its capex incentives guidelines how it will approach this.

The years that comprise this period will not match any one regulatory control period. This is because at the time a regulatory proposal is submitted, data on actual capex will not yet be available for every year of the current regulatory control period. This means that the years which comprise the period for analysis should be compared with the relevant regulatory allowance on a like for like basis, for example the same constant dollars and discount factor should be used. Under the current timing for the regulatory process and the extended timeframe set out in the final rule, three years of data from the current regulatory control period will be available at the time of the regulatory proposal assuming a five year regulatory control period. The final rule intends that the period that will be assessed to determine whether an overspend has occurred and reviewed for the purpose of reducing the amount of capex to go into the RAB should comprise:

- the years in the current regulatory control period for which the AER has actual capital expenditure data at the time the NSP submits its regulatory proposal. For example, years one to three of a regulatory control period where the regulatory control period is five years; and
- the last two years of the previous regulatory control period which will not previously have been the subject of a review of efficiency by the AER.

Even though the AER is likely to obtain the data for actual capex of the second last year of the current regulatory control period *during* the regulatory process, there may not be sufficient time for the AER to consider this. Therefore, the actual capex during the second last year of the regulatory control period will not be considered until the following regulatory determination.

As identified above, the AER will be required to set out the manner in which it will determine the amount of any reduction in more detail in the capex incentive guidelines. This could include considerations such as:

- the extent to which projects were evaluated against, and satisfied, the relevant regulatory test;

- the amount of any penalty already imposed on the NSP in respect of the expenditure through a capex sharing scheme, as well as whether the operation of a capex sharing scheme would reduce the likelihood of inefficient overspending. The Commission intends that a reduction to the amount of capex to go into the RAB following a review of efficiency by the AER should be a last resort measure and that primary reliance could be placed on an ex ante incentive to provide assurance that capex is incurred efficiently; and
- the effect of the use of actual rather than forecast depreciation in the RAB roll forward mechanism.

In determining whether an overspend has occurred, the allowance for each year is determined based on the AER's relevant regulatory determination that includes that particular year. Since this will include years in different regulatory control periods different regulatory determinations will be relevant for determining the overall allowance for the years being considered. The overspending requirement will be determined by comparing the capex allowance for the relevant period against total capex incurred. Any decisions relating to cost pass-throughs, capex re-openers and contingent projects are to be applied to adjust the allowance for the purposes of determining if there has been an overspend. In respect of cost pass throughs, this will mean that the AER will need to know the proportion of any cost pass through amount that represents capex, as opposed to opex. The AER may wish to use its information gathering powers to have this information provided with a cost pass-through application. The amount of any overspend determined will be the maximum amount that the AER can reduce the RAB by as a result of a review of efficiency of past capex.

The Commission notes that a NSP could in theory be penalised twice for the same inefficient expenditure if the cause of an overspend was due to capitalised related party margins and/or capitalised expenditure not in accordance with the NSPs capitalisation policy. However, it is expected that the AER would use its discretion appropriately in this circumstance. Similarly, in line with the general approach taken in this rule change, the AER could decide to not reduce the amount of capex going into a NSP's RAB if, after deducting for inefficient related party margins and capitalised expenditure not in accordance with the NSPs capitalisation policy, the NSP would have spent within its allowance. The AER could set this out in the capex incentive guidelines.

As described above, in determining whether expenditure incurred was efficient, the AER must only take into account information and analysis that the NSP could have reasonably been expected to have considered or undertaken at the time that it undertook the relevant capex. The NSP should only be judged on material reasonably available to it at the time, though this would include material available not just at the start of a project but also during it.

If for example the NSP chose the most efficient pole design in 2008 but further studies in 2010 indicated a different pole design would have been more efficient, it would depend on when the project was carried out relative to 2010 in the regulatory control period whether it may be appropriate for the AER to take into account these further

studies. As another example, in coming to a decision on whether work was undertaken efficiently the AER could only use unit costs at the time the expenditure was incurred. The AER could not take into account advancements in technology which may have reduced the unit costs of expenditure. One source of information that the AER could use is published forecasts of demand, for example the transmission annual planning report, and it would be reasonable for the AER to expect that NSPs actively and regularly reviewed capex plans based on the most up to date forecasts of demand.

The Commission considers that benchmarking information such as a comparison of actual capex incurred by NSPs during the period would violate the hindsight principle and would not be a basis on its own for the AER to reduce the RAB. However, as discussed in section 9.4.3, this information could be used as an initial sense check to give an indication as to whether further scrutiny of capex was required. In addition, benchmarking information that was available to the NSPs at the time it undertook the capex could be used by the AER for this purpose. For example, if the benchmark cost of building a particular asset at the start of a regulatory control period was \$1m but the NSP spent \$1.5m the AER could use this information to reduce the amount of capex to go into the RAB if the NSP could not provide justification why it paid more than the benchmark cost. This is because it could be expected that the NSP would have had access to this information at the time that it undertook the capex.

The AER should set out its reasons in the regulatory determination for reducing the capex that would otherwise be rolled into a NSP's RAB consequent upon a review of the efficiency of past capex. If the AER determines a capex overspend has occurred but determines not to make a reduction, the AER should also explain this in the determination in accordance with the consideration of the overall efficiency of what is rolled into the RAB. The Commission intends that if a NSP follows good practice and governance for making investment decisions it should be able to demonstrate to the AER that any capex it has incurred beyond the allowance is efficient and should be rolled in to the RAB.

The AER will not be able to make a reduction to the amount of capex to go into the RAB as a result of a review of efficiency of past capex where the capex was incurred before the commencement of the first capex incentive guidelines. Expenditure incurred in the current period in the first regulatory year after the commencement of the first capex incentive guidelines however may be subject to an efficiency review. This means that, for a NSP whose next regulatory control period commences on 1 January 2015 the AER could reduce the RAB as a result of inefficient expenditure incurred from 30 November 2013 to 31 December 2014 of the current regulatory control period assuming that the AER's capex incentive guidelines commence on 29 November 2013.²⁹⁷

²⁹⁷ However, it should be noted that the review of this expenditure would occur as part of the regulatory determination process for the subsequent regulatory control period as this is when the AER would have actual data for this period.

Consideration of the overall efficiency of what is rolled into the RAB

The statement on the efficiency of capex to be rolled into the RAB will be independent of the discretion to reduce the capex that is rolled into the RAB. In practice, the AER is likely to conduct these assessments together and use the review of the efficiency of the totality of the capex as part of its consideration of whether to make a reduction in respect of any overspend.

The final rule enables the AER to undertake these reviews in the manner it considers appropriate. In particular, these may be tailored to the circumstances of a particular NSP. A review may be different based on the AER's knowledge of how a particular NSP has undertaken capex in the past, for example. Alternatively, if a NSP has overspent in a particular regulatory control period the AER might choose to undertake a more extensive review than if it had underspent. The review could be based on a top down or bottom up analysis, or some combination of the two. It is expected that NSPs will include justification that past capex is efficient in their regulatory proposals.

9.5.4 Depreciation

The final rule enables the AER to choose the depreciation approach with regard to a number of principles. The principle that refers to the other incentives a NSP has to incur efficient capex is intended to prompt consideration of the totality of those incentives, including incentives outside the NER which may be specific to the NSP. This will provide a guide as to whether additional incentives are required to encourage efficient capex. For the final rule, the Commission accepts the ENA's proposal to broaden the named incentives from the STPIS to any scheme or other incentive. As well, the principle which relates to the efficiency of past capex will also provide a guide as to whether additional incentives are required.

To the extent that additional incentives are deemed appropriate, the principle requiring an examination of the substitution effects of short and long life assets is designed to assess the materiality of the potential distortionary effects of increasing the power of the incentive using depreciation by applying an actual approach. The extent that short-lived assets, such as information technology, can be physically substituted with long-lived assets, such as poles and wires, to achieve similar outcomes in network management should be considered in terms of the ability and the incentive to do so. In turn, a consideration of the benefits of such asset types is intended to address the potential strategic importance of such asset types to avoid potential distortions even if the relative size of the asset class is a small proportion of the capex program.

Substitution possibilities between opex and capex should also be considered for potential distortions as they are included in the capex factors. A consideration of capex factors is to encourage consistency with the overall capex incentive objective. Finally, the purpose of the requirement to consider the capex incentive guidelines is to promote internal consistency with the principles and approach included in the guidelines in any decision of the approach to depreciation.

9.5.5 Related party margins and capitalisation policy changes

The final rule allows the AER to reduce the capex that would otherwise be rolled into the RAB to deal with related party margins that do not reflect margins that would have been incurred if, in the opinion of the AER, the arrangements had been on arm's length terms. It will be up to the AER to determine whether arrangements that were entered into by the NSP and a third party reflect arm's length terms. Similarly, it will be up to the AER to determine what the margin would have been if it considers the arrangements do not reflect arm's length terms. The AER will be required to set out its proposed approach to related party margins in the capex incentive guidelines. The Commission considers a flexible or NSP specific approach might be adopted to recognise that the incentive power differs in different circumstances and that the Covec model may assist the AER in developing this approach.

The capex incentive guidelines could also include providing greater clarity on what the NSP should report under the information provision relating to this issue.²⁹⁸ If NSPs do not provide the information required by the AER under the information provision relating to related party margins then the AER may be able to seek the required information through a regulatory information notice.

Similarly, the final rule allows the AER to reduce the capex that would otherwise be rolled into the RAB to reflect capitalised expenditure as a result of changes to the NSPs capitalisation policy during the regulatory control period.

The AER can reduce the capex that would otherwise be rolled into the RAB for these expenditure types regardless of whether a NSP has spent more than its capex allowance. Similarly, the amount by which the AER may reduce the capex that would otherwise be rolled into the RAB for these expenditure types is not limited to the amount of any expenditure above the allowance.

To assist the AER in exercising this discretion, the final rule requires a NSP to include in its regulatory proposal information on margins paid or expected to be paid to related parties and information on expenditure that has been capitalised by NSPs otherwise than in accordance with the capitalisation policy submitted to the AER as part of the NSP's regulatory proposal. As a corollary, the final rule requires NSPs to provide their capitalisation policy with their regulatory proposal. The AER will need this as a reference point in respect of actual expenditure at the time of the next determination. In practice, the AER could take the approach that it will approve capitalised expenditure where a NSP provides audited statements that its policy has not changed. Although not required, it could set this out in the capex incentive guidelines.

As identified in section 9.4.4 the Commission considers it appropriate that the AER should take into account disallowed capitalised expenditure when considering past opex of a NSP to determine its opex allowance. This should be considered as part of the regulatory determination process.

²⁹⁸ Final rule NER clause S6.1.1(6).

By comparison with the general review of efficiency of past capex, for the purpose of related party margins and capitalisation policy changes the AER has more discretion to consider capex where actual data isn't available.

On the other hand, the same arrangements as those for the general review of efficiency of past capex apply in terms of the capex that is subject to assessment following the commencement of the rule. That is, the AER will not be able to make a reduction to the amount of capex to go into the RAB where the capitalised related party margins or capitalised expenditure was incurred before the commencement of the first capex incentive guidelines. Expenditure incurred in the current period in the first regulatory year after the commencement of the first capex incentive guidelines however may be subject to this review.

10 Regulatory determination process

Summary

- The Commission has taken a holistic approach to address broad issues with the current regulatory determination process, with the purpose of improving the consumer engagement process, providing the AER and other stakeholders with an adequate opportunity to consider all relevant and significant material, and making NSPs more accountable.
- To this end, the following incremental changes have been made to the current process that are within the scope of the rule change request:
 - the NSP will provide a consumer-targeted overview paper with its regulatory proposal;
 - the AER will publish an issues paper outlining its preliminary key issues to assist the consumers to focus their resources;
 - the AER will hold a public forum to allow consumers and other stakeholders to engage with the AER and NSP on the regulatory proposal and issues paper;
 - the NSP will identify to the AER specific confidentiality claims in its regulatory proposal;
 - the AER will report such confidentiality claims on its website;
 - the AER will report on its website where it receives late or out-of-scope material from the NSP;
 - the timeframe for the regulatory determination process will be extended by commencing it four months earlier;
 - the time for the NSP to prepare its revised regulatory proposal will be increased;
 - a discretionary cross-submissions stage to target specific issues arising from submissions on the draft regulatory determination or revised regulatory proposal will be introduced;
 - the framework and approach paper will be made optional on particular matters that have been addressed in a previous framework and approach paper; and
 - changing the service classification and formulaic expression of the control mechanism will be based on unforeseen circumstances after the framework and approach paper has been published.

Difference between draft rule and final rule

- In the draft rule, the framework and approach stage and the regulatory determination process were to commence six months earlier than the current arrangements. The final rule further optimises this timeframe so that the framework and approach stage will be completed and the regulatory determination process will commence four months earlier than the current arrangements.
- In the draft rule, the framework and approach stage on a particular component or components would have only been triggered at the AER's discretion. The final rule allows the NSPs to also trigger the framework and approach stage on a particular component or components in addition to the AER.

10.1 Introduction

Regulatory decision-making involves thorough consideration of the regulated business' proposal.²⁹⁹ It involves providing opportunities for the regulated business and interested stakeholders, including consumers and consumer representative groups, to make submissions to the regulator.³⁰⁰ It also entails allowing reasonable time for full and thorough analysis of the submissions and the regulator's intermediate decisions.³⁰¹ To facilitate this, the NEL sets out the manner in which the AER is to perform its economic regulatory functions or powers.³⁰² In addition, the NEL specify the processes that the AER, NSP and other stakeholders are required to follow as part of the regulatory determination process.³⁰³ A key to effective regulation is the reduction of regulatory risk by providing transparent and timely processes for regulatory determinations.³⁰⁴ Ensuring clarity around a number of procedural issues provides greater certainty to market participants, makes them more accountable to a clearly prescribed process, and reduces delays in regulatory decision making.³⁰⁵ This chapter addresses issues raised by the AER regarding the regulatory determination process, which are outlined below.

10.1.1 Regulatory determination process

To reduce regulatory error under the current regulatory determination process, all stakeholders are permitted to provide submissions at various points throughout the

299 This point was also made by the Commission in 2006. See AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, p. 108.

300 Ibid.

301 Ibid.

302 Ibid.

303 Ibid.

304 Ibid.

305 Ibid.

process. The AER was concerned that NSPs are undermining the process by providing material that should be part of an initial or a revised regulatory proposal later in the process in the form of submissions.³⁰⁶ This does not provide other stakeholders and the AER sufficient time to scrutinise this material.

The AER proposed placing limitations on NSP submissions to address this issue. In particular, the AER proposed rules that would prevent the NSP from making a late initial or revised regulatory proposal in the form of submissions.³⁰⁷

10.1.2 Confidentiality claims

The current confidentiality arrangements were designed to balance the need for stakeholders to have access to the information upon which regulatory decisions are made and the need to protect confidential information. Without giving the appropriate protection for certain information, such disclosure could commercially harm the NSP or third parties. The AER was concerned that NSPs have been claiming that more information is confidential than is necessary. This, in turn, denies other stakeholders the opportunity to respond to, make an informed comment upon, and scrutinise, all relevant information.³⁰⁸

The AER proposed amendments to the NER which would, amongst other things, provide the AER with the discretion to give such weight as it considers appropriate to confidential information. This would apply in an initial or revised regulatory proposal, or in any submissions given to the AER.

10.1.3 Framework and approach

The framework and approach paper is specific to the distribution regulatory determination process. It provides the DNSP and other stakeholders with an opportunity to be consulted on the AER's likely approach to certain elements of the distribution regulatory determination.

The AER proposed changes to the content of the framework and approach paper, and when it may be departed from in a final regulatory determination. This would include:

- removing consultation on the application of incentives schemes in the framework and approach paper;
- allowing the AER to change the control mechanism, in addition to service classification, following the framework and approach paper; and

³⁰⁶ In this chapter, unless clearly specified, references to "regulatory proposal" are to regulatory proposals in Chapter 6 and revenue proposals in Chapter 6A. Where references to "revenue proposal" are referred to, these are revenue proposals in Chapter 6A.

³⁰⁷ AER, Rule change request, Part B, 29 September 2011, p. 89.

³⁰⁸ *Id.*, p. 90.

- changing the threshold for departing from the service classification and control mechanism in the framework and approach paper to "unforeseen circumstances".

10.1.4 Chapter structure

The remainder of this chapter is structured as follows:

- Section 10.2 summarises the Commission's position in the directions paper and draft rule determination;
- Section 10.3 summarises the submissions received in response to the Commission's draft rule determination;
- Section 10.4 provides the Commission's analysis of issues in response to submissions received on the draft rule determination; and
- Section 10.5 provides guidance on the final rule.

10.2 Directions paper and draft rule determination

10.2.1 Background

In the directions paper, the Commission set out objectives which it considered underpin the regulatory determination process:

- the AER should be given enough time to scrutinise material provided by a NSP in its initial and revised regulatory proposals. This includes providing a clear period of time to consider all relevant and significant material submitted during a regulatory determination process prior to making the final regulatory determination;
- the regulatory determination process should provide a reasonable opportunity for a NSP and other stakeholders to comment on and scrutinise material submitted by each party;
- the NSP should have sufficient time to prepare its revised regulatory proposal and should submit as much relevant information as possible in its revised regulatory proposal;
- in circumstances where a restriction is imposed on the content of the revised regulatory proposal, the NER should not permit this restriction to be circumvented through the use of submissions; and
- the regulatory determination process should encourage dialogue between the AER, the NSP and other stakeholders, particularly consumers, to establish a common understanding of the issues.

In the draft rule determination, the Commission considered that these key objectives are consistent with the AEMC's Chapter 6A rule determination. They are also consistent with the NEO as they will likely lead to more transparent and robust decision-making, and therefore increased certainty for investment in significant infrastructure for the provision of services.

In addressing the broader issues identified in the directions paper, the Commission decided in the draft rule determination to proceed with the following options:

- reporting late or out-of-scope submissions;
- commencing the regulatory determination process earlier, including extending the timeframe for the NSP to prepare its revised regulatory proposal;
- introducing a discretionary cross-submissions stage;
- requiring a mandatory issues paper from the AER and an overview paper from the NSP;
- identifying and reporting confidentiality claims in the regulatory proposal; and
- making the framework and approach paper an optional stage.³⁰⁹

These options were considered to enhance the transparent and timely processes for regulatory determinations, and increase the robustness of regulatory decision-making. They also would address the broader issue of providing all stakeholders with sufficient time and improving stakeholder engagement during the regulatory determination process.

10.2.2 Late or out-of-scope submissions

The AER characterised the problem as being that NSPs are undermining the process by providing late or out-of-scope submissions where they should have included this in their regulatory proposals, and proposed placing limitations on NSP submissions. In the directions paper, the Commission considered the AER's identification of the problem only highlighted a broader issue with the current regulatory determination process. The process is currently not providing all stakeholders with an opportunity to effectively scrutinise material provided by the NSP where the NSP submits further information later in the process. It also does not provide the AER with enough time to assess all relevant material and to make a decision. This late information is greater than was previously envisaged by the AEMC in 2006. There may be legitimate reasons for the provision of information later in the process, such as new information becoming available to the NSP or a material change in the circumstances. However, an increase in the quantity of late material has an adverse effect on the ability of interested parties to be engaged with the regulatory determination process.

³⁰⁹ It is noted that a framework and approach paper must exist for the prescribed matters, although this may well be the previous framework and approach paper if the approach set out in it remains appropriate.

In the draft rule determination, the Commission decided not to restrict the NSP's provision of material during the regulatory determination process. This was because it would create procedural fairness issues by denying the NSP a reasonable opportunity to make submissions, especially where there are legitimate reasons for making submissions. The Commission considered that restricting the NSP from making submissions in respect of the regulatory determination before it is made would create an inconsistency with sections 16 and 28ZC of the NEL. On this basis, the Commission noted that the AER retracted from its original proposal and was open to making modifications to its proposal to avoid any inconsistencies with the NEL.³¹⁰

Other regulators

The AER's problem with receiving information from the NSP which may be late, out-of-scope or voluminous is not unique. Regulators in general are subject to this as part of their regulatory decision-making processes, although there may be differences in the regulatory framework.

In one example provided in the draft rule determination, the New Zealand Commerce Commission was found by the High Court of New Zealand to only be required to have regard to submissions received in timeframes that the regulator sets.³¹¹ This was following a judicial review sought by the business against the Commerce Commission for rejecting out-of-scope and/or late submissions.³¹²

As a regulator, the AER currently has the discretion to not accept such late submissions from the NSP or any other stakeholder.³¹³ The Commission understood that the Australian Competition Tribunal has previously stated that the AER must draw a line on its engagement with a NSP or it will fail to meet the imposed deadlines.³¹⁴ The Commission encouraged the AER where appropriate to utilise its existing powers that are available for any administrative decision-maker to not accept late submissions.

Reporting on late and out-of-scope submissions

With this in mind, the Commission decided a better approach would be for the AER to report on any late or out-of-scope submissions it receives from a NSP. Making public on the AER's website details of late or out-of-scope submissions from the NSP may be an effective tool to discourage such submissions being made. The use of such a tool would increase transparency in this area in that the AER previously did not need to report that it had received a late submission. This approach may also be seen as creating a reputational risk for the NSP if it does decide to make a late or out-of-scope submission.

310 AER, Directions Paper submission, 2 May 2012, p. 66.

311 *Wellington International Airport Limited v Commerce Commission* HC WN CIV-2011-485-1031 [21 December 2011], [278]-[293].

312 *Ibid.*

313 ENA, Consultation Paper submission, 8 December 2011, p. 57.

314 *Application by EnergyAustralia* [2009] ACompT 8, [257].

Other options

As noted above, part of the reason for late submissions also relates to a shortage of time in the current regulatory determination process. The Commission's proposed changes to the regulatory determination process, including commencing earlier and extending the current timeframe may assist to alleviate the problem.³¹⁵

10.2.3 Confidentiality claims in the regulatory proposal

AER's existing powers

In the directions paper and draft rule determination, the Commission considered that it is important that the probative value of as much of a NSP's initial or revised regulatory proposal as possible is able to be tested with stakeholders. There will almost always be information included as part of a NSP's initial or revised regulatory proposal which is legitimately claimed to be commercially sensitive and confidential. However, the Commission considered it unlikely that all aspects of an initial or revised regulatory proposal could legitimately be claimed to be confidential, partly because the NSP is a monopoly business and therefore does not compete directly with other businesses.

There also appears to be scope for information to be aggregated where concerns about confidentiality for more detailed aspects of information are present. On this basis, it would be expected that only relatively small parts of the initial or revised regulatory proposal should be commercially sensitive, and therefore confidential.

The NEL do not explicitly permit the AER to give less weight to confidential information in an initial or revised regulatory proposal. However, there are existing AER powers under the NEL and common law to use discretion in addressing confidentiality claims in a regulatory proposal. These include:

- giving lesser weight to the information when making a decision;
- aggregating confidential information;
- publishing confidential information if the public benefit outweighs the detriment to the NSP arising as a result of the disclosure of the information; and
- seeking alternative arrangements such as limited disclosure.

The Commission considered that the AER has a broad range of tools at the AER's disposal to assist it in addressing confidentiality claims. The AER should take advantage of its existing discretionary powers.

³¹⁵ Commencing the regulatory determination process earlier and extending the current timeframe are described in section 10.2.6 of this final rule determination .

Limited timeframe

In the draft rule determination, the Commission considered that an additional six months to the current timeframe as discussed in section 10.2.6 should allow the AER more time to consider confidentiality claims in a regulatory proposal. However, the AER considered that extending the timeframe would not address the problem of a NSP making blanket and unsubstantiated confidentiality claims.³¹⁶ Therefore, having more information about the reasons for a confidentiality claim may make it easier for the AER to assess the claim. Categories of confidential information, as described below, may assist this.

Categorisation of confidentiality claims and guidelines

In commenting on the directions paper, NSPs proposed a categorisation of confidentiality claims to assist the AER in assessing confidentiality claims.³¹⁷ The Commission considered in the draft rule determination that these confidentiality categories are clearly legitimate reasons for claiming confidentiality as they relate to commercial sensitivities, protection of security, or privacy. However, they should not be considered an exhaustive list, which legislation would still require the AER to protect from being disclosed.³¹⁸

Therefore, the Commission proposed to require the AER to develop and consult on guidelines, which would specify the manner in which the NSP can make confidentiality claims in its regulatory proposal. This may include: categories of confidential information; and how the NSP should identify the confidential information. However, the NSP would not be prevented from making confidentiality claims. The guidelines' purpose is to assist the AER when it receives confidentiality claims from the NSP.

Further, by establishing guidelines which clarify the manner in which NSPs are to make their confidentiality claims: NSPs would have a better understanding of the AER's requirements; NSPs would become more accountable when they make confidentiality claims in regulatory proposals; and the administrative burden on the AER would be eased in addressing confidentiality claims.

In addition to the guidelines, the draft rule required the AER to publish on its website information relating to the proportion of the NSP's material that is subject to a claim of confidentiality. This would allow the public to have an understanding as to the proportion of material that has been claimed to be confidential, as well as a comparison of the proportion of material to other NSPs' claims of confidentiality.

Interaction with interested parties

NSPs proposed in their submissions on the directions paper for a non-rule based solution to the issues raised in respect of confidential information in the form of a

³¹⁶ AER, Directions Paper submission, 2 May 2012, p. 71.

³¹⁷ ENA, Directions Paper submission, 16 April 2012, p. 71.

³¹⁸ *Competition and Consumer Act 2010* (Cth) s. 44AAF.

confidential information protocol.³¹⁹ In the draft rule determination, the Commission indicated its support for any initiative that aims to improve stakeholder engagement, without the need for prescription in the NER.

With the introduction of the NSP overview paper, discussed below, the Commission considered that this would be the appropriate place to require the NSP to explain whether and, if so, how it has engaged with consumers. This would assist the AER to determine whether it should take a stricter approach in assessing the confidentiality claims from the NSP and how much weight to place on the document.

It would also encourage NSPs to become more disciplined in only making genuine confidentiality claims, clearly identify confidential information to the AER, and reduce the administrative burden on the AER. Other stakeholders would also benefit from a more transparent process and have a greater opportunity to access relevant information. Overall, this would facilitate as much testing and scrutiny of the initial or revised regulatory proposal as possible, while upholding legitimate claims of confidentiality by NSPs. This would lead to a more well-balanced and robust decision-making process.

10.2.4 Mandatory issues paper and overview paper

Issues paper

Consumer representative groups sought in submissions on the rule change request for better opportunities to be engaged in the regulatory determination process. In the directions paper, the Commission identified a need for improvement in engaging with stakeholders during the regulatory determination process, especially with consumer representative groups. This was consistent with the LMR Panel's view that there are weaknesses in the regulatory determination process for consumer and user participation.³²⁰

Therefore, the Commission considered establishing a mandatory issues paper during the time between the regulatory proposal and close of submissions on the regulatory proposal. This was seen to be for the benefit of stakeholders, including consumer representative groups.

The Commission considered in the draft rule determination that the identification of these preliminary issues would assist all stakeholders to make better use of their resources to focus on particular matters when preparing their submissions on the regulatory proposal. It would also encourage further discussion on these issues earlier in the process and before the publication of the draft regulatory determination. The regulator should also benefit from this process because fundamental differences could be identified and resolved earlier in the regulatory determination process and the quality of submissions should improve. This should lead to an overall improvement in

³¹⁹ ENA, Directions Paper submission, 16 April 2012, p. 70.

³²⁰ LMR Panel, *Review of the Limited Merits Review Regime*, Stage One Report, Report for the SCER, 29 June 2012, p. 45.

stakeholder engagement. For these reasons, the Commission endorsed the mandatory use of an issues paper.

Although optional under the NER, it was acknowledged that the issues paper has never been utilised in practice.³²¹ This is possibly due to the current limited timeframe between the regulatory proposal and close of submissions on the regulatory proposal. Additional time was therefore provided to the AER to prepare this paper. Using the ESCV's regulatory process as an example, the Commission considered that the AER should be given 40 business days after the submission of the regulatory proposal to make the issues paper.

Overview paper

In the draft rule determination, the Commission also considered the need for the NSP's regulatory proposal to be easier for consumers, including consumer representative groups, to understand. To promote this, the Commission decided that an overview paper should be provided by the NSP. The paper would be subject to preliminary examination together with the regulatory proposal.

The resource intensive nature of the regulatory determination process, especially the volume of information accompanying regulatory proposals and submissions, was recognised. A further burden is placed on resources for consumer representative groups to digest this information and understand the risks, benefits and impacts.

The overview paper would aim to address this by providing a summary of the NSP's regulatory proposal from the NSP's perspective which is specifically directed at electricity consumers. The scope would be to focus on the risks and benefits of the regulatory proposal for electricity consumers. In addition, the paper would outline how the NSP has engaged with consumers and how it has addressed any of their concerns which have been identified as a result of that engagement. Finally, a comparison between the NSP's proposed and current revenue requirements would be made. This was aimed at promoting NSP engagement with electricity consumers earlier in the process. As the NSP overview paper would be consumer-focused, it would need to be presented in plain language that would be easily understood by electricity consumers. Designing the overview paper this way would help to promote better engagement by the NSP with consumers, including consumer representative groups. It would also mitigate the disadvantage of limited consumer resources and expertise in the area. This approach would also be consistent with the LMR Panel's Stage One Report findings to encourage earlier consideration of consumers' interests in the regulatory determination process.³²²

Public forum

The Commission considered in the draft rule determination that the requirement to have an overview paper and issues paper should be complemented by a public forum.

³²¹ NER clauses 6.9.3(b) and 6A.11.3(b).

³²² LMR Panel, *Review of the Limited Merits Review Regime, Stage One Report*, Report for the SCER, 29 June 2012, p. 46.

The benefit of this is that it provides an additional opportunity for stakeholders to seek clarification from the AER and NSP on the NSP's regulatory proposal and the AER's preliminary thinking in the issues paper. Further, the forum should assist stakeholders when they prepare their submissions.

Taken together, the AER issues paper, NSP overview paper and associated public forum should improve the level of understanding of the issues and quality of input from stakeholders. These processes add value by assisting stakeholders to allocate their resources to focus on key issues in the regulatory proposal and on the AER's preliminary views.

Notwithstanding the mandatory public forum, the Commission welcomed any other informal engagement between the NSP and AER with stakeholders.

10.2.5 Cross-submission stage

The AER expressed a concern that NSPs are providing submissions on the draft regulatory determination to which other stakeholders do not have a reasonable opportunity to respond. Equally, it could be argued that other stakeholders may raise issues in their submissions which do not allow the NSP to have a formal opportunity to respond. Presently, under the NER, there are no formal consultation processes available following close of submissions on the draft regulatory determination. That said, the Commission noted in the draft rule determination that the AER has used its discretion at times to consult informally with interested parties prior to making a final regulatory determination.

In the draft rule determination, the Commission considered a formal discretionary cross-submissions process to alleviate problems associated with stakeholders not receiving a reasonable opportunity to respond to an NSP submission, and vice versa. The New Zealand Commerce Commission's cross-submissions stage was examined. It was recognised that this is a discretionary stage in which the Commerce Commission can decide to initiate the process based on a narrow scope of issues raised during the initial round of submissions.³²³

The Commission considered the AER's concerns that such a stage could create an additional administrative burden on the AER to consider an additional volume of

³²³ For example, the Commerce Commission allowed for a cross-submissions stage on its process and issues paper in one of its regulatory process with respect to input methodologies for default price-quality paths with respect to electricity distribution and gas pipeline services. This stage followed immediately after close of submissions on the process and issues paper. Later in that same regulatory process, the Commerce Commission allowed for another cross-submissions stage on its draft input methodology. This second cross-submissions stage occurred immediately after close of submissions on the draft input methodology. NSPs support a cross-submissions stage on the basis that this would provide an opportunity for submissions made by different stakeholders to be tested, and lead to a broader debate between the NSP and other stakeholders. For further information, see New Zealand Commerce Commission, *Additional Input Methodologies for Default Price-Quality Paths*, Process and Issues Paper, 9 December 2011, pp. 5, 7, 9, 12, 16; New Zealand Commerce Commission, *Draft Input Methodologies for Default Price-Quality Paths*, Consultation Paper, 15 June 2012, p. 5.

material as a result of the process, and may disincentivise the NSP from providing a complete revised regulatory proposal and submissions upfront within the current timeframes.³²⁴ These could be mitigated by giving the regulator the discretion to initiate the cross-submissions stage, and limiting the scope of the cross-submissions stage to specified matters that have been raised during first round submissions. It would also give the AER the option to dispense with the process if it considers that it would be unnecessary and to better utilise resources in preparing the final regulatory determination.

Overall, the Commission was of the view that providing the NSP and other stakeholders with an opportunity to respond to each other's submissions on specified matters would likely increase the opportunity for all to comment. It would also likely potentially reduce the volume of material that may have otherwise been provided later in the regulatory determination process, which would have been outside of the consultation period. The AER may also benefit in the cross-submissions stage if the cross-submissions provide clarity to the AER on specified matters that were raised in submissions on the draft regulatory determination.

10.2.6 Timing of the regulatory determination process

In the draft rule determination, the Commission noted that the environment for economic regulation of network services has changed since the Chapter 6A rule determination and 11 months for the regulatory determination process appeared to be inadequate. Further, it was recognised that the new additions to the regulatory determination process in the draft rule would require consequential changes to the existing 11-month timeframe.

In addition, the Commission considered extending the time for the NSP to account for a lack of resources over the Christmas to New Year period that was not previously envisaged in 2006. Nevertheless, the Commission pointed out that the NSP should not circumvent the existing requirements by submitting its revised regulatory proposals late.

The Commission decided to allow for an additional 15 business days to the current 30 business day period in which the NSP must submit its revised regulatory proposal and calibration of the timeframes to address the Christmas to New Year period problem.³²⁵ This should provide the NSP with a more reasonable opportunity to prepare and submit a complete revised regulatory proposal.

In the draft rule determination, a total 120 business days, or approximately six months, was added to the existing overall regulatory determination process timeframe. This was to account for the extension in time for existing stages in the process and the addition of new stages. The Commission did not contemplate a shorter additional amount of time as proposed in submissions because it was concerned that this would

³²⁴ AER, Directions Paper submission, 2 May 2012, p. 68.

³²⁵ The Commission notes that NSPs propose an additional period of between 10 to 15 business days to prepare their revised regulatory proposals.

reduce the AER's decision-making timeframe and impact on the robustness of its decisions. As a result, a NSP would need to submit its regulatory proposal to the AER at least 19 months, instead of 13 months, before the end of the current regulatory period.

The Commission considered that the benefit of commencing the regulatory determination process earlier by six months would allow for: additional processes to promote further stakeholder engagement and transparency; more time for the existing processes, which should lead to more robust decision-making, more comprehensive and timely submissions; and reduce late material. This would outweigh the risk of less accurate and available information for forecasts.

The Commission compared the new regulatory determination process timeframe with other jurisdictions'.³²⁶ Although it was substantially longer than some, it would still be shorter than Ofgem's 24 month timeframe. Nevertheless, a distinction was made between the regulatory process in terms of the degree of prescription in Australia, and historical developments in economic regulation in Australia.³²⁷

For consistency, the Commission decided to align the regulatory determination process timeframes for transmission and distribution as part of the improvements made to the process. As a result, the proposed changes included:

- removing the deadline for the making of the draft regulatory determination for transmission where there is currently no such deadline for distribution. This would allow the AER some flexibility in making the draft regulatory determination, which may be desirable given the different individual circumstances of NSPs; and
- changing the deadline for receipt of submissions on the draft regulatory determination for transmission to be no earlier than 40 business days after the publication of the draft regulatory determination. For transmission, the reference date was set at no earlier than 45 business days after the date specified by the AER with respect to the predetermination conference on the draft regulatory determination.

Overall, the AER would still have some flexibility in adjusting the timeframe for specific milestones as it currently does, balanced with the constraint to meet the final deadline for publishing the final regulatory determination.

³²⁶ The regulators in other jurisdictions considered were IPART in New South Wales, ERA in Western Australia, Commerce Commission in New Zealand, Ontario Energy Board (OEB) in Ontario and Rhode Island Public Utilities Commission (RIPUC) in Rhode Island. For further information, see The Brattle Group, *Framework for assessing capex and opex forecasts as part of a "building blocks" approach to revenue/price determinations*, June 2012, p. 4.

³²⁷ Here, the regulatory determination process starts from the date when a regulatory proposal is submitted to the regulator to the date that a final regulatory determination is made by that regulator. See The Brattle Group, *Framework for assessing capex and opex forecasts as part of a "building blocks" approach to revenue/price determinations*, June 2012, paragraphs 12 and 27.

10.2.7 Framework and approach paper

Need for a framework and approach paper

In the directions paper, the Commission considered the NSPs' proposal for a new framework and approach paper to be discretionary if there are no material changes to a particular component of the framework and approach paper.³²⁸ In such a case, there would be no need to revisit such component(s), and the then existing framework and approach paper would be sufficient. This is because the consultation on that component(s) would not provide any additional benefit. As a result, the administrative costs would be reduced by making the process more efficient and flexible. In the draft rule determination, the Commission maintained this position.

The Commission considered that, as the administrative decision-maker, the AER should be responsible for deciding whether to trigger the framework and approach paper. It would be at the AER's discretion to determine how much weight should be given to the NSP's input over other stakeholders with respect to initiating a framework and approach paper. However, it would be most likely that the NSP's input would be the most relevant, given that it has the knowledge of its own network and other matters relevant to the forthcoming regulatory period.

For consistency, the framework and approach paper process would also apply to transmission.

Control mechanism - only relevant to distribution

In the directions paper, the Commission took the view that the AER may need some flexibility to adjust the control mechanism following the framework and approach paper when unforeseen circumstances occur. This was because the AER's proposal highlighted the potential mismatch in the thresholds for changing the control mechanism and the service classification following the relevant framework and approach paper for distribution. Following further clarification from the AER regarding the differences between the form of control mechanism and the formulaic expression of the control mechanism, the Commission decided to revisit this issue in the draft rule determination.³²⁹

The Commission accepted that the amount of time required for a NSP to accommodate changes to the form of control mechanism would be significant. As a result, the form of control mechanism should be fixed in the framework and approach paper. However, if the formulaic expression of the control mechanism was able to be amended, a measure of flexibility would be afforded.

³²⁸ Under the draft rule, the components will include incentive schemes, service classifications, form of the control mechanisms, formulaic expressions of the control mechanisms, dual function assets, and methodology for forecasting expenditure.

³²⁹ Examples of the form of control mechanism can be found under clause 6.2.5(b) of the NER. On the other hand, the formulaic expression of the control mechanism is the formula associated with that form of control mechanism.

The Commission considered that this would provide sufficient flexibility in being able to change the formulaic expression of the control mechanism during the regulatory determination process, balanced with certainty in fixing the form of the control mechanism at the framework and approach paper stage. In addition, the formulaic expression of the control mechanism could be changed if the service classification is changed, addressing the AER's concern.

Threshold for changing service classification and formulaic expression of the control mechanism in regulatory determinations - only relevant to distribution

In respect of changes to service classification, the Commission maintained in the directions paper and draft rule determination that the threshold to allow the AER to depart from its framework and approach paper will be in the event of unforeseen circumstances.

The terms "good reasons" and "persuasive evidence" were seen to be unclear and ambiguous, open to differing interpretations, and create unnecessary uncertainty in the process. On the other hand, the threshold of "unforeseen circumstances" was considered to be more definitive, consistent with other parts of the NER, providing a degree of certainty compared to the "good reasons" and "persuasive evidence" thresholds, and allowing the AER some flexibility where "unforeseen circumstances" arise.³³⁰ The "unforeseen circumstances" threshold would not allow for changes due to reasons which ought to reasonably have been considered at the time that the decision was made in the framework and approach paper.

In addition, the Commission in the directions paper and draft rule determination held that the threshold for departing from the service classification should be the same as that for departing from the formulaic expression of a control mechanism. This suggested an "unforeseen circumstances" test for the formulaic expression of the control mechanism as well.

10.3 Submissions on draft rule determination

10.3.1 Regulatory determination process

The AER, MEU, EnergyAustralia and NSPs generally support the proposed changes to the overall regulatory determination process, including commencing the process earlier, the requirement for an overview paper and issues paper, allowing NSPs more time to submit their revised regulatory proposals, and a cross-submissions stage.³³¹

³³⁰ For example, the term "unforeseen circumstances" appears under NER rule 3.7A(p)(3) and clause 11.30.2(I)(3). In addition to this, the term "unforeseen" appears under clauses 5.6.2A(b)(7), 5.6.5C(a)(1), 5.6.5C(b), 5.6.5C(c), and S8.11.1(b).

³³¹ AER, Draft Rule Determination submission, 5 October 2012, pp. 17-18; ENA, Draft Rule Determination submission, 4 October 2012, pp. 3-4; EnergyAustralia, Draft Rule Determination submission, 15 October 2012, pp. 2-3; Jemena, Draft Rule Determination submission, 4 October 2012, p. 9; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4

They consider that this should provide for greater consultation and improve consumer engagement.³³² On the other hand, ESAA suggests that NSPs need to understand how the AER intends to evaluate NSPs' evidence on how they engaged with consumers, and recover their costs for consulting with consumers.³³³

Consumer representative groups consider the changes may address some concerns and better inform consumers.³³⁴ Requiring NSPs to report on customer engagement and having the AER take this into account may be meaningful if it is equivalent to the negotiated settlements approach used in some states and provinces of the United States of America and Canada.³³⁵ However, they consider that if this is not the case, then these changes will not improve consumer engagement as they would not be empowered to materially influence the outcomes of the process.³³⁶ The additional stages may create an administrative burden for consumer representative groups with limited resources.³³⁷ The Victorian DPI also expressed similar concerns with respect to the administrative burden placed on the AER and stakeholders as a result of an extended timeframe, suggesting that the overall process could be shortened (eg 12 months for the ESCV) as it has been previously done in other jurisdictions.³³⁸

NSPs propose further improvements to the process.³³⁹ These include: reinstating submission guidelines for transmission as without this TNSPs would be subject to an administrative burden in changing to the new requirements; separating the deadline for NSP revised regulatory proposals and submissions on the draft regulatory determination from the deadline for stakeholder submissions on the draft regulatory determination, NSP's submission and revised regulatory proposal; and commencing the regulatory determination process in a shorter period than the extended six months to avoid issues of inaccurate and irrelevant information (such as forecasts) in regulatory proposals.³⁴⁰

October 2012, p. 30; SP AusNet, Draft Rule Determination submission, 4 October 2012, p. 6; MEU, Draft Rule Determination submission, 4 October 2012, pp. 27-28.

332 AER, Draft Rule Determination submission, 5 October 2012, pp. 17-18; ENA, Draft Rule Determination submission, 4 October 2012, pp. 3-4; Jemena, Draft Rule Determination submission, 4 October 2012, p. 9; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p. 30; SP AusNet, Draft Rule Determination submission, 4 October 2012, p. 6; MEU, Draft Rule Determination submission, 4 October 2012, pp. 27-28.

333 ESAA, Draft Rule Determination submission, 23 October 2012, p. 3.

334 ATA, Draft Rule Determination submission, 4 October 2012, pp. 3-6, 8; Consumer Action Law Centre, Draft Rule Determination submission, 5 October 2012, p. 4; Ethnic Communities' Council of NSW, Draft Rule Determination submission, 4 October 2012, pp. 2-3; EUAA, Draft Rule Determination submission, 3 October 2012, pp. 4, 16-18; UnitingCare Australia, Draft Rule Determination submission, 16 October 2012, pp. 5, 16-17.

335 Ibid.

336 Ibid.

337 MEU, Draft Rule Determination submission, 4 October 2012, pp. 27-28.

338 Victorian DPI, Draft Rule Determination submission, 2 November 2012, pp. 3-4.

339 ENA, Draft Rule Determination submission, 4 October 2012, pp. 66-68; Grid Australia, Draft Rule Determination submission, 4 October 2012, pp. 3, 12, 14; SP AusNet, Draft Rule Determination submission, 4 October 2012, pp. 6-7.

340 Ibid.

Other more specific issues related to the discretionary cross-submissions stage occurring after submissions on the revised regulatory proposal closes (if any). The AER supported being given the discretion to trigger this stage on specific issues that may not have been subject to consultation.³⁴¹ However, the NSPs did not consider that the stage should be discretionary because the AER may not be in a position to identify the significant issues and the NSPs may not have an opportunity to comment on them if the stage is not mandatory.³⁴² They consider that there is sufficient constraint on the NSPs to not provide out-of-scope submissions; even so, a more appropriate constraint on the cross-submissions stage would be to limit the scope of submissions made during the cross-submissions stage, rather than giving the AER discretion to trigger the stage.³⁴³ Alternatively, the cross-submissions stage should be made mandatory if the AER uses its discretion to invite submissions on the revised regulatory proposal.³⁴⁴

The NSPs also propose for the final regulatory determination to be completed earlier and to increase the period for submitting the DNSPs' pricing proposals.³⁴⁵ IPART supports this approach, noting that a rule change request has been submitted to the Commission to address the annual pricing proposal framework.³⁴⁶

10.3.2 Confidentiality claims

The AER regards the confidentiality guidelines as a way in which it may outline to the NSP what is required when NSPs make confidentiality claims in their regulatory proposals.³⁴⁷ Ergon Energy sought further clarification that the categories of confidential information would not refer to personal affairs or personal information because this is already covered under other legislation.³⁴⁸ Although broadly supporting the Commission's approach, the Consumer Action Law Centre considers that more can be done to improve the way in which consumer representative groups are engaged with respect to confidential information such as developing protocols.³⁴⁹ On the other hand, Origin considers that there will be no reduction in confidentiality claims in regulatory proposals and seeks more stringent requirements.³⁵⁰

³⁴¹ AER, Draft Rule Determination submission, 5 October 2012, p. 18.

³⁴² ENA, Draft Rule Determination submission, 4 October 2012, p. 67; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, pp. 7, 30-31.

³⁴³ Ibid.

³⁴⁴ Ibid.

³⁴⁵ ENA, Draft Rule Determination submission, 4 October 2012, p. 68.

³⁴⁶ IPART, Draft Rule Determination submission, 2 October 2012, pp. 1, 4-5.

³⁴⁷ AER, Draft Rule Determination submission, 5 October 2012, p. 18.

³⁴⁸ Ergon Energy, Draft Rule Determination submission, 7 October 2012, p. 9.

³⁴⁹ Consumer Action Law Centre, Draft Rule Determination submission, 5 October 2012, p. 4.

³⁵⁰ Origin, Draft Rule Determination submission, 4 October 2012, p. 2.

10.3.3 Framework and approach

Need for a framework and approach paper

The AER supports the optional framework and approach stage to apply to distribution and transmission.³⁵¹ However, the NSPs consider that this stage should be mandatory because: the AER is being given the sole discretion to trigger the stage without equal input from NSPs; the need for NSPs to prepare for new components or changes to existing components in the framework and approach paper, especially with the expanded scope of the framework and approach; and simplicity of drafting.³⁵² On the other hand, NSPs would accept an optional framework and approach stage if they were given equal discretion as the AER to trigger the stage, while third party stakeholders can also submit on whether they consider a framework and approach stage is necessary.³⁵³ TNSPs also object to the new requirement for a framework and approach stage in transmission as they consider harmonising the historical differences in forms of regulation and price control for standard control services is unique to distribution, and transmission is already mature and homogenous enough without the need for a framework and approach stage.³⁵⁴

Threshold for changing service classification and formulaic expression of the control mechanism in regulatory determinations

NSPs maintain their position that the threshold for changing service classification and the formulaic expression of the control mechanism in regulatory determinations should be based on new evidence becoming available after the framework and approach stage which would justify departure from that stage ie persuasive evidence.³⁵⁵ They provide examples where it would be foreseeable, yet would justify a departure, such as: competition in the provision of alternative control services being foreseeable but its impact on the market not being crystallised until after the framework and approach stage; and a contingent project trigger event occurring which would be foreseeable and require a change in the service classification.³⁵⁶

10.4 Analysis

As in the draft rule determination, the Commission's general approach to this rule change request has been to provide the AER with more discretion. Unlike rate of return or capex incentives, however, in respect of the regulatory determination process there are less risks of additional prescription in the NER. In particular, there should be less need for regular changes to the regulatory determination process to adapt to changing

351 AER, Draft Rule Determination submission, 5 October 2012, p. 18.

352 ENA, Draft Rule Determination submission, 4 October 2012, pp. 8, 73-74.

353 Ibid.

354 Grid Australia, Draft Rule Determination submission, 4 October 2012, pp. 3, 12-13.

355 ENA, Draft Rule Determination submission, 4 October 2012, pp. 74-75.

356 Ibid.

circumstances. To allow stakeholders to properly plan, certainty is also very important for the regulatory determination process.

Nonetheless, the current NER or final rule does not prescribe the regulatory determination process on every aspect, and the AER does have discretion in many respects. This discretion may include further consultation when the AER proposes a shift from its draft position, and placing less weight on, or not considering, information that is submitted too late in the process.³⁵⁷ Further, the NER only provide a framework towards effective engagement; it should be seen as a minimum in terms of the level of engagement. The extent of interaction between the NSP, the AER and other stakeholders is up to those parties. For instance, the AER and NSP should be engaging with each other regularly on an informal basis, including outside of the regulatory determination process. NSPs can, and should, be engaging with consumers and other stakeholders in their network areas outside of the process as well.

As a general rule, the Commission will not be prescribing in the NER requirements where a regulatory requirement already exists via the NEL or common law. The Commission considers that giving the AER discretions, which are a general function of regulators or are already set out in the NEL, should be avoided where possible. This is especially so where it is clear that they would still exist in the absence of the NER and including them in the NER would not provide any additional value. This general approach avoids any potential conflict between the NER and the NEL or common law, especially if the NEL or common law position were to change in the future.

10.4.1 Regulatory determination process

Consumer engagement

The Commission notes the consumer representative groups' dissatisfaction with the draft rule changes made to the regulatory determination process to meet their need for empowerment in influencing the outcomes of the process.³⁵⁸ The changes in the draft determination were intended to improve transparency and accountability, increase consultation and therefore scrutiny of information submitted during the process, and provide for more robust decision-making within the scope of the rule change. The Commission does not purport to address larger consumer related issues such as lack of resources, expertise or funding which is, as a number of consumer representatives point out, a role for the policy maker.³⁵⁹ For instance, the Commission has

³⁵⁷ It is noted that section 16(b)(l) of the NEL requires the AER to inform the NSP of material issues under consideration by the AER.

³⁵⁸ ATA, Draft Rule Determination submission, 4 October 2012, pp. 3-6, 8; Consumer Action Law Centre, Draft Rule Determination submission, 5 October 2012, p. 4; Ethnic Communities' Council of NSW, Draft Rule Determination submission, 4 October 2012, pp. 2-3; EUAA, Draft Rule Determination submission, 3 October 2012, pp. 4, 16-18; UnitingCare Australia, Draft Rule Determination submission, 16 October 2012, pp. 5, 16-17.

³⁵⁹ Ibid.

recommended to the SCER the creation of a national peak consumer body.³⁶⁰ However, where possible, the Commission will be endeavouring to improve the operation of the rules to assist consumers to be better engaged. The Commission notes that this has not been opposed by any stakeholder throughout the process, but rather has been fully accepted as a given. Therefore, amongst other changes, improving the regulatory determination process will be for the benefit of all parties, especially consumer representative groups, in requiring NSPs to submit overview papers, requiring the AER to publish issues papers, holding mandatory public forums, extending time for consultation, and providing for a discretionary cross-submissions stage. As the Commission noted in its draft rule determination, though, the regulatory determination process only provides a minimum framework in which the AER and NSPs can engage with each other as well as with other stakeholders such as consumers. In the end, it is up to all parties involved to engage in good faith, which the NER cannot prescribe.

With respect to the consumer representative groups' preferred negotiated settlements approach, the scope for full negotiated settlements between consumers and NSPs is beyond what the Commission could reasonably consider being within scope for this rule change process.³⁶¹ Instead, changes to effect the consumer representative groups' preferred approach are better addressed outside of this rule change process as part of the broader development of a stronger consumer role. This rule change process can be considered as part of this broader development.

Commencement of the regulatory determination process

The Commission notes the concerns expressed by some NSPs that the earlier the regulatory determination process commences, the less accurate and relevant the forecast expenditure and other information will be in the NSP's regulatory proposal.³⁶² The Commission maintains that improvements in the regulatory determination process will require it to commence earlier than the current arrangements. This will avoid reducing the existing length of time for the AER to prepare its draft and final regulatory determinations as it could impact on the robustness of its decision-making. However, the Commission has identified ways to further optimise the timing without necessarily impacting on the AER's time to prepare and make decisions, as well as providing NSPs and other stakeholders with sufficient opportunities to make submissions during the process.

³⁶⁰ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Directions Paper, 2 March 2012, p. 155.

³⁶¹ ATA, Draft Rule Determination submission, 4 October 2012, pp. 3-6, 8; Consumer Action Law Centre, Draft Rule Determination submission, 5 October 2012, p. 4; Ethnic Communities' Council of NSW, Draft Rule Determination submission, 4 October 2012, pp. 2-3; EUAA, Draft Rule Determination submission, 3 October 2012, pp. 4, 16-18; UnitingCare Australia, Draft Rule Determination submission, 16 October 2012, pp. 5, 17.

³⁶² ENA, Draft Rule Determination submission, 4 October 2012, pp. 66-68; Grid Australia, Draft Rule Determination submission, 4 October 2012, pp. 3, 12, 14; SP AusNet, Draft Rule Determination submission, 4 October 2012, pp. 6-7.

A minor reduction will be made to the timeframe so that stakeholders now have 30 business days (instead of 60 business days under the draft rule) after the publication of the issues paper to make a submission on the regulatory proposal and issues paper. This means there will be an overall timeframe of 70 business days for submissions to be made on the regulatory proposal (as opposed to 100 business days under the draft rule). The public forum will also be 10 business days after the issues paper is published (as opposed to 20 business days under the draft rule), while the time between the public forum and close of first round submissions will be 20 business days. Nevertheless, the overall timeframe will still be greater than the existing arrangements.

With respect to the NSPs' proposal to create two separate stages for submissions on the draft regulatory determination, the Commission considers that this is not necessary, given that the cross-submissions stage may be triggered by the AER to address specific issues raised in submissions that it considers further consultation is required.³⁶³ In addition, the AER has the discretion to choose the time by which stakeholders must make a submission on the draft regulatory determination and revised regulatory proposal, which can be after the date when the revised regulatory proposal is submitted.

Instead of the separate steps for submissions, the Commission has decided to align the minimum timeframe for making submissions on the draft regulatory determination with the maximum timeframe for the NSP to submit its revised regulatory proposal. This will mean that, at a minimum, the deadline for submissions on the draft regulatory determination can occur at the same time as the NSP's submission of the revised regulatory proposal (if required) is due; otherwise, the AER can decide to extend the deadline for submissions on the draft regulatory determination to a time after the NSP submits its revised regulatory proposal (if required). Therefore, the proposed 40 business days for submissions on the draft regulatory determination (as specified in the draft rule) will be changed to a minimum of 45 business days. Further, the alignment between the minimum time to make submissions on the draft regulatory determination and the maximum time for NSP's submission of its revised regulatory proposal will now be consistent with the current arrangements.

As a result of these minor amendments to the extended time for the regulatory determination process, the overall timeframe will be four months earlier than the current arrangements (as opposed to six months under the draft rule). An advantage for most NSPs is that their regulatory proposals will not be due between the Christmas and New Year period. Although this may not alleviate some of the concerns from NSPs regarding inaccurate information, the consideration of this reduction has been balanced with the need for allowing the improvements to the overall regulatory determination process. Therefore, the NSP will need to submit its regulatory proposal to the AER at least 17 months, instead of 13 months, before the end of the current regulatory period.

³⁶³ Ibid.

Completion of the regulatory determination process

In terms of the NSPs' proposal for the regulatory determination process to be completed earlier to reduce the burden related to the pricing proposal process, the Commission notes that this is outside the scope of this rule change process.³⁶⁴ As noted in the IPART submission, a separate rule change request has been submitted on the annual pricing proposal framework.³⁶⁵ The Commission's Power of Choice review has also made a draft recommendation to allow sufficient time in the current annual tariff setting process for the AER to monitor DNSPs with respect to actively developing and improving their tariff structures to meet revised pricing principles as best as possible at all times.³⁶⁶ Therefore, the final rule does not address the issues associated with completing the regulatory determination process earlier. That said, the arrangements will be flexible in the sense that the final regulatory determination will be required to be completed no later than two months before the end of the regulatory control period, which will allow the AER the discretion to complete the final regulatory determination before that time.

Cross-submissions stage

The Commission notes the NSPs' concern with giving the AER discretion to trigger the cross-submissions stage with the view that this step should be mandatory and limited in scope.³⁶⁷ In developing the cross-submissions stage, the Commission took into account the New Zealand Commerce Commission's approach, which NSPs originally relied on as the basis for their proposal. The Commission considers that the reason the cross-submissions stage has been implemented with great effect in New Zealand is that it is at the discretion of the regulator to trigger that stage and the scope of it is limited according to the submissions provided from stakeholders.

Further, if the stage was mandatory, this could create another opportunity for NSPs to make late submissions. NSPs consider that this could be discouraged by limiting the scope of submissions as well as the AER's reporting of late or out-of-scope submissions.³⁶⁸ However, the Commission considers that making it a discretionary stage and limiting the scope are complementary tools which the AER can use to implement the cross-submissions stage.

The NSPs' concern that the AER may not be able to fully understand or identify the relevant significant issues can be alleviated in other ways which does not necessitate prescription of a more lenient cross-submissions stage.³⁶⁹ The Commission has stated that the regulatory determination process should be considered as a minimum

³⁶⁴ ENA, Draft Rule Determination submission, 4 October 2012, p. 68.

³⁶⁵ IPART, Draft Rule Determination submission, 2 October 2012, pp. 1, 4-5.

³⁶⁶ AEMC, *Power of choice - giving consumers options in the way they use electricity*, Draft Report, 6 September 2012, p. 109.

³⁶⁷ ENA, Draft Rule Determination submission, 4 October 2012, p. 67; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, pp. 7, 30-31.

³⁶⁸ Ibid.

³⁶⁹ Ibid.

standard to which the AER and NSPs can engage in the process. Outside of this, NSPs and the AER should be engaging with each other informally. The need for the AER to understand the NSPs' concern as to its significant issues can therefore be addressed by informal communication between the NSP and the AER. A formal cross-submissions stage should not be seen as a substitute for good regulatory practice, including dealing with procedural fairness issues, for all of the parties involved.

Submission guidelines

As a general rule, the Commission has taken the view that where there is no substantive reason for any difference in the regulation between transmission and distribution, then there should be an alignment between the two. In examining the differences between the submission guidelines and the later arrangements under Chapter 6 which incorporate the RIN, the Commission considers that the arrangements can be better aligned. The Commission considers that applying two different instruments to achieve the same purpose is administratively inefficient and has therefore decided that it should be aligned in the form of the RIN with consequential changes to the NEL. The TNSPs' objections to replacing submission guidelines with the RIN for reasons of administrative costs and lack of benefit of alignment are outweighed by the long term benefit to customers in having a consistent regime in which the AER can regulate in a consistent manner and other stakeholders can be better engaged by following a consistent regulatory determination process.³⁷⁰

10.4.2 Confidentiality claims in the regulatory proposal

The Commission notes Origin's particular issue that the confidentiality claims will not be reduced through the draft rule.³⁷¹ As previously stated, the Commission considers that the AER currently has sufficient authority under the NEL and common law to address confidentiality claims made in regulatory proposals. The draft rule was not intended to displace those arrangements. However, additional tools will be provided to the AER in the form of confidentiality guidelines. These will include: the AER to specify the manner in which confidentiality claims to be made by NSPs in their regulatory proposals; the need for the NSP to identify their confidentiality claims; and the AER to report on confidentiality claims on its website. Together, these provide additional incentives for NSPs to be more accountable in providing genuine confidentiality claims and the AER with some tools additional to its existing powers under the NEL and common law in addressing confidentiality claims.

The Consumer Action Law Centre also claims more can be done with respect to confidentiality claims by requiring confidentiality protocols to be put in place by the NSP.³⁷² However, as the Commission stated in its draft rule determination, this is unnecessary as the NSPs and the AER could be doing this as part of its stakeholder engagement plan without the need for prescription in the NEL.

³⁷⁰ Grid Australia, Draft Rule Determination submission, 4 October 2012, pp. 3, 12, 14.

³⁷¹ Origin, Draft Rule Determination submission, 4 October 2012, p. 2.

³⁷² Consumer Action Law Centre, Draft Rule Determination submission, 5 October 2012, p. 4.

¹⁷⁰ Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

10.4.3 Framework and approach

Need for the framework and approach stage

With respect to the approach in the draft rule determination which provided the AER with the sole responsibility to trigger the framework and approach stage and not the NSP, the Commission recognises the NSPs may be in a better position at times to understand whether there should be a need for any new components or changes to existing components in the framework and approach paper. For this reason, the Commission accepts the NSPs' submission to also be able to trigger the framework and approach stage.³⁷³ This means that the NSP will need to advise the AER on whether it considers there is a need for the stage and that the NSP can trigger the stage. The difference between the steps for the AER to trigger the process compared to NSPs is that the NSP will only be required to notify the AER by a certain date, while the AER will still be required to consult on particular components not triggered by the NSP. The AER should take into account the interests of third parties such as consumers in deciding whether it will trigger the framework and approach stage.

Introduction into transmission

With respect to TNSPs' objection to the introduction of the framework and approach stage into transmission, the Commission has applied the same position as it has for distribution.³⁷⁴ For transmission, new incentive schemes and information requirements for forecast expenditure assessments will now be addressed, which will be covered in the framework and approach stage.³⁷⁵ The advantage of having a framework and approach paper for transmission is that it encourages engagement earlier in the process, especially with third parties such as consumer representatives, and therefore reduces the amount of information to be considered later in the regulatory determination process. As a result, it should increase administrative efficiency in the process. Further, as stated earlier, where there is no substantive reason for any difference in the regulation between transmission and distribution, then there should be an alignment between the two.

Threshold for changing service classification and formulaic expression of the control mechanism in regulatory determinations

The Commission notes the ENA's examples where it considers the unforeseen circumstances test to be inappropriate eg where development of competition may be foreseeable at the time but its impact on the market is unknown, and where a contingent project trigger event occurs which would require alteration of the service classification.³⁷⁶ With the former example, if development of competition may be foreseeable at the time but its impact on the market is unknown, the impact on the market can still be regarded as unforeseeable. Otherwise if the impact on the market

³⁷³ ENA, Draft Rule Determination submission, 4 October 2012, pp. 8, 73-74.

³⁷⁴ Grid Australia, Draft Rule Determination submission, 4 October 2012, pp. 3, 12-13.

³⁷⁵ NSPs will also be required to advise the AER of their approach to expenditure forecasting.

³⁷⁶ ENA, Draft Rule Determination submission, 4 October 2012, pp. 74-75.

was foreseeable, then appropriate service classification should have been made during the framework and approach stage.

Likewise, the contingent project may be foreseeable at the time although its scope and cost is unknown, but the change in service classification can still be regarded as unforeseeable. Otherwise if the change in service classification was foreseeable, then appropriate service classification should have been made during the framework and approach stage.

For both of the above examples, the Commission notes that the AER has the responsibility to consider whether a change in circumstances was foreseeable or unforeseeable. The Commission maintains the view that the unforeseen circumstances test is adequate.

10.5 Guidance on final rule

10.5.1 Late or out-of-scope submissions

If the AER receives a late or out-of-scope submission from a NSP, the AER is required to make available on its website the following information:

- the identity of the NSP who made the late or out-of-scope submission;
- a summary of the particular information it considers to be late or out-of-scope,³⁷⁷ and
- an indication of the amount or length of that information that it considers to be late or out-of-scope.

In addition to the above, the NSP may wish to informally respond to the AER to explain its reasons for providing such a submission once it is made aware of the AER's position.

10.5.2 Confidentiality claims in the regulatory proposal

As noted earlier, to promote adherence to a process for addressing confidentiality claims, the final rule requires the AER to issue guidelines. These guidelines will regulate the manner in which the NSP makes confidentiality claims in its regulatory proposal, which may include identifying relevant categories of confidential information. The guidelines are consulted upon in accordance with the standard consultation procedures for guidelines in the NER. The NSP and other stakeholders then have an opportunity to clarify the requirements for making confidentiality claims in regulatory proposals.

³⁷⁷ For instance, the summary may simply cross refer to that information as contained in the submission.

Once the guidelines are in place, the NSP is required to identify to the AER which information it claims to be confidential. This may include identifying the category of confidentiality claim that the NSP wishes to make. Based upon this information, the AER is able to determine the comparative proportion of material that has been claimed as confidential with regard to other NSPs. The AER can then report on its website that a confidentiality claim has been made. Other information on the website include:

- the identification of the NSP;
- the quantity and proportion of confidential information; and
- a comparison of the NSP's proportion of confidential information to other NSPs.

The AER will not be required to report on other more specific aspects such as categories of confidentiality claims. That type of information is more for the AER's benefit when addressing confidentiality claims.

As an example, the AER provided a table in a previous submission to demonstrate the proportion of material from NSPs that it has previously received claiming to be confidential.³⁷⁸ This is reproduced and shown in Table 10.1. The AER could use a similar format on its website to report on confidentiality claims and include the identification of the NSP and proportion of confidential information claimed from each NSP.

Table 10.1 Page count - documents submitted by DNSPs in the AER's Victorian electricity distribution determination (2011-15)

	Regulatory proposal		Revised regulatory proposal	
	Public	Confidential	Public	Confidential
Business 1	1,540	4,584	4,157	5,599
Business 2	2,960	5,231	9,337	10,235
Business 3	1,869	22,811	1,704	2,626

Source: AER, Directions Paper submission, 2 May 2012, p. 71.

In addition to the rule for confidentiality claims with respect to initial or revised regulatory proposals, the Commission considers that the same rules could also be applied to the pricing methodologies and to submissions in general.³⁷⁹ However, no consequential amendments have been made to the NER to align confidentiality claims in respect of submissions with the Commission's position on regulatory proposals. This is because the NER provisions relating to confidentiality claims in submissions already exist. Conversely, the Commission considers it appropriate to treat confidentiality

³⁷⁸ AER, Directions Paper submission, 2 May 2012, p. 71.

³⁷⁹ Pricing methodologies are submitted with the regulatory proposal in transmission.

claims in respect of pricing methodologies for transmission consistently with confidentiality claims in respect of regulatory proposals.

10.5.3 Mandatory issues paper and overview paper

Issues paper

The Commission has decided to require the AER to publish an issues paper. The purpose of the paper is to identify the preliminary issues that the AER considers are likely to be relevant to its assessment of the NSP's regulatory proposal. However, the AER is not precluded from considering other issues when making its regulatory determination. Therefore, the issues paper is not an exhaustive review of the proposal and does not contain a complete list of the matters that the regulator would consider in making its final regulatory determination.

The issues paper is published within 40 business days of the AER receiving the NSP's regulatory proposal. It is noted that the publication date for the issues paper is not based on when a resubmitted regulatory proposal, if required to be resubmitted, is received by the AER. This is because the AER can still prepare the issues paper while it waits on further information to be included in the resubmitted regulatory proposal. Therefore, only the period between the resubmitted regulatory proposal and issues paper is affected. Besides the public forum on the issues paper, the other milestones in the regulatory determination process are not contingent on the date that the issues paper is published.

The deadline for submissions on the issues paper and regulatory proposal is required to be no earlier than 30 business days after the AER publishes its issues paper. This means that the deadline for submissions on the regulatory proposal is essentially no earlier than 70 business days after receipt of the regulatory proposal.³⁸⁰ The additional time for submissions on the regulatory proposal takes into account the introduction of the issues paper and submissions associated with that paper.

Submissions on the issues paper are due at the same time that submissions on the regulatory proposal are due. This reflects the purpose of the issues paper, which is to assist stakeholders, particularly consumers and consumer representative groups, in preparing their submissions on the regulatory proposal.

Overview paper

With a consumer-specific focus in mind, the mandatory overview paper needs to explain how the NSP has engaged with electricity consumers in preparing its regulatory proposal. The paper also provides a summary of the regulatory proposal for electricity consumers. In this way, the overview paper acts as a "map" to the regulatory proposal and helps consumers focus on the relevant parts when responding to the regulatory proposal. In addition, the paper will explain how the NSP has sought to

³⁸⁰ This time also takes into account the 40 business days for the AER to publish its issues paper after receipt of the regulatory proposal.

address any relevant concerns identified as a result of the engagement with electricity consumers. To further focus the attention of consumers, the paper will describe the key risks and benefits of the regulatory proposal for electricity consumers. Finally, the paper will compare the total revenue approved for the current regulatory period with the NSP's proposed total revenue for the next regulatory period. In this regard, the NSP is to provide an explanation for any material differences between these two amounts.

Given that consumers need to be able to easily access the paper, the overview paper is a standalone document provided with the regulatory proposal. This means that the paper is to be in plain language, that is, it must not use technical language or industry jargon.

To reflect the overview paper's importance in the process, the AER will be given the ability to accept or reject the overview paper which accompanies the regulatory proposal. If the AER considers that the overview paper does not comply with the NER requirements, the AER may reject the overview paper and require that this paper be resubmitted, addressing any relevant requirements. To provide clarity to the NSP on the information required in the overview paper, the AER can utilise a regulatory information instrument.

Public forum

The AER will be required to convene a public forum on the NSP's regulatory proposal and the AER's issues paper. This must be held within 10 business days after the AER publishes its issues paper on the NSP's regulatory proposal.

10.5.4 Cross-submissions stage

The final rule provides for a cross-submissions stage in the NER. The AER will have the discretion to decide whether or not the cross-submissions stage is required immediately following the close of submissions on the revised regulatory proposal. If the AER does not invite submissions on the revised regulatory proposal, it implies that the cross-submissions stage is unnecessary. The AER will have the discretion to limit the scope of the cross-submissions stage. The scope is limited to specified matters that have been raised during submissions on the draft regulatory determination or submissions on the revised regulatory proposal. If utilised, the cross-submissions stage allows for at least 15 business days for submissions after the invitation for submissions is published.

10.5.5 Timing of the regulatory determination process

Commencing the regulatory determination process four months earlier, as can be seen in Figure 10.3, will allow for:

- the AER to prepare and publish the issues paper within 40 business days following receipt of the NSP's regulatory proposal;

- stakeholders to submit on the issues paper and regulatory proposal no earlier than 30 business days following the publication of the issues paper;
- a public forum to be held within 10 business days after publication of the issues paper;
- the NSP to submit its revised regulatory proposal within 45 business days after the publication of the draft regulatory determination;
- other stakeholders to submit on the draft regulatory determination no earlier than 45 business days after the publication of the draft regulatory determination; and
- a cross-submissions consultation stage of no earlier than 15 business days.

Figure 10.1 and Figure 10.2 are examples of the current regulatory determination process applicable to TNSPs and DNSPs, while Figure 10.3 shows the changed process according to the final rule.

Figure 10.1 Example of the current regulatory determination process applicable to TNSPs (hypothetical dates used)

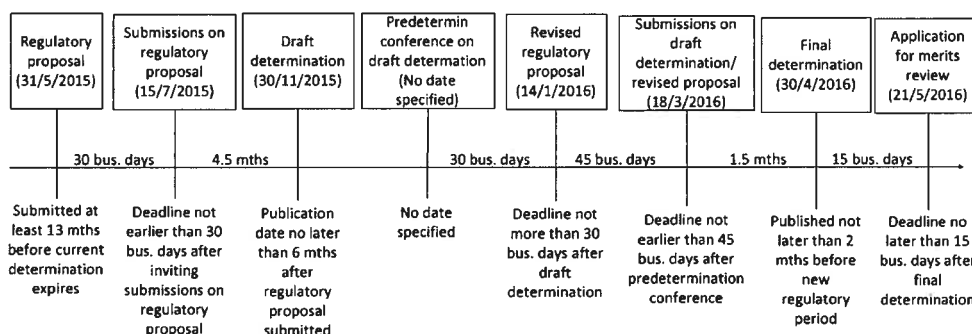
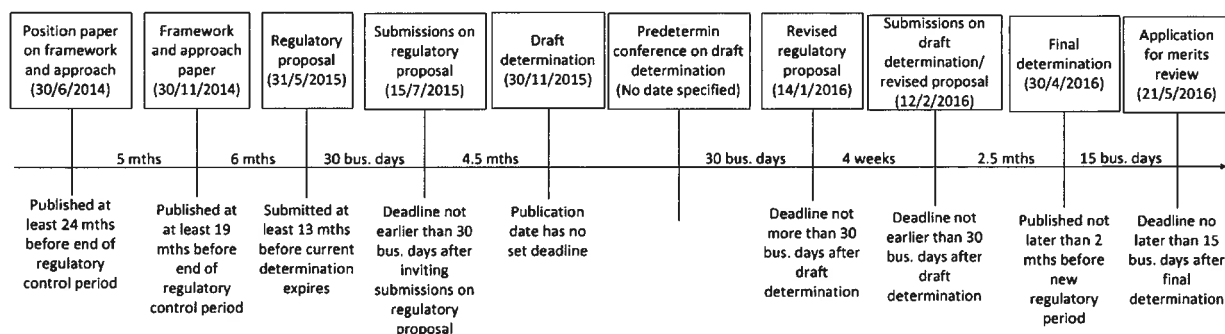
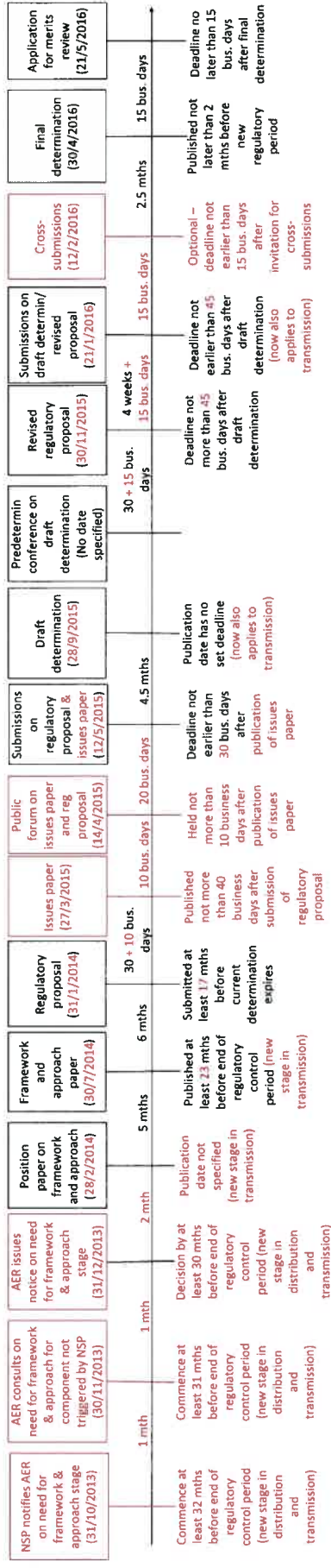


Figure 10.2 Example of the current regulatory determination process applicable to DNSPs (hypothetical dates used)



Note: the dates used in Figure 10.1 and Figure 10.2 are hypothetical and are only used to illustrate the differences between the existing timeframe in these figures and the new timeframe shown in Figure 10.3.

Figure 10.3 Example of the new regulatory determination process applicable to DNSPs and TNSPs (hypothetical dates used)



Note: the dates used in Figure 10.3 are hypothetical; changes to the current regulatory determination process are highlighted in red text.

10.5.6 Framework and approach paper

Triggering the framework and approach paper

The AER or the NSP will have the discretion to trigger the framework and approach paper stage. The circumstances in which the framework and approach stage is required are if:

- there is no previous framework and approach paper on a particular component or components; or
- the AER or NSP decide that a particular component or components from the previous framework and approach paper will be amended or replaced.

The circumstances above require that there must always be in place a framework and approach paper on a particular component or components, even if that is a previously existing framework and approach paper. A corollary of this is that, where a framework and approach paper on a particular component has previously been put in place, the requirement for a framework and approach paper on that particular component or components can be bypassed if the existing framework and approach for that component or components is still appropriate. In other words, the framework and approach paper can only be reopened for the particular components that the AER or the NSP decides should be consulted upon.

Where the AER is considering whether to trigger the framework and approach stage on a particular component or components, the AER has the responsibility to consider all stakeholder comments on whether a revised framework and approach paper is necessary to address a particular component or components. This is done prior to the AER making a decision on whether to trigger the framework and approach paper stage. This gives relevant stakeholders an opportunity to make a submission to the AER. It also promotes transparency in the process. Alternatively, the AER may not receive any submissions on triggering a framework and approach paper on a particular component or the NSP may not trigger a framework and approach paper on a particular component or components, but the AER can still decide to trigger the stage.

To this end, if the AER is deciding whether to trigger the framework and approach stage on a particular component or components, then the AER must:

1. issue an invitation for comment by at least 31 months before the end of the current regulatory period;
2. issue a notice on whether it will trigger the framework and approach stage by at least 30 months before the end of the current regulatory period;
3. then commence consultation on the framework and approach paper on that particular component or components; and

4. have completed and published the framework and approach paper by at least 23 months prior to the end of the current regulatory period.

Alternatively, if the NSP decides to trigger the framework and approach stage on a particular component or components:

1. the NSP is required to notify the AER at least 32 months before the end of the current regulatory period on which particular component or components that should be triggered in the framework and approach stage;
2. the AER must issue an invitation for comment on other components that are not covered by the NSP request by at least 31 months before the end of the current regulatory period;
3. the AER must issue a notice on the NSP's requested components to be considered in the framework and approach stage and whether there are any other particular components that the AER considers is to be considered in the framework and approach stage by at least 30 months before the end of the current regulatory period;
4. the AER must then commence consultation on the framework and approach paper on that particular component or components; and
5. the AER must have completed and published the framework and approach paper by at least 23 months prior to the end of the current regulatory period.

Unlike the steps for the AER to consider whether to trigger the stage, if the NSP triggers the stage on a particular component or components, then the AER is not required to consult with stakeholders on whether to trigger the stage on that particular component or components. In such a scenario, the reason that the NSP will be required to notify the AER at least 32 months before the end of the current regulatory period is to give the AER enough notice so it avoids unnecessarily consulting with other stakeholders on whether to trigger the stage on that particular component or components, which would have occurred one month later but for the NSP triggering the stage. The NSP is to provide reasons to the AER for triggering the stage to assist the AER and other stakeholders when they consider whether other components should be triggered that the NSP had not triggered. Notwithstanding the above, the AER is still required to consult on other components that the NSP does not trigger.

As there must be a framework and approach paper in respect of dual function assets, it is necessary for the determination on the price regulation of dual function assets to be brought forward to be aligned with the framework and approach paper process. To give the AER enough notice, the AER is advised of the value of the relevant dual function assets before it commences consultation on whether to initiate a framework and approach paper. This means that the AER is advised on this value at least 32 months prior to the end of the current regulatory control period. Given that the value ascribed to the relevant dual function assets must correspond to an opening value for a regulatory year, the time as at which this value must be determined needs to be 36 months prior to the end of the current regulatory period.

Threshold for departing from a component in the framework and approach paper

The AER will be able to depart from the framework and approach paper in respect of the components covered by it during the regulatory determination process. For example, service classifications and the formulaic expression of the control mechanisms can depart from the framework and approach paper for unforeseen circumstances. Another example is the AER can depart from the relevant framework and approach paper for the application of incentive schemes during the regulatory determination stage, although it must give reasons for doing so. However, the form of the control mechanism and the pricing of services provided by dual function assets continue to be set as in the framework and approach paper.

An example of how the "unforeseen circumstance" threshold could be applied may be with respect to a pending judicial decision where a service classification is contingent on that decision. Here, the pending judicial decision is one event and the actual judicial decision is another event. Although it may be argued that the pending judicial decision is foreseeable, the actual judicial decision could probably not be reasonably foreseen until the decision has been made. The service classification would have to be based on what is known at the time the framework and approach paper is made, but could be departed from once the actual judicial decision is made. On the other hand, if the judicial decision was foreseeable at the time of the framework and approach stage, then the service classification should have been classified at that stage and it would not be appropriate to depart from this at a later stage as it was foreseeable. Nevertheless, the AER has the responsibility to consider whether a change in circumstances was foreseeable or unforeseeable.

11 Diverse issues

Summary

- The capex reopener and contingent project mechanisms has been introduced in Chapter 6 of the NER (distribution) to allow for efficient costs to be recovered for unexpected events. The contingent project threshold has been set to the greater of \$30 million or five per cent of the annual revenue requirement (ARR) or maximum allowed revenue (MAR) for transmission and distribution. A materiality threshold of one per cent of the ARR will apply to cost pass through applications in distribution. These changes will bring the uncertainty regime for distribution into line with transmission.
- The AER's decision-making timeframe for applications made under the uncertainty regime has been aligned between distribution and transmission. Some flexibility has been given in the timeframe to account for complex or difficult issues, and waiting on information from certain third parties. This will provide the appropriate balance between certainty and finality with flexibility in the process.
- The AER's power to revoke and substitute a decision for a material error or deficiency under Chapter 6A has been limited to "computational" errors by the AER or false or misleading information provided to the AER by another party. This will bring into line the AER's power with Chapter 6, as well as providing for finality and certainty in the process.
- The AER has been given the power to establish the shared assets cost adjustment mechanism. This will apply to assets which provide standard control services or prescribed transmission services as well as unregulated services. The shared assets cost adjustment mechanism will be designed in accordance with specific principles and guidelines. This will allow for innovation by NSPs and cost reflectivity for customers of standard control services or prescribed transmission services.
- Balancing the promotion of innovation and flexibility in regulation with good regulatory practice, the AER will be able to develop small scale pilot or test incentive schemes. This will allow the potential impact of such an incentive scheme to be understood before full implementation.

Difference between draft rule and final rule

- In the draft rule, the contingent project thresholds were to be linked to the greater of five per cent of the MAR or ARR and the RIT-T, as varied, for transmission and the proposed RIT-D, as varied, for distribution. In the final rule, the distribution and transmission contingent project thresholds are based on the greater of \$30 million or five per cent of the ARR or MAR, respectively.

- In the draft rule, the shared assets cost adjustment mechanism was to only apply to a shared asset providing both standard control services and alternative control services or unregulated services in distribution, and both prescribed transmission services and unregulated services in transmission. The final rule limits the mechanism to a shared asset providing both standard control services and unregulated services in distribution, and both prescribed transmission services and unregulated services in transmission.

11.1 Introduction

The AER raised in its rule change request certain diverse issues. These related to:

- the appropriateness of applying particular uncertainty regime mechanisms in distribution and aligning decision-making timeframes for the uncertainty regime mechanisms;
- when the AER can revoke and substitute regulatory determinations to address material errors;
- how shared assets should be regulated; and
- the development of small scale incentive schemes.

11.1.1 Uncertainty regime

Like most businesses, a NSP operates in an uncertain environment.³⁸¹ Uncontrollable external events can alter the quantity and nature of services required to be provided.³⁸² In a normal competitive environment, production and pricing behaviour would adjust to respond to these changes where efficient producers can recover their costs and should generally earn at least a normal return on their investments.³⁸³ The regulatory arrangements, including the uncertainty regime, attempt to mimic the competitive market by allowing the NSP to alter its production behaviour to meet market demand and undertake unexpected investment in new network capacity.³⁸⁴

For the purposes of this final rule determination, the "uncertainty regime" under the NER comprises contingent projects, capex reopeners and pass through events. These mechanisms deal with expenditure that is required to be undertaken during a regulatory period but which is not able to be predicted with reasonable certainty at the time of preparing or submitting a regulatory proposal to the AER for the start of the next regulatory period. A more accessible uncertainty regime will, on the one hand, facilitate certain capex or opex projects being undertaken, though on the other hand it

³⁸¹ AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, p. 54.

³⁸² Ibid.

³⁸³ Ibid.

³⁸⁴ Ibid.

may reduce the incentive to undertake only efficient capex and opex in some circumstances. An appropriate uncertainty regime will contribute to efficiency of investment by allocating risks to the party best able to deal with them, including appropriately sharing the risks of external events.

Capex reopeners and contingent projects

Contingent projects and capex reopeners are not currently included under Chapter 6 for distribution. This was because the MCE Standing Committee of Officials (SCO) considered when developing Chapter 6 that distribution projects were different to transmission with respect to their nature and profile of capex, with uncertainty around certain capex projects to be dealt with via pass through provisions, and the objective that this would strike a reasonable balance between not penalising the DNSP for events outside its control and ensuring appropriate operation of the incentives regime within the regulatory framework.³⁸⁵

The AER proposed to include capex reopener and contingent project provisions in Chapter 6 of the NER.³⁸⁶ In general, these would operate in distribution in the same way as they currently operate in transmission in Chapter 6A. Associated with this is setting an appropriate threshold; and the AER proposed using the same value as in transmission for capex reopeners and contingent projects, with the AER being able to vary the contingent project threshold values through the use of guidelines.

In respect of cost pass through events, the AER proposed a materiality threshold of one per cent of the ARR to apply to distribution.³⁸⁷

The AER also proposed that, where as a result of a cost pass through application the AER allows capex which is fully recovered during the regulatory period in which the relevant event occurs, the capex should not be rolled forward into the RAB at the next regulatory determination.

Timeframes for AER decision-making under the uncertainty regime

When the AER receives an application for cost pass throughs, contingency projects or capex reopeners, it has a set time to make its decision which varies according to the type of application.³⁸⁸ The AER proposed for it to have more time to consider complex applications, which would involve an aligned timeframe set at 40 business days for normal applications with the ability to extend by an additional 60 business days for more complex or difficult applications.³⁸⁹

³⁸⁵ MCE SCO, *Response to stakeholder comments on the Exposure Draft of the National Electricity Rules for distribution revenue and pricing*, 1 August 2007, pp. 29, 48.

³⁸⁶ AER, Rule change request, Part B, 29 September 2011, pp. 46-52.

³⁸⁷ *Id.*, p. 50.

³⁸⁸ An exception to this is for negative pass throughs which have no set time limit.

³⁸⁹ AER, Rule change request, Part B, 29 September 2011, pp. 99-100.

11.1.2 Material errors

The NER allow the AER to revoke and substitute regulatory determinations where a material error arises. Depending on whether it is a distribution or transmission regulatory determination, there are different types of material errors which allow for revocation and substitution of regulatory determinations.

The AER was concerned that there may be the potential for a material error that would be outside the currently prescribed list for distribution regulatory determinations.³⁹⁰ In transmission, uncertainty is created by the power to correct material errors caused by false or misleading information provided by the TNSP as there is no express limit placed on correcting such errors only to the extent necessary.³⁹¹ There may also be circumstances in which it may be more preferable or appropriate to amend a regulatory determination, as opposed to revoking and substituting the entire regulatory determination.³⁹²

The AER sought to remove these differences by broadening its ability to revoke and substitute for material errors in Chapter 6 of the NER. This would entail replacing the prescribed list of material errors in Chapter 6 with a more general reference to material errors or deficiencies, limiting changes related to false and misleading information under Chapter 6A "only to the extent necessary", expanding the circumstances for revoking and substituting regulatory determinations to address deficiencies under Chapter 6A, and being able to amend regulatory determinations in response to material errors.³⁹³

11.1.3 Shared assets

In this final rule determination, shared assets refer to assets used to provide both standard control services or prescribed transmission services and unregulated services. For distribution, the shared asset could be providing a combination of standard control services and unregulated services. For transmission, the shared asset could be providing both prescribed transmission services and unregulated services. This issue is likely to become more relevant in light of the potential for electricity network assets, such as poles and pits, to be used to provide access for the National Broadband Network (NBN).

The AER proposed shared assets cost adjustment mechanisms to allow consumers to benefit where distribution assets are used to provide non-standard control services, including alternative control services and unregulated services.³⁹⁴ This could include

³⁹⁰ Id., pp. 95-96.

³⁹¹ Ibid.

³⁹² Ibid.

³⁹³ False and misleading information is already limited in Chapter 6 in this way. "Deficiency" is already included in Chapter 6. For further information, see AER, Rule change request, Part B, 29 September 2011, p. 96.

³⁹⁴ AER, Rule change request, Part B, 29 September 2011, p. 60.

an ex ante forecast revenue adjustment to the ARR, or an ex post control mechanism adjustment such as reflecting the portion of revenue from the unregulated service.

11.1.4 Small scale incentive schemes

The AER proposed that it should have the power to develop incentive schemes outside of those already provided for in the NER.³⁹⁵ It considered the rule change process for implementing new incentive schemes was cumbersome and over costly. The AER also proposed to amend Chapter 6A of the NER such that it would have discretion to decide whether or not to apply the existing incentive schemes to NSPs at the time of the regulatory determination.³⁹⁶

11.1.5 Chapter structure

The remainder of this chapter is structured as follows:

- section 11.2 summarises the Commission's position in the directions paper and draft rule determination;
- section 11.3 summarises the submissions received in response to the Commission's draft rule determination;
- section 11.4 provides the Commission's analysis of issues in response to submissions received on the draft rule determination; and
- section 11.5 provides guidance on the final rule.

11.2 Directions paper and draft rule determination

11.2.1 Uncertainty regime

Need for capex reopeners and contingent projects in distribution

In the directions paper, the Commission decided to include contingent projects and capex reopener mechanisms for distribution. This would better harmonise transmission and distribution, as well as making the NSP more accountable rather than relying on cost pass through applications for uncertain circumstances. A range of reasons were given for why the TNSP and DNSP face similar levels of uncertainty. Unlike competitive businesses, which are better able to adjust their behaviour in response to uncontrollable factors, the TNSP and DNSP are both generally obliged to continue to supply services even where their equipment is exposed to significant risks. In the absence of an uncertainty regime, the added risk for a regulated business would be factored into the cost of capital, forcing it up. A regulated business might also have

³⁹⁵ Id., pp. 56-58.

³⁹⁶ Id., p. 57.

more of an incentive to increase the forecast of capex or opex in its regulatory proposal to factor in circumstances which it cannot predict.

In the draft rule determination, the Commission elaborated further on its position in the directions paper. The Commission's starting point was that Chapters 6 and 6A of the NER should be consistent unless there are substantive reasons for a difference. The Commission accepted that there are certain disadvantages of an expanded uncertainty regime. It could dampen the incentive effects of an ex ante allowance in certain circumstances. It could also create administrative burden for the AER and stakeholders in responding to "mini-determinations" during the regulatory period. On balance, however, the Commission decided to maintain its position from the directions paper.

By setting the thresholds for these mechanisms at the correct level, as further discussed below, only the largest projects or events, which could be expected to have longer lead times, would be captured. Accordingly the administrative burden on stakeholders would be limited. In addition, experience with the uncertainty regime in Chapter 6A indicates that the incentive effects of the ex ante allowance provided under the regulatory determination process would not be substantially weakened.³⁹⁷

In respect of whether pass throughs provide sufficient protection, capex reopeners are intended to fulfil a different function by extending protection to very large events which are more difficult to predict and are more difficult to fully provide for as cost pass through events. Contingent projects, on the other hand, apply to a matter which is more specific to a particular business and more likely to occur than a cost pass through.

Stakeholders had previously expressed concerns with expanding the uncertainty regime for distribution. These related to the potential increase in intra-period determinations, administrative burden placed on parties to participate in each application, and weakening the expenditure discipline and price/revenue cap regime.³⁹⁸ Some suggested that a NSP should be using up its existing expenditure allowance, or reprioritising or substituting its projects, to avoid seeking cost recovery through the uncertainty regime mechanisms.³⁹⁹ In general, the Commission would expect a NSP to act in this way in respect of smaller projects. The threshold for capex reopeners and contingent projects means that these can only be used for larger projects. For such projects, it will be more difficult for the NSP to accommodate these within the existing allowance.

NSPs also suggested that the current uncertainty regime for transmission is not effective.⁴⁰⁰ However, the Commission was of the view that it would be outside the scope of this rule making process to review the effectiveness of the uncertainty regime

³⁹⁷ It is noted that under Chapter 6A, these mechanisms have not so far created a significant burden, given that the contingent project mechanism has been used twice while capex reopeners have never been used.

³⁹⁸ Ethnic Communities' Council of NSW, Directions Paper submission, 16 April 2012, p. 3; EUAA, Directions Paper submission, 16 April 2012, pp. 24, 26.

³⁹⁹ MEU, Directions Paper submission, 17 April 2012, pp. 47-48, 60.

⁴⁰⁰ ENA, Directions Paper submission, 16 April 2012, pp. 27-28, 34-35.

for transmission. Issues specifically associated with the effectiveness of the cost pass through regime have been addressed as part of another rule change process.

Threshold for capex reopener and contingent project applications in distribution

For contingent projects, the AER proposed a threshold of \$10 million which it considered was consistent with the AEMC's original intention in 2006 to align this with the regulatory test threshold.⁴⁰¹ In the draft rule determination, the Commission noted that there were mixed responses from DNSPs suggesting either the contingent project threshold was too low or too high.⁴⁰² The Commission maintained its position from 2006 and considered that the threshold should be aligned to the regulatory test threshold ie the Regulatory Investment Test for Transmission (RIT-T) and the proposed Regulatory Investment Test for Distribution (RIT-D). For this reason, guidelines were considered unnecessary to vary the contingent project threshold or for the contingent project threshold to be indexed by inflation.⁴⁰³ Instead, the contingent project threshold would be directly linked to the estimated capital cost of the most expensive option to address the identified need under the RIT-T, as varied, for transmission and the proposed RIT-D, as varied, for distribution.⁴⁰⁴

Materiality threshold for cost pass through applications in distribution

The AEMC considered in 2006 the materiality threshold for cost pass through applications in transmission as important to promote stability and predictability of the revenue cap regime for both the regulator and the NSP.⁴⁰⁵ Without such a threshold, it was considered that this would lead to greater uncertainty and an increase in administrative costs for the AER to determine a material event.⁴⁰⁶ Hence, it was determined that the threshold should be one per cent of the MAR for transmission.

In response to the AER's rule change request, some DNSPs proposed that the materiality threshold for distribution should not be set as a value in the NER.⁴⁰⁷ Instead, they considered that it should remain flexible to capture all non-trivial matters and reflect less lumpy capex in distribution.⁴⁰⁸ Otherwise, the DNSP would be exposed to unrecoverable risks.⁴⁰⁹ However, in the draft rule determination, the Commission was of the view that such an approach would introduce an undesirable

401 The regulatory test threshold in transmission has now been superseded by the RIT-T.

402 Ausgrid, Directions Paper submission, 16 April 2012, p. 7; SP AusNet, Directions Paper submission, 16 April 2012, p. 5.

403 Victorian DPI, Consultation Paper submission, 8 December 2011, pp. 5, 8.

404 In distribution, this value is equivalent to the estimated capital cost to the NSP affected by the RIT-D project of the most expensive potential credible option to address the identified need of \$5 million. In transmission, this value is equivalent to the estimated capital cost of the most expensive option to address the identified need which is technically and economically feasible of \$5 million.

405 AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, p. 106.

406 Ibid.

407 Ausgrid, Consultation Paper submission, 8 December 2011, pp. 30-32.

408 Ibid.

409 Ibid.

degree of subjectivity into cost pass through determinations, and give the DNSPs too much of an avenue to submit applications, which may or may not be trivial in nature. On balance, the Commission considered that a materiality threshold needed to be specified to provide for greater certainty to both the regulator and the DNSP.

The Commission understood that the AER applied the one per cent threshold in practice for distribution, even though it is prescribed only for transmission. Therefore, there should not be a significant impact on DNSPs in codifying existing AER practices, and no reason for a difference between transmission and distribution. This would provide for consistency, transparency, predictability and certainty on when the AER would be required to consider cost pass through applications.

Double recovery of capex arising from cost pass through applications

In its rule change request, the AER raised the issue that there would be a potential double recovery of capital costs through both cost pass through applications and including that incurred capex again when establishing the roll-forward RAB for the next regulatory period. In the directions paper and draft rule determination, the Commission supported this proposal to avoid the potential unintended double counting. This would be done by excluding the capital costs recovered through approved cost pass through applications during the current regulatory period from the calculation of the roll-forward RAB for the next regulatory period.

Timeframes for AER decision-making under the uncertainty regime

In the directions paper, the Commission considered extending the timeframe for decision-making on cost pass throughs and capex reopeners, but not in respect of contingent projects. In the draft rule determination, this was extended to contingent projects, given the AER's new evidence of the detail and complexity that may be involved in the AER's assessment of contingent project applications.⁴¹⁰

In the directions paper, the Commission also considered a number of options relating to the circumstances in which the AER may extend its decision-making time and the extent of time required. In developing a position in the draft rule determination, the Commission considered that sufficient certainty and finality must be taken into account. To a certain extent, the need for fixing the timeframe would promote certainty and finality; however, it would not necessarily allow the NSP the ability to recover efficient costs for unforeseen events if there is a substantial delay that is outside of the NSP's control. For this reason, the Commission supported the AER's suggested principle in the draft rule determination that the "stop the clock" mechanism should apply in those circumstances which are outside of the AER or NSP's control. Such circumstances would be where the AER is waiting on the provision of information by a governmental authority, or is waiting on a judicial body or royal commission to make relevant information publicly available.

With respect to the time taken for the AER to wait on additional information from the NSP, the default decision-making time of 40 business days would be subject to the later

⁴¹⁰ AER, Directions Paper submission, 2 May 2012, pp. 75-76.

of the date that the AER receives the NSP's information or any additional information associated with the NSP's written application. This requirement for the NSP to provide the AER with additional information the AER requires to make a determination under the uncertainty regime is currently unique for negative cost pass throughs, and extended to positive cost pass throughs, capex reopeners and contingent projects in the draft rule determination. This way, it was unnecessary to apply an extended decision-making timeframe to circumstances where the AER is waiting for additional information from the NSP.

Where the issues being considered are complex or difficult, but the AER has all the information that it needs, then the AER should be able to determine the issues within a set timeframe, albeit perhaps an extended timeframe. The Commission considered that the AER's proposal for an extended timeframe in these circumstances would provide the appropriate balance between giving the AER flexibility and offering some degree of finality and certainty in relation to the making of a decision by the AER. For these purposes, the draft rule adopted similar wording to that in section 107 of the NEL, which described the relevant issues as being of sufficient complexity or difficulty to warrant an extension of time.

In the directions paper, the Commission proposed an option to introduce a notification step where the NSP would be required to notify the AER if it was aware that there may be external events that could have an impact on the application before it makes its application. However, given the flexibility that would be built into the timeframe, such a notification appeared to be unnecessary in the draft rule determination. Nevertheless, the Commission encouraged NSPs to notify the AER in advance of its application if it becomes aware of matters that could potentially delay the AER in making its decision, which would assist in allowing the application to be processed more efficiently.

In the directions paper, the Commission also considered the NSPs' proposal for the AER to issue a draft of its decision where there are complex circumstances.⁴¹¹ However, to the extent the complex circumstances or any lack of information preclude the AER from forming a view, there did not seem to be any value in requiring the AER to make a draft decision at that stage. The Commission considered that it would be difficult to expect the AER to prepare a draft decision in these circumstances and decided not to prescribe such a requirement. Nevertheless, the AER may also wish to seek to informally consult in the course of considering such matters.

11.2.2 Material errors

Scope for material errors

In the directions paper, the Commission sought supporting evidence to justify the AER's proposal to broaden the scope for material errors under Chapter 6. There was a lack of evidence noted in the directions paper and draft rule determination to support the view that the AER's current powers constrained its ability to revoke and substitute a regulatory determination for material errors.

⁴¹¹ ETSA, CitiPower and Powercor, Consultation Paper submission, 8 December 2011, pp. 196-197.

NSPs also stated that there may have been opportunities for a material error to be corrected in a draft regulatory determination, but the AER has not always utilised its discretion to address the material error.⁴¹² The AER itself observed that the circumstances justifying correction of a material error would be exceptional.⁴¹³ On this basis, the Commission decided in the draft rule determination that after the final regulatory determination is made, the regulatory determination should only be able to be changed as a result of merits review outcomes or in very clear and exceptional circumstances. Therefore, the Commission favoured keeping the scope of the material error provisions under Chapter 6 narrow and focussed on "computational" errors by the AER or situations where the AER has received false or misleading information. Provisions such as pass throughs, capex reopeners and contingent projects were considered the appropriate means by which more substantive changes to the regulatory determination should be made.

Expanding on its previous position in 2006, the Commission considered in the draft rule determination that in addition to providing certainty, transparency and maintaining the incentives built into the framework, the finality of the regulatory determinations must be preserved. For finality in a regulatory determination, the AER proposed limiting the timeframe for correcting material errors to six months following the making of the final regulatory determination, which would balance off the AER's proposed expansion of the scope of material errors.⁴¹⁴ Given the Commission's decision to maintain a narrow scope for material errors under Chapter 6, this proposed time limitation for addressing material errors was considered unnecessary.

Consistent with this position, the Commission considered in the draft rule determination that the Chapter 6 provisions provided more certainty and finality in the framework than the equivalent provisions under Chapter 6A, and there should be no reason for differences between Chapters 6A and 6 with respect to these types of material errors as these only relate to computational errors or situations where the NSP has submitted false or misleading information. Therefore, the Commission decided to narrow down the broader Chapter 6A provisions with the narrower Chapter 6 provisions. This also included limiting material errors in regulatory determinations caused by false or misleading information by reference to "to the extent necessary", which is currently the case for distribution regulatory determinations, but not for transmission revenue determinations.

The Commission also noted that an alternative approach to promote certainty and finality in the final regulatory determination could be to not permit it to be revoked and substituted for material errors, as currently has been the approach of the regulator Ofgem in the Great Britain. However, the Commission considered that the limited approach in Australia is appropriate.

412 ENA, Directions Paper submission, 16 April 2012, pp. 78-79; Jemena, Directions Paper submission, 16 April 2012, pp. 57-58.

413 AER, Directions Paper submission, 2 May 2012, p. 74.

414 Ibid.

Amending material errors

The AER proposed that it should be able to amend, as an alternative to revoking and substituting, a regulatory determination as a result of a material error or deficiency where it is more preferable or appropriate to do so. In the directions paper, the Commission considered that the power to amend regulatory determinations would impact on the NSP's ability to have any such amendments reviewed in a merits review, as noted in some submissions.⁴¹⁵ In the draft rule determination, the Commission maintained its view that the provisions relating to material errors should not be changed to include a power for the AER to amend a determination as a result of a material error.

11.2.3 Shared assets

General position

In the directions paper and draft rule determination, the Commission considered that customers who pay for one type of regulated service that is provided by a shared asset should not be paying for the full cost of the asset. Instead, those customers should be receiving some benefit from the asset being used for a service other than a regulated service. In the draft rule determination, the Commission elaborated further on the rationale for shared assets.

In the directions paper, the Commission noted that a shared assets cost adjustment mechanism could apply to transmission as well as distribution. In the draft rule determination, the Commission regarded this as consistent with the overall principle of harmonising Chapters 6 and 6A of the NER.

Cost allocation principles

With respect to a potential overlap between cost allocation principles and shared assets, the Commission noted in the draft rule determination that the cost allocation principles are limited as it would only allocate costs for future assets, as opposed to existing assets. This would create a problem when an asset that was used to provide a regulated service later becomes used to also provide an unregulated service or another regulated service. Under the cost allocation principles, as the costs have already been allocated to this asset, the mechanism cannot accommodate this change in circumstances, unless there has been a reclassification of service.

For these reasons stipulated in the draft rule determination, a shared assets cost adjustment mechanism would be available to the AER to apply to assets that provide both distribution or transmission services and any unregulated service. To avoid any doubt and potential overlap, the Commission stated that the AER's development of any shared assets cost adjustment mechanism must have regard to the cost allocation principles and the NSP's cost allocation method, and any incentives under the NER.

⁴¹⁵ ENA, Directions Paper submission, 16 April 2012, pp. 78-79; Grid Australia, Directions Paper submission, 16 April 2012, p. 13.

Restrictions on the shared assets cost adjustment mechanism

As discussed in the directions paper, the AER proposed two shared assets cost adjustment mechanisms in the form of an ex ante revenue adjustment and an ex post control mechanism adjustment.⁴¹⁶ It stated that the control mechanism adjustment could be used for sharing a proportion of the pre-tax profits from the unregulated activities with the users of the regulated services.⁴¹⁷

In the draft rule determination, the Commission did not consider it possible for a shared assets cost adjustment mechanism to share a portion of the profit or revenue from unregulated services. By transferring a portion of this profit or revenue to customers of regulated services, the mechanism would be limiting the revenue that the NSP could earn from the unregulated service. This would have the same effect as regulating the unregulated service, which does not appear to be permitted under the NEL and NER.

Shared assets cost adjustment mechanism – cost reduction

It was decided in the draft rule determination that the shared assets cost adjustment mechanism should operate in a way that would not be based on the profit or revenue received by the NSP from the unregulated service. The best way it was considered that this could work was if the sharing was implemented through a reduction in the costs of the shared asset that are recovered from consumers of the regulated service. That is, instead of recovering 100 per cent of the costs of the shared asset from consumers of the regulated service, a lower proportion would be recovered. A number of principles would be taken into account by the AER in determining this proportion, discussed further below, one of which could be having regard to the manner in which costs have been recovered or revenues reduced by the NSP in the past for a shared asset associated with the unregulated service. However, the shared assets cost adjustment mechanism would not apportion part of the revenue or profit from the unregulated service.

Sharing the benefit resulting from the asset being used to provide an unregulated service, as well as a regulated service, via a reduction in the costs recovered from the consumers of the regulated service, rather than by passing through a portion of the revenue or profits received from the unregulated service, means that there will be a limit on the amount of benefit sharing that is possible. For example, if the costs of the shared assets that are recovered from standard control service customers each year are \$1 million in the absence of any sharing, but revenue from the unregulated use is \$3 million per year, the maximum benefit that could accrue to standard control service customers would be \$1 million per year.

Where the shared assets cost adjustment mechanism takes the form of a reduction in costs apportioned to consumers of the regulated services, a control mechanism adjustment including annual pricing adjustments would not appear to be appropriate.

⁴¹⁶ AER, Rule change request, Part B, 29 September 2011, p. 60.

⁴¹⁷ *Id.*, p. 61.

A control mechanism adjustment would only be appropriate if the adjustment was linked to an external factor, such as the amount of profit or revenue received under a contract with a third party, and this could be converted into a price or revenue adjustment in the control mechanism in a "mechanistic" way without the AER having to make a subsequent decision. Such an approach would be administratively inefficient, given that the AER would be required to annually make these adjustments, and would create too much uncertainty for the NSP.

Instead of an adjustment to the control mechanism, the reduction in the costs allocated to consumers of the regulated services would feed through the building block determination into the ARR. This reduction would be determined by the AER at a regulatory determination according to guidelines based on the principles set out below. It should reflect the part of the costs of the relevant asset which are being recovered through charging for the provision of the unregulated service. By reducing the ARR for the NSP, the amount recovered from consumers will also be reduced. By including the decision in a regulatory determination, the cost reduction will be fixed for the regulatory period covered by that determination, which provides certainty for the NSP. In addition, this decision would be subject to the scrutiny that comes from consultation as part of the regulatory determination process and any subsequent merits review.

Timing

In the draft rule determination, the Commission was of the view that the cost reduction would only be implemented at a regulatory determination, regardless of when the sharing arrangement actually commences. This means that the NSP would be required to disclose information on its shared assets as part of its regulatory proposal to the AER. It would be possible for the reduction to occur in respect of a sharing arrangement which had not yet commenced, provided it was known with enough certainty at the time of the regulatory determination. If it was not known with enough certainty then the reduction could not apply until the next regulatory determination, even if the sharing arrangement commenced prior to that determination. There would be no reconciliation or "ex post adjustment" in respect of any sharing arrangement that was put in place during the middle of a regulatory period; the cost reduction would only start from the beginning of the next regulatory period. However, the historical use or revenue of the asset could be used as a factor to forecast future sharing of such an asset. Overall, this should provide the NSP who has a sharing arrangement some certainty as to what cost reduction could be expected. The proposed shared assets cost adjustment mechanism could also take into account Jemena's previous proposal for an exemption period to be given to newly shared assets for a period of several years.⁴¹⁸

In respect of an ex post adjustment, or "true up", once the actual benefits in a period of a sharing arrangement are known, the Commission considered in the draft rule

⁴¹⁸ Jemena, Consultation Paper submission, 8 December 2011, p. 107; Jemena, Directions Paper submission, 16 April 2012, pp. 26-27, 31-32.

determination that this should not be necessary.⁴¹⁹ First, if the sharing arrangements are set on the basis of a contract the revenue received should be relatively easy to predict. Second, the revenue received will be only one factor to consider in setting the cost reduction for consumers, which must be based on the cost of assets shared. Third, to the extent revenues received through the sharing arrangements change, the cost reduction can be adjusted at the next regulatory determination for the next regulatory period.

Jurisdictional arrangements

As referred to in the AER's original proposal, the Commission recognised in the draft rule determination that shared assets cost adjustment mechanisms currently exist under jurisdictional arrangements.⁴²⁰ The approach that has been previously used in Queensland has been grandfathered in NER clause 11.16.3. This grandfathering extends until the next Queensland distribution determination in 2015. Since the mechanism applied is a forecast revenue adjustment made to the building blocks, this could be accommodated under the proposed rules. In South Australia, a profit sharing mechanism has been used, with a portion of the profits from unregulated activities passed onto regulated service users of the shared asset.⁴²¹ As described above, such a mechanism would not seem to be permitted under the general NEL and NER provisions.

Shared assets providing alternative control services

As noted in the draft rule determination in respect of distribution, the above approach would only address the situation where one use of the asset is to provide standard control services and another use is to provide an unregulated service. The AER also pointed out that there may be the circumstance where the asset is used to provide both alternative control services and unregulated services.⁴²² The Commission accepted that alternative control service customers of a shared asset should be paying costs reflective of its use for the provision of alternative control services, and agreed with the AER that there should be no reason why standard control service customers benefit from the use of a shared asset to provide unregulated services, while alternative control service customers do not.

Nevertheless, some submissions on the directions paper stated that the AER's proposal would result in customers of alternative control services being over-compensated through a revenue decrement as well as a separate control mechanism, and that alternative control services should be excluded.⁴²³ The Commission considered in the

⁴¹⁹ AER, Rule change request, Part B, 29 September 2011, p. 61; Jemena, Directions Paper submission, 16 April 2012, pp. 26-27, 31-32.

⁴²⁰ AER, Rule change request, Part B, 29 September 2011, p. 59.

⁴²¹ Ibid.

⁴²² AER, Directions Paper submission, 2 May 2012, pp. 34-35.

⁴²³ Ausgrid, Consultation Paper submission, 8 December 2011, p. 33; ETSA, CitiPower and Powercor, Directions Paper submission, 13 April 2012, p. 35; Jemena, Directions Paper submission, 16 April 2012, pp. 26-27, 31-32.

draft rule determination that the AER has considerable discretion in setting the control mechanism for alternative control services under NER clauses 6.2.5(a)-(b) and 6.2.6(b)-(c) and so may impose requirements that only permit the NSP to recover such costs associated with the provision of alternative control services as are appropriately allocated to those services. Therefore, in respect of distribution, the shared assets cost adjustment mechanism would only deal with the circumstance where the asset is used to provide a standard control service.

However, the Commission considered in the draft rule determination that, where one use of the asset is for standard control services and the other use is for alternative control services, the standard cost adjustment described above should still apply for the costs recovered from the standard control service customers.

Guidelines and principles

Bearing in mind the shared assets cost adjustment mechanism described above, the Commission considered in the directions paper and draft rule determination that to facilitate NSPs seeking out and entering into sharing arrangements of the kind discussed here, NSPs would need some certainty about how the AER would determine the cost adjustment appropriate for a particular sharing arrangement.

Part of this certainty would be provided by principles guiding the AER's determination, and which would be set out in the NER. NSPs previously raised a number of principles that could be applied in this regard.⁴²⁴ In setting these principles, consistent with the NEO, the Commission took the view in the draft rule determination that the approach to a shared assets cost adjustment mechanism should:

- provide clarity and certainty on how the AER would approach sharing the costs;
- provide cost reflective prices to consumers;
- promote innovation in NSP investments; and
- be able to be implemented in practice.

On this basis, the principles listed in the draft rule determination to which the AER must have regard to were:

- the NSP should be encouraged to use assets that provide standard control services for the provision of other kinds of services where that use is efficient and does not materially prejudice the provision of standard control services;

⁴²⁴ Ausgrid, Consultation Paper submission, 8 December 2011, p. 33; ENA, Consultation Paper submission, 8 December 2011, pp. 38-39; ENA, Directions Paper submission, 16 April 2012, pp. 36-37; Energex, Directions Paper submission, 16 April 2012, pp. 2-3; Ergon Energy, Consultation Paper submission, 8 December 2011, p. 14; ETSA, CitiPower and Powercor, Consultation Paper submission, 8 December 2011, pp. 23, 97-98; Jemena, Consultation Paper submission, 8 December 2011, pp. 107-109; Jemena, Directions Paper submission, 16 April 2012, pp. 26-27, 31-32.

- a shared assets cost adjustment should not be dependent on the NSP deriving a positive commercial outcome from the use of the asset other than for standard control services;
- a shared assets cost adjustment should be applied where the use of the asset other than for standard control services is material. This means the benefit of sharing the cost of the asset based on use should outweigh the administrative costs of implementing the shared asset cost adjustment mechanism;
- the manner in which costs have been recovered or revenues adjusted in respect of the relevant asset in the past and the reasons for adopting that manner of recovery or adjustment should be taken into account;
- a shared assets cost adjustment should be compatible with the cost allocation principles and cost allocation method; and
- a shared assets cost adjustment should be compatible with incentives that the NSP may have under the NER.

The Commission considered in the draft rule determination that the above principles promoted its objectives on what the shared assets cost adjustment mechanism should achieve.

With respect to determining the appropriate portion of costs for the purposes of a shared assets cost adjustment, the Commission considered in the draft rule determination the most obvious approach is for the AER to base this on the relative use of the asset for the provision of the different kind of services such as the technical use or physical use. Another possible way could include using the ratio between the proportion of revenue from the asset for standard control services and the proportion of revenue from the asset for other than for standard control services over the current regulatory period. However, this should not be taken as precluding the AER from considering other possible bases for sharing the costs of the asset.

The Commission did not accept in the draft rule determination the principle that the NSP should only have to pass on the benefit of a shared asset if it receives a net profit as a result, which was proposed by NSPs to recognise the associated risks of the NSP with sharing arrangements.⁴²⁵ In general, the NSP should bear the risk so it takes this into account when deciding whether to enter a sharing arrangement, as the Commission considered the NSP to be the party best able to assess and manage this risk.

In addition, for added certainty, the draft rule required the AER to set out in guidelines what its approach would be for determining the appropriate cost reduction for sharing arrangements, having regard to the above principles. Such guidelines may, for example, set out a particular methodology which the AER intends to use.

⁴²⁵ Ausgrid, Consultation Paper submission, 8 December 2011, p. 33; ENA, Consultation Paper submission, 8 December 2011, pp. 38-39; Jemena, Directions Paper submission, 16 April 2012, pp. 26-27, 31-32.

In the directions paper, the Commission considered including a draft rule requiring the AER to specify the shared assets cost adjustment mechanism at the framework and approach paper stage. However, the Commission decided in the draft rule determination that this would not be required because the shared assets cost adjustment mechanism would be prescribed in the NER, with supporting guiding principles and guidelines. This meant the NSP would need to submit information on its shared assets to the AER in the regulatory proposal.

11.2.4 Small scale incentive schemes

In the directions paper the Commission considered that the AER should be allowed to develop small scale pilot or test incentive schemes within an environment that limits the sum of money at risk and the length of time of the scheme. It also proposed that it would be appropriate for the AER to have the discretion to determine whether or not incentive schemes should apply at the time of a regulatory determination in Chapter 6A of the NER, consistent with Chapter 6.

In the draft rule determination, the Commission maintained its position. It elaborated that the AER should have the ability to innovate in this way without having to go through the full rule making process, which may be overly burdensome. It would be good regulatory practice to test or pilot a scheme before full implementation as incentive schemes could otherwise be introduced that lead to unexpected and perhaps unwelcome outcomes as identified by Professor Littlechild.⁴²⁶ A permanent scheme should, however, be subject to the rule making test given the potential impact of the scheme.

The extent of a small scale incentive scheme should be limited by the sum of money at stake, ie revenue at risk, and the period for which the scheme lasts. In addition the scheme should be subject to consultation with relevant NSPs and other stakeholders before being implemented.

The sum of money at stake should balance the need to be high enough to understand how the scheme would be likely to operate but not so high that there would be a significant impact on a NSP if the scheme did not operate as intended. The Commission considered that this balance would be met if the revenue at stake was one per cent of revenue for a regulatory year if the NSP agrees with this amount, or up to 0.5 per cent of revenue for a regulatory year if the NSP does not. The lower revenue at risk that can be placed on the scheme if the NSP does not agree to it was to reflect that the NSP would have no choice as to whether a scheme is applied to it and the scheme would not have been subject to the rule making process. The AER would also be able to undertake paper trials, ie a scheme in which no money is at risk, as part of its discretion. The limits described above were considered high enough such that the effectiveness of a scheme would be able to be determined.

In terms of a restriction on the period of a scheme, any scheme would last for a maximum of two regulatory periods. If the AER wished the scheme to continue after

⁴²⁶ Stephen Littlechild, Advice to the AEMC on Rule Changes, 11 February 2012, p. 19.

this point then it would need to apply for the scheme to be made permanent through the rule change process. This length of time should be long enough for the AER to make a decision on whether the scheme was effective and therefore whether it would be a permanent scheme in the NER.

In addition to these requirements, the Commission did not agree that the draft rule should require the AER to seek the agreement of the NSP before commencing the trial as this would simply give the NSP a right of veto. However, as noted above, the revenue that could be put at risk from the scheme would be lower if the NSP did not agree to the scheme. Restricting the scheme to only parts of a NSP's operations would also overly restrict the AER.

Consistent with the general approach in respect of the rule change, the AER would have to take into account certain factors when developing these schemes. The principles developed for capex sharing schemes were considered broadly appropriate here. These addressed key issues, such as the fact that a scheme should not penalise efficient NSPs. At the same time, the principles were broad so that they did not overly restrict the AER. These factors were also in line with those put forward by the AER for its proposed power to develop other incentive schemes.⁴²⁷

The Commission maintained that it would be appropriate to allow the AER to have discretion to determine whether incentive schemes should apply at the time of a regulatory determination in Chapter 6A of the NER, consistent with Chapter 6.

11.3 Submissions

11.3.1 Uncertainty regime

Capex reopeners

The AER supports the introduction of the capex reopener and contingent projects regime for distribution as it considers this to be an additional option and be low in implementation costs.⁴²⁸ With respect to capex reopeners, some DNSPs also expressed their support for including this in distribution to deal with unforeseen events which require significant capex for providing reliability and security.⁴²⁹

Contingent projects

On the introduction of contingent projects in distribution, most DNSPs maintain their previous objections to its inclusion.⁴³⁰ Alternatively, they consider if it is introduced in

⁴²⁷ AER, Rule change request, Part B, 29 September 2011, p. 57.

⁴²⁸ AER, Draft Rule Determination submission, 5 October 2012, p. 14.

⁴²⁹ SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, pp. 7, 27.

⁴³⁰ ENA, Draft Rule Determination submission, 4 October 2012, pp. 41-44; SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, pp. 7, 27-29; SP AusNet, Draft Rule Determination submission, 4 October 2012, p. 5.

distribution, then the AER should not be able to "micro-manage" their networks which would mean the AER should not be able to: have regard to whether the proposed expenditure should be included as a contingent project; and propose its own contingent projects by transferring expenditure as a contingent project.⁴³¹ Instead, the AER would be applying the capex criteria to determine whether it is satisfied with the forecast or otherwise substitute this with its own.⁴³²

Threshold for contingent projects

Notwithstanding the DNSPs' opposition to introducing contingent projects in distribution, they consider that if it was to be required, then the threshold should only apply to very large individual projects in the vicinity of \$30 million or five per cent of the ARR.⁴³³ They consider that this value corresponds to projects that are large in size, small in number, based on well-defined trigger events, and proportionate to the size and value of the network.⁴³⁴ Further, they consider that it should be made clear that the regime only applies to capex for an individual project and not capex related to more than one identifiable project.⁴³⁵

On the other hand, the DNSPs do not consider it appropriate to link the distribution contingent project threshold to the RIT-D threshold because of their fundamental difference.⁴³⁶ The RIT-D threshold assumes it would be desirable in principle for the test to be applied to all projects, but that it should be limited to keep administrative costs proportionate to the benefit.⁴³⁷ In contrast, the threshold for contingent projects should identify projects that cannot be accommodated in a standard price cap regime with ex-ante forecasts.⁴³⁸ On the other hand, the NSPs then suggest that linking the characteristics of transmission projects might make it convenient for transmission contingent projects to be linked to the higher threshold of the RIT-T.⁴³⁹ The joint submission from SA Power Networks, CitiPower and Powercor clarified that they did not support the contingent projects regime, and its reference to a \$5 million threshold in its previous submission was in the context of pointing out an inconsistency between the AER's proposed \$10 million threshold for distribution contingent projects and its link to the RIT-D threshold of \$5 million.⁴⁴⁰

431 ENA, Draft Rule Determination submission, 4 October 2012, pp. 41-44.

432 Ibid.

433 Ibid.

434 Ibid.

435 Ibid.

436 Ibid.

437 Ibid.

438 Ibid.

439 Ibid.

440 SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, p. 29.

Materiality threshold for cost pass through events

With respect to the materiality threshold for cost pass through applications in distribution, some DNSPs maintain that the threshold should be set to \$1 million to provide for certainty, rather than at one per cent of the ARR.⁴⁴¹ However, NSPs consider that if the one per cent threshold were to apply then it should cover an annual culmination of multiple events with the total impact considered as part of the threshold, which would be based on the cash flow impact (ie actual costs incurred) as opposed to the revenue impact.⁴⁴² They consider this approach would be consistent with the RPP to allow NSPs a reasonable opportunity to recover at least their efficient costs.⁴⁴³

In contrast, the AER has shifted from its original proposal and considers that the materiality threshold may be too low and may capture immaterial applications.⁴⁴⁴ It proposes that this threshold should be treated as one factor, but not the only condition to determine the materiality of an application.⁴⁴⁵

11.3.2 Material errors

In the absence of any evidence to demonstrate that the AER has been constrained under the current arrangements for material errors, NSPs do not support changing the current NER provisions under Chapters 6 and 6A, except for making minor amendments to clarify the provisions.⁴⁴⁶

11.3.3 Shared assets

In general, the NSPs and MEU support the shared assets cost adjustment mechanism.⁴⁴⁷ However, NSPs consider that further drafting is required to clarify the Commission's intended design.⁴⁴⁸ Otherwise, they consider that the Commission's approach to applying a revenue requirement adjustment cannot be achieved with respect to revenue received from shared assets.⁴⁴⁹

⁴⁴¹ *Id.*, pp. 6-7, 26-27.

⁴⁴² *Ibid*; ENA, Draft Rule Determination submission, 4 October 2012, pp. 44-46; Ergon Energy, Draft Rule Determination submission, 7 October 2012, p. 7.

⁴⁴³ *Ibid.*

⁴⁴⁴ AER, Draft Rule Determination submission, 5 October 2012, pp. 14-15.

⁴⁴⁵ *Ibid.*

⁴⁴⁶ ENA, Draft Rule Determination submission, 4 October 2012, p. 73; Grid Australia, Draft Rule Determination submission, 4 October 2012, pp. 3, 12, 14-15.

⁴⁴⁷ ENA, Draft Rule Determination submission, 4 October 2012, pp. 46-49; Energex, Draft Rule Determination submission, 4 October 2012, p. 2; Ergon Energy, Draft Rule Determination submission, 7 October 2012, pp. 7-8; Grid Australia, Draft Rule Determination submission, 4 October 2012, pp. 3, 11-12; MEU, Draft Rule Determination submission, 4 October 2012, p. 28.

⁴⁴⁸ *Ibid.*

⁴⁴⁹ *Ibid.*

NSPs support the approach where revenue is shared between assets with the RAB then allocated according to the types of services used for that asset, as opposed to the capex at the point it enters the RAB.⁴⁵⁰ NSPs also support the Commission's approach to allow assets to be shared between standard control or prescribed transmission services with unregulated services.⁴⁵¹ However, they consider that the types of services that could be covered under a shared asset arrangement should be extended so that an asset can be shared between: standard control and alternative control, negotiated and unregulated services in distribution; and prescribed transmission and negotiated or unregulated services in transmission.⁴⁵²

To effect the shared assets cost adjustment mechanism, NSPs propose the RAB would include any expenditure for an asset that may be used for standard control or prescribed transmission services.⁴⁵³ This would result in a "gross figure based" RAB, which can then be subsequently allocated between services that share the asset.⁴⁵⁴ This would also require a change to the cost allocation principles so that it refers to the allocation of assets rather than capex.⁴⁵⁵

Associated to this, NSPs consider that past capex that has already been shared should be accounted for under the shared assets cost adjustment mechanism.⁴⁵⁶ However, they consider their proposed "gross figure based" RAB would resolve this issue, as opposed to a RAB with only part of the asset value included.⁴⁵⁷ This may result in a potential double allocation of costs if the RAB had previously been treated as a "gross figure based" RAB, which can be resolved by specifying that the AER needs to ensure that efficient allocation of costs is made.⁴⁵⁸

NSPs support the first principle which places a positive incentive upon NSPs to identify additional services for assets that provide prescribed transmission or standard control services.⁴⁵⁹ However, they do not agree that implementing a shared cost assets arrangement should be contingent on whether there is a positive commercial outcome from such sharing.⁴⁶⁰ At a minimum, they consider that the NSP should expect on an ex ante basis to be left whole from allocating the assets, which would be inferred from the first principle and the NEO.⁴⁶¹

450 Ibid.

451 Ibid.

452 Ibid.

453 Ibid.

454 Ibid.

455 Ibid.

456 Ibid.

457 Ibid.

458 Ibid.

459 Ibid.

460 Ibid.

461 Ibid.

Grid Australia considers that transmission assets can be solely constructed for providing negotiated or unregulated services, and there is no reason for these particular assets to be shared and included in the RAB.⁴⁶² They note that schedule 6A.2 already provides for the situation where that asset later provides prescribed transmission services and is subsequently included in the RAB.⁴⁶³

11.3.4 Small scale incentive schemes

NSPs broadly consider the draft rule determination strikes the right balance between allowing for regulatory innovation and retaining important distinctions between rule making and regulatory application.⁴⁶⁴ Other stakeholders did not comment on this aspect of the draft rule determination.

11.4 Analysis

11.4.1 Uncertainty regime

Contingent projects

With respect to limiting contingent projects to capex for an individual project and not capex related to more than one identifiable project, the Commission considers it is unnecessary to specify this in the NER.⁴⁶⁵ The NER provides that the contingent project needs to be assessed and the associated trigger event defined in the regulatory determination, which determines the scope of the contingent project.

Also, by setting the thresholds for these mechanisms at the correct level, as further discussed below, only the largest projects or events, which could be expected to have longer lead times, would be captured. Accordingly the perceived "micro management" of the process and administrative burden placed on stakeholders would be limited, without the need to consider changing the current design of the uncertainty regime.⁴⁶⁶ In addition, experience with the uncertainty regime in Chapter 6A indicates that the incentive effects of the ex ante allowance provided under the regulatory determination process would not be substantially weakened. The Commission notes that under Chapter 6A, these mechanisms have not so far created a significant burden, given that the contingent project mechanism has only been triggered twice while capex reopeners have never been used. However, given the number of contingent projects proposed on an ex ante basis via the regulatory determination process, it may be considered to be currently a significant burden on the AER to assess these.

⁴⁶² Grid Australia, Draft Rule Determination submission, 4 October 2012, pp. 11-12.

⁴⁶³ Ibid.

⁴⁶⁴ ENA, Draft Rule Determination submission, 4 October 2012, p. 36.

⁴⁶⁵ Id., pp. 41-44.

⁴⁶⁶ Ibid.

Threshold for contingent projects

In considering the ENA's reasons for the inappropriateness of basing the distribution contingent project threshold on the RIT-D and proposing an alternative threshold of \$30 million or five per cent of the ARR (whichever is greater), the Commission has reconsidered its past position.⁴⁶⁷

In 2006, the AEMC considered that the relationship between the contingent project threshold for transmission and the regulatory test threshold had the advantage that it would be the same amount necessary for the application of the regulatory test to new augmentation investment.⁴⁶⁸ Part of this was also based on information supplied by the Electricity Transmission Network Owners Forum (ETNOF) (now Grid Australia) and considering a number of indicative costs for potential contingent projects.⁴⁶⁹

In the draft rule determination, the Commission noted that the regulatory test threshold referred to in the 2006 determination had been replaced with the RIT-T, but the contingent project threshold had not been adjusted in the NER to reflect this change. On this basis, the Commission considered that the threshold should have been lowered to \$5 million to reflect its original intention ie from \$10 million to \$5 million. Conveniently, this contingent project threshold for transmission would have then been the same as in the proposed approach for distribution as they would be both linked to their respective RIT-T and RIT-D thresholds which have the same monetary value.

On the NSPs' point that the distribution contingent project should be set at a level equivalent to the characteristics of transmission contingent projects, the Commission does not accept that the monetary threshold should be different.⁴⁷⁰ This would imply that projects in distribution are generally larger than those in transmission, which is questionable. Instead, the thresholds should be at the same level. On this basis, to determine an appropriate threshold, the anticipated value of projects accepted by the AER in recent transmission regulatory determinations was examined. These are shown in Appendix B.

As can be seen in Appendix B, for ElectraNet and Transend, half of their current contingent projects would have not fallen under the NSPs' proposed \$30 million contingent project threshold. However, Powerlink and TransGrid would not have been affected. In addition, if the threshold is the greater of \$30 million and five per cent of the ARR or MAR, increasing one boundary of the threshold to \$30 million will mean for some NSPs that this value will become greater than their five per cent of the ARR or MAR, and therefore their threshold will be based on a higher value of \$30 million. This demonstrates that under the NSPs' proposal, the number of contingent projects to be proposed, assessed and defined, and volume of applications submitted to the AER (if they had been triggered) would be reduced. Further, the fact that only two contingent projects have been triggered to date (noting the Powerlink regulatory period has only

⁴⁶⁷ Ibid.

⁴⁶⁸ AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, p. 59.

⁴⁶⁹ Id., pp. 58-59.

⁴⁷⁰ ENA, Draft Rule Determination submission, 4 October 2012, pp. 41-44.

commenced mid 2012) may suggest that very uncertain projects are being proposed as contingent projects. Therefore, the administrative burden placed on the AER to consider a number of contingent projects during the regulatory determination process would be reduced by applying a higher monetary threshold for contingent projects. This issue becomes more evident if the AER considers multiple applications from different NSPs concurrently.

NSPs have suggested that the reason for the small number of triggered contingent projects is because the AER has taken a narrow interpretation of the trigger event and not defined it properly.⁴⁷¹ In the end, this is a matter for the AER.

For the above reasons, the Commission has decided that the contingent project threshold will be the greater of \$30 million or five per of the ARR or MAR for both distribution and transmission. Future projects with a monetary value of between \$10 million and \$30 million will have to be assessed by the AER as part of the revenue allowance under the regulatory determination. This means that there is an appropriate balance between providing sufficient scrutiny of adequately large projects under the contingent project regime and other projects under the regulatory determination, and a reduction in the administrative burden placed on the AER and NSPs.

In fixing the threshold to the greater of \$30 million or five per of the ARR or MAR, guidelines for varying the threshold and indexation of the threshold may be relevant considerations.⁴⁷² However, for reasons of certainty and administrative simplicity in applying the threshold, these options have not been pursued further. Further, changing the threshold value from the current arrangements can be considered as only a minimal change to design of the contingent projects regime as opposed to introducing indexation or a new guideline process.

Materiality threshold for cost pass through events

The Commission does not accept the NSPs' proposal for an annual accumulation of multiple cost pass through events to be considered when assessing the materiality of the cost pass through event application, nor setting the threshold to \$1 million.⁴⁷³ The Commission does not accept the AER's proposal to make it only one factor for consideration in assessing materiality.⁴⁷⁴ On the one hand, the AER considers the threshold may be too low; while on the other, the NSPs consider it too high. This highlights the problem with not setting the materiality threshold as it creates divided views on its objective. As the AEMC stated in 2006, setting the materiality threshold to one per cent of the MAR is important to promote stability and predictability of the regime for both the regulator and the NSP.⁴⁷⁵ In the absence of a specified materiality

471 Ibid.

472 Victorian DPI, Consultation Paper submission, 8 December 2011, pp. 30-32.

473 SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, pp. 6-7, 26-27; ENA, Draft Rule Determination submission, 4 October 2012, pp. 44-46; Ergon Energy, Draft Rule Determination submission, 7 October 2012, p. 7.

474 AER, Draft Rule Determination submission, 5 October 2012, pp. 14-15.

475 AEMC, *Economic Regulation of Transmission Services*, Rule Determination, 16 November 2006, p. 106.

threshold, it would lead to greater uncertainty and an increase in administrative costs for the AER to determine a material event.⁴⁷⁶

Proceeding on the basis that the materiality threshold is set at one per cent of the ARR or MAR, the NSPs' proposed accumulation of multiple cost pass through events for a given year cannot be accepted. Firstly, the NSPs' proposal would dilute the effect of the materiality threshold. Secondly, the experience in transmission demonstrates that a non-cumulative materiality threshold can be applied without any problems. Finally, the approach reflects the AER's current practice in applying the materiality threshold for cost pass through applications.

In terms of whether the costs associated with the materiality threshold are based on cash flow impact or revenue impact, that is a matter of detail for the AER to decide with respect to each particular application.⁴⁷⁷ The Commission considers that it is sufficient to refer to the ARR as defined in the NER, without further elaborating on its existing definition.

For the above reasons, the materiality threshold for cost pass through events will be set at one per cent of the ARR for distribution.

11.4.2 Material errors

While the material error provisions have not been used extensively, the Commission considers that the provisions under Chapter 6 provide for more certainty and finality in the framework than the equivalent provisions under Chapter 6A. Further, there should be no reason for differences between Chapters 6A and 6 with respect to these types of material errors as these only relate to computational errors or situations where false or misleading information has been submitted. Therefore, the broader Chapter 6A provisions should be narrowed down to be consistent with the Chapter 6 provisions. This also includes limiting material errors in regulatory determinations caused by false or misleading information by reference to "to the extent necessary", which is currently the case for distribution regulatory determinations, but not for transmission revenue determinations.

11.4.3 Shared assets

Services covered under the shared asset cost adjustment mechanism

In designing the shared asset cost adjustment mechanism, the Commission intends that costs that customers incur for a service should be cost reflective. The shared assets cost adjustment mechanism allows users of an asset to benefit where the asset is used for a different service.

⁴⁷⁶ Ibid.

⁴⁷⁷ SA Power Networks, CitiPower and Powercor, Draft Rule Determination submission, 4 October 2012, pp. 6-7, 26-27; ENA, Draft Rule Determination submission, 4 October 2012, pp. 44-46; Ergon Energy, Draft Rule Determination submission, 7 October 2012, p. 7.

In the draft rule determination, reference was made to the shared asset cost adjustment mechanism applying where the other use of the asset is an alternative control service.⁴⁷⁸ In fact, the nature of the other types of regulated services (including alternative control services and negotiated services) means that the possibility of sharing is less likely. If, for example, a standard control service asset is used for alternative control service purposes, it is more likely that the service as a whole would be reclassified, making a sharing arrangement unnecessary. For simplicity, it is preferable to restrict the shared assets cost adjustment mechanism to arrangements where one use of an asset is for a standard control service or prescribed transmission service and the other use is for an unregulated service. Also, this would reduce the possibility of an overlap between the shared assets cost adjustment mechanism and the cost allocation principles which would have resulted in a double recovery.

Some submissions in response to the draft rule determination sought the inclusion of negotiated services within the shared assets cost adjustment mechanism. Given the flexibility in the way costs for negotiated services are recovered, the Commission does not see it as necessary for the shared assets cost adjustment mechanism to extend to negotiated services. A similar comment was made in respect of alternative control services in the draft rule determination.⁴⁷⁹

Gross figure based RAB

The Commission has not altered the current way in which capex is allocated to the RAB based on only standard control services. To change it to become a "gross figure based" RAB as proposed by the NSPs would result in a significant change in the existing way in which cost allocation and ring fencing guidelines operate. To effect such a change would create too much uncertainty as to the setting of the RAB and result in a volatile RAB for each regulatory reset.

The purpose of the shared assets cost adjustment mechanism is to address the situation where an asset used for a standard control service or prescribed transmission service is subsequently shared with an unregulated service, and the AER then could apply a revenue adjustment without resorting to reallocating the initial RAB value. If at the point where the capex enters the RAB it has been recognised that the asset is being used for unregulated services, and only the standard control services portion is included in the RAB, then the shared assets cost adjustment mechanism should not need to apply. This is because the mechanism is based on the presumption that the asset has not been shared at that stage. This should clarify the treatment of past assets where part of the past capex has already been allocated to other unregulated services. In that scenario, the shared assets cost adjustment mechanism would not be needed. To reinforce this point, a principle has been included which requires the AER to have regard to the manner in which costs have been recovered or revenues reduced with respect to the asset in the past.

⁴⁷⁸ AEMC, *Consolidated Rule Request – Economic Regulation of Network Service Providers*, Draft Rule Determination, 23 August 2012, p. 212.

⁴⁷⁹ *Id.*, p. 211.

Positive commercial outcome

The Commission reiterates its position that, in general, the NSP should have to bear some risk in the sharing arrangements so it takes that risk into account when deciding whether to enter a sharing arrangement of an asset. The NSP will be in the best position to assess and manage this risk. The NSP needs to be prudent in making its investment decisions when going into sharing arrangements. A benefit that the NSP may receive in sharing the asset is the likely potential to substantially gain revenue from that arrangement; while the only benefit to the existing customer is a reduction in its costs. It is the NSP's decision to share the asset with the objective of making a profit, balanced against whether it is a prudent decision to enter into such an arrangement. Otherwise, there would be no disincentive for the NSP to share an asset irrespective of the risk as it would pass on the costs to customers if it makes a bad investment decision.

11.4.4 Small scale incentive schemes

The Commission notes that the majority of the issues raised by NSPs on small scale incentive schemes were also raised in relation to capex sharing schemes. In particular NSPs suggested that:

- the AER should be required to compensate NSPs for the expected liability under the scheme where a scheme is asymmetric; and
- NSPs should have certainty on applicable schemes at the framework and approach stage.⁴⁸⁰

These issues are considered in sections 9.4.1 and 9.4.2.

The Commission does not agree with SP AusNet that the AER and NSPs should be allowed to agree on a revenue at risk higher than currently provided for. Given that the schemes will not have been subject to the rule-making test, the revenue at risk is appropriate. This will provide protection to both consumers and NSPs.

11.5 Guidance on final rule

11.5.1 Uncertainty regime

Capex reopener and contingent projects in distribution

Generally, the uncertainty regime has been aligned in distribution with transmission. This means that the capex reopener, contingent project and cost pass through arrangements are broadly the same.

⁴⁸⁰ ENA, Draft Rule Determination submission, 4 October 2012, pp. 36-38.

Threshold for capex reopener and contingent project applications in distribution

For capex reopeners, the threshold for distribution is capex that exceeds five per cent of the value of the roll-forward RAB for the first year of the regulatory period. The same threshold applies to both transmission and distribution.

For contingent projects, the threshold for both distribution and transmission is the greater of \$30 million or five per cent of the ARR or MAR, respectively. The same threshold applies to both transmission and distribution.

Materiality threshold for cost pass through applications in distribution

The materiality threshold for cost pass through applications in distribution is one per cent of the DNSP's ARR. This brings it into line with the threshold applied in transmission.

Other aspects of cost pass through applications

Under the existing rules, the roll-forward RAB for the next regulatory period must include all capital costs incurred in the current regulatory period. This may unintentionally include pass through amounts associated with capital costs which have already been approved under the cost pass through arrangements. For clarity, the final rule amends the NER to reflect the fact that cost pass through amounts that have already been recovered in a regulatory period cannot be recovered again in the roll-forward of the RAB for the next regulatory period.

For the reasons explained above, the timeframes for the AER to make a decision on applications related to cost pass throughs, contingent projects and capex reopeners have been aligned at 40 business days from the time the AER receives the application and any additional information it requires from the NSP. This timeframe will be able to be extended by up to a further 60 business days if the AER determines that there are issues of sufficient complexity or difficulty that warrant such an extension. Such issues may require the AER to seek expert advice or consult with interested parties on a particular matter.

If the decision needs to be delayed to wait for further information from a third party, then a "stop the clock mechanism" will be able to apply. Such a third party may be a governmental authority from which the AER has requested information or a judicial body or a royal commission that the AER anticipates will make publicly available information that is relevant to the NSP's application.

In the case of either a time limit extension or the application of the "stop the clock" mechanism, the AER will be required to notify the NSP of the extension or delay no later than 10 business days before the date that the AER would have to make its decision (ie no later than 30 business days from the time the AER receives the application) and also publish notice of this on its website. In addition, the AER may also apply the "stop the clock" mechanism after it had already extended the period, but the AER would still be required to notify the NSP no later than 10 business days before the expiration of the extended date (ie no later than 90 business days from the time the

AER receives the application). The AER will also be required to advise the NSP when the "stop the clock" mechanism has ceased to apply, in which case it must again publish a notice on its website to this effect.

Case scenario – example of the "stop the clock" mechanism and extending timeframe by 60 business days

- On 1 July 2013, the AER receives from a NSP in New South Wales an application for a positive cost pass through within 90 business days of the positive event occurring. The application relates to a bushfire.
- At the time of the application, the AER is informed by the NSP that there is a royal commission on the bushfire and the outcome of the decision by the royal commission may have an impact on whether the NSP can recover for that cost pass through and, if allowed, potentially also the amount that the NSP can recover. The royal commission decision will not occur until after the normal decision-making timeframe for the AER, ie more than 40 business days after the AER received the NSP's application and such additional information regarding the application as the AER requires from the NSP.
- On 15 July 2013, the AER notifies the NSP that in order to determine the NSP's application, it requires information that it anticipates will be made publicly available by the royal commission. This notification occurs no later than 10 business days before it would have had to make the decision. The AER also publishes a notice on its website stating that the clock has stopped.
- On 29 November 2013, the royal commission publishes its decision. As a result of this, the "stop the clock" mechanism ceases to apply. The AER would inform the NSP and publish a notice on its website stating that the clock has restarted. The Commission would also expect the AER to state in that notice the date on which the AER will make its decision. In this case, it will be 30 business days after 29 November 2013, which will be 15 January 2014, taking into account public holidays. This is because 10 business days have already elapsed between 15 July 2013 and the time the clock stopped.
- However if, upon reviewing the royal commission decision, the AER determines that it requires more time to address a complex question related to the application, the AER could extend the decision-making period by a maximum period of a further 60 business days. To do so, the AER would need to notify the NSP of its decision to extend by no later than 10 business days before it would otherwise have had to make its decision on 15 January 2014. Therefore, the AER would need to give its notice, with respect to extending the period by the maximum of 60 business days, no later than 31 December 2012. The AER would also need to publish notice of the extension on its website as soon as reasonably practicable. The maximum additional period for the AER to make its decision will then expire on 10

April 2014.

- Note: In the scenario above, the "stop the clock" mechanism could only be triggered by the royal commission. The "stop the clock" mechanism does not apply to considering complex or difficult questions on the matter, where the timeframe can only be extended by a maximum additional period of 60 business days.

Given the introduction of capex reopeners and contingent projects for distribution, the timeframes for the AER to decide on these applications have been aligned with those in transmission.

Another consequential change relates to the decision making timeframe for negative cost pass through applications. The Commission notes that there is currently no set decision-making timeframe for this type of application, although a timeframe exists on when the application needs to be made. Previously in the Chapter 6A rule determination, the AEMC noted that there are asymmetries between positive and negative pass through applications that justify a difference in their treatment. However, with respect to decision-making timeframes, there should be no difference as the AEMC in 2006 recognised for capex reopeners and contingent projects. The decision-making timeframe for negative pass through applications has therefore been aligned so that there is a "standard" 40 business day timeframe with an option to extend as with the other types of applications. In addition, the AER will expressly be required to notify all NSPs of the occurrence of a negative change event if that event is not notified by the NSP to the AER and the AER proposes to determine a pass through amount.

However, unlike for positive change events, if the AER fails to make a pass through determination in respect of a negative change event within the 40 business day time limit, then the AER will be taken to have determined a zero pass through amount, noting that this 40 business day period can still be extended to accommodate issues that are difficult, and that the "stop the clock" mechanism will still apply where the AER is waiting on information from a governmental authority, judicial body or royal commission. As noted above, the reason for the different treatment of a default decision for negative cost pass throughs compared to positive cost pass throughs is due to the asymmetries between positive and negative pass through applications.

11.5.2 Material errors

Aligning the Chapter 6A provisions with the Chapter 6 provisions with respect material errors means that the AER will now only be able to revoke and substitute a transmission revenue determination or amend a pricing methodology for the following kinds of material errors or deficiencies:

- a clerical mistake or an accidental slip or omission;
- a miscalculation or misdescription;

- a defect in form; or
- a deficiency resulting from the provision of false or materially misleading information to the AER.

As with Chapter 6, for Chapter 6A the substituted revenue determination or amended pricing methodology will only be able to be varied from the revoked revenue determination or existing pricing methodology to the extent necessary to correct the relevant material error or deficiency.

11.5.3 Shared assets

The following case study is provided in this section to explain how the shared assets cost adjustment mechanism could work.

Case scenario

- In year 2 of a regulatory period the NSP enters into a commercial agreement with NBN Co to allow NBN Co to use electricity poles currently used for standard control service purposes. The rate is \$2,000 per pole per year. The NSP's costs are \$500 per pole per year.
- Given that this occurs during a regulatory period, no shared assets cost adjustment mechanism is applied until the next regulatory determination.
- In its regulatory proposal for the next regulatory determination, the NSP provides details of the shared assets in accordance the AER's regulatory information instrument.
- During the regulatory determination process, the AER decides whether to apply the shared assets cost adjustment mechanism in respect of the NBN arrangements for the next regulatory period. In making this decision, the AER takes into account the guidelines on how to apply the shared assets cost adjustment mechanism and the principles on whether a shared assets cost adjustment mechanism should apply. Some considerations at this point could include the materiality of the shared asset.
- Next, the AER would need to decide on the reduction in the costs for the assets that should not be recovered from standard control customers based on the guidelines. However, it would not directly pass through any of the profits or revenue gained by the NSP as a result of providing NBN Co access to its asset. A possibility could be to base this decision on the number of customers who will benefit from the electricity poles being used to provide NBN services compared to the number of customers who receive standard control services through the use of those electricity poles. For the purposes of this exercise, it may be too difficult to determine the number of customers, but it may be easier to determine that there is an equal share in the technical and/or physical use of that pole for standard

control services and NBN services. It may decide the cost reduction should be on a pole by pole basis over the forthcoming regulatory period.

- Once the AER determines the appropriate reduction of costs for standard control service customers, the AER needs to incorporate this into its building block determination. This determination leads to adjustments being made to the ARR and therefore being reflected in pricing to customers in the annual pricing approval process. In this case, based on the asset being shared according to physical and/or technical use, which has been attributed at 50 per cent, the reduction in the ARR is \$250 per pole per year. This reduction only starts to apply from the following regulatory period and there would be no cost reduction for the period in which the commercial agreement was first put in place.

11.5.4 Small scale incentive schemes

The final rule gives the AER a broad discretion as to the schemes it may design. The schemes are intended to provide for incentives not already covered by the existing incentive schemes in the NER and may cover matters not related to expenditure by NSPs. For example, the AER could design a scheme which provides rewards for NSPs which engage more effectively with consumers. The final rule provides broad discretion so that the AER can develop any type of scheme that contributes to the NEO.

The principles are consistent with those for capex sharing schemes and therefore the guidance for these principles in section 9.5.2 is also appropriate here. Similarly, as with capex sharing schemes the AER is to set out its likely approach to the application of a scheme to a particular NSP in the framework and approach paper for the NSP. The NSP can then set out in its regulatory proposal how it proposes the scheme should apply, including any proposed values. The AER is to then set out how the scheme will apply to the NSP in the draft and final regulatory determination for the NSP.

12 Electricity transitional arrangements

Summary

- This final rule determination provides for a number of significant changes to Chapters 6 and 6A of the NER and also requires the AER to develop a number of guidelines by 29 November 2013. At the same time that the AER is to develop the guidelines, seven NSPs are due to start their regulatory determination processes and another eight are due to commence theirs within 12 months of the last date by which the guidelines are to be finalised. Transitional rules are therefore required to:
 - enable the new rules and guidelines to be applied in the next round of determinations; and
 - minimise the resourcing burden that the guidelines development processes and transitional arrangements could otherwise place on stakeholders, whilst also allowing consultation with stakeholders.
- Having considered a range of options, the Commission has decided to:
 - exclude those NSPs that are due to commence their regulatory periods post 2016 from the transitional arrangements (Aurora, Powerlink, ElectraNet and Murraylink); and
 - apply different transitional arrangements to the remaining NSPs.
- The transitional arrangements to be applied to the remaining group of NSPs will result in all decisions made by the AER from May 2014 onward being carried out in accordance with the new Chapters 6 and 6A rules and guidelines. An overview of these arrangements is provided below.
- SP AusNet (transmission), which is due to commence its next regulatory period on 1 April 2014, will be subject to the old Chapter 6A rules for three years before moving to the new rules on 1 April 2017.
- ActewAGL, Ausgrid, Endeavour Energy, Essential Energy, TransGrid and Transend are all due to commence their next regulatory period on 1 July 2014. This group of NSPs will have their full determination processes delayed by 12 months and will be subject to the placeholder with true-up model. In short, this model requires the AER to:
 - conduct a high level review of a NSP's placeholder revenue requirement and make a determination before the transitional year;
 - make a full determination during the transitional year for years 2-5 and the transitional year, in accordance with the new Chapter 6 and 6A rules; and
 - use a net present value (NPV) neutral true-up mechanism to account for any difference between the placeholder value and the transitional year revenue requirement established in the full determination.

- Directlink, which is due to commence its next regulatory period on 1 July 2014, will not have its determination process delayed but it will be subject to an 11 month determination process rather than the 15 month extended process.
- Energex, Ergon, SA Power Networks are due to commence their next regulatory period on 1 July 2015 while CitiPower, Jemena, Powercor, SP AusNet and United Energy are due to commence theirs on 1 January 2016. This group of DNSPs will have their determination processes delayed by five months and will be subject to the preliminary determination with mandatory re-opener model. At its most elementary, this model involves:
 - using the AER’s draft determination as a placeholder for a NSP’s revenue requirement and prices until the final determination is made; and
 - using an adjustment mechanism to account for any difference between the draft and final determinations in NPV neutral terms.

From a legal perspective, a binding determination must be in place before the regulatory period commences. The draft determination is therefore referred to as a preliminary determination while the final determination, which revokes and replaces the preliminary determination, is referred to as the substitute determination. Although the terminology differs, the decision making and consultation process that occurs between the preliminary and substitute determinations are intended to be the same as what would occur between a draft and final determination.

- These transitional arrangements may be viewed as a continuum, with the time taken to transition to the new rules and the differences between the standard determination process and the transitional determination process diminishing over time.

12.1 Introduction

This final rule determination provides for a number of significant changes to be made to the rate of return, capex, opex, incentive scheme and regulatory process provisions in Chapters 6 and 6A of the NER. It also requires the AER to develop a number of guidelines by 29 November 2013, including:

- rate of return guidelines;
- capital expenditure incentive guidelines;
- expenditure forecast assessment guidelines;
- shared asset guidelines; and
- confidentiality guidelines.

These guidelines are intended to play an integral role under the new rules and the NSPs, the AER and the appeal body are expected to have significant regard to them as the starting point for each regulatory determination.

Over the same period that the AER is required to develop these guidelines, seven NSPs⁴⁸¹ are due to submit their regulatory proposals. Another eight NSPs⁴⁸² are due to submit their proposals within 12 months of the date by which the NER requires the guidelines to be finalised. Given the degree of overlap between the guideline development and regulatory determination processes, the Commission has given further consideration to the transitional arrangements that could be put in place to:

- enable the new rules and guidelines to be applied to NSPs in the next round of regulatory determinations;
- provide NSPs sufficient opportunity to take account of the new guidelines when preparing their regulatory proposals and allow sufficient time for stakeholder consultation;
- provide those NSPs that are subject to any transitional arrangements with a reasonable opportunity to recover at least their efficient costs; and
- minimise the resourcing burden that the guideline development and regulatory determination processes could otherwise place on the AER, NSPs and other stakeholders.

The remainder of this chapter is structured as follows:

- section 12.2 sets out the principles that the Commission considers should guide the development of transitional arrangements;
- section 12.3 provides an overview of the consultation process and the alternative transitional arrangements that were canvassed during this process;
- section 12.4 contains a summary of the submissions received;
- section 12.5 outlines how the first set of guidelines are to be developed;
- section 12.6 examines the need for transitional arrangements;
- section 12.7 identifies the NSPs that will be subject to the transitional arrangements and the period over which the transitional rules will operate;
- section 12.8 sets out the Commission's final decision on the form that these arrangements should take;

⁴⁸¹ The seven NSPs are: SP AusNet (transmission), TransGrid, Transend, ActewAGL, Endeavour Energy, Essential Energy and Ausgrid

⁴⁸² The eight NSPs are: Ergon, Energex, SA Power, Jemena, United Energy, CitiPower, Powercor and SP AusNet (distribution).

- sections 12.9 to 12.12 provide further guidance on how the transitional rules are intended to be applied to those NSPs that will be subject to the arrangements; and
- section 12.13 contains a summary of the transitional arrangements that will apply to each NSP and the timetable for the next round of regulatory determinations.

12.2 Principles guiding the development of transitional arrangements

In its consultation paper, the Commission set out four principles that, in its view, represented the most important considerations in developing transitional arrangements. These principles are:

1. the final rules when made in November 2012 should apply to all service providers as soon as possible. This includes those service providers currently due to submit regulatory proposals in February and May 2013;
2. where any transitional arrangements are made regarding determination processes that require consultation, the arrangements should allow sufficient time for stakeholder consultation;
3. the transitional arrangements should provide service providers with a reasonable opportunity to recover at least the efficient costs they incur in the provision of regulated services; and
4. any transitional arrangements should be practicable having regard to the regulator's resourcing constraints, as well as the resourcing capacity of other stakeholders.

During the consultation process it became apparent that there was a fifth principle that the Commission should have regard to when developing transitional arrangements.⁴⁸³ That is, any arrangements put in place to facilitate the transition to the new rules should minimise the potential for one-off price shocks.

For the reasons set out in sections 2.4-2.6, the Commission is of the opinion that these five principles are consistent with both the NEO and the RPP. The Commission has therefore borne these principles in mind when assessing the various proposals that have been made about the form that the electricity transitional arrangements should take.

⁴⁸³ During the consultation process, some stakeholders noted that if there was a one year determination followed by a full four or five year determination, there could be a significant change in prices between the transitional and full determinations because the AER would not be able to smooth price changes over the two determinations. This form of price volatility would be contrary to the long term interests of consumers, so the Commission has been cognisant of the desirability for the transitional rules not to give rise to one-off price shocks.

12.3 Consultation process and alternative models canvassed

On 14 September 2012, the AEMC published a consultation paper on the arrangements that could be applied to both gas and electricity service providers to facilitate the transition to the new rules. As part of this consultation paper, the Commission outlined the arrangements that could be put in place to:

- enable NSPs to transition to the new rules and guidelines in the next round of regulatory determinations; and
- minimise the resourcing burden that the guidelines development processes and the transitional arrangements could otherwise place on the AER, NSPs and other stakeholders.

In short, the proposal set out in the consultation paper provided for a 12 month delay to the commencement of the next full regulatory period for all NSPs except ElectraNet, Murraylink and Directlink. It also provided for the following determination processes:

- a limited scope determination process, which was to be carried out for the 12 month transitional period using a mixture of old and new rules; and
- a normal determination process, which was to be carried out for the delayed full regulatory period in accordance with the majority of the new rules and guidelines.

Within the consultation paper, the Commission encouraged stakeholders to suggest alternative approaches if they considered there were better arrangements to those outlined above.

To facilitate further discussion on this issue, the AEMC held a stakeholder workshop on 26 September 2012. During the workshop it became apparent that the AER and NSPs had a number of concerns with the arrangements proposed in the consultation paper. These concerns primarily related to:

- the potential for a one year limited scope determination to result in one-off price and revenue shocks; and
- the complexities, resource intensity and other inefficiencies associated with carrying out two full determination processes within two years.

A week and a half after the stakeholder workshop, TransGrid provided a submission to the AEMC, which set out an alternative model for the transitional arrangements.⁴⁸⁴ In simple terms, the TransGrid model provides for a 12 month delay to the full determination process whilst also maintaining the current schedule of regulatory periods. It does so by allowing:

⁴⁸⁴ TransGrid, Consultation Paper on Savings and Transitional Arrangements submission, 8 October 2012.

- a placeholder value to be used for a NSP’s revenue requirement in year 1, which is established through a high level regulatory review process conducted by the AER shortly before the commencement of that year;
- a full determination of the NSP’s revenue requirements for years 1-5 to be carried out by the AER, in accordance with the new rules and guidelines, 12 months later than it would otherwise be required to do so; and
- any difference between the placeholder value and the year 1 revenue requirement established through the full determination process to be accounted for by the use of a net present value (NPV) neutral true-up mechanism.

TransGrid’s proposal prompted further consultation between the AEMC, the AER, NSPs and consumer groups. It also resulted in the identification, including by the AEMC, of a number of other variants of the TransGrid placeholder with true-up model, including the mechanistic⁴⁸⁵ and hybrid⁴⁸⁶ placeholder models.

Another model that was identified by the AEMC during the consultation process was the preliminary determination with mandatory re-opener model. At its most elementary, this model involves:

- using the AER’s draft determination as a placeholder for a NSP’s revenue requirement and prices until the final determination is made; and
- using an adjustment mechanism to account for any difference between the draft and final determinations.

This model is referred to as the “preliminary determination with mandatory re-opener model” because, from a legal perspective, a binding (final) determination must be in place prior to the start of a regulatory period. The application of this model therefore requires:

- a final determination to be made in advance of the regulatory control period. In effect, what would have been the draft determination under a full determination process becomes the final determination. Because of its subsequent re-opening, this determination is referred to in the remainder of this chapter as the “preliminary determination”; and
- a mandatory re-opening of the preliminary determination and the substitution of this determination with a new determination by the AER. The new determination is, in effect, the final determination that would have arisen through the usual

485 The mechanistic model works in precisely the same way as the TransGrid model but rather than the AER reviewing the placeholder revenue, the transitional rules would require a NSP’s placeholder revenue to fall below a cap specified in the rules.

486 This model, as its name suggests, is a hybrid of the mechanistic and TransGrid models. Under this model, a NSP’s placeholder revenue could be either: below a cap specified in the transitional rules, in which case the proposed placeholder revenue is automatically accepted; or above a cap specified in the transitional rules, in which case the AER is required to conduct a high level assessment of the proposal.

determination process. This new determination is referred to in the remainder of this chapter as the “substitute determination”.

There are a number of potential benefits of this model over the placeholder with true-up model, including:

- the process to be followed and the decisions that the AER is required to make are in all practical respects equivalent to those it would have to make under a standard regulatory determination process. This includes the consultation process between the preliminary and final determination, which is intended to be the same as that between a standard draft and final determinations;
- the true-up can be seen as analogous to that which is required between a final determination and the outcome of a merits review at the moment, so the concept of this type of true-up is familiar to stakeholders;
- the AER is required to carry out the detailed assessment set out in Chapters 6 and 6A of the NER rather than conducting a high level review of a placeholder value; and
- it avoids a number of measurement issues and rate of return related issues associated with the placeholder with true-up model because the preliminary determination is made before the commencement of the regulatory period and the substitute determination is made shortly thereafter.

A potential shortcoming of this model is, however, that the consultation period is two to three times longer than what would be required for the placeholder determination (six months vs two to three months). It may not therefore be possible to apply in all cases.

The preliminary determination with mandatory re-opener model also has a number of advantages over existing provisions within the NER such as clause 6.11.3(b). This clause states that if a period intervenes between the end of one regulatory control period and the commencement of a new determination, then the prior determination continues in force and appropriate adjustments can be made in the later determination. The advantages that the preliminary determination with mandatory re-opener model has over this clause are that it will:

- allow the new rules to come into effect earlier than clause 6.11.3(b);
- result in prices in the first regulatory year that are more likely to be closer to those established in the substitute determination than what would occur if prices were carried over from the prior determination;
- provide NSPs and other stakeholders with a greater degree of certainty about the rate of return that will apply over the regulatory period before the commencement of the period; and

- avoid a number of measurement issues and the need to have a regulatory determination applying for a partial year (ie 4.5 years).

The consultation period for the transitional rules formally ended on 26 October 2012 and 19 submissions were received. An overview of the views expressed in these submissions is provided in the following section.

Before moving on though, it is worth noting that the Commission is aware that the AER and NSPs have worked collaboratively throughout the consultation period to try and develop an alternative model that is both:

- consistent with the principles set out in section 12.2; and
- simpler to implement and less resource intensive than the model proposed in the consultation paper.

The Commission appreciates the efforts that have been made and values the work that has been done in a short period of time on this complex issue. The Commission would also like to extend its thanks to consumer groups, the AER and NSPs for making themselves available to discuss the transitional arrangements during the consultation period.

12.4 Submissions on consultation paper

Responses to the consultation paper and the proposed transitional arrangements for NSPs were received from the AER, those NSPs affected by the transitional arrangements, the ENA, QTC, the MEU, the Victorian DPI and the ESAA. The topics touched on in these responses can be broadly categorised as relating to:

- the need for transitional arrangements;
- the appropriate model to use for transitional arrangements;
- the operation of incentive schemes during the transitional year; and;
- a range of other ancillary issues.

The remainder of this section contains an overview of the views expressed by stakeholders on each of these topics.

12.4.1 Need for transitional arrangements

Most of the submissions received in response to the consultation paper acknowledge that some form of transitional arrangement is required.⁴⁸⁷ However, the following

⁴⁸⁷ See for example, AER, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2; Energex, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 1; MEU, Consultation Paper on Savings and Transitional Arrangements submission, 24 October 2012, pp. 1-2; and SA Power Networks, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p.1.

NSPs question whether the arrangements should be applied to them and, if so, the form the arrangements should take:

- SP AusNet (transmission) contends that the proximity of its next regulatory period with the guideline development process is too close and accordingly, it should be subject to the old Chapter 6A rules for 4.25 years.⁴⁸⁸ A 4.25 year period would mean that SP AusNet would become subject to the new rules at the same time as ElectraNet;⁴⁸⁹
- ActewAGL submits that if it is subject to a 12 month delay then it will result in a direct overlap with its gas access arrangement review process and give rise to significant resource constraints.⁴⁹⁰ In its initial submission, ActewAGL suggested it should be subject to the old Chapter 6 rules during the next regulatory period.⁴⁹¹ However, in later discussions ActewAGL has suggested that if its electricity regulatory process is to be delayed by 12 months then its gas access arrangement review should also be delayed by the same period;
- CitiPower, Powercor and United Energy prefer to maintain their existing timetables and not be subject to delay.⁴⁹² United Energy also questions why resourcing issues for the regulator are allowed to perpetuate for three years;⁴⁹³ and
- Powerlink and Aurora question the need for transitional arrangements to be applied to them given their next regulatory periods are not due to commence until 2017.⁴⁹⁴

In a similar manner to the last two groups of NSPs, the MEU is of the view that transitional arrangements should only apply to those NSPs that are due to submit their regulatory proposals in 2013, ie SP AusNet (transmission), the NSW DNSPs, ActewAGL, TransGrid and Transend.⁴⁹⁵

488 As an alternative, SP AusNet proposes that its revenue in the transitional year should be rolled over from the prior regulatory period with a CPI escalation and that no subsequent true-up should be carried out.

489 SP AusNet, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 2-5.

490 ActewAGL also noted the potential for a retail price review to be carried out in 2013-14.

491 ActewAGL, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2.

492 CitiPower and Powercor, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 1 and UE and MG, Consultation Paper on Savings and Transitional Arrangements submission, 26 October 2012, p. 1.

493 UE and MG, Consultation Paper on Savings and Transitional Arrangements submission, 26 October 2012, p. 1.

494 Aurora Energy, Consultation Paper on Savings and Transitional Arrangements submission, 29 October 2012, p. 2 and Powerlink, Consultation Paper on Savings and Transitional Arrangements submission, 26 October 2012, p. 2.

495 MEU, Consultation Paper on Savings and Transitional Arrangements submission, 24 October 2012, pp. 1-2.

12.4.2 Model to be used for transitional arrangements

The transitional arrangements set out in the consultation paper did not receive any support from stakeholders.⁴⁹⁶ Instead, stakeholders expressed a preference for a placeholder with true-up style model to be used if there was to be a 12 month delay to the full determination process. Different views have, however, been expressed about how the placeholder value should be established. These views can be summarised as follows:

- the AER does not support the use of either the mechanistic or hybrid models because it is concerned that a cap may act as a default position and result in placeholder values that do not reflect efficient costs. The AER is therefore of the view that some level of regulatory consideration of the placeholder value is required and has suggested that a modified version of the TransGrid model be adopted. The differences between the AER's and TransGrid's models principally relate to:
 - the information to be provided by NSPs to support their placeholder proposals, with the AER proposing the provision of more detailed information than TransGrid; and
 - the criteria to be applied by the AER when assessing a NSP's placeholder proposal, with the AER suggesting a number of additional criteria to those proposed by TransGrid.⁴⁹⁷
- TransGrid is of the view that the model it proposed should be used although it acknowledges that the hybrid model may also be appropriate;⁴⁹⁸
- the NSW DNSPs support the use of both the modified version of the TransGrid model proposed by the AER and the hybrid model;⁴⁹⁹

⁴⁹⁶ AER, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2; Transend, Consultation Paper on Savings and Transitional Arrangements submission, 24 October 2012, p. 1; TransGrid, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2; ActewAGL Distribution, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2; Ergon Energy, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 3; Energex, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 1; NSW DNSPs, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 4; and MEU, Consultation Paper on Savings and Transitional Arrangements submission, 24 October 2012, pp. 1-2.

⁴⁹⁷ AER, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 8.

⁴⁹⁸ TransGrid, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 1.

⁴⁹⁹ NSW DNSPs, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 4-7.

- the Queensland DNSPs, Transend and Jemena support the hybrid model,⁵⁰⁰ SA Power Networks is indifferent between the mechanistic and hybrid models⁵⁰¹ and ActewAGL prefers a more mechanistic approach;⁵⁰² ;
- CitiPower and Powercor are of the view that NSPs should be able to choose either a mechanistic approach or a propose-consider model. The mechanistic approach proposed by CitiPower and Powercor differs, however, from the mechanistic model described in section 12.3;⁵⁰³
- SP AusNet (distribution) is of the view that the placeholder value for the Victorian DNSPs should be based on their first year revenue requirement, as set out in their respective regulatory proposals;⁵⁰⁴
- United Energy submits that it should be able to set prices for the transitional year based on its own circumstances with the objective of minimising future price volatility;⁵⁰⁵
- the MEU prefers TransGrid's proposal but notes the potential for inaccuracy and inequity in the first year;⁵⁰⁶ and
- the Victorian DPI is of the view that the placeholder revenue should be determined by rolling forward the approach to determining opex, or otherwise applying a total factor productivity based price path for the first year, or freezing the network charges in real terms with STPIS.⁵⁰⁷

Further detail on the views expressed by stakeholders about specific elements of the placeholder with true-up model is set out below.

500 Energex, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 1-2; Ergon Energy, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 4; Jemena, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 1; and Transend, Consultation Paper on Savings and Transitional Arrangements submission, 24 October 2012, pp. 1-2.

501 SA Power Networks, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2.

502 ActewAGL Distribution, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 1-3.

503 CitiPower and Powercor, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 3.

504 SP AusNet, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 8.

505 UE and MG, Consultation Paper on Savings and Transitional Arrangements submission, 26 October 2012, p. 1.

506 MEU, Consultation Paper on Savings and Transitional Arrangements submission, 24 October 2012, p. 2.

507 Victorian DPI, Draft Rule Determination submission, 2 November 2012, p. 5.

True-up mechanism

The following comments were made by stakeholders about how the true-up should be carried out:

- most of the NSPs are of the view that any true-up that is undertaken should be carried out on a NPV neutral basis;⁵⁰⁸ and
- the Victorian DNSPs are of the view that the true-up should only be carried out on the rate of return and that no true-up should be carried out for opex and capex.⁵⁰⁹

In further discussions with the AEMC, the AER and SA Power Networks suggested that the final year X factor anchor point (clauses 6.5.9(b)(2) and 6A.6.8(c)(2) of the NER) should be relaxed in the transitional rules so that any true-up that may be required over years 2-5 results in a smooth price path.

Potential for retrospective decisions on operating and capital expenditure

A number of NSPs have concerns about the potential for the AER to have regard to actual opex and capex data, rather than forecast data, when carrying out its full determination close to the end of the first year.⁵¹⁰

The AER recognises the potential for this to occur under the placeholder with true-up model but is of the view that this matter can only be addressed if a more substantial process is carried out ahead of the first year, eg the consultation paper approach. The AER notes that, on balance, the industry appears to support the placeholder with true-up model and that most NSPs view the level of uncertainty around opex and capex as manageable, particularly if they are not penalised under an expenditure incentive sharing scheme.⁵¹¹

Rate of return related issues

The manner in which the rate of return should be measured under the placeholder with true-up model was referred to in a number of submissions.

⁵⁰⁸ See for example, Ergon Energy, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 6; NSW DNSPs, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, Attachment 1, p. 1; TransGrid, Consultation Paper on Savings and Transitional Arrangements submission, 8 October 2012; and SA Power Networks, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2.

⁵⁰⁹ Jemena, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2; CitiPower and Powercor, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2; and UE and MG, Consultation Paper on Savings and Transitional Arrangements submission, 26 October 2012, p. 1.

⁵¹⁰ See for example, NSW DNSPs, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 3 and Jemena, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 1-2.

⁵¹¹ AER, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 9.

Although there appears to be broad consensus amongst interested parties that a single rate of return should apply across the period,⁵¹² different views have been expressed about the period over which the rate of return should be measured, ie before the first year⁵¹³ or in the lead up to the second year. Notwithstanding the differences in opinion on this issue, NSPs and the AER appear to see benefits in the framework and approach process being used to:⁵¹⁴

- identify any market observation period that may be required to measure the rate of return; and
- set out the AER's view on the methodologies that it is likely to accept for the measurement of the return on debt.

Having these matters resolved before the commencement of the first year was viewed by a number of NSPs as being of considerable importance given their financing arrangements.⁵¹⁵

12.4.3 Operation of incentive schemes

The views of stakeholders on whether incentive schemes should operate for the first year vary depending on the incentive scheme, as set out below:

- *Capex sharing schemes and ex post capex review* – there is general consensus amongst NSPs and the AER that capex sharing schemes should *not* operate for the first year.⁵¹⁶ NSPs are also of the view that the AER should not be able to

⁵¹² See for example, QTC, Consultation Paper on Savings and Transitional Arrangements submission, 24 October 2012, p. 2; Ergon Energy, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 5-6; UE and MG, Consultation Paper on Savings and Transitional Arrangements submission, 26 October 2012, p. 1; and CitiPower and Powercor, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2.

⁵¹³ See for example, Ergon Energy, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 5; CitiPower and Powercor, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2; and SA Power Networks, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 4.

⁵¹⁴ AER, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 10; SA Power Networks, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 3-4; Energex, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2; Ergon Energy, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 5-6; UE and MG, Consultation Paper on Savings and Transitional Arrangements submission, 26 October 2012, p. 1; and CitiPower and Powercor, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2.

⁵¹⁵ See for example, Ergon Energy, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 5 and SA Power Networks, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 4.

⁵¹⁶ See for example, AER, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 11; Energex, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2; and NSW DNSPs, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, Attachment 1 p. 4.

preclude capex incurred during the current regulatory period from being included in the RAB as part of an ex post efficiency review.⁵¹⁷

- *Efficiency Benefit Sharing Scheme (EBSS)* - there were mixed views on the EBSS with some NSPs suggesting that it be suspended⁵¹⁸ while other NSPs and the Victorian DPI thought it should operate.⁵¹⁹ The AER has indicated that there is some uncertainty as to the future form of the scheme and that its ongoing application will be considered concurrently with the development of guidelines in 2013. It suggests therefore that the framework and approach paper process be used to set out how the EBSS will apply for the first year. It also suggests that the transitional rules should provide flexibility for the EBSS to apply differently for the first year (eg by setting the target in the first year equal to actual operating expenditure).⁵²⁰
- *Service Target Performance Incentive Scheme (STPIS)* - there is broad support amongst stakeholders for the continuation of the STPIS (distribution and transmission).⁵²¹
- *Demand Management and Embedded Generation Incentive Scheme (DMEGCIS)* - there is also broad support amongst stakeholders for the continuation of this scheme.⁵²²

517 See for example: ActewAGL Distribution, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 3; ENA, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 3-4; ESAA, Consultation Paper on Savings and Transitional Arrangements submission, 23 October 2012, pp. 1-2; Jemena, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 2-3; and UE and MG, Consultation Paper on Savings and Transitional Arrangements, 26 October 2012, p. 2.

518 CitiPower and Powercor, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 4; SP AusNet, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 6; UE and MG, Consultation Paper on Savings and Transitional Arrangements submission, 26 October 2012, p. 1; SA Power Networks, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 4; and NSW DNSPs, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 3.

519 Energex, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2; TransGrid, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, Attachment 2 pp. 1-2; and Victorian DPI, Draft Rule Determination submission, 2 November 2012, p. 5.

520 AER, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 10.

521 See for example, AER, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 11; SA Power Networks, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 5; Energex, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2; CitiPower and Powercor, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 3; and TransGrid, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, Attachment 2.

522 AER, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 11; SA Power Networks, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 5; Energex, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2; and NSW DNSPs, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 3.

- *Jurisdictional schemes* - stakeholders agreed that jurisdictional schemes such as the Victorian F-Factor scheme and the NSW D-factor scheme should continue to operate in the first year.⁵²³

12.4.4 Other ancillary issues

The implementation of both the placeholder with true-up model and the consultation paper model requires a number of ancillary decisions to be made for the first year. The views expressed by stakeholders about how these decisions should be made are summarised in the table below.

Table 12.1 Treatment of ancillary decisions in transitional year

Ancillary Decisions	Views of stakeholders
Additional pass through events	The AER, NSW DNSPs, Energex, Ergon, SA Power Networks, CitiPower and Powercor are of the view that these events should be carried over from the current regulatory period.
Negotiating framework	The AER, NSW DNSPs and SA Power Networks are of the view that these elements should be carried over from the current regulatory period.
Negotiated Distribution/ Transmission Service Criteria	
Pricing methodology for transmission	
Classification of distribution services	The AER suggests this be dealt with through the framework and approach paper process.
Form of control mechanism (including X factor) for standard control services and associated formulae	The AER, CitiPower, Powercor, NSW DNSPs and SA Power Networks suggest that this be dealt with through the framework and approach paper process.
Form of control mechanism for alternative control services and associated formulae	The NSW DNSPs suggest that this be dealt with through the framework and approach paper process.
Application of Part J of Chapter 6A to services provided by dual function assets	The AER suggests that this be dealt with through the framework and approach paper process.
Connection policy	The AER, NSW DNSPs and SA Power Networks note that this will need to be dealt with on a jurisdictional basis.
Prices of Alternative Control Services	In a number of submissions a distinction has been drawn between alternative control services that can be subject to a true-up (eg public lighting and metering services) and those that cannot (eg fee and quoted services). For those alternative control services that cannot be subject to a true-up, interested parties expressed the following views: <ul style="list-style-type: none"> • the AER suggests that prices from the prior regulatory period be rolled forward with a CPI adjustment; • CitiPower and Powercor are of the view that prices should be rolled forward at CPI+2% because most of these services are labour rate based and these costs tend to increase at a faster rate than CPI; • Energex suggests that prices may be rolled forward with a CPI adjustment, continue with the existing methodology or use the new rates proposed as part of a pricing proposal; and • Ergon suggests using a hybrid model, so that if the proposed price falls below a cap it is automatically approved but if it is above the cap the AER must review the proposed price.

Sources: AER, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 10-12; Energex, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2; Ergon Energy, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 5; SA Power Networks, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 3-5; CitiPower, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 2-4; and NSW DNSPs, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 3-4.

⁵²³ Id., p. 12; CitiPower and Powercor, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 2, 4.

12.5 Guideline development process

In the draft rule determination and draft rules the Commission set out detailed timetables for the development of the various guidelines that the AER is required by the new rules to produce.

On reflection, the Commission is of the view that the AER should have some flexibility to manage its work programme and determine the dates by which key milestones will be achieved in respect of the guidelines. The transitional rules therefore only require the first version of these guidelines to be finalised by 29 November 2013.

To provide NSPs and other stakeholders with sufficient notice and certainty upfront, the transitional rules also require the AER to publish a statement by 21 December 2012 that sets out:

- a proposed schedule, including milestones and key dates, for the making of the various guidelines; and
- the specific consultation procedure to be followed, which must at a minimum be consistent with the requirements of the distribution or transmission consultation procedures (as applicable).

It is worth noting in this context that 29 November 2013 is the final date by which the AER will be required to publish the guidelines and that it may publish various guidelines in advance of that date.

12.6 Need for transitional arrangements

This final rule determination provides for a number of significant changes to Chapters 6 and 6A of the NER and also requires the AER to develop a number of guidelines by 29 November 2013. Although these guidelines will not be binding, they are intended to play an integral role in the regulatory review process going forward for the following reasons:

- service providers, the AER and the appeal body will be required to have regard to them in the context of each regulatory determination; and
- if a service provider or the AER wishes to depart from the approaches set out in the guidelines, they will be required to clearly set out the reasons for the proposed departure.

At the same time as the AER is developing the various guidelines, seven NSPs are due to submit their regulatory proposals (see table below). Another eight NSPs are due to submit their proposals within 12 months of the date by which the guidelines are to be finalised. Given the degree of overlap between the guideline development and regulatory determination processes, some form of transitional arrangement is required to:

- enable the new rules and guidelines to be applied in the next round of regulatory reviews; and
- minimise the resourcing burden that the guideline development and regulatory determination processes may otherwise place on the AER, NSPs and other stakeholders.

Table 12.2 Existing timetable for regulatory determinations

NSP		Framework and Approach Paper	Regulatory Proposal Due	Regulatory Period Commences
ElectraNet and Murraylink (SA transmission and interconnector between Vic and SA)		n.a.	Already submitted	1 July 2013
SP AusNet (Vic transmission)		n.a.	28 February 2013	1 April 2014
2014 Group of NSPs	TransGrid and Transend (NSW and Tas transmission)	n.a.	31 May 2013	1 July 2014
	ActewAGL, Ausgrid, Endeavour Energy and Essential Energy (ACT and NSW distribution)	30 November 2012	31 May 2013	1 July 2014
Directlink (Interconnector between Qld and NSW)		n.a.	31 May 2014	1 July 2015
2015-2016 Group of DNSPs	Ergon, Energex and SA Power Networks (Qld and SA distribution)	30 November 2013	31 May 2014	1 July 2015
	Jemena, United Energy, CitiPower, Powercor and SP AusNet (Vic distribution)	31 May 2014	30 November 2014	1 January 2016
Post 2016 Group	Aurora Energy (Tas distribution)	30 November 2015	31 May 2016	1 July 2017
	Powerlink (Qld transmission)	n.a.	31 May 2016	1 July 2017
	ElectraNet (SA transmission)	n.a.	31 May 2017	1 July 2018
	Murraylink (Interconnector between SA and Vic)	n.a.	31 May 2022	1 July 2023

From the submissions that have been made on this issue, it would appear that most interested parties accept that some form of transitional arrangement is required for a number of the NSPs listed in Table 12.1. However, concerns have been expressed about the scope of the proposed arrangements outlined in the consultation paper and the length of time over which transitional arrangements are expected to persist. The Commission has therefore given further consideration to both:

- the period over which the transitional arrangements should apply and the NSPs that should be subject to the arrangements; and
- the form(s) that the transitional arrangements should take.

The Commission's analysis of these two matters is set out in the remainder of this chapter.

12.7 NSPs that will be subject to the transitional arrangements

In the consultation paper it was envisaged that all NSPs, except ElectraNet, Murraylink and Directlink, would be subject to the same form of transitional arrangements and that the transitional rules would need to operate for at least five years. The persistence of the arrangements through to 2017 was, at this stage, considered necessary to minimise any resourcing constraints that the AER, NSPs and other stakeholders may face during the guideline development and regulatory review processes.

Following the receipt of a number of submissions on this issue, the Commission has given further consideration to the need to have the transitional rules in operation for this length of time. To this end, the Commission has worked with the AER to determine whether, from an AER resourcing perspective,⁵²⁴ transitional arrangements are required until 2017.

On the basis of the discussions the Commission has had with the AER and the Commission's own analysis, it would appear that:

- a delay of more than 12 months will be required for SP AusNet (transmission) given the proximity of the commencement of its next regulatory period to the last date by which the AER is required to finalise its guidelines;
- a 12 month delay to the full determination process will be required for those NSPs that are due to commence their next regulatory period on 1 July 2014;
- some form of transitional arrangement will be required for those NSPs that are currently due to commence their next regulatory period on 1 July 2015 and 1 January 2016 but a five month delay to the full determination process would be sufficient if certain elements of the extended consultation process were excluded;
- Directlink can follow a regulatory determination process in accordance with its existing timetable; and
- no transitional arrangements are required for NSPs with regulatory periods commencing post 2016, ie Aurora, Powerlink, ElectraNet and Murraylink.

⁵²⁴ It is worth noting in this context that the potential for resourcing constraints within the AER exists because regulatory processes are currently staggered. A delay in the regulatory process for one group can therefore create an overlap with other regulatory processes.

The Commission has therefore decided to:

- exclude Aurora, Powerlink, ElectraNet and Murraylink from the transitional arrangements⁵²⁵ and to require them to be subject to the new rules from the commencement of their next regulatory periods;
- apply different transitional arrangements to the following groups of NSPs:
 - SP AusNet (transmission), which is due to commence its next regulatory period on 1 April 2014;
 - ActewAGL, Ausgrid, Endeavour Energy, Essential Energy, TransGrid and Transend, all of which are due to commence their next regulatory periods on 1 July 2014 (referred to in this chapter as the “2014 group of NSPs”);
 - Energex, Ergon, SA Power Networks, CitiPower, Jemena, SP AusNet (distribution), Powercor and United Energy (referred to in this chapter as the “2015-2016 group of DNSPs”). The first three of these DNSPs are due to commence their next regulatory periods on 1 July 2015 while the latter five are due to commence their next regulatory periods on 1 January 2016; and
 - Directlink, which is due to commence its regulatory period on 1 July 2014.

The Commission’s final decision on the form of the transitional arrangements that will be applied to SP AusNet (transmission), the 2014 group of NSPs, the 2015-2016 group of DNSPs and Directlink is set out in the following sections.

12.8 Form of the transitional arrangements to be applied to NSPs

As outlined above, the key driver of the transitional arrangements is the requirement for the AER to develop guidelines as a basis for applying the new rules. This means that the more time that has elapsed since the guidelines have been finalised, the easier it should be for stakeholders to transition to the new rules. To put it another way, those NSPs whose regulatory proposals would, in the absence of transitional rules, have been due during, or shortly after, the completion of the AER’s guidelines will require more significant transitional arrangements than those with regulatory proposals due at a later point in time.

The decline in the need for the transitional arrangements is reflected in the Commission’s approach to SP AusNet (transmission), the 2014 group of NSPs and the 2015-2016 group of DNSPs.

SP AusNet (transmission), whose next regulatory period is due to commence four months after the last date by which the AER’s guidelines are to be finalised, requires the most significant transitional provisions because there is insufficient time for even a

⁵²⁵ The only transitional rules that will apply to this group of NSPs are the provisions relating to the time at which the AER can review capex, for the purposes of identifying inefficient capex, non-arm’s length margins and/or expenditure that is capitalised inappropriately.

truncated regulatory process. The existing rules must therefore be preserved for SP AusNet for a period of time. After considering a range of options, the Commission has decided that SP AusNet should be subject to the existing rules for three years before moving to the new rules on 1 April 2017.

For the 2014 group of NSPs and the 2015-2016 group of DNSPs, less significant transitional arrangements are required than for SP AusNet. In particular, it is possible for the existing timing of the regulatory periods to be maintained and for the AER's resourcing issues to be accommodated by delaying the AER's "full" determination for a period of time and using an "interim" determination for the first year of the period. For the 2014 group of NSPs the AER's "full" determination will need to be delayed by 12 months while the 2015-2016 group's determination will only need to be delayed by five months.

During the consultation process, a range of options for dealing with a delay in the 'full' determination process were canvassed (see section 12.3). Given the concerns that have been raised with the proposal set out in the consultation paper, the Commission has given further consideration to two of the other options that were canvassed during this process, ie the placeholder with true-up model and the preliminary determination with mandatory re-opener model.

As noted in section 12.3, the preliminary determination with mandatory re-opener model has a number of advantages over the placeholder with true-up model but it requires a longer consultation period than is available to the 2014 group of NSPs.⁵²⁶ The Commission has therefore decided to apply the placeholder with true-up model to this group of NSPs.

In contrast to the 2014 group of NSPs, a five month delay to the 2015-2016 group of DNSPs' regulatory determination process will provide the AER with sufficient time to make a preliminary determination before the commencement of the regulatory period. Given the advantages that this model has over the placeholder with true-up model, the Commission has decided to apply the preliminary determination with mandatory re-opener model to this group of NSPs.

In the case of Directlink, the AER has indicated that it has sufficient resources to carry out its regulatory determination in accordance with its existing timetable.⁵²⁷ Transitional arrangements are therefore only required to deal with the length of Directlink's regulatory determination process and the timing of its framework and approach paper process.

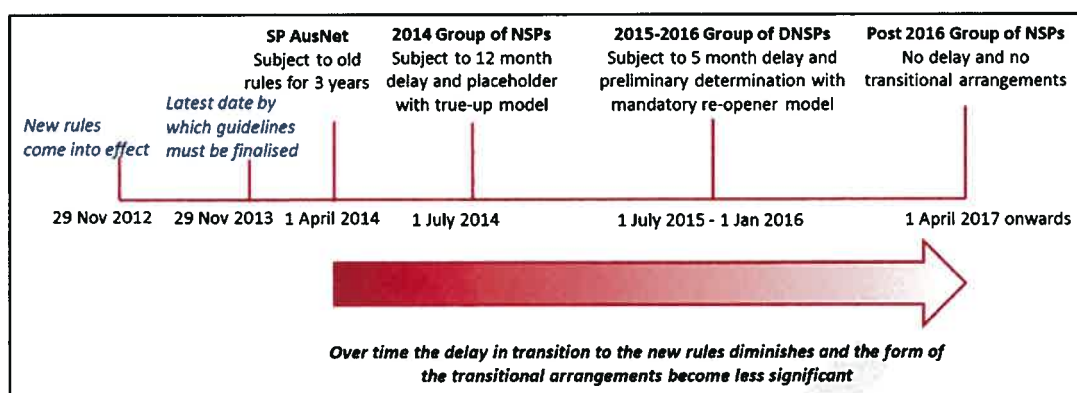
⁵²⁶ The application of this model would require a NSP to submit its regulatory proposal to the AER eight months before the regulatory period commences. There are, however, only seven months between the latest date by which the AER is required to finish its guidelines and when this group's regulatory period starts. The period would be even shorter if any provision was made for the NSPs to take account of the guidelines in their regulatory proposals.

⁵²⁷ AER, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2.

For those NSPs with regulatory periods commencing post 2016, no transitional arrangements are required. Aurora, Powerlink, ElectraNet and Murraylink will therefore be subject to the new rules at the commencement of their next regulatory periods.

The form of the transitional arrangements that will be applied to each of the NSPs is summarised in the figure below.

Figure 12.1 Transitional arrangements continuum



As this figure demonstrates, the transitional arrangements that the Commission has decided to put in place may be viewed as a continuum with the time taken to transition to the new rules and the differences between the standard determination process and the transitional determination process diminishing over time.

The remainder of this chapter provides further detail on the Commission’s rationale for adopting these transitional arrangements and how it intends them to be applied to SP AusNet (transmission), the 2014 group of NSPs, the 2015-2016 group of NSPs and Directlink.

Before moving on though, it is worth noting that in designing these arrangements the Commission has been mindful of the uncertainty and, in some cases, additional burden that the transitional arrangements may place on stakeholders. Given that in some cases it will be over a year until the transitional arrangements are applied, it may be that as time passes stakeholders view the need for transitional arrangements differently. For example, if the AER’s resourcing was to change there may no longer be a need for transitional arrangements for the 2015-2016 group of DNSPs. It is not possible to provide flexibility for this in the rules.

12.9 Transitional arrangements to apply to SP AusNet (transmission)

SP AusNet (transmission) is currently due to submit its regulatory proposal to the AER by 28 February 2013 and commence its next regulatory period on 1 April 2014. At the same time that SP AusNet is due to submit its regulatory proposal, the AER will be developing the guidelines. Given the coincidence of SP AusNet’s regulatory determination process and the guideline development process, some form of

transitional arrangement is required to allow the new rules and guidelines to be applied to SP AusNet before the commencement of the subsequent regulatory period.

The four options the Commission has considered in this context are to delay SP AusNet's transition to the new rules by one, two, three or, as requested by SP AusNet,⁵²⁸ 4.25 years. The Commission's views on each of these options can be summarised as follows:

- A one year delay would result in the fastest transition to the new rules. However, this option would require SP AusNet to submit its regulatory proposal within three months of the latest date by which the AER is required to finalise its guidelines. This three month period would not allow sufficient time for the framework and approach process to be carried out and would mean that other elements of the stakeholder consultation process could not be carried out. This option is therefore contrary to the second principle set out in section 12.2.
- The two year delay option overcomes the deficiencies of the first option. However, a delay of this length would mean that SP AusNet's transmission regulatory determination process would be carried out concurrently with its distribution regulatory determination process. This option is therefore likely to give rise to resourcing constraints within both SP AusNet and the AER and, in so doing, contravene the fourth principle set out in section 12.2
- The three year delay option overcomes the deficiencies identified with the one and two year delay options. It also has better incentive properties because it provides a longer regulatory period over which SP AusNet can seek out efficiencies that will benefit consumers in future regulatory periods. The one drawback of this option is, however, that it results in a slower transition to the new rules.
- The final option, which is to delay the transition to the new rules by 4.25 years, also overcomes the deficiencies identified with the first two options. However, in the Commission's view this is too long a period to wait for SP AusNet to transition to the new rules and is inconsistent with the first principle set out in section 12.2.

On balance, the Commission is of the opinion that the three year delay option is more consistent with the principles set out in section 12.2 than the other three options and that the benefits of this option outweigh the delayed transition to the new rules. SP AusNet's transmission determination will therefore be made for the period 1 April 2014 - 31 March 2017 under the older Chapter 6A rules. A new transmission determination will then be made under the new Chapter 6A rules for the regulatory period commencing on 1 April 2017.

To put this decision into context, it is worth noting that although SP AusNet will be subject to the old rules for another three years, it will be required to transition to the

528 SP AusNet, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 5.

new rules before Powerlink and ElectraNet (1 April 2017 vs 1 July 2017 and 1 July 2018). This decision is therefore consistent with the Commission's broader objective of having the new rules come into effect before the commencement of the subsequent round of regulatory determinations.

12.10 Transitional arrangements to apply to 2014 group of NSPs

ActewAGL, Ausgrid, Endeavour Energy, Essential Energy, TransGrid and Transend are due to submit their regulatory proposals to the AER by 31 May 2013 and commence their next regulatory period on 1 July 2014. At the time this group of NSPs regulatory proposals are due to submit their regulatory proposals, the AER will not have finalised its guidelines. To enable the new rules and guidelines to be applied to this group of NSPs in the next regulatory period, a 12 month delay to the full regulatory determination process is required.

Having considered a number of options for dealing with the 12 month delay, the Commission has come to the view that the placeholder with true-up model should be applied to this group of NSPs (see section 12.8). Under the placeholder with true-up model, the AER will be required to:

- conduct a high level review of a NSP's proposed revenue requirement for the transitional year (year 1) and make a binding determination 2-3 months before the commencement of that year (referred to in the remainder of this chapter as the "placeholder determination");
- make a full determination during the transitional year, for years 2-5⁵²⁹ and the transitional year and use a NPV neutral true-up mechanism to account for any difference between:
 - the placeholder revenue for the transitional year; and
 - the revenue requirement for the transitional year that is established through the full determination process.

It is worth noting in this context that the true-up mechanism is an integral element of this model and will, in effect, allow the new rules and guidelines to be applied to both the transitional year and years 2-5. The inclusion of this mechanism in the model also means that a higher level and less time consuming assessment of the 2014 group of NSPs' transitional year revenue requirements can be undertaken in advance of the transitional year. The application of this model should therefore, go some way to alleviating resourcing constraints that may otherwise exist in 2013-14 for the AER and affected NSPs.

To give effect to the placeholder with true-up model, the transitional rules provide for the following regulatory periods:

- the transitional regulatory period, which will operate over the period 1 July 2014 to 30 June 2015; and;
- the subsequent regulatory period, which will operate over the period 1 July 2015 to 30 June 2019.⁵³⁰

The remainder of this section sets out how the Commission intends the placeholder with true-up model to be applied to this group of NSPs, with particular emphasis placed on:

- the placeholder determination process;
- the full determination process;
- the extent to which incentive schemes will operate in the transitional regulatory period;
- the matters to be dealt with by the AER through the framework and approach paper process; and
- the manner in which a range of ancillary issues will be treated for the transitional regulatory period.

12.10.1 Placeholder determination process

As its name suggests, the placeholder determination requires the AER to conduct a high level review of the 2014 group of NSPs' proposed revenue requirements for standard control and prescribed transmission services for the transitional regulatory period.

Given the nature of the placeholder determination and the limited time available, the transitional rules require:

- a relatively short consultation process, with the AER having just two to three months⁵³¹ to make the placeholder determination (see table below);
- the NSPs to provide the AER with indicative estimates and ranges for certain building block elements; and

529 In accordance with the transitional rules, the AER is required to approve a subsequent regulatory period of four years but a NSP may, with the AER's agreement, have a subsequent regulatory period of no less than three years or more than four years.

530 This assumes a regulatory period of four years for the subsequent regulatory period.

531 The consultation period for TNSPs is one month shorter than for DNSPs because rule 6A.24.4 states that if the AER has not made a final decision on the revenue proposal by a date that is three months prior to the commencement of the first pricing year then the draft decision will apply. Given that there will be no draft placeholder determination, the AER will be required to publish the TNSPs placeholder determination three months before the commencement of the transitional regulatory control period so that it can be used to set prices for that year.

- the AER to apply relatively high level criteria when assessing a NSP's proposal, rather than undertaking the detailed assessment that would usually be required by Chapters 6 or 6A of the rules. Put another way, the AER is not required to justify its decision about the placeholder revenue by applying a building block model to estimate a NSP's placeholder revenue requirement.

Further detail on the latter two of these aspects of the placeholder determination is set out below.

Table 12.3 Key Dates for the Placeholder Determination Process

NSP	Submission of Transitional Regulatory Proposal to the AER	AER Invites Written Submissions	AER Determination
TransGrid and Transend	31 January 2014	As soon as practicable	31 March 2014
ActewAGL and NSW DNSPs			30 April 2014

Information to be provided to the AER

Five months prior to the commencement of the transitional regulatory period, the 2014 group of NSPs will be required to provide the AER with a transitional regulatory proposal, which sets out their proposed revenue requirement for the transitional year. These NSPs will also be required to provide the following supporting information to the AER:

- an indicative estimate of the opening value of the RAB at the beginning of the transitional year;
- an indicative range for the rate of return, which has regard to the AER's rate of return guidelines, and takes into account available market information and expected market trends;
- an indicative estimate of forecast opex, capex, depreciation and corporate tax for the transitional year;
- the revenue that the NSP expects to earn from the provision of standard control or prescribed transmission services in the last year of the current regulatory period and an indicative range of its revenue requirements for the provision of those services for the transitional year and for the subsequent four years;
- a summary of the NSP's proposed expenditure for the transitional year and the subsequent four years and an explanation of how the proposal is consistent with the placeholder revenue; and
- any other information the NSP considers relevant to the AER's determination.

The transitional rules also require DNSPs that are subject to a price cap to provide the AER with indicative estimates of demand for each type of direct control service for the transitional year and the subsequent four years.

Criteria to be applied by the AER

The AER will be required to publish its final determination for the transitional regulatory period two months after receiving a TNSP's transitional regulatory proposal and three months after receiving a DNSP's proposal.⁵³²

The AER will only be able to approve a NSP's proposed placeholder revenue proposal if it is satisfied that:

- the amount set out in it is likely to be consistent with the NEO and the RPP; and
- recovery of that amount is reasonably likely to minimise price variations between the current regulatory control period, the transitional regulatory control period and the subsequent regulatory control period and between regulatory years.

In deciding whether or not to approve a NSP's proposed placeholder, the AER is also required by the transitional rules to have regard to the following:

- the fact that the revenue requirement for the transitional regulatory period is an estimate that is based on indicative inputs, and that the determination for the next regulatory period will provide for a true-up;
- the information included in, or accompanying, the transitional regulatory proposal;
- submissions received in the course of consulting on the transitional regulatory proposal; and
- analysis undertaken by, or for, the AER in connection with the transitional regulatory proposal.

If the AER does not approve a NSP's placeholder proposal, it must approve an amount that it is satisfied is consistent with the NEO and RPP and that recovery of which is reasonably likely to minimise price variations between regulatory control periods and regulatory years.

It is worth noting in this context that the AER is already required by section 16 of the NEL to have regard to both the NEO and the RPP when performing an economic regulatory function. The only additional criterion that the transitional rules require the AER to have regard to is therefore the "reasonably likely to minimise price variations" criterion. This criterion has been incorporated in the transitional rules to minimise the potential for the placeholder determination to result in one off price shocks. Further insight into the Commission's rationale for including this criterion in the transitional rules can be found in section 2.4-2.6.

532 Ibid.

Pricing of alternative control services by DNSPs

The preceding discussion has focused on how the revenue requirement for standard control and prescribed transmission services will be determined for the transitional regulatory period. In addition to providing standard control services, the NSW DNSPs and ActewAGL provide alternative control services.

The Commission understands that some forms of alternative control services are capable of being true-up (eg public lighting and metering) while others are not (eg fee and quoted services). The transitional rules therefore provide for:

- the control mechanism currently applying to these services to be maintained for the transitional regulatory period, unless otherwise amended through the framework and approach paper;
- prices for these services to be rolled forward from the current regulatory period with a CPI adjustment; and
- where relevant, the AER to set out how any true-up will be carried out in the full determination process in the framework and approach paper for ActewAGL and the NSW DNSPs.

12.10.2 Full determination

The full regulatory determination process for the 2014 group of NSPs will be carried out during the transitional regulatory control period and the AER will be required to publish its final determination just before the commencement of the first year of the subsequent regulatory control period (year 2). The full determination will be carried out, with some exceptions, in accordance with the new rules and guidelines and will establish:

- the NSP's annual revenue requirement for the subsequent regulatory control period (years 2-5);
- the annual revenue requirement that would have been established for the transitional regulatory control period (year 1) if it had been subject to a full determination process; and
- the amount of any true-up that is required in years 2-5 to account for differences between the placeholder revenue and the transitional year revenue requirement established through the full determination process.

Further detail on the following matters is provided below:

- the consultation process for the full determination;
- the manner in which the true-up will be carried out;
- transitional year measurement issues;

- the manner in which the rate of return will be measured; and
- the length of the subsequent regulatory period.

Consultation process

Given the timing of the guideline development process, there is insufficient time for the 2014 group of NSPs to be subject to the extended regulatory determination process (15 months). The regulatory process for this group of NSPs will therefore be based on an 11 month regulatory process.⁵³³

Although a shorter regulatory process will be employed, the AER will still be required to publish a framework and approach paper for each NSP and conduct a mandatory public forum on their regulatory proposals. The NSPs will also be required to submit an overview paper when lodging their regulatory proposal and will be subject to the new rules that are intended to increase the level of customer engagement by NSPs on their regulatory proposal.

The key dates for the framework and approach paper, the submission of the regulatory proposal and the publication of decisions are set out in the table below.

Table 12.4 Key Dates for Full Regulatory Determination Process

NSP	Framework and Approach Paper Finalised	Regulatory Proposal Due	Final Decision
TransGrid and Transend	31 January 2014	31 May 2014	30 April 2015
ActewAGL and NSW DNSPs	Part 1: 31 March 2013* Part 2: 31 January 2014		

* The framework and approach paper for ActewAGL and the NSW DNSPs will be split into two, with the first part dealing with matters that are not the subject of guidelines and the second part dealing with the remaining matters (see section 12.10.4. for further detail).

True-up mechanism

The true-up mechanism is an integral element of the placeholder with true-up model and will be used to account for any deviation between.⁵³⁴

- the placeholder revenue for standard control services or prescribed transmission services (as the case may be) in the transitional year; and
- the revenue requirement for standard control services or prescribed transmission services (as the case may be) for the transitional year established through the full determination process.

⁵³³ Two of the more notable elements of the new regulatory process that will not apply to this group of NSPs are the issues paper and the cross-submission process.

⁵³⁴ It is worth noting that the description of the true-up mechanism in this context assumes that a NSP is subject to a revenue cap. For those DNSPs that are subject to a price cap, the transitional rules require the AER to set out how the true-up will be carried out in its framework and approach paper.

To the extent that it is relevant, a separate true-up mechanism will also be used for the NSW DNSPs and ActewAGL to account for any differences between the alternative control service prices applying in the transitional regulatory period and the prices established through the full determination process.

To the extent that there is an amount that needs to be true-up, the transitional rules require the AER to adjust a NSP's revenue requirements in years 2-5. The transitional rules also require the AER to carry out the true-up on a NPV neutral basis.

The final matter that the Commission has considered in this context is whether the requirement for a final year X factor anchor point (clauses 6.5.9(b)(2) and 6A.6.8(c)(2) of the NER) should be removed for the purposes of the transitional rules.

The Commission understands that, in principle, the final year anchor point is intended to minimise price shocks that may otherwise occur between the final year of the regulatory period and the first year of the subsequent regulatory period. However, under both the placeholder with true-up model and the preliminary determination with mandatory re-opener models, the requirement to carry out a true-up in years 2-5 could result in price volatility within this period if the anchor point is maintained.⁵³⁵ The Commission has therefore decided, for the purposes of the transitional rules only, to relax this anchor point.

It is worth noting in this context that while the final year anchor point will be removed in the transitional rules,⁵³⁶ the X factor provisions in Chapters 6 and 6A of the NER will still require the smoothed revenue to be equal to the NPV of the annual revenue requirement (clauses 6.5.9(b)(3) and 6A.6.8(c)(1)). That is, the required revenue can still be recovered across the period, but the smoothing can be applied more optimally.

Transitional year measurement issues

One matter that received some attention during the consultation process was whether, when making its decision on the transitional year revenue requirement during the full determination process, the AER should be able to have regard to:

- information available up to the date it makes the full determination, ie during the transitional year; or
- only information available up to the commencement of the transitional year.

⁵³⁵ The potential for this to occur can be seen in the following example, which assumes that prices are originally expected to move from \$100 to \$110 over the five years, demand is constant over the period and the operation of the true-up mechanism results in prices in years 2-5 having to rise by \$20 per annum. In this example the final year anchor point effectively locks in the \$110 price in year 5. The \$20 increase that should have occurred in year 5 must then be spread over years 2-4, resulting in an additional increase in these three years. Over the five year period, prices would therefore move as follows: Year 1: \$100; Years 2-4: greater than \$120; and Year 5: \$110. If the anchor point had been relaxed then prices could have moved up from \$100 to \$120 and remained at this level for the remaining four years rather than moving to a level above \$120 and then moving back down to \$110 in the final year.

⁵³⁶ Clauses 6.5.9(b)(2) and 6A.6.8(c)(2)

To determine how significant this issue is likely to be, the Commission has considered the information that is likely to be available to the AER when it makes its full determination.

At the time the AER is to make its decision on opex and capex allowances, it is unlikely to have much (if any) data on the expenditure actually incurred by NSPs in the transitional year. The risk of the AER having regard to new information when setting the allowances for these two elements is therefore expected to be quite low. Even if some information was available it would only be expenditure for part of the year, so the weight that the AER could place on such information is likely to be quite low.

Unlike opex and capex, rate of return parameters and other economic indicators used in the derivation of a NSP's revenue requirement are available on a more frequent basis. It is possible therefore that certain elements of the AER's full determination could differ from what they would otherwise have been if the determination had been made one year earlier.

This is a shortcoming of the placeholder with true-up model. However, it is not, in the Commission's view, sufficient enough to warrant a departure from the model, particularly given the benefits that the model offers in terms of ameliorating resource constraints and providing for a faster transition to the new rules. The Commission has therefore considered alternative options for addressing this issue.

The options that the Commission has explored include:

1. Requiring the AER to make a decision in advance of the transitional regulatory period on those elements of the NSP's revenue requirement that could differ if measured before or after the commencement of this period, ie rate of return, inflation and other escalators, and locking this in for the purposes of the full determination;
2. Including a provision within the transitional rules that restricts the AER's assessment during the full determination process to information and data available in the lead up to the transitional year. In effect, this option would require the AER to ignore any information or data released in the ten month period between the commencement of the transitional year and the date on which it makes its final determination; or
3. Leaving it to the AER to exercise its judgement, having regard to both the NEO and RPP.

The problem with the first of these options is that there is insufficient time between the likely release of the AER's guidelines and the commencement of the transitional regulatory period for the level of consultation that would be required to make a decision of this nature. The Commission has therefore rejected this option.

The second option is also problematic because trying to restrict the AER to considering data and information that was available 10 months before it makes its full determination is likely to be difficult to implement in practice. Another shortcoming of

this option is that it could result in substantial resources being dedicated by the NSPs and the AER (and potentially an appeals body) to distinguishing between information and data that was available before or after the commencement of the transitional year. Of greater significance though, is the potential for the adoption of this option to result in a decision that is inconsistent with the NEO and RPP.⁵³⁷ Given these shortcomings, the Commission has also rejected this option.

The final option is to leave the decision to the AER and allow it to be guided by the NEO and RPP. In the Commission's opinion, this is the most practical solution given:

- the limited time available in the lead up to the transitional year;
- the difficulties associated with not being able to take into account relevant information; and
- the more fundamental need to ensure that regulatory decisions are consistent with the NEO and RPP.

Since section 16 of the NEL already requires the AER to have regard to these matters when performing an economic regulatory function or powers, no transitional rules are required to give effect to this option.

Measurement of the rate of return

Another issue that was raised during the consultation process was how the rate of return should be measured over the transitional and subsequent regulatory periods.

There was general consensus amongst the AER and the NSPs that a single rate of return should apply across the two regulatory periods rather than two separate rates of return for each period.⁵³⁸ However, different views were expressed about the period over which the rate of return to apply over the five years should be measured, ie in the lead up to the transitional year or in the lead up to year 2. Notwithstanding the differences in opinion on this issue, the AER and NSPs appear to see benefits in a framework and approach paper process being used to:⁵³⁹

⁵³⁷ For example, if the rate of return rose by 2% in the lead up to the full determination and this was ignored then it may, depending on the financial arrangements the NSP had in place, be argued that the AER's decision did not provide the NSP with an opportunity to recover at least efficient costs (section 7A(2) of the NEL).

⁵³⁸ See for example, QTC, Consultation Paper on Savings and Transitional Arrangements submission, 24 October 2012, p. 2; Ergon Energy, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 5-6; UE and MG, Consultation Paper on Savings and Transitional Arrangements submission, 26 October 2012, p. 1; and CitiPower and Powercor, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2.

⁵³⁹ AER, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 10; SA Power Networks, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 3-4; Energex, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2; Ergon Energy, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 5-6; UE and MG, Consultation Paper on Savings and Transitional Arrangements submission, 26 October 2012, p. 1; and CitiPower and

- specify any market observation period that may be required under the AER's rate of return guidelines, to measure the rate of return; and
- set out the AER's view on the methodologies that it is likely to accept for the measurement of the return on debt component of the overall rate of return.

The Commission understands the desire of both the AER and the NSPs to have a single rate of return applying over the two regulatory periods and nothing in the transitional rules precludes this.

The Commission also recognises the desire of NSPs to have some degree of certainty about how the return on debt is likely to be measured before they undertake any refinancing or hedging. However, the new rules do not prescribe the way that the AER must estimate the rate of return beyond being required to achieve an overall rate of return objective. Furthermore, the new rules do not require the approach to estimating the rate of return to involve the use of an averaging period or return on debt methodology to be specified in advance of a regulatory determination. The Commission is reluctant therefore to make a transitional rule that will mandate an approach that is not required by the new rules and which may pre-empt the approach the AER ultimately adopts in its guidelines.

Although the Commission has decided not to deal with this issue through the transitional rules it is of the view that, to the extent it is relevant under the AER's approach for estimating the rate of return in its guidelines, the AER could use the existing framework and approach paper process⁵⁴⁰ to consult with NSPs on:

- any measurement period that may be required to measure the rate of return; and
- the methodologies that it intends to employ when measuring the rate of return.

The Commission understands from the following statement contained in the AER's submission that it has already given some consideration to this issue and may be willing to use the framework and approach paper process for this purpose: ⁵⁴¹

'To allow for efficient debt risk management, it is important that the determination process accommodates sufficient and timely certainty in terms of key approaches and processes. Accordingly, the published Framework and Approach paper could appropriately be used to establish any necessary processes for determining the rate of return, such as the timing of any 'sampling period'.'

Powercor, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2.

⁵⁴⁰ Note that the framework and approach paper provisions in Chapters 6 and 6A already allow the AER to use the framework and approach paper to set out its likely approach to any matter that it thinks fit to give an indication on. No specific transitional rules are therefore required to direct the AER to deal with this issue through the framework and approach paper process.

⁵⁴¹ AER, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 10.

Length of the subsequent regulatory period

To enable the combined length of the transitional and subsequent regulatory periods to be five years, the transitional rules allow for the use of a four year regulatory period for the subsequent regulatory period.

The transitional rules also allow the 2014 group of NSPs to propose, and permit the AER to approve, a regulatory period of three or more years. This provision has been incorporated into the transitional rules to enable the NSPs and the AER to optimise the alignment of regulatory reviews across all NSPs. Although the Commission views the alignment of particular regulatory determinations as a separate issue from the transitional arrangements, it understands that it may be desirable from both a resourcing and benchmarking perspective, to allow certain groups of NSPs to be subject to a regulatory review at the same time. It has therefore decided to make provision for this to occur in the transitional rules.

12.10.3 Operation of incentive schemes in the transitional year

Incentive schemes are applied to individual NSPs through the regulatory determination process. The targets for these schemes, or the basis upon which they are calculated, are set out in the final determination for each NSP. As these schemes are intended to drive a particular form of behaviour by NSPs (such as maintaining and improving service standards) the targets for the schemes are required to be known prior to the relevant period. As outlined above, a full regulatory determination will not be made for the transitional year until well into that year for the 2014 group of NSPs. Transitional arrangements are therefore required to deal with incentive schemes for these NSPs.

In its consultation paper the Commission suggested that incentive schemes should not operate in the transitional year as a means of reducing the number of decisions the AER would be required to make for the transitional year determination.⁵⁴² Following the receipt of a large number of submissions on this issue, the Commission has reconsidered this proposal.

In short, the Commission is of the view that incentive schemes should, to the extent that it is practical and appropriate to do so, apply in the transitional regulatory period. To account for those cases where it may not be appropriate to apply particular schemes in the transitional year, or where a different method may be required in that year, the Commission is of the view that the AER should have sufficient flexibility to deal with this through the framework and approach paper process. The transitional rules therefore require the AER to set out in the framework and approach paper how the schemes will apply in the transitional regulatory period and in the subsequent regulatory period.

⁵⁴² AEMC, Consolidated Rule Request – Economic Regulation of Network Service Providers, Consultation Paper on Savings and Transitional Arrangements, 14 September 2012, p. 13.

Before setting out the Commission's views on the particular schemes, it is worth noting the following general points:

- the framework and approach paper will be issued before the start of the transitional regulatory period. NSPs should therefore be able to respond to the incentives created by the schemes in the transitional year;
- the AER will not be able to go back and revisit the targets and values that it sets for the transitional year through the framework and approach paper; and
- where rewards/penalties (revenue increments/decrements) from incentive schemes are accrued in the current regulatory period and due to be applied in the transitional year, these will be accounted for in the following regulatory years as part of the true-up mechanism. This includes for example the s-factor.

The Commission's views on each of the schemes are set out below.

The proposed varied STPIS for transmission and the existing STPIS for distribution can apply in some form for the transitional year. The Commission notes that the AER and NSPs broadly agree that the targets and revenue at risk for the last year of the STPIS for distribution can be used for the transitional year. There is also broad agreement that a parameter by parameter approach to setting targets for the transitional year for the STPIS for transmission can work.

The Demand Management and Embedded Generation Incentive Scheme⁵⁴³ can also apply in some form for the transitional year. The Commission does not consider it necessary to provide for fall back arrangements in the transitional rules for this scheme as proposed by stakeholders.⁵⁴⁴ Instead, the AER can stipulate the approach through the framework and approach paper.

The existing EBSS is unlikely to be able to operate. This is because the operating expenditure allowance is currently a key input into this scheme and this information will not be available until near the end of the period. However, the Commission notes that the AER intends to review the scheme in 2013. For this reason the possibility of an EBSS applying in the transitional year should not be ruled out. Further, even if the EBSS is to have no effect, it may need to apply for the year in some form for the continued smooth operation of the scheme (eg targets for the year may need to be set to actual expenditure).

The Commission maintains that capex sharing schemes and small scale incentive schemes should not operate in the transitional years for the 2014 group of NSPs. This decision is made on the basis that these schemes have not been applied before. These schemes can commence in the subsequent regulatory period (years 2-5).

⁵⁴³ This includes the NSW D-factor scheme.

⁵⁴⁴ See for example, AER, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 11.

The new rules provide for the AER to review the efficiency of past capex and to make consequent adjustments to capex that would otherwise be rolled into the RAB. The Commission's view is that these adjustments should not apply in respect of capital expenditure that is incurred prior to or during the transitional year. This is because a NSP will not know what its capital expenditure allowance is for the transitional year until towards the end of the period and the capex incentive guidelines will not have been published prior to any year that precedes the transitional year.

Similarly, the AER will not be able to reduce the capex that would otherwise be rolled into the RAB, by virtue of it representing a non-arm's length margin or the capitalisation of opex, where that capex is incurred in a regulatory year that commences before the capex incentive guidelines have been published.

In relation to depreciation, for consistency the use of actual or forecast depreciation to calculate the opening value of the RAB for both the transitional and subsequent regulatory control periods will be as set out in the current regulatory determination. The AER will determine the method to be used to establish the opening RAB for the regulatory year following the subsequent regulatory control period, when it makes the subsequent regulatory determination. The AER should, however, set out the method it intends to use in the framework and approach paper.

12.10.4 Matters to be dealt with in the framework and approach paper

The framework and approach paper process precedes the normal regulatory determination process and, in this case, also precedes the placeholder determination process. Given the timing of this process, the framework and approach paper will be used to set out how the AER intends to deal with a number of matters for the transitional regulatory period, such as:

- how the incentive schemes will operate for this period (see section 12.10.3);
- the manner in which any true-up between the placeholder and full determination will be carried out for DNSPs that are subject to a price cap form of regulation; and
- the manner in which any true-up will be carried out for DNSPs providing alternative control services that are capable of being trued-up (eg public lighting and metering).

The NER do not limit the matters that can be covered in the framework and approach paper, so to the extent that it is relevant, given the content of the AER's rate of return guidelines, the framework and approach paper consultation process may also be used to identify:

- the manner in which any measurement period that may be required to calculate the return on debt or the return on equity will be identified; and

- the methodologies that the AER intends to employ when measuring the return on debt and the return on equity and how it considers those methodologies will contribute to the overall rate of return objective.

Because some of the guidelines that form the basis for the framework and approach paper may not be finalised until the end of November 2013, the framework and approach paper consultation process will be divided into two parts for the NSW DNSPs and ActewAGL:

- Part 1 will be finalised by 28 March 2013 and will cover matters that are not the subject of guidelines; and
- Part 2 will be developed after the new guidelines are being finalised and will set out the AER's proposed approach on the remaining matters specified in the rules and other matters relating to the transitional year. This part of the framework and approach paper will be finalised by 31 January 2014.

For TransGrid and Transend, the matters to be dealt with in the framework and approach paper are largely dependent on the AER's guidelines. Consultation on the framework and approach paper will therefore commence as each of the guidelines are finalised and will culminate in a finalised framework and approach paper by 31 January 2014.

The Commission is aware that an end date for the finalisation of the framework and approach paper of 31 January 2014 is two months later than what would normally occur under the framework and approach process. However, it is also cognisant of the fact that if some of the guidelines are not completed until 29 November 2013, then additional consultation may be required before the framework and approach paper is finalised. The transitional rules therefore require the AER to finalise the framework and approach papers for the 2014 group by 31 January 2014.

One important point that is worth bearing in mind in this context is that while the transitional rules specify the last date by which the framework and approach paper is to be published, they do not specify when consultation on the paper should commence. If it is assumed that it will not take the AER up to 29 November 2013 to finalise all of the guidelines, then consultation on certain elements of the framework and approach paper could commence as soon as the individual guidelines are published rather than waiting until all of the guidelines are finalised.

Staggering the consultation in this manner would provide more time to consult on each of the matters that the AER is required to deal with in the framework and approach paper. It will also provide NSPs with a good idea of the AER's intention on particular matters earlier than what would otherwise occur if the consultation period did not commence until 29 November 2013. The Commission therefore encourages the AER to commence consultation on particular matters as soon as the individual guidelines are published.

Finally, it is worth noting that the Commission is aware that some of the NSPs in the 2014 group are of the view that:

- they should be subject to the draft rather than the final guidelines; and
- the guidelines should set out how they are to be applied to particular NSPs in the transitional period.

On the first of these matters, the final guidelines will be developed in sufficient time for the NSPs to have recourse to them when preparing their regulatory proposals. The Commission therefore disagrees with the proposal for this group of NSPs to be subject to the draft rather than the final guidelines.

On the second matter, the Commission is of the opinion that these issues are better dealt with through the framework and approach paper rather than through the guidelines, which are not intended to apply in a NSP-specific manner. It does not therefore support this proposal.

12.10.5 Treatment of ancillary issues for the transitional year

To minimise the number of decisions the AER will be required to make in the placeholder determination, the transitional rules provide for a number of decisions to be:

- carried over from the current regulatory determination, eg negotiating frameworks and negotiated transmission/distribution service criteria;⁵⁴⁵⁵⁴⁶ or
- carried over from the current regulatory determination, unless otherwise provided for in the framework and approach paper, eg classification of services and the form of control mechanism for standard control and alternative control services.⁵⁴⁷

The transitional rules relating to pass through events also provide for:

- those events identified in the current regulatory determination to be carried over; and

⁵⁴⁵ For DNSPs the decisions that are to be carried over from the current regulatory determination include: the negotiating framework; the negotiated distribution service criteria; the procedures for assigning/reassigning retail customers in relation to tariff classes; the proposed pricing methodology for transmission standard control services; the application of Part J of Chapter 6A to services provided by dual function assets; and the manner in which the value of the opening regulatory asset base will be calculated at commencement of the next regulatory period (ie on the basis of forecast or actual depreciation).

⁵⁴⁶ For TNSPs the decisions that are to be carried over from the current regulatory determination include: the negotiating framework; the negotiated transmission service criteria; and the pricing methodology.

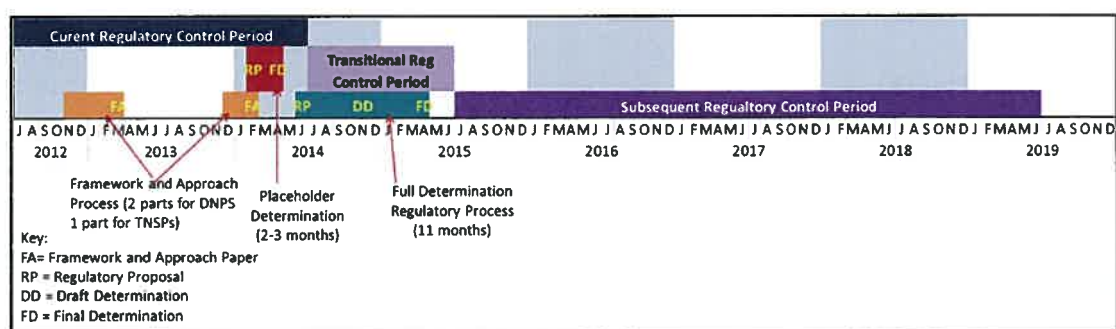
⁵⁴⁷ For DNSPs the decisions that are to be carried over from the current regulatory determination, unless otherwise provided for in the framework and approach paper include: the classification of distribution services; the form of control mechanism for standard control services; and the form of control mechanism for alternative control services.

- the inclusion of the previously repealed “terrorism event”.⁵⁴⁸

12.10.6 Consistency of the transitional arrangements with principles

To summarise, the Commission has decided to delay the full regulatory determination process for the 2014 group of NSPs by 12 months and use the placeholder with true-up model to deal with the transitional year. The application of this model gives rise to two regulatory periods and two determination processes. The relationship between the various elements of this model and the timing of each element is depicted in Figure 2.

Figure 12.2 2014 Group of NSPs Regulatory Determinations and Periods



The Commission’s view on the consistency of these transitional arrangements with the principles set out in section 12.2 can be summarised as follows:

- *Principle 1: final rules to apply as soon as possible* - The inclusion of the true-up mechanism in the model means that, with the exception of the extended regulatory process provisions, the new rules and guidelines will apply in both the transitional year and the subsequent four years. The model therefore results in a faster transition to the new rules than the model specified in the consultation paper and will effectively result in the final rules substantially applying from 1 July 2014.
- *Principle 2: sufficient time for consultation* - The consultation period for the placeholder determination will be relatively short given the nature of the decisions to be made at the time, but sufficient time for stakeholder consultation will be made in the full determination process when the AER is actually assessing the revenue requirements by reference to the new rules. Delaying the

⁵⁴⁸ In the current regulatory control period for NSPs, a terrorism event is a specified pass through event under the NER. However, in the *National Electricity Amendment (Cost pass through arrangements for network service providers) 2012 No. 4*, a “terrorism event” was removed from the list of specified pass through events in the NER that will apply to NSPs from their next regulatory control period on the basis that if a NSP wished to, it could nominate the terrorism event as an additional pass through event in its regulatory proposal. NSPs subject to these transitional arrangements will not be able to nominate additional pass through events for the transitional year so the transitional rule has been drafted such that, for the transitional year, the “terrorism event” is a specified pass through event under the NER.

full regulatory determination process by 12 months will also enable greater participation by interested parties in the guideline development process.

- *Principle 3: opportunity to recover at least efficient costs* - Because the new rules and guidelines will be effectively applied to both the transitional regulatory period and subsequent regulatory period, the application of these transitional arrangements will have no effect on a NSP's opportunity to recover at least the efficient costs they incur in the provision of regulated services over the five year period.
- *Principle 4: arrangements practicable having regard to resourcing constraints* - The true-up mechanism allows a more high level assessment to be undertaken in advance of the transitional year because it takes into account any difference between the placeholder value and the revenue requirement that would have been derived if the new rules had been applied. The adoption of this model should therefore go some way to alleviating the resourcing constraints that the AER, the 2014 group of NSPs and other stakeholders may otherwise face in 2013-14.
- *Principle 5: minimising price volatility* - The requirement for the AER to have regard to the "reasonably likely to minimise price variations" criterion when assessing a NSP's placeholder revenue proposal should ameliorate the potential for price shocks that may otherwise occur if a single year determination was made.

It follows from this assessment that, in the Commission's opinion, the transitional arrangements to be applied to the 2014 group of NSPs are consistent with the principles set out in section 12.2, and the NEO and RPP, more generally (see sections 2.4-2.6).

12.10.7 Specific arrangements for ActewAGL

Through discussions with the AEMC, ActewAGL has indicated that a 12 month delay to its electricity regulatory process would result in a direct overlap between its gas and electricity regulatory processes and, in so doing, give rise to "serious resourcing issues". ActewAGL has therefore requested that the submission date for its proposed revisions to the ACT, Queanbeyan and Palerang gas distribution network access arrangement be delayed by 12 months.

The Commission recognises that ActewAGL is relatively small and that requiring it to conduct its gas and electricity determination processes concurrently is likely to give rise to resourcing constraints. Such an outcome would obviously be at odds with the fourth principle in section 12.2 and, if not addressed, could compromise the regulatory process. The Commission has therefore decided to allow ActewAGL's gas access arrangement review submission date to be delayed by 12 months to 1 July 2015 and to enable the effect of any delays to be dealt with in accordance with rule 92(3), which states the following:

“...if there is an interval (the **interval of delay**) between a revision commencement date stated in a full access arrangement and the date on which revisions to the access arrangement actually commence:

- reference tariffs, as in force at the end of the previous access arrangement period, continue without variation for the interval of delay but;
- the operation of this subrule may be taken into account in fixing reference tariffs for the new access arrangement period.”

In its discussion with the AEMC, ActewAGL raised some concerns about the strength of the latter of these provisions and whether the AER would actually be compelled to undertake a true-up. The Commission accepts that the use of the word “may” in this provision appears to provide the AER with some discretion as to whether a true-up will be carried out. However, it must be borne in mind that when exercising discretion, the AER is required to have regard to both the NGO and the RPP. In the Commission’s opinion, these sections of the NGL would support the application of a true-up mechanism if the reference tariffs prevailing in the period of delay were lower (higher) than what they would otherwise have been.

It is worth noting in this context that the Commission’s view on this issue is consistent with the view expressed by the AER in its recent draft decision for the Victorian gas access arrangement review, as demonstrated by the following extract:⁵⁴⁹

“There will be a delay in the making of the final decision. The AER has therefore taken into account the operation of r. 92(3) of the NGR in fixing reference tariffs for the 2013–17 access arrangement period. The AER considers that the 2013 reference tariffs under the 2013-17 access arrangements should take effect from 1 July 2013 until 31 December 2013.

The AER considers that the interval of delay should not result in service providers incurring a windfall gain or loss, compared with what would have occurred if the 2013-17 access arrangements had taken effect from 1 January 2013. This approach is consistent with the efficiency objectives under the NGO and long term interest of gas consumers. This approach will also provide service providers with a reasonable opportunity to recover at least the efficient costs of providing reference services as approved in the access arrangements, consistent with the RPP.”

Given the manner in which the AER has indicated it will apply this provision, the Commission is satisfied that rule 92(3) can be relied upon to deal with the effect of any delay in ActewAGL’s gas access arrangement review process.

To give effect to the 12 month delay, the gas transitional rules will therefore:

⁵⁴⁹ AER, Access arrangement draft decision Envestra Ltd 2013-17 Part 1, September 2012, p277.

- allow the AER to extend the period for submitting an access arrangement revision proposal by up to 18 months under rule 52(3) of the NGR; and
- require the AER to exercise its power under the modified rule to extend ActewAGL's period for submission to 30 June 2015.

Finally, it is worth noting that while ActewAGL's revised access arrangement will be delayed by 12 months, the Commission expects that any true-up the AER carries out will result in the new NGR being effectively applied to the transitional year. The timing of the application of the new NGR to ActewAGL's gas distribution network should therefore be unchanged as a result of the 12 month delay.

12.11 Transitional arrangements to apply to 2015-2016 group of DNSPs

Energex, Ergon and SA Power Networks are currently required to submit their regulatory proposals to the AER by 31 May 2014 while CitiPower, Jemena, Powercor, SP AusNet (distribution) and United Energy are due to submit their proposals by 30 November 2014. Although the submission date for this group of NSPs is 6-12 months after the latest date by which the AER is required to finalise its guidelines, the 12 month delay to the 2014 group of NSPs' full determination process is expected to result in a material increase in the AER's workload over the period 31 May 2014 – 30 April 2015. Some insight into the workload the AER would face in this period if the 2015-2016 group were not subject to transitional arrangements can be found in the table below.

Table 12.5 Regulatory determinations in 2014-2015 if 12 month delay to 2014 group of NSPs and no delay to 2015-2016 group of DNSPs

NSP	Regulatory Determination Process
TransGrid and Transend	31 May 2014 - 30 April 2015*
ActewAGL, Ausgrid, Endeavour Energy and Essential Energy	31 May 2014 - 30 April 2015*
Directlink	31 May 2014 - 30 April 2015*
Ergon, Energex and SA Power Networks	31 May 2014 - 30 April 2015*
CitiPower, Jemena, Powercor, SP AusNet and United Energy	30 November 2014 - 31 October 2015*
NSW Gas access arrangement review	30 Jun 2014 – 31 May 2015

* Note that the length of this process assumes that these NSPs would not be subject to the extended consultation process.

To minimise the resourcing constraints that may otherwise exist in this period, the Commission has decided to delay the commencement of the regulatory determination processes for the 2015-2016 group of DNSPs by five months⁵⁵⁰ and require a 12 month, rather than a 15 month, regulatory determination process.

⁵⁵⁰ A delay of this length will eliminate any overlap between the Victorian regulatory determination process and the 2014 group of NSPs and Directlink regulatory determination processes. It will also reduce the overlap between the Queensland regulatory determination process and the 2014 group of NSPs and Directlink regulatory determination processes by five months.

A delay of this length will not give the AER enough time to make a final determination before the commencement of the next regulatory periods (1 July 2015 or 1 January 2016, as the case may be). However, it will provide the AER with sufficient time to make a preliminary determination⁵⁵¹ (equivalent in practice to a draft determination) two months before the commencement of that regulatory period. The Commission has therefore decided to apply the preliminary determination with mandatory re-opener model to this group of DNSPs.

At its most elementary, this model involves:

- using the AER's draft determination as a placeholder for a NSP's revenue requirement and prices until the final determination is made; and
- using an adjustment mechanism to account for any difference between the draft and final determinations.

This model is referred to as the "preliminary determination with mandatory re-opener model" because, from a legal perspective, a binding (final) determination must be in place prior to the start of a regulatory period. The application of this model therefore requires:

- a final determination to be made in advance of the regulatory control period. In effect, what would have been the draft determination under a full determination process becomes the final determination. Because of its subsequent re-opening, this determination is referred in this chapter to the "preliminary determination";
- a mandatory re-opening of the preliminary determination and the substitution of this determination with a new determination by the AER ("substitute determination"). In effect, the new determination is the final determination that would have arisen through the usual determination process; and
- any differences between the preliminary and substitute determinations to be accounted for in the substitute determination through a NPV neutral adjustment.

It is the Commission's intention that the decision-making rules that would ordinarily apply to the making of a final determination will apply equally to the making of the substitute determination. It is also intended that consultation between the preliminary and substitute determinations be equivalent to the process set out in clauses 6.10.2-6.10.3 of the NER. DNSPs will therefore have an opportunity to submit a revised regulatory proposal and other stakeholders will also have an opportunity to make written submissions.

Before setting out how this model will work in practice, it is worth noting that it has a number of distinct advantages over the placeholder with true-up model, which the Commission considers warrant its application when there is sufficient time to do so:

⁵⁵¹ This determination may be regarded as a 'preliminary determination' because it will be re-opened shortly thereafter.

- First, the process to be followed and the decisions that the AER is required to make are in all practical respects equivalent to those it would have to make under a standard regulatory determination process. This includes the consultation process between the preliminary and final determination, which is intended to be the same as that between a standard draft and final determinations;
- Second, the true-up can be seen as analogous to that which is required between a final determination and the outcome of a merits review at the moment, so the concept of this type of true-up is familiar to stakeholders;
- Third, it provides a more robust basis for establishing this group's annual revenue requirements and prices than the placeholder determination process because the determination will be made in accordance with the new Chapter 6 rules rather than the high level criteria outlined in section 12.10.1;
- Fourth, it overcomes the measurement issues associated with the placeholder with true-up model because the AER's preliminary determination will be made before the commencement of the regulatory period; and
- Fifth, it will provide the DNSPs and other stakeholders with a greater degree of certainty about how the rate of return will be measured before the commencement of the regulatory period than is provided under the placeholder with true-up model.

The preliminary determination with mandatory re-opener model also has a number of advantages over clause 6.11.3(b). This clause states that if a period intervenes between the end of one regulatory control period and the commencement of a new determination, then the prior determination continues in force and appropriate adjustments can be made in the later determination. The advantages that the preliminary determination with mandatory re-opener model has over this clause are that it will:

- allow the new rules to come into effect earlier than clause 6.11.3(b);
- be more likely to result in prices in the first regulatory year that are closer to those established in the substitute determination than what would occur if prices were carried over from the prior determination;
- provide NSPs and other stakeholders with a greater degree of certainty about the rate of return that will apply over the regulatory period before the commencement of the period; and
- avoid a number of measurement issues and the need to have a regulatory determination applying for a partial year (ie 4.5 years).

The remainder of this section sets out how the Commission intends the preliminary determination with mandatory re-opener model to be applied to the 2015-2016 group of DNSPs, with particular emphasis placed on:

- the key stages of the preliminary and substitute determination process;
- the operation of incentive schemes;
- the time at which changes between the preliminary and substitute determinations will be taken into account; and
- other aspects of the transitional rules that will apply to this group of DNSPs.

12.11.1 Stages of the preliminary and substitute determination process

The preliminary determination with mandatory re-opener model consists of the following stages:

- the framework and approach stage;
- the regulatory submission and consultation stage;
- the preliminary determination stage, which is equivalent in practice to a draft determination;
- the consultation between preliminary and substitute determination stages, which is equivalent in practice to what occurs between a draft and final determination; and
- the substitute determination stage, which is equivalent in practice to a final determination.

Further detail on each of these stages is provided below.

Framework and approach paper stage

Under the new Chapter 6 rules, if there is an existing framework and approach paper in place and a DNSP has not requested the AER to make an amended or replacement framework and approach paper, the AER will only be required to amend or replace the paper if it concludes that it is necessary or desirable to do so. Although there is some optionality around this provision, the Commission would expect the AER to publish a new or amended framework and approach paper for this group of DNSPs, because it will need to deal with a number of new issues that were not required under the old framework and approach paper provisions. It may also need to use the framework and approach paper to set out the manner in which incentive schemes will operate in the first year of the regulatory process.

In accordance with the transitional rules, the framework and approach paper will need to be published six months before the 2015-2016 group of DNSPs submit their regulatory proposals.

Submission of regulatory proposals and initial consultation stage

At the time the 2015-2016 group of DNSPs are due to submit regulatory proposals, there is still expected to be some workload congestion within the AER. It is not therefore possible to build in any additional consultation time in the lead up to the preliminary determination for the publication of an issues paper.

Although this group of DNSPs will not be subject to the extended regulatory process, they will still be required to submit an overview paper when lodging their regulatory proposals. They will also be subject to those rules that are intended to increase the level of customer engagement by NSPs when developing their regulatory proposal. In addition, the AER will be required to conduct a mandatory public forum on the regulatory proposals at the commencement of the process.

In accordance with the transitional rules, this group of DNSPs will be required to submit their regulatory proposals eight months before the commencement of the regulatory period.

Preliminary determination stage (equivalent in practice to a draft determination)

The transitional rules, in conjunction with Chapter 6 of the NER, require the AER to publish the preliminary determination⁵⁵² two months prior to the commencement of the regulatory period. The process that the AER will follow to make the preliminary determination will in practice be identical to the process it would have followed to make a draft determination. This determination will have the status of the final determination until it is replaced by the substitute determination. DNSPs will therefore be required to have recourse to the determination when preparing their annual pricing proposals for the first year of the regulatory period.

When making the preliminary and substitute determinations, the AER will apply the same NEL and Chapter 6 provisions, and hence if faced with the same information it could be expected to make the same decision in both cases. In practice the revised regulatory proposal and the responses of stakeholders to the preliminary determination provides the AER with additional information that could mean its substitute determination differs from the preliminary determination.⁵⁵³ It is possible therefore that the AER will have additional information when making the substitute determination as compared to the preliminary determination.

Notwithstanding this possibility, all stakeholders, including the AER and affected NSPs, have an interest in minimising the difference between the preliminary and substitute determinations to minimise the scale of any subsequent adjustment and

⁵⁵² As noted in the introduction to this section, the application of the preliminary determination with mandatory re-opener model requires a binding determination to be made in advance of the regulatory control period. So what would have been the draft determination under a full determination process becomes a final determination. Because of its subsequent re-opening, this determination is referred to in this chapter as the "preliminary determination".

⁵⁵³ Note that the transitional rules leave in place the same consultation provisions and requirement to provide a revised regulatory proposal as set out under the standard determination process set out in Chapter 6 of the NER.

price volatility. Minimising the extent of any difference can be helped by the AER, affected NSPs and other stakeholders:

- providing information to the AER as early as possible;
- engaging in as much consultation as possible and as early as possible in the regulatory determination process. The consultation requirements in the rules are only ever a minimum set of requirements and do not in any way restrict the degree of additional consultation that can be undertaken; and
- trying to establish areas of agreement amongst stakeholders on issues that might usually be left to later in the determination process

Consultation between the preliminary and substitute determination stages

As soon as the preliminary determination is made, the AER will be required to publish an invitation for written submissions on the revocation and substitution of that determination. Although it is necessary to give practical effect to these transitional arrangements by requiring the AER to re-open the preliminary determination, in all other respects the arrangements are intended to be equivalent to those that would normally apply between a draft and final determinations. The consultation process is therefore intended to be equivalent to the process that would normally apply between the draft and final determination stages. NSPs will therefore be required to submit their revised regulatory proposals and any other submissions to the AER within a specified period of time and other stakeholders will also have the opportunity to make submissions on the preliminary determination.

Workload congestion within the AER is expected to diminish at the end of April 2015 when the AER publishes its final determinations for the 2014 group of NSPs. Provision will therefore be made for an extra month to be built into the regulatory process between the preliminary and substitute determinations to provide:

- NSPs an additional 15 business days to prepare their revised regulatory proposals and other stakeholders an additional 15 business days to make any submissions to the AER; and
- the AER an additional five business days to make its substitute determination.

It is worth noting in this context that the Commission has considered whether any additional time should be made for the cross submission stage and other elements of the extended regulatory process. However, it is of the opinion that it was more important to have the substitute determination in place soon after the commencement of the regulatory period, given that certain elements of the substitute determination will become operative as soon as the determination is made (see section 12.11.3).

Substitute determination stage

The transitional rules require the AER to revoke the preliminary determination and replace it with the substitute determination⁵⁵⁴ no later than four months into the first year of the regulatory period. In making this substitute determination, the AER will be required to have regard to the same matters that it is usually required by Chapter 6 to consider when making a final determination.

The AER will also be required to make provision for any adjustment that may be required to account for differences between the preliminary and substitute determinations, including, if appropriate, by allowing adjustments to be made to an existing or future approved pricing proposal. In accordance with the transitional rules, any adjustment that may be required is to be carried out on a NPV neutral basis.

To ensure that any adjustment that may be required does not result in price volatility over years 2-5, the requirement for a final year X factor anchor point (clause 6.5.9(b)(2) of the NEL) to be used when smoothing will be removed for the purposes of the transitional rules only (see section 12.10.2 for further detail).

Finally, it is worth noting that the substitute determination will be subject to merits review under the NEL as reviewable regulatory decision because it will:

- be a distribution determination within the meaning of the NEL. This is because it will be a determination of the AER under the rules that regulates either the prices a DNSP can charge for direct control services (standard control services and alternative control services) or the revenues the DNSP can earn from the provision of those services; and
- “set a regulatory period” as the AER will be required, as part of making the substitute determination, to make a decision under clause 6.12.1(2)(ii) on the commencement and length of the regulatory control period.

Key dates

The key dates for the framework and approach paper, the submission of the regulatory proposal, the preliminary determination and the substitute determination for the 2015-2016 group of DNSPs are set out in the table below. As the information in this table reveals, the overall length of the regulatory determination process is 12 months.

⁵⁵⁴ As noted in the introduction to this section, the application of this model requires the mandatory re-opening of the preliminary determination and the substitution of this determination with a new determination made by the AER (“substitute determination”). In effect, the substitute determination is the final determination that would have arisen through the usual determination process.

Table 12.6 Key Dates for 2015-2016 Group of DNSPs

	Framework and Approach Paper Finalised	Regulatory Proposal Due	Preliminary Determination	Substitute Determination	Regulatory period*
Queensland and South Australian DNSPs	30 Apr 2014	31 Oct 2014	30 Apr 2015	31 Oct 2015	1 July 2015-30 June 2020
Victorian DNSPs	31 Oct 2014	30 Apr 2015	31 Oct 2015	30 Apr 2016	1 Jan 2016-31 Dec 2020

* Note that, with the agreement of the AER, a regulatory period of no less than three years or more than five years could be adopted.

12.11.2 Operation of incentive schemes

As set out in section 12.10.3, the Commission is of the view that incentive schemes should, to the extent it is possible and appropriate, apply in each year of the regulatory period. In keeping with this approach, the Commission is of the view that:

- to the extent possible, the whole suite of incentive schemes should operate as normal during the 2015-2016 group of DNSPs next regulatory period; and
- the proposed application of the incentive schemes should be set out in the AER's framework and approach paper and, where relevant, the AER should have the flexibility to apply schemes differently in the first year.

In relation to the application of the new review of efficiency of past capex provisions, the AER will have the ability to preclude capex from being rolled into the RAB where it is inefficient, represents non-arm's length margins or inappropriate capitalisation of expenditure. The AER's ability to exercise this discretion will, however, be limited to regulatory years following the publication of the capex incentive guidelines as set out in sections 9.4 and 9.5.

In relation to depreciation, the AER will have discretion to decide whether actual or forecast capex will be used to establish the opening value of the RAB for the following regulatory period.

12.11.3 Accounting for differences between determinations

The preliminary determination will be made two months before the commencement of the 2015-2016 group of DNSPs' regulatory periods and will remain in place until the AER revokes and replaces it with the substitute determination. The remainder of this section sets out the Commission's views on the time at which changes between the preliminary and substitute determinations should be taken into account.

Changes in the prices of standard control services

Once the AER releases the preliminary determination, DNSPs will be required to prepare their annual pricing proposal for the first year of the regulatory period. To provide retailers and end-users with some certainty about the prices to be paid for

standard control services in the first year, the Commission expects the price of standard control services appearing in the approved pricing proposal to be maintained in that year.

Any adjustments that may be required to account for differences between the price of standard control services established in the preliminary and substitute determinations and the fact that this element of the preliminary determination will prevail throughout year 1, should therefore be carried out in years 2-5.

Changes in the price of alternative control services

The alternative control services provided by the 2015-2016 group of DNSPs consist of a mixture of services that can be subject to a true-up adjustment (eg public lighting and metering services) and those that cannot (eg fee services and quoted services). The Commission's view on how changes in the price of alternative control services between the preliminary and substitute determinations should be dealt with can be summarised as follows:

- for those services that can be subject to a true-up adjustment, the Commission expects the prices appearing in the approved pricing proposal to be maintained for the duration of the first year and any true-up to be applied in years 2-5; and
- for those services that *cannot* be trued-up, the Commission is of the view that these prices should be revised as soon as the substitute determination is made.

A different approach can be applied to the latter types of alternative control services because there is no other avenue for the DNSPs to recoup (repay) the difference between the preliminary and substitute determinations. Allowing prices to be revised as soon as the substitute determination is made will therefore minimise the effect of any loss (gain) that may otherwise arise if the substitute determination allows higher (lower) prices.

Ancillary issues

To the extent that there is any change in position by the AER between the preliminary determination and the substitute determination on matters that do not affect the price of standard control services, these should take effect as soon as the substitute determination is made. These elements include:

- pass through events;
- the negotiation framework;
- the negotiated distribution service criteria;
- the procedures for assigning/reassigning retail customers in relation to tariff classes;
- the proposed methodology for transmission standard control services; and

- the application of Part J of Chapter 6A to services provided by dual function assets.

12.11.4 Length of the regulatory period

In addition to giving effect to the preliminary determination with re-opener model, the transitional rules also allow the 2015-2016 group of NSPs to propose, and permit the AER to approve, a regulatory period less than five years but not less than three years. This provision has been incorporated into the transitional rules to enable the NSPs and the AER to optimise the alignment of regulatory reviews across all NSPs (see section 12.10.2).

12.11.5 Consistency of the transitional arrangements with principles

To summarise, the Commission has decided to delay the regulatory determination process for the 2015-2016 group of DNSPs by five months and to use the preliminary determination with mandatory re-opener model to deal with this delay. The Commission's view on the consistency of these transitional arrangements with the principles set out in section 12.2 can be summarised as follows:

- *Principle 1: final rules to apply as soon as possible* – Apart from the extended regulatory determination process, the new rules and guidelines will apply to this group of DNSPs from the commencement of the next regulatory period.
- *Principle 2: sufficient time for consultation* - The consultation period for the preliminary and substitute determinations is one month longer than the existing 11 month period and will therefore provide sufficient time for consultation.
- *Principle 3: opportunity to recover at least efficient costs* - The application of this transitional arrangement will have no adverse effect on the ability of the DNSPs to recover at least their efficient costs because the new rules and guidelines will apply over the entire period and any difference between the preliminary and substitute determinations will be accounted for through appropriate adjustments carried out on a NPV neutral basis.
- *Principle 4: arrangements practicable having regard to resourcing constraints* – A five month delay to the commencement of the 2015-2016 group of DNSPs' regulatory determination processes will ameliorate the workload congestion that would otherwise exist within the AER between 31 May 2014 and 30 April 2015 if the arrangements were not implemented. Although there will still be a degree of overlap during this period, the AER has informed the Commission that the proposed arrangements are workable.
- *Principle 5: minimising price volatility* – there is no a priori reason to expect that the application of this transitional arrangement will result in one-off price shocks. Indeed, the Commission considers this approach has the potential to minimise shocks to a greater extent than the placeholder with true-up model because the

preliminary determination is made by applying the same legal requirements as the substitute determination.

Overall, the Commission is of the opinion that the transitional arrangements to be applied to the 2015-2016 group of NSPs are consistent with the principles set out in section 12.2, and the NEO and the RPP, more generally (see sections 2.4-2.6).

12.12 Transitional arrangements to be applied to Directlink

Directlink is currently due to submit its regulatory proposal to the AER by 31 May 2014 and its next regulatory period is due to commence on 1 July 2015.

Given the relatively small size of Directlink, the Commission has decided not to subject it to the same transitional arrangements that have been proposed for both the 2014 and 2015-2016 groups of NSPs. The new rules will therefore apply to Directlink from the commencement of the next regulatory period.

Although Directlink's regulatory determination process will not be delayed, the timing of its next regulatory period is such that transitional rules are required to:

- enable the final form of the AER's guidelines to be taken into account during the framework and approach paper process. To this end, the framework and approach paper will be required to be finalised by 31 January 2014 (see section 12.10.4); and
- reduce the length of the regulatory determination process from 15 months to 11 months. Although Directlink will not be subject to the extended regulatory determination process, it will still be required to submit an overview paper with its regulatory proposal and will be subject to the new rules that are intended to increase the level of customer engagement by NSPs when developing their regulatory proposals. The AER will also be required to conduct a mandatory public forum on Directlink's regulatory proposal.

12.13 Summary and timetable for next round of determinations

The Commission's decision on the NSPs that should be subject to the transitional arrangements and the form that these arrangements should take can be summarised as follows:

- SP AusNet (transmission) will be subject to the old Chapter 6A rules for three years before transitioning to the new rules on 1 April 2017;
- ActewAGL, Ausgrid, Endeavour Energy, Essential Energy, TransGrid and Transend (the 2014 group of NSPs) will have their full regulatory determination processes delayed by 12 months and will be subject to the placeholder with true-up model. Given the limited time available, the regulatory determination process will be carried out over an 11 month period rather than a 15 month period;

- Energex, Ergon, SA Power Networks, CitiPower, Jemena, Powercor, SP AusNet and United Energy (the 2015-2016 group of DNSPs) will have their regulatory determination processes delayed by five months and will be subject to the preliminary determination with mandatory re-opener model. At the time these determinations processes are due to commence, there will still be some workload congestion for the AER. The regulatory determination processes will therefore be carried out over a 12 month period rather than a 15 month period;
- Directlink will not be subject to a delay in its regulatory determination process. However, because there is limited time available between the last date by which the AER's guidelines are to be finalised and its regulatory period, Directlink's regulatory determination process will be carried out over an 11 month period rather than a 15 month period; and
- Aurora, Powerlink, ElectraNet and Murraylink will be subject to the new rules, including the 15 month extended regulatory determination process, for their next regulatory periods.

To give effect to these arrangements, separate transitional rules have been developed for SP AusNet (transmission), the 2014 group of NSPs, the 2015-2016 group of DNSPs and Directlink. Transitional rules have also been developed to:

- require the AER to finalise all of the guidelines by 29 November 2013 and issue a statement by 21 December 2012 setting out its proposed schedule and the consultation procedure to be followed when preparing the guidelines; and
- specify when the AER's review of capex, for the purpose of identifying inefficient capex, non-arm's length margins and /or expenditure that is capitalised inappropriately, can commence.

These transitional rules are set out in Part ZW in Chapter 11.

The effect that these transitional rules will have on the regulatory determination process can be seen in Table 12.6, which sets out the timetable for the next round of regulatory determinations.

In addition to these electricity related transitional rules, a transitional rule has been included in the NGR to enable ActewAGL's proposed revisions to the ACT, Queanbeyan and Palerang gas distribution network access arrangement to be delayed by one year.

Table 12.7 New timetable for regulatory determination processes

NSP	Form of Transitional Arrangement	Next Regulatory Period		Framework and Approach	Regulatory Process				
		Length	Dates		Consultation Commences*	Paper Published	Regulatory Proposal Due	Draft Decision*	Final Decision
Transmission									
SP AusNet (Vic)	Next Determination	3 years	1 Apr 2014 -31 Mar 2017	n.a.	n.a.	28 Feb 2013	31 Aug 2013*	31 Jan 2014	11 months
	Subsequent Determination	5 years	1 Apr 2017-30 Mar 2022	30 Sep 2014 [§]	30 Apr 2015	31 Oct 2015	30 Jun 2016*	31 Jan 2017	15 months [†]
TransGrid, Transend (NSW and Tas)	Placeholder Determination	1 year	1 Jul 2014- 30 Jun 2015	n.a.	n.a.	31 Jan 2014	n.a.	31 Mar 2014	2 months
	Full Determination	4 years [¶]	1 Jul 2015- 30 Jun 2019	30 Nov 2013	31 Jan 2014	31 May 2014	30 Nov 2014*	30 Apr 2015	11 months [^]
Directlink (Interconnector btw Qld and NSW)	New rules	9 years*	1 Jul 2015-30 Jun 2024	30 Nov 2013 [§]	31 Jan 2014	31 May 2014	30 Nov 2014*	30 Apr 2015	11 months [^]
Powerlink (Qld)	No transitional arrangements [§]	5 years	1 Jul 2017- 30 Jun 2022	31 Dec 2014 [§]	31 Jul 2015	31 Jan 2016	30 Sep 2016*	30 Apr 2017	15 months [†]
ElectraNet (SA)		5 years	1 Jul 2018- 30 Jun 2023	31 Dec 2015 [§]	31 Jul 2016	31 Jan 2017	30 Sep 2017*	30 Apr 2018	15 months [†]
Murraylink (Interconnector btw Vic and SA)		10 years ⁺	1 Jul 2023- 30 Jun 2033	31 Dec 2020 [§]	31 Jul 2021	31 Jan 2022	30 Sep 2022*	30 Apr 2023	15 months [†]
Distribution									
ActewAGL, Endeavour Energy, Essential Energy and Ausgrid (ACT and NSW)	Placeholder Determination	1 year	1 Jul 2014-30 Jun 2015	n.a.	n.a.	31 Jan 2014	n.a.	30 Apr 2014	3 months
	Full Determination	4 years [¶]	1 Jul 2015-30 Jun 2019	Part 1: 31 Oct 2012 Part 2: 30 Nov 2013	Part 1: 31 Mar 2013 Part 2: 31 Jan 2014	31 May 2014	30 Nov 2014*	30 Apr 2015	11 months [^]
Ergon, Energex and SA Power Networks (Qld and SA)	Preliminary Determination with mandatory re-opener	5 years [¶]	1 Jul 2015-30 Jun 2020	30 Sep 2013	30 Apr 2014	31 Oct 2014	30 Apr 2015 [°]	31 Oct 2015	12 months*
	No transitional arrangements	5 years	1 Jan 2016-31 Dec 2020	31 Mar 2014	31 Oct 2014	30 Apr 2015	31 Oct 2015 [°]	30 Apr 2016	12 months*
Aurora Energy (Tas)	No transitional arrangements	5 years	1 Jul 2017- 30 Jun 2022	31 Dec 2014	31 Jul 2015	31 Jan 2016	30 Sep 2016*	30 Apr 2017	15 months [†]

Notes: * Indicative dates only because the dates for making a draft determination are not prescribed in the rules + Estimate only based on an assumption that Murraylink and Directlink seek to maintain the existing term of their regulatory periods. ° The transitional rules allow for a shorter regulatory period if the NSP proposes a shorter period and the AER approves the proposal. § Mandatory framework and approach stage because it is the first one for this NSP. ¶ These dates are fixed because the preliminary determination must be made two months before the commencement of the regulatory period. Key to elements of extended regulatory process: ^ Overview paper and mandatory public forum † All elements of extended regulatory process # Overview paper, mandatory public forum, additional time for NSP to submit revised regulatory proposal, and additional time for stakeholders to make submissions on draft determination and revised regulatory proposal.

13 Gas transitional arrangements

Summary

- The only change in this final rule determination that affects the NGR is the amendment to the rate of return provisions.
- A key element of these provisions is the requirement for the relevant regulator to develop guidelines setting out the approach it intends to take when estimating a service provider's rate of return. The new rule will require these guidelines to be finalised by 29 November 2013.
- ATCO Gas' Mid-West and South-West Gas Distribution System and APA Group's Goldfields Gas Pipeline are the only pipelines affected by the timing of the implementation of the new framework.
- To ensure that the new rate of return framework can be applied to these two pipelines in the next round of access arrangement reviews, the transitional arrangements will permit:
 - the next Mid-West and South-West Gas Distribution System access arrangement revisions to be submitted by ATCO Gas up to three months after the ERA publishes the final rate of return guidelines; and
 - the next Goldfields Gas Pipeline access arrangement revisions to be submitted by APA Group up to six months after the ERA publishes the final rate of return guidelines.
- To the extent that the postponement of the proposed access arrangement revisions gives rise to a delay in the commencement of the revisions, the following will occur:
 - the reference tariffs in force at the end of the existing access arrangement will continue without variation; and
 - the ERA will be allowed to take into account the effect of any delay when setting reference tariffs in the new access arrangement period.

13.1 Introduction

The only change in this final rule determination that affects the NGR is the amendment to the rate of return provisions (see chapter 6). A key element of the new arrangements is the requirement for both the AER and the ERA to develop guidelines that set out the approach they intend to take to estimate the rate of return required by service providers (see section 6.5). Although the rate of return is determined as part of each access arrangement decision, the guidelines are an important part of the process and the Commission expects the guidelines to act as the starting point for each decision. In

accordance with the new rule, the AER and the ERA will be required to publish the final rate of return guidelines by 29 November 2013.

Based on the current timetable for access arrangement revisions, the only gas service providers that will be affected by the timing of the implementation of the new rate of return framework are:⁵⁵⁵

- ATCO Gas, which is due to submit its proposed revisions to the Mid-West and South-West Gas Distribution System access arrangement five months before the ERA is due to publish the final rate of return guidelines, on 1 July 2013; and
- APA Group, which is due to submit its proposed revisions to the Goldfields Gas Pipeline access arrangement one month after the ERA is due to publish the final rate of return guidelines, on 1 January 2014.

Given the overlap between the rate of return guideline development process and the access arrangement review process, the Commission has given further consideration to the transitional arrangements that could be put in place to:

- ensure that the new rate of return framework is applied to both ATCO Gas and APA Group during the next access arrangement review process;
- provide ATCO Gas and APA Group with sufficient opportunity to take into account the ERA's rate of return guidelines when developing their respective access arrangement revisions;
- ensure that ATCO Gas and APA Group have a reasonable opportunity to recover at least the efficient costs; and
- minimise the resourcing burden that the transitional arrangements and guideline development processes could otherwise place on the ERA and other stakeholders.

The remainder of this chapter is structured as follows:

- Section 13.2 provides further detail on the consultation process and the transitional arrangements that were proposed in the 14 September 2012 consultation paper;
- Section 13.3 summarises the submissions received in response to the consultation paper;
- Section 13.4 sets out the Commission's analysis of the alternative transitional arrangements that have been proposed for ATCO Gas and APA Group and its final determination on the form that these arrangements should take; and
- Section 13.5 provides guidance on the final rule.

⁵⁵⁵ All other gas service providers in eastern and Western Australia are due to submit revised access arrangements from mid-2014 onwards.

13.2 Consultation process

On 14 September 2012, the AEMC published a consultation paper on the arrangements that could be applied to both gas and electricity service providers to facilitate the transition to the new rule and on 28 September 2012 conducted a stakeholder workshop. The consultation paper, amongst other things, set out:

- the principles that the Commission considered should guide the development of any transitional arrangements (see section 3.6); and
- the arrangements that could be put in place to facilitate the transition of ATCO Gas and APA Group to the new rate of return framework.

An overview of the transitional arrangements that were proposed in the consultation paper is provided below.

13.2.1 Transitional arrangements proposed for ATCO Gas

ATCO Gas is currently due to submit its proposed revisions to the Mid-West and South-West Gas Distribution System access arrangement to the ERA on 1 July 2013, with the revisions to take effect from 1 July 2014. If the current timetable is maintained, ATCO Gas would submit its proposed access arrangement revisions five months before the ERA is required to publish its final rate of return guidelines (29 November 2013).

To enable the new rate of return framework to be applied to ATCO Gas in the next access arrangement period and to ensure that ATCO Gas would have an opportunity to take into account the final guidelines, the consultation paper proposed that ATCO Gas:

- prepare its proposed revisions to the Mid-West and South-West Gas Distribution System access arrangement on the basis of the draft rate of return guidelines;
- submit its proposed revisions one month after the scheduled review submission date (1 August 2013) so that it had time to take into account the ERA's draft rate of return guidelines before submitting its proposed revisions; and
- be given the opportunity to amend its proposed revisions if there was a material difference between the draft and final versions of the guidelines.

13.2.2 Transitional arrangements proposed for APA Group

APA Group is currently due to submit its proposed revisions to the Goldfields Gas Pipeline access arrangement to the ERA on 1 January 2014, with the revisions to take effect from 1 January 2015. If the current timetable is maintained, APA Group would be required to submit its proposed access arrangement revision one month after the ERA is required by the new rule to publish its final rate of return guidelines.

To ensure that APA Group had sufficient time to take into account the final guidelines, the consultation paper proposed that APA Group:

- prepare its proposed revisions to the Goldfields Gas Pipeline access arrangement on the basis of the draft rate of return guidelines; and
- be given the opportunity to amend its proposed revisions if there was a material difference between the draft and final versions of the guidelines.

13.3 Submissions on consultation paper

Responses to this element of the consultation paper were received from the ERA, ATCO Gas and APA Group.

Overall, it appears that ATCO Gas and APA Group accept the premise upon which the transitional arrangements outlined in the consultation paper were based.⁵⁵⁶ That is, they accept that some form of transitional arrangement is required to enable the new rate of provisions to be applied in their next access arrangement review process.⁵⁵⁷ That said, they do have some concerns with the scope of the arrangements proposed in the consultation paper.

ATCO Gas' concerns primarily relate to:

- the requirement that it prepare its proposed access arrangement revisions on the basis of the draft rather than the final rate of return guidelines,⁵⁵⁸ and
- the limited time it would have to take into account the draft guidelines before submitting its proposed access arrangement revisions and to subsequently amend its proposal once the final guidelines are published.⁵⁵⁹

Given its concerns with these elements of the proposal set out in the consultation paper, ATCO Gas proposes the use of an alternative arrangement that would involve:

- postponing the Mid-West and South-West Gas Distribution System review submission date to the later of 1 January 2014 and 3 months after the publication of the final rate of return guidelines;⁵⁶⁰

⁵⁵⁶ APA Group, Draft Rule Determination submission, 4 October 2012, pp. 3-4 and ATCO Gas, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 8.

⁵⁵⁷ APA Group, Draft Rule Determination submission, 4 October 2012, pp. 3-4 and ATCO Gas, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 8.

⁵⁵⁸ ATCO Gas, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 6.

⁵⁵⁹ ATCO Gas, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, pp. 3-4.

⁵⁶⁰ ATCO Gas, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 1.

- postponing the Goldfields Gas Pipeline review submission date by a further six months to minimise the effect of the delay in the Mid-West and South-West Gas Distribution System review process on the ERA's work program;⁵⁶¹ and
- accounting for the effect of any delay in the revisions commencement date specified in the Mid-West and South-West Gas Distribution System and Goldfields Gas Pipeline in accordance with rule 92(3) of the NGR, which ATCO Gas submits provides for:⁵⁶²
 - the reference tariffs prevailing at the end of the current access arrangement period to continue to operate; and
 - a NPV based true-up to occur when the access arrangement revisions come into effect.

In a similar manner to ATCO Gas, APA Group has some concerns with the proposal that it prepare the Goldfields Gas Pipeline access arrangement revisions on the basis of the draft, rather than the final rate of return guidelines. In APA Group's view, ATCO Gas and APA Group should have at least three months after the finalisation of the rate of return guidelines to submit their proposed access arrangement revisions.⁵⁶³ APA Group is also of the view that:⁵⁶⁴

- any revisions required as a result of a trigger event (rule 51) should be subject to the same transitional arrangements; and
- any delay in the revisions commencement date arising as a result of the postponement of review submission dates should be dealt with through rule 92(3).

In contrast to the position taken by ATCO Gas and APA Group, the ERA is of the opinion that the transitional arrangements outlined in the consultation paper are unnecessary and could give rise to significant resourcing constraints within the ERA.⁵⁶⁵ Specifically, the ERA is of the opinion that: ⁵⁶⁶

- a one month delay to ATCO Gas' review submission date is unnecessary because the processes to develop the rate of return guidelines and to evaluate ATCO Gas' proposed access arrangement revisions are complementary, not sequential;

⁵⁶¹ ATCO Gas, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 4.

⁵⁶² ATCO Gas, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 2.

⁵⁶³ APA Group, Draft Rule Determination submission, 4 October 2012, p. 4.

⁵⁶⁴ APA Group, Draft Rule Determination submission, 4 October 2012, p. 4.

⁵⁶⁵ ERA WA, Consultation Paper on Savings and Transitional Arrangements submission, 18 October 2012, pp. 1-3.

⁵⁶⁶ ERA WA, Consultation Paper on Savings and Transitional Arrangements submission, 18 October 2012, pp. 2-3.

- a transitional provision allowing amendments to be made to ATCO Gas' and APA Group's proposed access arrangements is also unnecessary because the ERA intends to publish the final guidelines before the ATCO Gas draft decision. The ERA submits that by publishing the final guidelines at this stage both service providers would have an opportunity to revise their proposed access arrangements; and
- any delay in the access arrangement review process could impose significant costs on the ERA and other stakeholders and place significant pressure on the ERA's constrained resources.

In subsequent discussions with the ERA about the ATCO Gas and APA Group proposal, the ERA maintained its view that the guideline and access arrangement review processes could be undertaken concurrently. The ERA noted, however, that if the review submission date for the Mid-West and South-West Gas Distribution System is to be deferred until three months after the release of the final rate of return guidelines, the transitional arrangements should:

- enable the review submission date for the Goldfields Gas Pipeline to be deferred by up to six months after the guidelines are finalised; and
- be sufficiently flexible to deal with:
 - any changes in the timing of the release of the final rate of return guidelines; and
 - the potential for ATCO Gas and APA Group to submit their proposed access arrangement revisions earlier, if they are in a position to do so.

The ERA also noted that any delay in the revisions commencement date arising as a result of the postponement of the review submission date could be accommodated through the operation of rule 92(3),⁵⁶⁷ which allows for the effect of any delay on reference tariffs to be trued-up in the subsequent regulatory period.

Finally, it is worth noting that the Commission also received a submission from ActewAGL on the transitional arrangements that could be applied to its gas distribution network to accommodate the electricity transitional arrangements. This matter is dealt with in section 12.10.7.

13.4 Analysis

To enable the new rate of return framework to be applied in the next round of access arrangement reviews, transitional arrangements are required for ATCO Gas' Mid-West and South-West Gas Distribution System and APA Group's Goldfields Gas Pipeline. In the consultation paper published on 14 September 2012, the Commission set out one way in which the transitional arrangements could operate.

⁵⁶⁷ Further detail on rule 92(3) can be found in the following section.

This proposal did not receive any support from the ERA or the two service providers that would be the subject of the arrangements. In short, the ERA is of the view that transitional arrangements are unnecessary, while ATCO Gas and APA Group are of the opinion that the arrangements outlined in the consultation paper do not go far enough.

Given the diversity of positions taken on this issue, the Commission has given further consideration to:

- the necessity for any transitional arrangements; and
- the form that any transitional arrangements should take.

Further consideration has also been given to the development process for the rate of return guidelines.

The Commission's assessment of each of these issues is set out in the remainder of this section.

13.4.1 Guideline development

In the draft rule determination and draft rule the Commission set out a timetable for the development of the rate of return guidelines. The Commission has given further consideration to whether this level of prescription is required in the rule and is now of the opinion that:

- the NGR should simply require the first guidelines to be finalised by 29 November 2013; and
- the relevant regulator should have some flexibility to determine the dates on which key milestones will be achieved.

To ensure that service providers and other stakeholders have sufficient notice and certainty upfront, the ERA and the AER will be required by the transitional provisions to publish a statement by 21 December 2012 that sets out:

- the proposed schedule, including milestones and dates, for the rate of return guidelines; and
- the specific consultation procedure to be followed for the rate of return guidelines, which must be consistent with the rate of return consultative procedures.

13.4.2 Need for transitional arrangements

Under the new rate of return framework, the ERA will be required to develop guidelines that set out the methodologies that it intends to have regard to when determining the rate of return for service providers (see section 6.5).

As noted in section 6.5, the guidelines will not be binding. However, the Commission expects service providers, the ERA and the appeal body to have regard to them as a starting point for each access arrangement decision. If a service provider wishes to depart from the methodologies specified in the guidelines, then it must clearly set out in its access arrangement information the reasons for the proposed departure. The rate of return guidelines are therefore intended to play an integral role in the access arrangement review process.

Although the new rule will take effect on 29 November 2012, the guidelines are not required to be finalised until the end of November 2013. There will therefore be a gap between the date the new rule comes into effect and when the guidelines are in place.

The Commission disagrees with the position taken by the ERA that no transitional arrangements are required and notes that some form of the guidelines must be in place when ATCO Gas and APA Group are preparing their proposed access arrangement revisions. Whether or not it is the draft or final version of the guidelines is a separate question, which is considered in further detail in the following section. For current purposes, it is sufficient to note that the degree of overlap between the two processes means that without transitional arrangements:

- ATCO Gas is unlikely to have access to any form of the guidelines when preparing its proposed revisions; and
- APA Group would have less than a month to take into account the final guidelines when preparing its proposed revisions.

Given this overlap, the Commission remains of the view that transitional arrangements are required to ensure the new rate of return framework can be applied to ATCO Gas and the APA Group in the next access arrangement review process.

13.4.3 Initial submission based on draft or final guidelines

One of the issues raised in the ATCO Gas and APA Group submissions is whether the two service providers should be required to prepare their access arrangement revisions on the basis of either:

1. the draft rate of return guidelines and then have the opportunity to amend their respective proposed revisions once the guidelines are finalised; or
2. the final rate of return guidelines.

At the time the consultation paper was prepared, the first of these options was considered more appropriate because it minimised the potential for any delay in the revisions commencement date for the two pipelines in question. On reflection, the Commission accepts that, given the important role the rate of return guidelines are expected to play in an access arrangement review process, this option is not ideal. The Commission also recognises the potential for this option to result in:

- higher regulatory costs and delays to the review process, if there is a significant change in the ERA's position between the draft and final guidelines; and
- a greater burden being placed on the ERA, service providers and other stakeholders at a stage in the process where there is limited time available to the ERA to make its final decision.

The Commission has therefore given further consideration to the second option. On the one hand, this option is likely to result in lengthier delays to the commencement of revisions but on the other hand it will circumvent the need for:

- ATCO Gas and APA Group to amend their proposed access arrangement revisions once the guidelines are finalised; and
- any further consultation during the access arrangement review process.

Another benefit of this option is that it will provide the two service providers with greater certainty and clarity about how the ERA intends to apply the new rate of return framework, when preparing their respective proposals.

On balance, the Commission is of the view that the benefits of having the final guidelines in place before requiring revisions to be submitted to the ERA are likely to outweigh the effect of any delay in the commencement of the revised access arrangements. It follows that, in the Commission's view, the proposal to postpone the Mid-West and South-West Gas Distribution System and Goldfields Gas Pipeline access arrangement review processes is appropriate.

The implications that the Commission's position on this issue will have for the transitional arrangements to be applied to ATCO Gas' Mid-West and South-West Gas Distribution System and APA Group's Goldfields Gas Pipeline are considered in the following section.

13.4.4 Form of the transitional arrangements

To give effect to the position outlined above, the transitional provisions, in conjunction with the existing NGR, will need to specify:

- the time by which the proposed access arrangement revisions for the Mid-West and South-West Gas Distribution System and the Goldfields Gas Pipeline are to be submitted to the ERA;
- how any delays between the revision commencement date specified in the Mid-West and South-West Gas Distribution System and Goldfields Gas Pipeline access arrangements and the date the revisions actually take effect will be dealt with; and
- what will happen if a trigger event occurs before the ERA's guidelines are finalised.

These matters are considered, in turn, below.

Review submission dates

To ensure that ATCO Gas and APA Group have sufficient time to take into account the final guidelines when preparing their proposed access arrangement revisions, the Commission has given further thought to the extension that may be required.

ATCO Gas and APA Group have both suggested that they should have at least three months between the release of the final guidelines and the date by which they will be required to submit their proposed access arrangement revisions.

To get an understanding of the effect that this type of delay would have on the ERA's resources, the AEMC has had further discussions with the ERA. The ERA has informed the AEMC that if a three month gap is applied to the Mid-West and South-West Gas Distribution System then, from a resourcing perspective, the Goldfields Gas Pipeline review should commence within six months of the release of the guideline.

The ERA has also suggested that, rather than defining a specific date for the revision submission date, the transitional provisions should state that the Mid-West South-West Gas Distribution System (Goldfields Gas Pipeline) revisions are to be submitted within three (six) months of the release of the final guidelines. The ERA has informed the AEMC that this type of reference point would enable the timing of the revision submission date to be varied if the guidelines were either early or late.

The Commission agrees with the ERA that there should be sufficient flexibility in the transitional arrangements to deal with:

- any changes in the timing of the release of the final rate of return guidelines; and
- the potential for ATCO Gas and APA Group to submit their proposed access arrangement revisions earlier, if they are in a position to do so.

The only outstanding issue that must be considered in this context is the length of time that ATCO Gas and APA Group will require to take into account the final form of the guidelines in their proposed access arrangement revisions.

The Commission does not have a definitive view on this issue because the time required will depend on, amongst other things, the materiality of the change in the ERA's position between the draft and final version of the guidelines and the overall complexity of the guidelines. The decision that follows should not therefore be construed as representing the Commission's general position on the length of time a service provider would need to submit their regulatory proposal following the finalisation of the guidelines.

For the purposes of these transitional arrangements, the Commission has had regard to the following matters when forming its view on the length of time that ATCO Gas and APA Group should have to submit their proposed access arrangement revisions:

- the suggestion made by both ATCO Gas and APA Group that there should be at least a three month gap between the finalisation of the ERA's guidelines and their respective review submission dates;
- the ERA's preference for the Mid-West and South-West Gas Distribution System and Goldfields Gas Pipeline access arrangement review processes to be staggered; and
- the ERA's suggestion that sufficient flexibility should be built into the transitional arrangements to allow ATCO Gas and APA Group to submit their proposed revisions earlier, if they are in a position to do so.

Taking all of these factors into account, the Commission is of the view that the transitional arrangements should permit:

- the next Mid-West and South-West Gas Distribution System access arrangement revisions to be submitted by ATCO Gas up to three months after the ERA publishes the final rate of return guidelines; and
- the next Goldfields Gas Pipeline access arrangement revisions to be submitted by APA Group up to six months after the ERA publishes the final rate of return guidelines.

It is worth noting in this context that the Commission's position on the Mid-West and South-West Gas Distribution System review submission date differs somewhat from ATCO Gas' proposal. Under ATCO Gas' proposal, it would be required to submit its revisions by the later of 1 January 2014 and three months after the publication of the guidelines.

The Commission understands that the reference point of 1 January 2014 was intended to provide ATCO Gas and other stakeholders with a degree of certainty about the earliest date by which revisions would need to be submitted.⁵⁶⁸ In the Commission's view, sufficient clarity about the date by which the revisions are required to be submitted will be provided by:

- the new rule, which specifies the last date by which the guidelines are to be finalised (29 November 2013); and
- the statement that the ERA will be required to publish by 21 December 2012, which sets out its proposed schedule, including milestones and dates, for the rate of return guidelines.

The Commission does not therefore consider it necessary to incorporate the 1 January 2014 reference point in the transitional provisions.

⁵⁶⁸ ATCO Gas, Consultation Paper on Savings and Transitional Arrangements submission, 25 October 2012, p. 13.

Finally, it is worth noting that the Commission is cognisant of the constraints that the ERA faces and appreciates the flexibility it has shown in offering to accommodate any delay in the access arrangement review processes.

Accounting for the effect of delays to the revision commencement date

Postponing the Mid-West and South-West Gas Distribution System and Goldfields Gas Pipeline review submission dates is expected to result in a delay in the commencement of the access arrangement revisions for these two pipelines. Although not ideal, there are existing provisions within the NGR that set out what is to occur when there is a delay between the revision commencement date specified in an access arrangement and the date on which revisions actually commence. Specifically, rule 92(3) states that:

“...if there is an interval (the **interval of delay**) between a revision commencement date stated in a full access arrangement and the date on which revisions to the access arrangement actually commence:

- (a) reference tariffs, as in force at the end of the previous access arrangement period, continue without variation for the interval of delay; but
- (b) the operation of this subrule may be taken into account in fixing reference tariffs for the new access arrangement period.”

In the course of its discussions with the Commission about the effect of postponing the Mid-West and South-West Gas Distribution System and Goldfields Gas Pipeline review submission dates, the ERA has confirmed that rule 92(3) could accommodate any delay in the commencement of the revisions. The Commission also understands that the ERA has used this provision to deal with delays in the commencement date of both the 2010-2014 Mid-West and South-West Gas Distribution System access arrangement⁵⁶⁹ and the 2011-2015 Dampier to Bunbury Natural Gas Pipeline access arrangement.⁵⁷⁰ In both of these cases, the reference tariffs prevailing at the end of the previous access arrangement period continued for the duration of the delay and a NPV neutral true-up was carried out on a smoothed basis when the new reference tariffs were approved.⁵⁷¹

Given the manner in which this provision has been utilised by the ERA, the Commission is satisfied that rule 92(3) can be relied upon to deal with the effect of any delay between:

- the revision commencement date specified in the Mid-West and South-West Gas Distribution System and Goldfields Gas Pipeline access arrangements; and

⁵⁶⁹ ERA, Final Decision on WA Gas Networks Pty Ltd proposed revised access arrangement for the Mid-West and South-West Gas Distribution Systems, 28 February 2011, para 764.

⁵⁷⁰ ERA, Final Decision on Proposed Revisions to the Access Arrangement for the Dampier to Bunbury Natural Gas Pipeline, 31 October 2011, para 797.

⁵⁷¹ See for example, para 764 of ERA, Final Decision on WA Gas Networks Pty Ltd proposed revised access arrangement for the Mid-West and South-West Gas Distribution Systems, 28 February 2011.

- the date that the revisions actually take effect for these two pipelines.

No additional transitional provisions are therefore required to deal with this type of delay.

One final point that is worth noting in this context, is that during its discussions with the Commission, the ERA noted the potential for a delay in the commencement date of the Mid-West and South-West Gas Distribution System access arrangement to give rise to bridging finance related costs. The Commission is aware that this was an issue in the last access arrangement review process⁵⁷² and recognises the potential for it to recur if there is a significant delay in the revisions commencement date. However, the Commission is of the view that the ERA is best placed to deal with this issue when assessing ATCO Gas' proposed access arrangement provisions. No provision has therefore been made within the transitional provisions to deal with this issue.

Effect of trigger mechanisms

The final matter that the Commission has considered is whether transitional arrangements may be required to deal with trigger events that would otherwise require the submission of revisions before the rate of return guidelines are finalised.⁵⁷³

At the outset it is worth noting that the Commission recognises the important role that trigger events can play in an access arrangement. That said, it is possible that if these mechanisms are triggered before the ERA finalises the guidelines they could undermine the transitional arrangements outlined above. To ensure that this does not occur, the Commission is of the opinion that any revisions required as a result of the operation of a trigger event should be delayed in the same manner as that set out in section 13.4.3.

One problem with expanding the application of the transitional arrangements to trigger events is that the delay would not be captured by rule 92(3) because this rule only applies to delays between:

- the revision commencement date specified in an access arrangement; and
- the date that the revisions actually take effect.

Given the potential for a trigger event to result in revisions commencing before the commencement date specified in an access arrangement, rule 92(3) cannot, in its current form, be relied upon to deal with delays of this nature. An additional transitional provision is therefore required to address this gap. The precise form that this provision takes is outlined in section 13.5.1, but in short it will expand the definition of the term 'interval of delay' to include delays of this nature.

⁵⁷² *Application by WA Gas Networks Pty Ltd (No. 3)* [2012] ACompT 12, paras 204-221.

⁵⁷³ The effect that a trigger mechanism may have on the review submission date specified in an access arrangement is set out in rule 51(1) of the NGR. In accordance with this rule, the review submission date specified in an access arrangement may advance to an earlier date if the arrangement includes a trigger mechanism and the trigger event occurs.

Finally, it is worth noting that the trigger event issue is unique to the Goldfields Gas Pipeline because the Mid-West and South-West Gas Distribution System access arrangement does not have a defined trigger event. This element of the transitional provisions therefore only applies to the Goldfields Gas Pipeline.

Summary

To summarise, under the revised transitional arrangements outlined above, the following will occur:

- ATCO Gas will be permitted to submit the Mid-West and South-West Gas Distribution System access arrangement revision proposal to the ERA up to three months after the ERA finalises the rate of return guidelines;
- APA Group will be permitted to submit the Goldfields Gas Pipeline access arrangement revisions proposal to the ERA up to six months after the ERA finalises the rate of return guidelines. The requirement to submit within this period extends to any revisions required as a result of the operation of a trigger mechanism in the current access arrangement; and
- delays in the commencement of revisions will either be dealt with under rule 92(3) or the transitional provision pertaining to trigger event related delays.

13.4.5 Overall assessment of the revised transitional arrangements

To assess the overall consistency of the revised transitional arrangements with the NGO and the RPP, the Commission has had regard to the principles set out in section 3.6. The Commission's findings can be summarised as follows:

- *Principle 1: final rules to apply as soon as possible* - The revised arrangements will enable the new rule to be applied to both ATCO Gas and APA Group during the next access arrangement review process. The revised arrangements may therefore be viewed as being consistent with this principle.
- *Principle 2: sufficient time for consultation* - The revised arrangements will have no effect on the level of stakeholder consultation already provided for in the access arrangement review process. They will, however, enable greater participation by interested parties in the rate of return guideline development process. The revised arrangements may therefore be viewed as being consistent with this principle.
- *Principle 3: opportunity to recover at least efficient costs* - The revised arrangements will have no effect on the opportunity that ATCO Gas or APA Group will have to recover at least efficient costs. The revised arrangements may therefore be viewed as being consistent with this principle.
- *Principle 4: arrangements practicable having regard to stakeholders' resourcing constraints* - The revised arrangements may place some additional resourcing pressure on the ERA in early 2015 because there will be an overlap between the

Mid-West and South-West Gas Distribution System and Goldfields Gas Pipeline access arrangement review processes. However, the ERA has informed the Commission that the proposed arrangements are workable.

- *Principle 5: minimising price volatility* - The revised arrangements will have no obvious effect on price volatility because if there is any delay in the commencement of revisions:
 - the existing reference tariffs will continue to operate; and
 - any true-up that may be required should be carried out in NPV neutral terms and smoothed over the remaining term of the new access arrangement period.

It follows from this assessment that, in the Commission's opinion, the revised arrangements are consistent with the principles set out in section 3.6, and the NGO and RPP, more generally.

13.5 Guidance

To give effect to the transitional arrangements outlined in the preceding section, the transitional provisions provide for:

- the AER and the ERA to publish final rate of return guidelines by 29 November 2013 and to issue a statement by 21 December 2012 setting out:
 - the proposed schedule, including milestones and dates, for the rate of return guidelines; and
 - the specific consultation procedure to be followed for the rate of return guidelines, which must be consistent with the rate of return consultative procedures.
- the postponement of the Mid-West and South-West Gas Distribution System and Goldfields Gas Pipeline review submission dates; and
- the application of rule 92(3), in cases where there is a delay between the date that trigger event related revisions should have taken effect and the date the revisions actually come into effect.

Further detail on the transitional provisions that have been put in place to give effect to the latter two of these matters is set out below.

13.5.1 Postponement of review submission dates

In its current form, rule 52 states that a service provider must, on or before the revision submission date, submit an access arrangement revision to the regulator. The period for submitting an access arrangement may be extended under rule 52(3), but this rule only provides for a two month extension. To enable the Mid-West and South-West Gas

Distribution System and Goldfields Gas Pipeline review submission dates to be delayed for the required period, the transitional provisions:

- modify rule 52(3) to allow the ERA to extend the period for submitting an access arrangement revision proposal by up to 18 months;⁵⁷⁴ and
- require the ERA to exercise its power under the modified rule to extend the Mid-West and South-West Gas Distribution System (Goldfields Gas Pipeline) period for submission to a date that is no later than three (six) months after the rate of final return guidelines are published.

13.5.2 Delays to trigger event related revisions

Rule 92(3) currently states that if there is a delay between the revisions commencement date specified in an access arrangement and the date the revisions actually take effect:

- the reference tariffs prevailing at the end of the previous access arrangement period will continue without variation for the interval of delay; and
- the delay may be taken into account when fixing reference tariffs for the new access arrangement period.

The definition of 'interval of delay' in rule 92(3) does not currently capture delays between the date revisions should have taken effect as a result of the operation of the trigger mechanism and the date the revisions actually come into effect. A transitional provision is therefore required to overcome this gap.

To ensure that rule 92(3) can be applied if a trigger event under the Goldfields Gas Pipeline access arrangement causes the revision submission date to advance, the transitional provisions will define the term 'interval of delay', for the purposes of rule 92(3), as:

“the period between the date that is 12 months after the date that the review *submission date* advances to, by virtue of the operation of rule 51(1) and that access arrangement, and the date on which revisions to the access arrangement actually commence.”

574 An 18 month period has been referred to in this transitional rule to accommodate the trigger event provisions specified in the Goldfields Gas Pipeline access arrangement, which could occur at any time in the lead up to the review submission date specified in this access arrangement.

Abbreviations

ACT	Australian Competition Tribunal
AEMC or Commission	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
APIA	Australian Pipeline Industry Association
ARR	annual revenue requirement
ATA	Alternative Technology Association
Brattle	The Brattle Group
capex	capital expenditure
CAPM	Capital Asset Pricing Model
CPA	Competition Principles Agreement
DBP	Dampier Bunbury Pipeline
DNISP	distribution network service provider
DRP	debt risk premium
EBSS	efficiency benefit sharing scheme
ENA	Energy Networks Association
ERA	Economic Regulator Authority
ESAA	Energy Supply Association of Australia
ESCV	Essential Services Commission of Victoria
ETNOF	Electricity Transmission Network Owners Forum
EUAA	Energy Users Association of Australia
EURCC	Energy Users Rule Change Committee
FIG	Financial Investor Group

IPART	Independent Pricing and Regulatory Tribunal
LMR	Limited Merits Review
MAR	maximum allowed revenue
MCE	Ministerial Council on Energy
MEU	Major Energy Users
NBN	National Broadband Network
NEL	National Electricity Law
NEM	National Electricity Market
NEO	national electricity objective
NER	National Electricity Rules
NGL	National Gas Law
NGO	national gas objective
NGR	National Gas Rules
NPV	net present value
NSP	network service provider
NSW T-Corp	NSW Treasury Corporation
OEB	Ontario Energy Board
opex	operating expenditure
PTRM	post-tax revenue model
QTC	Queensland Treasury Corporation
RAB	regulatory asset base
RIIO	Revenue = Incentives + Innovation + Outputs
RIN	Regulatory Information Notice
RIPUC	Rhode Island Public Utilities Commission
RIT-D	Regulatory Investment Test for Distribution

RIT-T	Regulatory Investment Test for Transmission
RPP	Revenue and Pricing Principles
SCER	Standing Council on Energy and Resources
SCO	Standing Committee of Officials
SFG	Strategic Finance Group Consulting
SORI	Statement of Regulatory Intent
STPIS	service target performance incentive scheme
TNSP	transmission network service provider
UE and MG	United Energy and MultiNet Gas
Victorian DPI	Victorian Department of Primary Industries
WACC	Weighted Average Cost of Capital

A Detailed examples of potential capex sharing schemes

This appendix includes a non-exhaustive list of possible ways in which the AER might design a capex sharing scheme under the draft rules.⁵⁷⁵

Figure A.1 below presents two different models: Model 1 presents a stylised example similar to that provided by the ENA's consultants of a capex efficiency carry-over scheme with a five year carry-over period using a WACC of 7.5%; Model 2 presents a stylised example of the ex-ante or fixed incentive rate scheme previously used by Ofgem.

Figure A.1 Examples of efficiency carryover scheme and ex ante incentive rate scheme with periodic true-up

Year	1	2	3	4	5	6	7	8	9	10
Model 1: EBC "capex efficiency carry over" scheme										
Forecast capex	300	330	270	300	330					
Actual capex	280	310	300	290	320					
Underspend	20	20	-30	10	10					
Annual financing benefit	1.50	1.50	-2.25	0.75	0.75					
Year 1 benefit	1.50	1.50	1.50	1.50	1.50					
Year 2 benefit		1.50	1.50	1.50	1.50	1.50				
Year 3 benefit			-2.25	-2.25	-2.25	-2.25	-2.25			
Year 4 benefit				0.75	0.75	0.75	0.75	0.75		
Year 5 benefit									0.75	0.75
Benefit / Carry over	1.50	3.00	0.75	1.50	2.25	0.75	-0.75	1.50	0.75	0.00
Discount factor (to end of year 5)	1.28	1.29	1.29	1.11	1.04	0.98	0.90	0.83	0.78	0.72
Total benefits (PV at end year 5)	39.02									
DB benefits (PV at end year 5)	12.73									
Incentive rate	32.62%									
Model 2: Ex-ante incentive rate with true-up at start of regulatory period										
Annual underspend	20	20	-30	10	10					
Total Benefits (PV at end year 5)	39.02									
Target share of underspend (PV at end year 5)	12.73									
Benefit already received										
Cumulative underspend	20	40	10	20	30					
Financing benefit from underspending	1.5	3	0.75	1.5	2.25					
Total benefit already received (PV at end year 5)	10.84									
Additional benefit required (PV at end year 5)	1.88									
Resulted incentive rate	32.62%									

In the Model 1 scheme, the business has a total underspend across the five years of \$30 million in nominal terms. This has a present value of \$39 million at the end of year 5. In keeping with earlier Australian schemes the benefit to the business is taken to be the financing cost forgone from having underspent the capex allowance contained in the allowed revenue requirement. This has a present value of \$12.7 million (at the end of year 5) leading to the business retaining 32.6 per cent of the available benefit.

The Model 2 scheme is designed to achieve the same incentive rate as that obtained from Model 1, namely 32.6 per cent, for illustrative purposes. Again, the NSP obtains a financing benefit from having underspent its capex allowance although in this case that only goes through to the end of the current regulatory period. Again the present value of the underspend is \$39 million (at the end of year 5) and the NSP receives a financing benefit of \$10.8 million through to the end of the regulatory period. To achieve the specified incentive rate of 32.6 per cent the NSP requires total benefits of \$12.7 million in present value terms (at the end of year 5) meaning an additional benefit of \$1.9 million will have to be given to the NSP in the form of additional allowed revenue requirement at the start of the next regulatory period.

⁵⁷⁵ These examples have been developed with advice from Economic Insights.

Figure A.2 provides a stylised example of how a scheme involving an annual true up of efficiency gains and losses (as Ofgem plans to use) might work (Model 3).

Figure A.2 Example of ex ante incentive rate scheme with lagged annual true-up

Model 3: Ex-ante incentive rate with annual lagged true-up	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Forecast capex	300	330	270	300	330					
Actual capex	280	310	300	290	320					
Underspend	20	20	-30	10	10					
Year 1 effect										
Underspend	20									
Total Benefits (PV at end year 2)	22.29									
DE's target share of benefit	7.27									
Benefit already received										
Financing benefit from underspending	1.50									
Benefit already received (PV at end year 2)	1.57									
Additional benefit required (PV at end year 2)	5.80									
Year 2 effect										
Underspend		20								
Total Benefits (PV at end year 3)		22.29								
DE's target share of benefit		7.27								
Benefit already received										
Financing benefit from underspending		1.50								
Benefit already received (PV at end year 3)		1.57								
Additional benefit required (PV at end year 3)		5.80								
Year 3 effect										
Underspend			-30							
Total Benefits (PV at end year 4)			-33.44							
DE's target share of benefit			-10.91							
Benefit already received										
Financing benefit from underspending			-2.25							
Benefit already received (PV at end year 4)			-2.51							
Additional benefit required (PV at end year 4)			-8.40							
Year 4 effect										
Underspend				10						
Total Benefits (PV at end year 5)				11.15						
DE's target share of benefit				3.84						
Benefit already received										
Financing benefit from underspending				0.75						
Benefit already received (PV at end year 5)				0.84						
Additional benefit required (PV at end year 5)				2.80						
Year 5 effect										
Underspend					10					
Total Benefits (PV at end year 6)					11.15					
DE's target share of benefit					3.84					
Benefit already received										
Financing benefit from underspending					0.75					
Benefit already received (PV at end year 6)					0.84					
Additional benefit required (PV at end year 6)					2.80					
Summary										
Financing benefits (nominal)			1.57	1.57	-2.51	0.84	0.84			
Financing benefits (PV at end year 5)			2.08	1.93	-2.70	0.84	0.78			
Total financing benefits (PV at end year 5)						2.83				
Additional benefits required (nominal)			5.80	5.80	-8.40	2.80	2.80			
Additional benefits required (PV at end year 5)			8.08	8.47	-8.03	2.80	2.60			
Total additional benefits required (PV at end year 5)						6.60				
Total DE benefits (PV at end year 5)						12.73				
Realised incentive rate						32.82%				

Again the same data as used in Models 1 and 2 are used and the same ex-ante incentive rate of 32.6 per cent is chosen for illustrative purposes. The underspend from year 1 is now trued-up at the start of year 3 and so on leading to the year 5 underspend being trued-up at the start of year 7. The NSP now effectively only retains one year of financing benefits on a rolling basis through the regulatory period. In Model 3 the year 1 true-up is done at the start of year 3 in present value terms at the end of year 2, the year 2 true-up is done at the start of year 4 in present value terms at the end of year 3 and so on.

Converting the smaller financing benefits to present values terms at the end of year 5 for comparison with Model 2, the NSP has retained benefits of \$2.9 million out to year 7. Converting the larger additional benefits required series to present value terms at the end of year 5, the NSP requires additional revenue of \$9.8 million (delivered in a

series of annual revenue requirement additions in years 3 through to 7) to achieve the specified ex-ante incentive rate.

The main difference between Models 2 and 3 is that the periodic true-up in Model 2 allows the financing benefit to make up most of the NSP's overall benefit whereas the lagged annual true-up in Model 3 requires most of the NSP benefit to come from additional allowances.

B Sample of contingent projects and indicative costs

Below are samples of transmission contingent projects and their anticipated values which were accepted by the AER in recent transmission regulatory determinations. These were considered as part of the Commission's analysis on establishing an appropriate threshold for distribution and transmission contingent projects.

Table B.1 Contingent projects and indicative costs

TNSP	Regulatory period	Project	Cost	Unit	Triggered
Powerlink	2012/13 to 2016/17	Galilee Basin connection shared network works	88.4	\$m, 2011-12	No
		Moranbah area	54.9		No
		Bowen industrial estate	80.7		No
		Callide to Moura transmission line and Calvale transformer	50.8		No
		Gladstone state development area	115.7		No
		Ebenezer establishment	62.7		No
		QNI upgrade	60.6		No
		Western Downs to Columboola 275kV 3rd circuit	59.5		No
		Columboola to Wandoan South 275kV 3rd circuit	63.3		No
		Halys to Blackwall 500kV operating at 275kV,	148.9		No
		Halys to Western Downs, 3rd and 4th circuits, 500kV operating at 275kV	261.4		No
Halys to Greenbank, 3rd and 4th circuits, 500kV operating at 275kV	149.2	No			
Transend	2009/10 to 2013/14	Sheffield–George Town new transmission line	70	\$m, 2007-08	No
		Burnie–Smithton new transmission line	88		No
		Sheffield–Farrell new transmission line	79		No

TNSP	Regulatory period	Project	Cost	Unit	Triggered
		Sheffield–Burnie new transmission line	52		No
		St Helens new 110/22 kV connection site	46		No
		Palmerston– Sheffield 220 kV transmission line augmentation	22		No
		Waddamana–Lindisfarne 220 kV transmission line second circuit	22		No
		Trevallyn Substation new 220/110 kV injection point	21		No
		Queenstown Substation security upgrade	11		No
TransGrid	2009/10 to 2013/14	Kemps Creek–Liverpool 330 kV line—undergrounding of all or part of the proposed connection	108	\$m, 2007-08	No
		Hunter Valley–Central Coast 500 kV line	300		No
		Darlington–Balranald system upgrade 275 kV	51		No
		Yass to Wagga 500 kV double circuit transmission line	329		No
		Liddell–Tamworth 330 kV	163		No
		Tamworth–Armidale 330 kV line	130		No
		Bannaby–Yass reinforcement	45		No
		Williamsdale–Cooma 3rd circuit	40		No
		New 500/330 kV substation at Richmond Vale	80		No
		CBD and inner metropolitan area supply	342		No
		Gadara/Tumut load area support	54		No
		Orange 330/132 kV substation	47		No
		Victorian interconnector development	35		No

TNSP	Regulatory period	Project	Cost	Unit	Triggered
		QNI upgrade—line series compensation project	60		No
		Reactive support at seven sites	36		No
ElectraNet	2008/09 to 2012/13	Eyre Peninsula reinforcement	150	\$m	No
		Riverland reinforcement	130		No
		Yorke Peninsula reinforcement	41		No
		South East reinforcement	33		No
		Bungama reinforcement	12		No
		Southern Suburbs reinforcement	16		No
		Playford (Davenport) to Leigh Creek 132 kV transmission line	11 ⁵⁷⁶		
		Fleurieu Peninsula reinforcement	65		No
		Murray Mallee reinforcement	34		No
		Munno Para reinforcement	26		Approved \$39.3 (\$m, 2007/08) on 11 March 2011
		Lucindale West reinforcement	17		No
		Western Suburbs reinforcement	15		No
		Tailem Bend to Tungkillo reinforcement	41		No
		Parafield Gardens West	14		No
Para – Brinkworth – Davenport 275 kV transmission lines	12	No			
Heywood interconnection capacity upgrade	80	No			
Northern transmission reinforcement	75	No			

⁵⁷⁶ Five per cent of the MAR is \$11m, which makes this amount the cost threshold for ElectraNet's contingent projects.

TNSP	Regulatory period	Project	Cost	Unit	Triggered
		Adelaide CBD line works component	105		Approved \$131.38 (\$m, nominal) on 1 November 2009
		Transformer ballistic proofing	17		No

Source: AER final decision, ElectraNet transmission determination 2008-09 to 2012-13, 11 April 2008, p. 61; AER final decision, Powerlink transmission determination 2012-13 to 2016-17, April 2012, p. 45; AER final decision, Transend transmission determination 2009-10 to 2013-14, 28 April 2009, pp. 55-57; AER final decision, TransGrid transmission determination 2009-10 to 2013-14, 28 April 2009, p. 43.



Better Regulation

Rate of Return Guideline

December 2013

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1 Overview

The AER's Better Regulation program involves the publication of several guidelines. Under the new rules, the rate of return guideline (the guideline) sets out the AER's approach to determining the allowed rate of return in accordance with the NEL and the NGL (collectively, the law and rules).

The new rules require the AER to set out in the guideline:¹

- the methodologies the AER proposes to use
- the estimation methods, financial models, market data and other evidence the AER proposes to take into account.

The major elements the AER has proposed in this guideline include:

- Considering a broader range of material in arriving at a point estimate for the expected return on equity. The AER proposes to continue to use the Sharpe–Lintner CAPM for estimating a starting point and a range for the expected return on equity. However, the AER proposes to use the theory of the Black CAPM and dividend growth model outputs to inform the input parameters the AER uses to estimate the expected return on equity using the Sharpe–Lintner CAPM. The AER also proposes to have regard to other information, including the estimated return on equity from the Wright approach, valuation and broker reports, and other regulators. Where appropriate, this information may lead the AER to select an estimate of the expected return on equity that differs from the output of the Sharpe–Lintner CAPM.
- Changing from the current 'on the day' approach to a trailing average portfolio approach for estimating the return on debt. The trailing average will be calculated using a simple 10 year average and will be updated annually. The yearly average will be calculated over a period of 10 or more consecutive business days using yield estimates from an independent third party service provider for a 10 year debt term and the closest proximate for a BBB+ credit rating. There will be a 10 year transition period from the current 'on the day' approach to the trailing average portfolio approach.
- Considering a broader range of material to inform the estimation of the value of imputation credits.

1.1 Structure of the guideline

There are seven main parts to this guideline:

- Chapter two outlines the AER's application of criteria that the AER proposes to use to assess the merits of the various sources of information in setting the allowed rate of return.
- Chapter three outlines the AER's definition of the benchmark efficient entity and compensation for risk.
- Chapter four outlines the AER's approach to estimating the overall rate of return.
- Chapter five outlines the AER's approach to estimating the expected return on equity. This includes using the Sharpe–Lintner CAPM as the foundation model, and then having regard to other relevant material to arrive at a final point estimate of the expected return on equity.

¹ NEL, cls. 6.5.2(n) and 6A.6.2(n); NGR, r. 87(14).

- Chapter six outlines the AER's approach to estimating the return on debt. This includes using a 10 year trailing average for estimating the return on debt, with annual updates. The transitional arrangements from the on the day approach to the trailing average approach are also outlined.
- Chapter seven outlines the AER's approach to estimating imputation credits.

1.2 Process for revision

The AER may amend or replace these guidelines from time to time in accordance with the consultation procedures under clauses 6.16 and 6A.20 of the NER and rule 9B of the NGR.²

² NER, cls. 6.2.8(e) and cl. 6A,2.3(e); NGR, r. 87(17).

2 Application of criteria

This chapter sets out the criteria that the AER proposes to use to assess the merits of the various sources of information in setting the allowed rate of return.

The AER considers decisions on the rate of return are more likely to be consistent with the allowed rate of return objective if they use estimation methods, financial models, market data and other evidence that are:

- (1) where applicable, reflective of economic and finance principles and market information
 - (a) estimation methods and financial models are consistent with well accepted economic and finance principles and informed by sound empirical analysis and robust data
- (2) fit for purpose
 - (a) use of estimation methods, financial models, market data and other evidence should be consistent with the original purpose for which it was compiled and have regard to the limitations of that purpose
 - (b) promote simple over complex approaches where appropriate
- (3) implemented in accordance with good practice
 - (a) supported by robust, transparent and replicable analysis that is derived from available credible datasets
- (4) where models of the return on equity and debt are used these are
 - (a) based on quantitative modelling that is sufficiently robust as to not be unduly sensitive to errors in inputs estimation
 - (b) based on quantitative modelling which avoids arbitrary filtering or adjustment of data, which does not have a sound rationale
- (5) where market data and other information is used, this information is
 - (a) credible and verifiable
 - (b) comparable and timely
 - (c) clearly sourced
- (6) sufficiently flexible as to allow changing market conditions and new information to be reflected in regulatory outcomes, as appropriate.

3 Benchmark efficient entity and compensation for risk

This chapter sets out the AER's definition of the benchmark efficient entity. The definition of the benchmark efficient entity has implications for the estimated return on debt and equity (including the choice of data and models used to estimate the return on equity and debt).

3.1 Objective

The benchmark efficient entity is defined so that the allowed rate of return estimated for that benchmark efficient entity provides service providers with a reasonable opportunity to recover at least their efficient financing costs, consistent with the national electricity objective (NEO), national gas objective (NGO) and revenue pricing principles (RPP).³

3.2 Rule requirements

Clauses 6.5.2(c) and 6A.6.2(c) of the NER and rule 87(2)(3) of the NGR set out the allowed rate of return objective. The allowed rate of return objective requires the AER to set the rate of return for a distribution or transmission service provider, which is commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the distribution or transmission service provider in respect of the provision of regulated services.

3.3 Application

The AER's proposed conceptual definition of the benchmark efficient entity is a pure play, regulated energy network business operating within Australia.

In estimating the return on equity, the benchmark is applied to comparable entities which are then used to estimate the equity beta (see section 5.3.3). The equity beta, in turn enters the Sharpe–Lintner CAPM model, which is used as the foundation model for estimating the return on equity (see section 5.3.3).

In estimating the allowed return on debt, the definition of the benchmark efficient entity is applied to inform the choice of comparable entities which are used to estimate:

- the benchmark gearing ratio (see section 4.3.2)
- the benchmark credit rating (see section 6.3.3)
- the benchmark debt term (see section 6.3.3).

³ NEL, ss. 7 and 7A; NGL, ss. 23 and 24.

4 Overall rate of return

This chapter sets out the AER's proposed approach to estimating the overall rate of return for service providers.

4.1 Objective

The overall rate of return is to be set such that it achieves the allowed rate of return objective. This requires that the AER set a rate of return which reflects the efficient financing costs of a benchmark efficient entity. The benchmark efficient entity is to be subject to a similar degree of risk in providing regulated services as the service provider which is subject to the determination.

Together with the other building block components, the estimate of the overall rate of return is to be set such that:

- it promotes efficient investment in, and efficient operation and use of, electricity and natural gas services for the long term interests of consumers⁴
- a regulated network service provider should be provided with a reasonable opportunity to recover at least the efficient costs the operator incurs in providing regulated services and complying with its regulatory obligations.⁵

4.2 Rule requirements

Clauses 6.5.2(d) and 6A.6.2(d) of the NER and rule 87(4) of the NGR specify two elements which the AER is to apply in estimating the allowed rate of return.

The first element, provided by clauses 6.5.2(d)(1), and 6A.6.2(d)(1) of the NER and rule 87(4)(a) of the NGR, requires that the AER apply a weighted average of:

- the return on equity for the regulatory control period in which that regulatory year occurs
- the return on debt for that regulatory year.

The second element provides that the AER must use a nominal vanilla basis to calculate the allowed rate of return, and that this is consistent with the estimate of value of imputation credits.⁶ In arriving at the allowed rate of return, the rules require that the AER has regard to:⁷

- relevant estimation methods, financial models, market data and other evidence;
- the desirability of using an approach that leads to the consistent application of any estimates of financial parameters that are relevant to the estimates of, and that are common to, the return on equity and the return on debt; and
- any interrelationships between estimates of financial parameters that are relevant to the estimates of the return on equity and the return on debt.

⁴ NEL, s. 7; NGL, s. 23.

⁵ NEL, s. 7A; NGL, s. 24.

⁶ NER, cls. 6.5.2(d)(2) and 6A.6.2(d)(2); NGR, r. 87(4)(b).

⁷ NER, cls. 6.5.2(e) and 6A.6.2(e); NGR, r. 87(5).

4.3 Application

This section describes how the overall rate of return is proposed to be estimated. This involves the following:

- applying a nominal post-tax model
- calculating the weighted average cost of capital (WACC) using a vanilla WACC formula
- applying intra-period adjustments of the WACC

4.3.1 Applying a nominal post-tax model

The AER proposes to continue to apply a post-tax revenue model (PTRM) to fulfil the rule requirements to apply a nominal post-tax framework.⁸

The PTRM accommodates the use of a nominal vanilla WACC for calculating the rate of return.⁹ The treatment of tax enters the PTRM via the cash flows. It is therefore consistent with the use of a nominal vanilla WACC for calculating the rate of return and consistently incorporates the estimate of the value of imputation credits.

4.3.2 Calculating the weighted average cost of capital using a vanilla WACC formula

The AER proposes to calculate the WACC by applying the following vanilla WACC formula:

$$WACC_{vanilla} = E(k_e) \frac{E}{V} + E(k_d) \frac{D}{V}$$

where:

- $E(k_e)$ is the expected required return on equity
- $E(k_d)$ is the expected required return on debt
- $\frac{E}{V}$ is the proportion of equity in total financing (comprising equity and debt).
- $\frac{D}{V}$ is the proportion of debt in total financing, and is equal to the AER's proposed benchmark efficient entity gearing ratio of 0.6.

4.3.3 Intra-period adjustment of the WACC

The AER proposes to update the overall rate of return annually. This is a result of the allowed return on debt being updated annually.

The AER proposes to set the expected return on equity for the duration of the regulatory control period.

⁸ NER, cls. 6.4.2, 6.4.3, 6A.5.3, and 6A.5.4; NGR rr. 76 and 87A.

⁹ NER, cls. 6.5.2(d)(2) and 6A.6.2(d)(2); NGR, r. 87(4)(b).

4.3.4 Arriving at point estimates or ranges

The overall rate of return is a point estimate, reflecting the use of a point estimate for the allowed return on debt and the expected return on equity.

5 Return on equity

This chapter sets out the AER's proposed approach to estimating the expected return on equity. The AER proposes a six step approach to determine an estimate of the expected return on equity that contributes to an overall rate of return that achieves the allowed rate of return objective. These steps are explained below, and are summarised in figure 5.1.

5.1 Objective

The expected return on equity must be estimated such that it contributes to the achievement of the allowed rate of return objective. It should therefore provide compensation to a service provider for the equity financing cost which is commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk.

5.2 Rule requirements

Clauses 6.5.2(f), 6.5.2(g), 6A.6.2(f) and 6A.6.2(g) of the NER, and rules 87(6) and 87(7) of the NGR specify that:

- the return on equity for a regulatory control period must be estimated such that it contributes to the achievement of the allowed rate of return objective
- in estimating the return on equity, regard must be had to the prevailing conditions in the market for equity funds.

The allowed rate of return objective is that:¹⁰

- the rate of return for a service provider is to be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the service provider.

In developing a guideline that estimates the expected return on equity in accordance with the allowed rate of return objective, the AER has had regard to, among other things, relevant estimation methods, financial models, market data and other evidence.¹¹

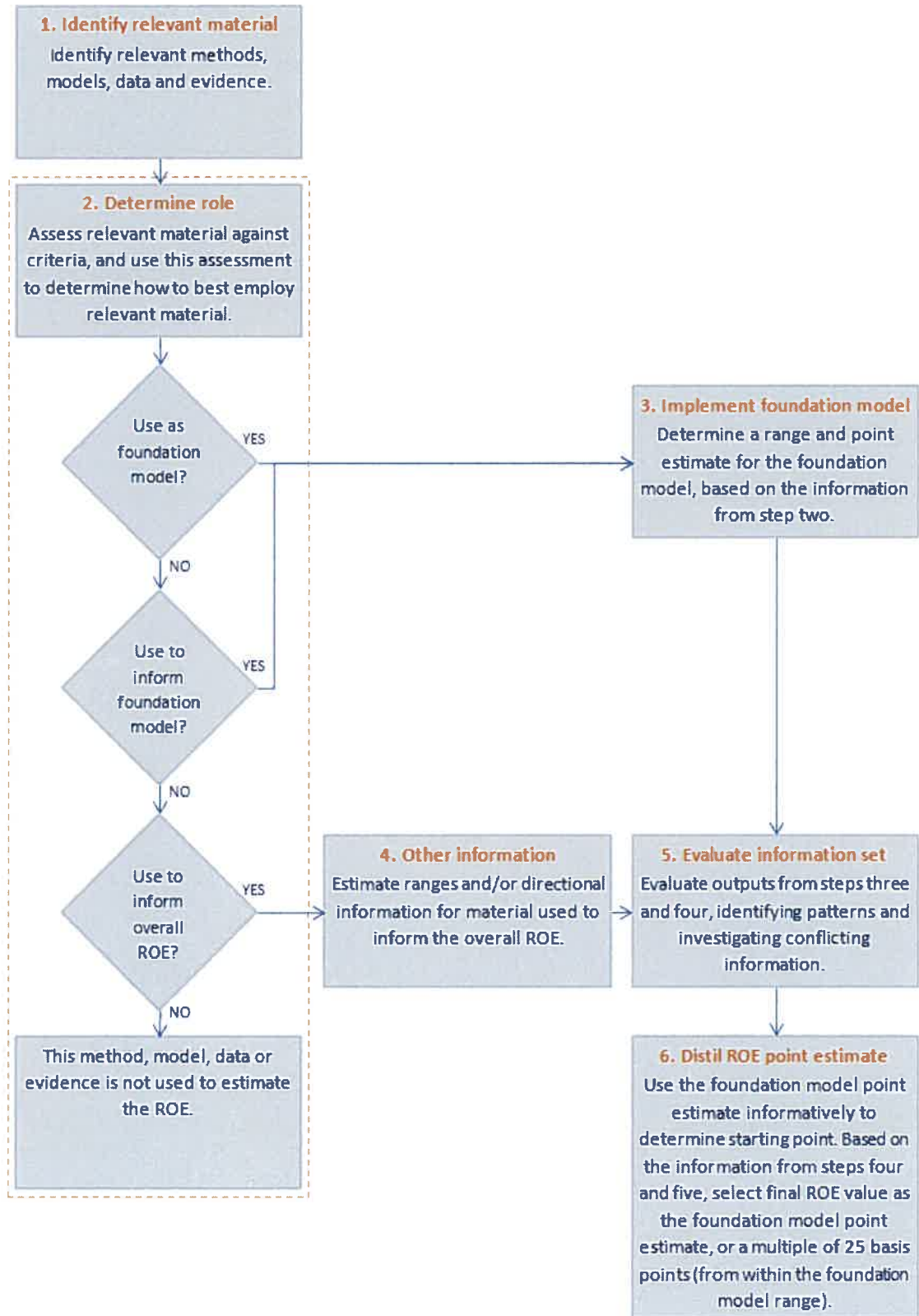
5.3 Application

The AER proposes to estimate the expected return on equity using the approach summarised in figure 5.1.

¹⁰ NER, cls. 6.5.2(c) and 6A.6.2(c); NGR, r. 87(3).

¹¹ NER, cls. 6.5.2(e)(1) and 6A.6.2(e)(1); NGR, r. 87(5)(a).

Figure 5.1 Flowchart of the AER’s proposed approach to estimating the expected return on equity



Source: AER analysis.

5.3.1 Step one: identify relevant material

The AER's first step proposes to identify the relevant material that may inform the estimate of the expected return on equity. The material identified by the AER as relevant is outlined in the explanatory statement to this guideline, and in table 5.1 and table 5.2 of this guideline.

5.3.2 Step two: determine role

The AER's second step proposes to assess the relevant material identified in step one against the AER's assessment criteria. The purpose of this assessment is to identify what role the AER proposes relevant material to play in estimating the expected return on equity. The AER proposes to use each piece of relevant material only once (to the extent practicable), in one of four ways:

- (1) As the foundation model.
- (2) To inform the estimation of parameters within the foundation model.
- (3) To inform where within the return on equity range (set by the foundation model) the final point estimate of the expected return on equity should fall.
- (4) Not used to estimate the expected return on equity.

The AER undertook an assessment of the relevant material identified in step one against the assessment criteria. The AER assessed models and other relevant material. The detailed assessment is outlined in the explanatory statement to this guideline.

The outcome of the AER's model assessment is outlined in table 5.1.

Table 5.1 Role of relevant models

Material (step one)	Role (step two)
Sharpe–Lintner CAPM	Foundation model
Black CAPM	Inform foundation model parameter estimates (equity beta)
Dividend growth models	Inform foundation model parameter estimates (market risk premium)
Fama–French three factor model	No role

Source: AER analysis.

The outcome of the AER's assessment of other relevant information is outlined in table 5.2.

Table 5.2 Role of other information

Material (step one)	Role (step two)
Commonwealth government securities	Inform foundation model parameter estimates (risk free rate)
Observed equity beta estimates	Inform foundation model parameter estimates (equity beta)
Historical excess returns	Inform foundation model parameter estimates (MRP)
Survey evidence of the MRP	Inform foundation model parameter estimates (MRP)
Implied volatility	Inform foundation model parameter estimates (MRP)
Other regulators' MRP estimates	Inform foundation model parameter estimates (MRP)
Debt spreads	Inform foundation model parameter estimates (MRP)
Dividend yields	Inform foundation model parameter estimates (MRP)
Wright approach	Inform the overall return on equity
Takeover and valuation reports	Inform the overall return on equity
Brokers' return on equity estimates	Inform the overall return on equity
Other regulators' return on equity estimates	Inform the overall return on equity
Comparison with return on debt	Inform the overall return on equity
Trading multiples	No role
Asset sales	No role
Brokers' WACC estimates	No role
Other regulators' WACC estimates	No role
Finance metrics	No role ¹²

Source: AER analysis.

5.3.3 Step three: implement foundation model

The AER's third step proposes to use the Sharpe–Lintner CAPM as the foundation model. The AER proposes to implement the Sharpe–Lintner CAPM as follows:

¹² Finance metrics may play a role in future AER decisions. However, at this stage the AER has not formed a view on how these tests should be applied. Therefore, these tests are not included in this final guideline.

- The Sharpe–Lintner CAPM is estimated by adding to the risk free rate the product of the equity beta and market risk premium (MRP).
- The range and point estimate for the expected return on equity is calculated based on the range and point estimates from the corresponding input parameters. For example, the lower bound of the expected return on equity range is calculated by applying the point estimate for the risk free rate and the lower bound estimates of the equity beta and MRP. A probability will not be assigned to values within the range, but it will not be assumed that all values within the range are equally probable.

The AER proposes to estimate the input parameters for the Sharpe–Lintner CAPM as follows:

Risk free rate

The AER proposes to adopt a forward looking risk free rate that is commensurate with prevailing conditions in the market for funds at the commencement of the regulatory control period.

On the risk free rate proxy, the AER proposes to adopt:

- the yield on CGS
- a 10 year term.

On the risk free rate averaging period, the AER proposes to adopt a period that:

- is short—specifically, 20 consecutive business days in length
- is as close as practicably possible to the commencement of the regulatory control period.

Equity beta

The AER proposes to estimate a range for the equity beta, and then select a point estimate for the equity beta from within that range.

The AER proposes to adopt the same point estimate and range for equity beta across each of the energy sectors the AER regulates (electricity transmission, electricity distribution, gas transmission and gas distribution).

Under the AER's approach, the AER proposes to estimate the range for the equity beta based on empirical analysis using a set of Australian energy utility firms the AER considers reasonably comparable to the benchmark efficient entity. This approach leads to a range for equity beta from 0.4 to 0.7.

The AER then proposes to use other information sources to inform the selection of a point estimate from within the empirical range of equity beta estimates. This additional information includes:

- empirical estimates of overseas energy networks.
- the theoretical principles underpinning the Black CAPM.

This approach leads to a point estimate of 0.7 for equity beta, chosen from within the range 0.4 to 0.7.

Market risk premium

The AER proposes to estimate a range for the MRP, and then select a point estimate from within that range.

The AER proposes to estimate the range for the MRP with regard to theoretical and empirical evidence—including historical excess returns, dividend growth model estimates, survey evidence and conditioning variables. The AER will also have regard to recent decisions among Australian regulators. Each of these sources of evidence has strengths and limitations.

The AER proposes to estimate the point estimate for the MRP based on the AER's regulatory judgement, taking into account estimates from each of those sources of evidence and considering their strengths and limitations.

5.3.4 Step four: other information

The AER's fourth step proposes to estimate ranges, directional or relative information that will inform the point estimate of the expected return on equity.

The AER proposes to determine the manner in which each piece of other information is used by assessing the information against the assessment criteria. This assessment is outlined in the explanatory statement to this guideline.

The outcome of the AER's assessment on the form of additional information is outlined in table 5.3.

Table 5.3 Form of other relevant information

Additional information	Form of information
Wright approach	Point in time
Other regulators' return on equity estimates	Point in time
Brokers' return on equity estimates	Point in time and directional
Takeover/valuation reports	Directional
Comparison with return on debt	Relative

Source: AER analysis.

5.3.5 Step five: evaluate information set

The AER's fifth step proposes to evaluate the full set of material that will inform, in some way, the estimation of the expected return on equity. This includes assessing the foundation model range and point estimate alongside the other information from step four.

In undertaking this evaluation the AER may have regard to matters including:

- patterns shown in the other information
- the strengths and limitations of the other information

- the magnitude by which the other information suggests that the foundation model point estimate under or over estimates the expected return on equity (if at all).

5.3.6 Step six: distil point estimate of the expected return on equity

The AER's sixth step proposes to determine the final point estimate for the expected return on equity. The AER's proposes to use the foundation model point estimate as the starting point for estimating the expected return on equity.

The final point estimate of the expected return on equity will require the exercise of regulatory judgement. The AER proposes to draw on the analysis and evaluation of the other information undertaken in step five in exercising this judgement. For example, if the evaluation of other information suggests that the point estimate from the foundation model contributes to an estimate of the rate of return that achieves the allowed rate of return objective, then this point estimate (rounded) will be applied. Alternatively, if the evaluation suggests that the point estimate is too high or low, the point estimate will be changed by an amount informed by the other information (using the AER's regulatory judgment).

The AER proposes the final point estimate of the expected return on equity to be the foundation model point estimate, or alternatively, a different value that is a multiple of 25 basis points. If the foundation model point estimate is applied, the AER proposes to round this estimate to a single decimal point. This recognises the limited precision with which the expected return on equity can be estimated.

The approach outlined is premised on the expectation that the analysis in step five should not suggest a final estimate of the expected return on equity outside the foundation model range. If this expectation is not met, the AER may reconsider the foundation model input parameter estimates, or more fundamentally, the foundation model itself. This recognises that, ultimately, the AER's rate of return must meet the allowed rate of return objective.

6 Return on debt

This chapter sets out the AER's proposed approach to estimating the allowed return on debt for service providers.

6.1 Objective

The allowed return on debt must be estimated such that it contributes to the achievement of the allowed rate of return objective. It should therefore provide compensation to a service provider for the debt financing cost which is commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk.

6.2 Rule requirements

The rules set out the:¹³

- calculation of the return on capital
- allowed rate of return objective (including factors the AER must have regard to in setting the rate of return)

In addition, the return on debt may be estimated by the AER using a methodology which results in either:

- the return on debt for each regulatory year in the regulatory control period being the same; or
- the return on debt (and consequently the allowed rate of return) being or potentially being, different for different regulatory years in the regulatory control period.

In estimating the return on debt the AER must have regard to the following factors:

- the desirability of minimising any difference between the return on debt and the return on debt of a benchmark efficient entity
- the interrelationship between the return on equity and the return on debt
- the incentive that the return on debt may provide in relation to capital expenditure over the regulatory control period, including as to the timing of capital expenditure
- any impacts (including in relation to the costs of servicing debt across regulatory control periods) on a benchmark efficient entity referred to in the allowed rate of return objective that could arise as a result of changing the methodology that is used to estimate the return on debt from one regulatory control period to the next.

6.3 Application

This section sets out the method the AER proposes to use to calculate the allowed return on debt.

¹³ NER, cls. 6.5.2 and 6A.6.2; NGR, r. 87.

6.3.1 Trailing average portfolio approach

The AER proposes to estimate the allowed return on debt using a trailing average portfolio approach following the completion of a transitional arrangement period. In particular, the AER proposes to apply the following:

- a trailing average portfolio approach with the length of the trailing average to be 10 years
- equal weights to be applied to all the elements of the trailing average
- the trailing average to be automatically updated every regulatory year within the regulatory control period.

In particular, the AER proposes to determine the allowed return on debt for each regulatory year within a regulatory control period in accordance with the following formula:

$${}_xkd_{x+1} = \frac{1}{10} \cdot \sum_{t=1}^{10} {}_{x-10+t}R_{x+t}$$

where:

- ${}_xkd_{x+1}$ refers to the allowed return on debt for regulatory year $x+1$
- ${}_{x-10+t}R_{x+t}$ refers to the estimated rate of return on debt that was entered into in year $(x-10+t)$ and matures in year $(x+t)$ (in the formula above all debt has a ten year term); and
- weights of $1/10$ apply to each element of the trailing average.

Estimates of ${}_{x-10+t}R_{x+t}$ represent simple averages of the estimates for each business day within the averaging period in year $(x-10+t)$. The AER proposes to obtain each daily estimate within the averaging period from an independent third party data provider in accordance with the estimation procedure specified in this guideline (section 6.3.3).

6.3.2 Transitional arrangements

The AER proposes to implement a trailing average portfolio approach after a period of transition for all regulated businesses. The AER proposes to apply a transitional arrangement to determine the allowed nominal return on debt (k_d) at the commencement of a service provider's forthcoming regulatory control period. The AER proposes the period of transition of 10 regulatory years. The proposed transition method is set out below.

In the transitional formulae:

- ${}_aR_{a+10}$ corresponds to the estimated return on debt that was entered into in year a and matures in year $a+10$; and
- ${}_bkd_{b+1}$ refers to the allowed return on debt for regulatory year $b+1$. The AER proposes to compute the estimates of ${}_aR_{a+10}$ in accordance with the specified estimation method and represent simple averages of the estimates for each business day within the corresponding averaging period.

In the first regulatory year of the transitional period, the AER proposes the allowed rate of return on debt to be based on the estimated prevailing rate of return on debt for that year (similar to the 'on the day' approach):

$${}_0kd_1 = {}_0R_{10}$$

In the second regulatory year, the AER proposes the allowed rate of return on debt to be the weighted average of the prevailing rates in the first and second regulatory year of the transitional period:

$${}_1kd_2 = 0.9 \cdot {}_0R_{10} + 0.1 \cdot {}_1R_{11}$$

The AER proposes the allowed rate of return on debt in the third regulatory year to be the weighted average of the prevailing rates in the first, second, and third regulatory year of the transitional period:

$${}_2kd_3 = 0.8 \cdot {}_0R_{10} + 0.1 \cdot {}_1R_{11} + 0.1 \cdot {}_2R_{12}$$

The calculation for all subsequent regulatory years until the transitional period is completed is set out below:

$${}_3kd_4 = 0.7 \cdot {}_0R_{10} + 0.1 \cdot {}_1R_{11} + 0.1 \cdot {}_2R_{12} + 0.1 \cdot {}_3R_{13}$$

$${}_4kd_5 = 0.6 \cdot {}_0R_{10} + 0.1 \cdot {}_1R_{11} + 0.1 \cdot {}_2R_{12} + 0.1 \cdot {}_3R_{13} + 0.1 \cdot {}_4R_{14}$$

$${}_5kd_6 = 0.5 \cdot {}_0R_{10} + 0.1 \cdot {}_1R_{11} + 0.1 \cdot {}_2R_{12} + 0.1 \cdot {}_3R_{13} + 0.1 \cdot {}_4R_{14} + 0.1 \cdot {}_5R_{15}$$

$${}_6kd_7 = 0.4 \cdot {}_0R_{10} + 0.1 \cdot {}_1R_{11} + 0.1 \cdot {}_2R_{12} + 0.1 \cdot {}_3R_{13} + 0.1 \cdot {}_4R_{14} + 0.1 \cdot {}_5R_{15} + 0.1 \cdot {}_6R_{16}$$

$${}_7kd_8 = 0.3 \cdot {}_0R_{10} + 0.1 \cdot {}_1R_{11} + 0.1 \cdot {}_2R_{12} + 0.1 \cdot {}_3R_{13} + 0.1 \cdot {}_4R_{14} + 0.1 \cdot {}_5R_{15} + 0.1 \cdot {}_6R_{16} + 0.1 \cdot {}_7R_{17}$$

$${}_8kd_9 = 0.2 \cdot {}_0R_{10} + 0.1 \cdot {}_1R_{11} + 0.1 \cdot {}_2R_{12} + 0.1 \cdot {}_3R_{13} + 0.1 \cdot {}_4R_{14} + 0.1 \cdot {}_5R_{15} + 0.1 \cdot {}_6R_{16} + 0.1 \cdot {}_7R_{17} + 0.1 \cdot {}_8R_{18}$$

$${}_9kd_{10} = 0.1 \cdot {}_0R_{10} + 0.1 \cdot {}_1R_{11} + 0.1 \cdot {}_2R_{12} + 0.1 \cdot {}_3R_{13} + 0.1 \cdot {}_4R_{14} + 0.1 \cdot {}_5R_{15} + 0.1 \cdot {}_6R_{16} + 0.1 \cdot {}_7R_{17} + 0.1 \cdot {}_8R_{18} + 0.1 \cdot {}_9R_{19}$$

6.3.3 Estimation procedure

The AER proposes to apply the following estimation procedure for estimating the prevailing return on debt for each service provider during the averaging period:

- Using the published yields from an independent third party data service provider.
- Using a credit rating of BBB+ from Standard and Poor's or the equivalent rating from other recognised rating agencies. If the published yields do not reflect the assumed credit rating of BBB+ or the equivalent from rating agencies, the AER will apply the published yields that are the closest approximation of the BBB+ credit rating.
- Using a term to maturity of debt of 10 years. Where the yield at a term to maturity of 10 years is not published by the third party service provider, the AER proposes to determine the method for extrapolation at each network service provider's determination. The AER may estimate an extrapolation of the total debt yield or separately estimate the risk free rate and debt risk premium components (if extrapolation is required). Irrespective of which method is used the AER proposes that the risk free rate component of debt yield at a minimum should be applied at the annual update. The AER proposes to calculate the risk free rate component by adding the difference between the average annualised yields for Commonwealth Government Securities with a 10 year and the shorter term maturity. The averaging period that is proposed to apply is described in the next section.
- If the published yields from an independent third party data service provider are quoted on a semi-annual basis, then the AER proposes to annualise the yields by applying the following formula:

$$y_a = \left(1 + \frac{y_s}{2}\right)^2 - 1$$

where:

- y_a is the annualised yield
- y_s is the semi-annual yield published by an independent third party data service provider.

The AER proposes to specify in a service provider's determination how an automatic update of the trailing average would be applied in circumstances where estimation procedure for calculating the allowed return on debt is no longer available or has been amended during a service provider's regulatory control period.

Averaging period

For each regulatory year in the regulatory control period, the AER proposes to estimate the prevailing rate of return on debt as a simple average of the prevailing rates observed over a period of 10 or more consecutive business days up to a maximum of 12 months. Such an averaging period should satisfy the following conditions:

- it should be specified prior to the commencement of the regulatory control period
- at the time it is nominated, all dates in the averaging period must take place in the future
- it should be as close as practical to the commencement of each regulatory year in a regulatory control period

- an averaging period needs to be specified for each regulatory year within a regulatory control period
- the proposed averaging periods for different regulatory years are not required to be identical but should not overlap
- the nominal return on debt is to be updated annually using the agreed averaging period for the relevant regulatory year
- each agreed averaging period is to be confidential.

The averaging periods can be determined as follows:

- proposed by the service provider in the Framework and Approach process or in its initial regulatory proposal, and agreed by the AER; or
- if the AER does not agree to the averaging periods proposed by a service provider, the averaging period would be determined by the AER, and notified to the service provider within a reasonable time prior to the commencement of the regulatory control period.

7 Imputation credits

This section sets out the AER's approach to estimating the value of imputation credits. This primarily serves as an adjustment made to the cost of company income tax building block allowance.

7.1 Objective

The objective of the adjustment for the value of imputation credits is to reduce the cost of corporate income tax such that only the proportion of company tax which is actually retained by government is reflected in the corporate income tax building block. That is, the adjustment is an estimate of the company tax paid which the government subsequently transfers to investors.

7.2 Rule requirements

Clauses 6.5.3 and 6A.6.4 of the NER and rule 87A of the NGR set out the cost of corporate income tax rule. This includes an adjustment for the value of imputation credits as follows:

The estimated cost of corporate income tax of a Distribution Network Service Provider for each regulatory year (ETC_t) must be calculated in accordance with the following formula:

$$ETC_t = (ETI_t \times r_t) (1 - \gamma)$$

Where:

ETI_t is an estimate of the taxable income for that regulatory year that would be earned by a benchmark efficient entity as a result of the provision of standard control services if such an entity, rather than the Distribution Network Service Provider, operated the business of the Distribution Network Service Provider, such estimate being determined in accordance with the post-tax revenue model.

r_t is the expected statutory income tax rate for that regulatory year as determined by the AER; and

γ is the value of imputation credits

7.3 Application

This section sets out the method to be applied by a service provider to estimate the value of imputation credits.

Overall, the value of imputation credits would be estimated as a market wide parameter. Specifically, it would be determined as the product of:

- a payout ratio
- a utilisation rate.

The AER considers this approach leads to an estimate of 0.5 for the value of imputation credits, based on a payout ratio of 0.7 and a utilisation rate of 0.7.

7.3.1 Payout ratio

The payout ratio would be estimated using the cumulative payout ratio approach. This approach uses ATO tax statistics to calculate the proportion of imputation credits generated (via tax payments) that have been distributed by companies since the start of the imputation system. This approach leads to an estimate of 0.7 for the payout ratio.

7.3.2 Utilisation rate

The utilisation rate would be estimated using the body of relevant evidence with regards to its strengths and limitations, checked against a range of supporting evidence. The body of evidence includes:

- the equity ownership approach
- tax statistic estimates
- implied market value studies
- the conceptual goalposts approach.

In particular, the AER has higher regard to those approaches that:

- accord with the AER's interpretation of the nature of the utilisation rate parameter in the conceptual framework provided by Officer and Monkhouse (while acknowledging that interpretation of this framework is a matter of debate)
- are simpler and more transparent
- produce reasonable estimates in light of empirical realities and conceptual considerations; namely, that most (but not all) investors are eligible to redeem imputation credits, and that eligible investors in the possession of imputation credits have the incentive to redeem them.

This approach leads to an estimate of 0.7 for the utilisation rate, based on the AER giving:

- more regard to the equity ownership approach, which suggests an estimate of 0.7 to 0.8
- regard to tax statistic estimates, which suggest an estimate of 0.4 to 0.8
- less regard to implied market value studies, which suggest an estimate of 0 to 0.5
- less regard to the conceptual goalposts approach, which suggests an estimate of 0.8 to 1.0.

A Glossary

This guideline uses following definitions and acronyms.

Term	Definition
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
determination	In this document generally, in the context of the rate of return, the term "determination" refers both to regulatory determinations under the NER and access arrangement determinations under the NGR.
MRP	Market risk premium
NEL	National Electricity Law
NER	National Electricity Rules
new rules	The National Electricity Rules and National Gas Rules that were published by the AEMC on 29 November 2012
NGL	National Gas Law
NGR	National Gas Rules
QTC	Queensland Treasury Corporation
RAB	Regulatory Asset Base
regulatory control period	In this document generally, in the context of the rate of return, the term 'regulatory control period' refers both to regulatory control period under the NER and access arrangement period under the NGR
service providers	Electricity transmission network service provider, electricity distribution network service providers and gas service providers
the guideline	Rate of return guideline
WACC	Weighted average cost of capital
2009 WACC review	AER 2009 review of the weighted average cost of capital (WACC) parameters (published in May 2009).

B Estimation of the return on debt: an example

The purpose of this appendix is to illustrate how the AER proposes to estimate the return on debt under the trailing average portfolio approach and how the AER proposes to implement the transition.

For the example provided below the AER simulated monthly yield data using the model suggested in appendix A of the QTC's submission to the consultation paper.¹⁴ The AER emphasises that the model was chosen purely for illustrative purposes. The AER makes no comments on how accurately it describes the short-term movements in the return on debt in Australia under the current market conditions.

The simulation model specified by the QTC is as follows:

$$S_t = S_{t-1} + \alpha T(\theta - S_{t-1}) + \sigma\sqrt{T}\varepsilon_t$$

where:¹⁵

- S_t is the randomly generated interest rate at time t
- S_{t-1} is the randomly generated interest rate at time $t-1$
- T is the time increment in years ($T=1/12$ to produce monthly observations)
- α is the parameter characterising annual mean reversion speed ($\alpha=0.2$)
- θ is the long-term average interest rate ($\theta=7.0$ per cent)
- σ is the annualised yield volatility parameter ($\sigma=12.0$ per cent)
- ε_t are the independent identically distributed random variables, distributed normally with zero mean and standard deviation of one.

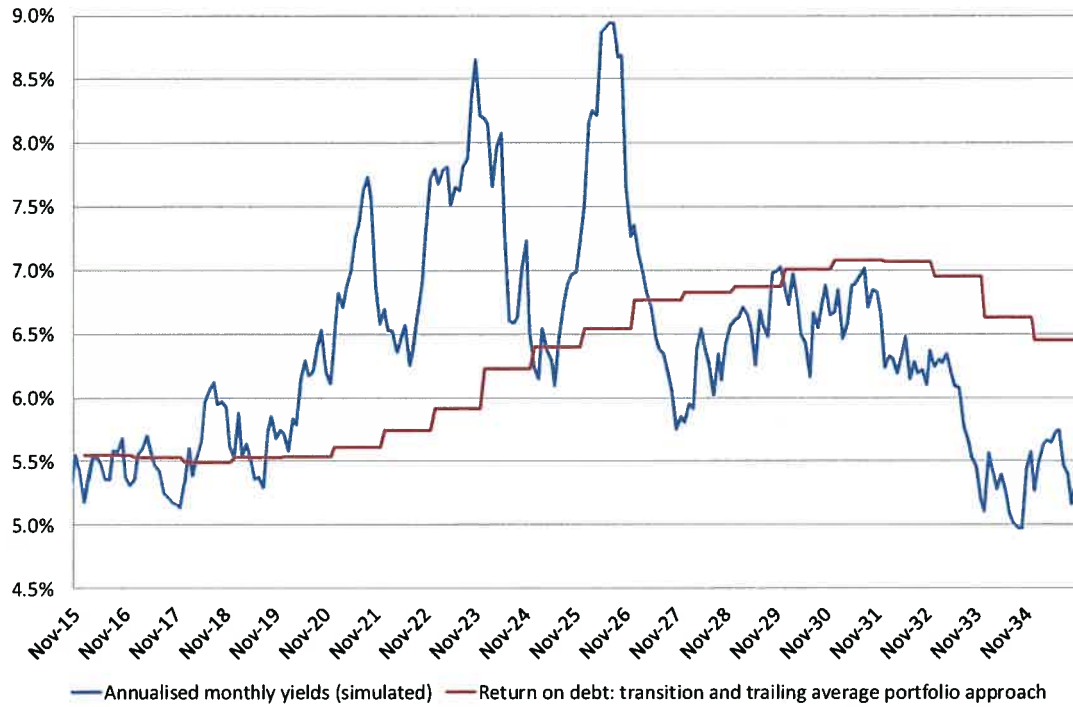
The AER chose the starting rate of return to be equal to the average of Bloomberg seven year BBB yields, extrapolated out to ten years using the paired bonds approach for the period from 28 October 2013 to 22 November 2013. The AER generated 300 monthly observations. For the purposes of this example, the AER assumed a service provider had a five year regulatory control period, and the next regulatory control period would start on 1 January 2016. The AER also assumed that the averaging periods for each regulatory year were set to the month of November of the previous year.

Figure B.1 illustrates the allowed return on debt during the transitional period of January 2016 to December 2025. Following the transitional period, the allowed return on debt is estimated according to the trailing average portfolio approach (red solid line). Note that the allowed return on debt in the first regulatory year of the transitional period is equal to the 'on the day' allowance for the same regulatory year.

¹⁴ Queensland Treasury Corporation (QTC), *Submission to AER's rate of return guidelines consultation paper*, 21 June 2013, pp. 29–30.

¹⁵ Due to the scarcity of relevant data for ten year debt and since the example is provided purely for illustrative purposes, we used the same parameter values as those provided by the QTC.

Figure B.1 An example of estimated allowed rate of return on debt during a transitional period and under the trailing average portfolio approach



Source: AER analysis.

Table B.1 provides details of the estimation of the allowed return on debt for the first 11 regulatory years.

Table B.1 Example of the estimated return on debt allowance calculations (per cent)

Regulatory year	Prevailing rate during the averaging period	Computations	Allowed return on debt
2016	5.55	5.55	5.55
2017	5.38	$0.9 \cdot 5.55 + 0.1 \cdot 5.38$	5.53
2018	5.16	$0.8 \cdot 5.55 + 0.1 \cdot 5.38 + 0.1 \cdot 5.16$	5.49
2019	5.92	$0.7 \cdot 5.55 + 0.1 \cdot 5.38 + 0.1 \cdot 5.16 + 0.1 \cdot 5.92$	5.53
2020	5.68	$0.6 \cdot 5.55 + 0.1 \cdot 5.38 + 0.1 \cdot 5.16 + 0.1 \cdot 5.92 + 0.1 \cdot 5.68$	5.54
2021	6.21	$0.5 \cdot 5.55 + 0.1 \cdot 5.38 + 0.1 \cdot 5.16 + 0.1 \cdot 5.92 + 0.1 \cdot 5.68 + 0.1 \cdot 6.21$	5.61
2022	6.88	$0.4 \cdot 5.55 + 0.1 \cdot 5.38 + 0.1 \cdot 5.16 + 0.1 \cdot 5.92 + 0.1 \cdot 5.68 + 0.1 \cdot 6.21 + 0.1 \cdot 6.88$	5.74
2023	7.29	$0.3 \cdot 5.55 + 0.1 \cdot 5.38 + 0.1 \cdot 5.16 + 0.1 \cdot 5.92 + 0.1 \cdot 5.68 + 0.1 \cdot 6.21 + 0.1 \cdot 6.88 + 0.1 \cdot 7.29$	5.92
2024	8.65	$0.2 \cdot 5.55 + 0.1 \cdot 5.38 + 0.1 \cdot 5.16 + 0.1 \cdot 5.92 + 0.1 \cdot 5.68 + 0.1 \cdot 6.21 + 0.1 \cdot 6.88 + 0.1 \cdot 7.29 + 0.1 \cdot 8.65$	6.23
2025	7.24	$0.1 \cdot 5.55 + 0.1 \cdot 5.38 + 0.1 \cdot 5.16 + 0.1 \cdot 5.92 + 0.1 \cdot 5.68 + 0.1 \cdot 6.21 + 0.1 \cdot 6.88 + 0.1 \cdot 7.29 + 0.1 \cdot 8.65 + 0.1 \cdot 7.24$	6.40
2026	6.99	$0.1 \cdot 5.38 + 0.1 \cdot 5.16 + 0.1 \cdot 5.92 + 0.1 \cdot 5.68 + 0.1 \cdot 6.21 + 0.1 \cdot 6.88 + 0.1 \cdot 7.29 + 0.1 \cdot 8.65 + 0.1 \cdot 7.24 + 0.1 \cdot 6.99$	6.54

Source: AER analysis.



Better Regulation

Explanatory Statement Rate of Return Guideline

December 2013

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Shortened forms

Shortened term	Full title
ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
capex	Capital expenditure
common framework	Refers to the largely consistent rules framework on the rate of return that applies to gas service providers (NGR), electricity distribution network service providers (NER chapter 6) and electricity transmission service providers (NER chapter 6A).
COSBOA	Council of Small Business Australia
CRG	Consumer Reference Group
determination	In this document generally, in the context of the rate of return, the term 'determination' refers both to regulatory determinations under the NER and access arrangement determinations under the NGR.
DRP	Debt Risk Premium
ENA	Energy Networks Association
ERA	Economic Regulation Authority
EUAA	Energy Users Association of Australia
EURCC	Energy Users Rule Change Committee
FIG	The Financial Investor Group
MRP	Market risk premium
MEU	Major Energy Users Inc
NEL	National Electricity Law
NEM	National Electricity Market
NEO	National Electricity Objective
NER	National Electricity Rules
new rules	The National Electricity Rules and National Gas Rules that were published by the AEMC on 29 November 2012
NGL	National Gas Law
NGO	National Gas Objective
NSW T Corp	New South Wales Treasury Corporation
opex	Operating expenditure
PIAC	The Public Interest Advocacy Centre
The QTC	The Queensland Treasury Corporation

RAB	Regulatory Asset Base
RARE	RARE Infrastructure Limited
RDB	Regulatory Development Branch
regulatory control period	In this document generally, in the context of the rate of return, the term 'regulatory control period' refers both to regulatory control period under the NER and access arrangement period under the NGR.
service providers	Electricity transmission network service provider, electricity distribution network service providers and gas service providers
SFG	Strategic Finance Group Consulting
subsequent regulatory control period for service providers	Expected to be 1 July 2015 to 30 June 2019.
transitional regulatory control period for service providers	1 July 2014—30 June 2015
transitional rules	Transitional rules contained in the National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012 No. 9 (Network Regulation rule change) which the AEMC determined in November 2012. These transitional rules set out the transitional arrangements for the next ACT/NSW electricity distribution determinations.
the guideline	Rate of return guideline
WACC	Weighted average cost of capital
2009 WACC review	AER 2009 review of the weighted average cost of capital (WACC) parameters (published in May 2009).

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Executive summary

The AER is the independent regulator for the Australian national energy market. We are guided in our role by the national electricity and gas objectives. These objectives focus on promoting the long term interests of consumers.

In 2012, the Australian Energy Market Commission (AEMC) amended the electricity and gas rules to require us to develop a guideline which outlines our approach to setting the rate of return for regulated electricity and gas network businesses.

The requirements of the rules and the new regulatory framework

This final explanatory statement accompanies our rate of return guideline for electricity and gas transmission and distribution networks (the guideline). The rules require us to develop this guideline and to specify within it:¹

- The method we propose to use to estimate the allowed rate of return (derived from the expected return on equity and the return on debt) for electricity and gas network businesses.
- The method we propose to use to estimate the value of imputation tax credits used to establish a benchmark corporate income tax allowance.
- How these methods will result in an allowed return on equity, return on debt and value for imputation tax credits which is consistent with the allowed rate of return objective.

The rules require us to determine an allowed rate of return that achieves the allowed rate of return objective at the time we make a revenue or access arrangement determination:

The allowed rate of return objective is that the rate of return for a [regulated network] is to be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the [service provider] in respect of the provision of [regulated services].²

The guideline is not binding on us in determining the allowed rate of return or on service providers in proposing their allowed rate of return as part of their revenue proposals. However, should we decide to depart from the guideline we must provide reasons for doing so. Equally, while it is open to network businesses to move away from the guideline within their specific revenue proposals, the rules require that they provide reasons for a proposal to depart from the approach set out in the guideline.

The rules also require us to set out in the guideline the estimation methods, financial models, market data and other evidence that we propose to take into account in estimating the expected return on equity, return on debt and the value of imputation tax credits.³ In doing so, the rules require us to exercise our regulatory judgement in estimating the allowed rate of return. We propose to apply a number of criteria to inform our regulatory judgement. The guideline and accompanying explanatory statement explains how we propose to exercise our judgement.

We consider that our approach is consistent with the features of a good rate of return framework as outlined by the AEMC.⁴ As such, we consider our proposed approach promotes the national electricity

¹ NER cl. 6.5.2 (n) (1); 6A.6.2(n); NGR, r. 87(13).

² NER, cl.6.5.2(c) and 6A6.2(c); NGR, r.87(3).

³ NER cl. 6.5.2 (n) (2); NGR, r. 87(14)(b).

⁴ AEMC, *Final Position Paper, National Electricity Amendment (Economic Regulation of Network Service Providers) Rule 2012; National Gas Amendment (Price and Revenue Regulation of Gas Services) Rule 2012*, 15 November 2012, pp.26–29.

and gas objectives and will contribute to achieving the allowed rate of return objective. In particular, our proposed approach focuses on:

- At both the return on equity and return on debt, the efficient financing costs for a benchmark efficient entity. This framework provides incentives for business to pursue efficient financing practices to support efficient investment while at the same time protecting consumers from the costs of inefficient practices.
- Application of assessment criteria to guide our selection and use of estimation methods, models, market data and other evidence which will inform our assessment of the overall rate of return. The application of the criteria will support consistency and transparency in our regulatory decisions and contribute to achieving the allowed rate of return objective.
- Adoption of an approach that is responsive to changing market conditions and new evidence but at the same time provides sufficient certainty to network businesses, investors and consumers regarding our approach to estimating the overall rate of return.
- Promotion of effective consumer participation through an accessible consultation process.

The major features we propose in the guideline include:

- Considering a broad range of material in arriving at a point estimate of the allowed return on equity. We propose to use the Sharpe–Lintner capital asset pricing model (CAPM) to determine a starting point estimate and a range for the return on equity. We propose to also use the Black CAPM and estimates from dividend growth models, among other information, to inform the estimation of the Sharpe–Lintner CAPM input parameters. We also propose to have regard to the return on equity suggested by the Wright approach, valuation and broker reports, and decisions by other regulators. Where appropriate, this information may lead us to set an estimate of the return on equity that differs from the output of the Sharpe–Lintner CAPM.
- Applying a trailing average portfolio approach for estimating the return on debt. The trailing average will be calculated using a simple ten year average and will be updated annually. We propose a transition period from the current 'on the day' approach to the trailing average portfolio approach for all regulated businesses.
- Considering a wide range of material to inform the estimation of the value of imputation credits.

Further details on key aspects of our guideline are outlined below.

Benchmark efficient entity

We propose to define the benchmark efficient entity as a 'pure play', regulated energy network business operating within Australia.

We maintain our view that the risks faced by gas and electricity businesses are sufficiently similar to warrant only one benchmark across all businesses. We do not consider that a separate benchmark for electricity or gas businesses is warranted based on the evidence before us. We note that the empirical evidence before us does not show any material difference between the results for gas and electricity businesses. We also consider that the regulatory framework mitigates the risk exposure of the regulated businesses. Furthermore, the similar framework applying between gas and electricity reduces potential divergences between the two sectors.

Our proposed approach to the definition of the benchmark efficient entity is discussed in chapter 3 of this explanatory statement and chapter 3 of the guideline.

Overall rate of return

The overall rate of return will be estimated by applying a nominal vanilla weighted average cost of capital (WACC) formula.⁵ The use of a nominal vanilla WACC is a requirement of the electricity and gas rules, and was therefore not within the scope of the AER's review as set out in this guideline. The rate of return is a weighted average of the expected return on equity and the return on debt.

The weights used reflect our assessment of the relative proportion of equity and debt in the total financing arrangements of a benchmark efficient network business. We propose to calculate the overall rate of return assuming a benchmark gearing ratio of 60 per cent. Our proposed approach to gearing is discussed in appendix F of this final explanatory statement. The tax effects are captured in the corporate income tax building block of the post-tax revenue model, and include an adjustment for the value of imputation tax credits.

We propose that the allowed overall rate of return will be updated annually. This is because we propose the return on debt to be updated annually. On the other hand, we propose the allowed return on equity to be set for the duration of the regulatory period.

The overall rate of return will be a point estimate, reflecting the use of point estimates for the allowed return on equity, return on debt and gearing level. We propose that the return on equity point estimate will be chosen from within a range for the return on equity.

Our proposed approach to the overall rate of return is discussed in chapter 4 of this final explanatory statement and chapter 4 of the guideline.

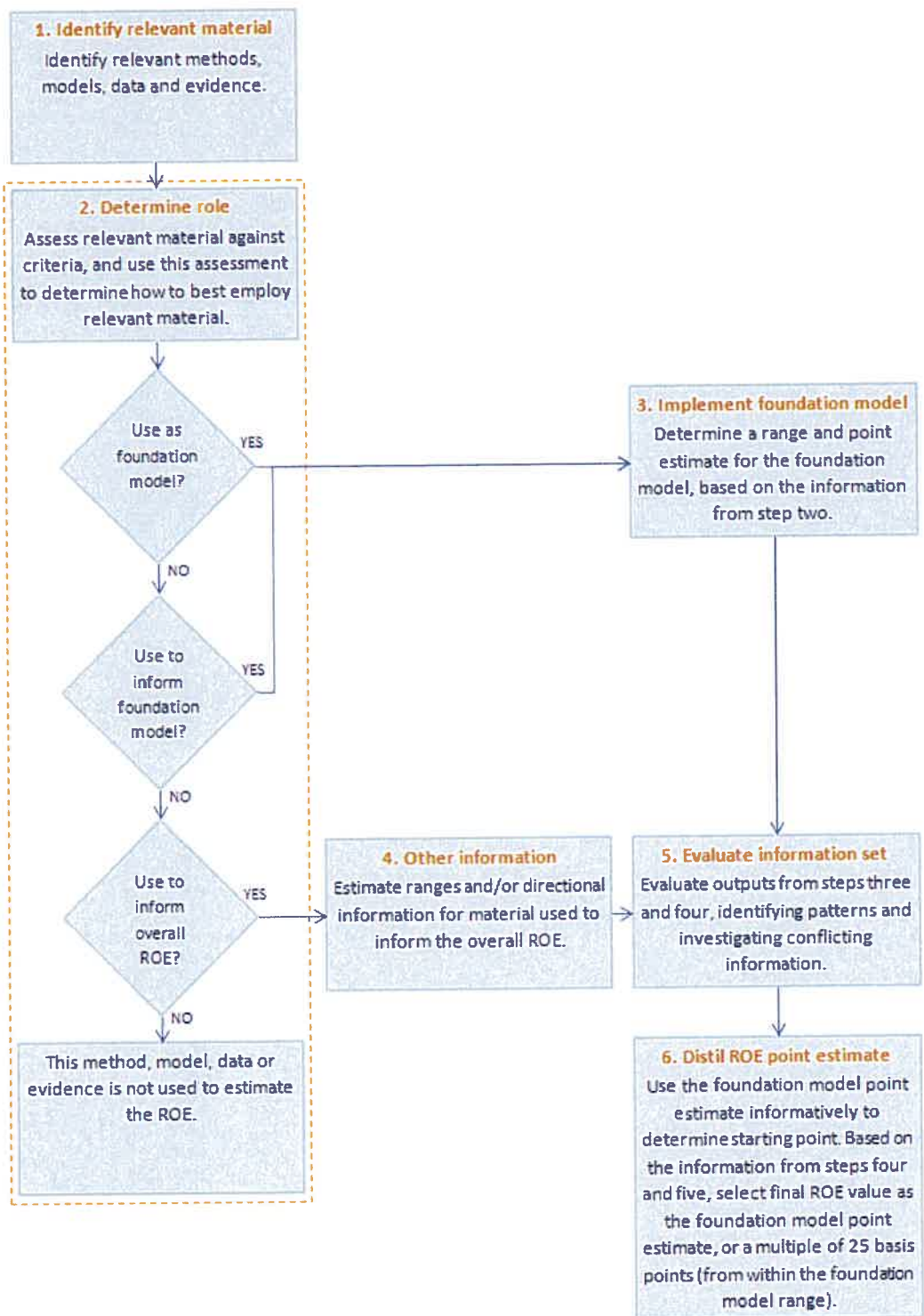
Return on equity

To determine an estimate of the expected return on equity that is consistent with the allowed rate of return objective, we propose an approach that has regard to a broad range of relevant material. This approach uses the Sharpe–Lintner CAPM as the foundation model, but draws on additional models and information to determine the final return on equity point estimate. The use of the Sharpe–Lintner CAPM promotes simplicity, transparency and certainty of process.

Our proposed approach is outlined in chapter 5 and is summarised in the following flow chart. It contains six steps, and results in a single point estimate for the expected return on equity. In appendices A and B, we have completed steps one and two. That is, identify relevant methods, models, data and other information and assessing it against our criteria for determining how the information will be used. In order to promote greater certainty, we have also set out our application of step three in implementing the foundation model as at December 2013. This is set out in chapter 6 and appendices C and D. However, the application of step three will be updated based on the latest data at the time of each reset determination. Accordingly, the parameter estimates we set out in this explanatory statement for step three may differ from the parameter estimates we adopt in future reset determinations. In chapter 5, we set out an explanation of our approach to steps four to six, however the application of these steps will occur at the time of each reset determination.

⁵ A nominal vanilla WACC is the combination of a nominal post-tax return on equity and a nominal pre-tax return on debt.

Figure 1 Proposed approach to estimating the return on equity



Source: AER analysis.

The risk free rate, which is an input into the foundation model, can be observed with reasonable certainty, and so we propose to adopt a point estimate for the risk free rate at the time of each determination. We propose that the point estimate for the risk free rate (used in the return on equity calculation) will be based on the prevailing yield on 10 year Commonwealth Government Securities (CGS) over a short (20 business day) period as close as practicably possible to the commencement

of the regulatory period. The dates of the averaging period will be determined by the AER and disclosed in the draft decision of each determination.

The equity beta and market risk premium (MRP) cannot be as readily observed. In recognition of this uncertainty we propose to estimate ranges for these parameters from within which we propose to select a point estimate for each parameter. The adoption of point estimates and ranges for some parameters will consequently result in a range and a point estimate for the return on equity based on a Sharpe–Lintner CAPM.

In estimating the MRP, we place most emphasis on historical estimates (which gives an MRP estimate of approximately 6 per cent) and dividend growth model estimates (which give changing MRP estimates over time, particularly in response to changing interest rates). Our approach to the MRP is symmetrical. This means we may adopt a value above 6 per cent when dividend growth model estimates are above the historical estimates (as they are at December 2013), and a value lower than 6 per cent when dividend growth model estimates are below the historical estimates. At December 2013, our MRP point estimate is 6.5 per cent, chosen from within a range of 5 to 7.5 per cent.

We propose to adopt an equity beta of 0.7, chosen from within a range of 0.4 to 0.7. This is consistent with our view that returns to network businesses vary less with economic conditions than returns for the equity market as a whole. In setting the range, we have regard to empirical estimates of listed Australian energy networks. In selecting a point estimate at the upper end of this range, we have regard to other factors including empirical estimates of international energy businesses.

Our starting point for estimating the final return on equity will be the foundation model point estimate. Moreover, the final point estimate is expected to be selected from within the foundation model range.

The final estimate of the expected return on equity, however, will ultimately require the exercise of regulatory judgement. This judgement will draw on the analysis of the other information provided in step five. For example, we may determine an estimate of the return on equity that is higher (lower) than the foundation model estimate where the other information indicates a higher (lower) return is appropriate. The relative strengths and limitations of each source of other information, as well as the consistency of patterns in this information, will be important.

The use of regulatory judgement may also suggest a final estimate of the return on equity that is outside the foundation model range. In these circumstances, we may reconsider the foundation model input parameter estimates, or more fundamentally, we may also reconsider the foundation model itself. That said, we expect our final return on equity estimate, in most market circumstances, to fall within the foundation model range.

Further, under our approach, if the foundation model point estimate is not adopted the final estimate of the return on equity will be determined as a multiple of 25 basis points. This recognises the limited precision with which the return on equity can be estimated. It is also consistent with our approach of only using the foundation model informatively.

We consider our return on equity approach provides an appropriate balance between transparency, simplicity, certainty and replicability. We also expect this approach to lead to more stable estimates of the return on equity than under our previous approach.

Our proposed approach to estimating the expected return on equity is discussed in chapters 5 and 6 of this final explanatory statement and chapter 5 of the guideline.

Return on debt

We propose to apply a trailing average portfolio approach to estimate the return on debt. This approach means that the allowed return on debt more closely aligns with the efficient debt financing practices of regulated businesses and means that prices are likely to be less volatile over time. The trailing average would be calculated over a ten year period. The annual updating of the trailing average should also reduce the potential for a mismatch between the allowed return on debt and the return on debt for a benchmark efficient entity. This should reduce cash flow volatility over the longer term.

In addition, the guideline specifies a gradual transition from the current approach of using prevailing rates as close as possible to the start of the regulatory control period (the 'on the day' approach) to the trailing average portfolio approach. The transition will occur over a period of 10 years. We propose to apply this transition to all service providers consistent with our view that there is a single benchmark efficient entity.

Further, the guidelines set out the proposed method to calculate the allowed return on debt. In particular, we propose to use an independent third party data service provider to estimate the allowed return on debt. We also propose that the return on debt will be calculated over 10 or more consecutive business days, using yield estimates for a 10 year debt term and the closest proximate for a BBB+ credit rating or its equivalent.

The guideline also specifies that the trailing average must be updated during a regulatory control period using the method set out in the guideline. We propose to specify in a service provider's determination how an automatic update to the trailing average can be applied in circumstances where the method of calculating the allowed return on debt is no longer available or has been amended during a service providers regulatory control period.

Our proposed approach to, and implementation of, the return on debt are discussed in chapters 7 and 8 of this explanatory statement and chapter 6 of the guideline.

Imputation credits

Under a post-tax framework, which is required by the electricity and gas rules, the value of imputation credits is included within the calculation of the corporate tax liability.⁶ This is reflected in the revenue cash flows via the corporate tax component of the building block model.

We propose that the value of imputation credits is based on the product of the payout ratio and the utilisation rate. We also propose an approach that has regard to a broad range of information to inform these inputs—including the equity ownership approach, taxation statistics, implied market value studies and the conceptual goalposts approach. Having had regard to this material, and the strengths and weaknesses of each source of evidence, we consider that 0.5 is a reasonable estimate of the value of imputation tax credits.

Our proposed approach to the valuation of imputation tax credits is discussed in chapter 9 of this final explanatory statement and chapter 7 of the guideline.

⁶ The value of imputation credits is an estimate of the expected proportion of company tax which is returned to investors through the utilisation of imputation credits.

Development and application of the guideline

Important to our success in developing the guideline was to hear from all stakeholders on the matters that are important to them. In developing the guideline we have undertaken an extensive consultation process to provide stakeholders with multiple opportunities to raise and discuss matters. This comprehensive consultation process (outlined in chapter 1) was intended to ensure that the guideline addresses all relevant issues and reduces the need for any unnecessary departures from the guideline. This should also minimise the scope for extensive review of the proposed approach at each revenue or access arrangement determination. This should provide stakeholders with greater certainty and predictability as to how we will assess rate of return requirements at each determination.

We believe the new rate of return assessment framework, applied consistently over time, will address the desirability for regulatory stability through greater transparency of the key components of the rate of return and how these are assessed. This will enhance predictability, thereby lowering uncertainty for stakeholders. Our approach also provides the scope to be responsive to changing market conditions and new evidence in setting the allowed rate of return. Further, our approach will balance the interests of stakeholders by providing the opportunity for the recovery of efficient financing costs and more stable returns for the businesses, and more stable price movements for consumers. We consider this will support the necessary attraction of long term capital investment, whilst addressing the long term interests of consumers.

1 Introduction

The Australian Energy Regulator (AER) is responsible for the economic regulation of electricity and gas transmission and distribution services in eastern and southern Australia under the National Electricity Rules (NER) and the National Gas Rules (NGR) (collectively, the rules). We monitor the wholesale electricity and gas markets, and are responsible for compliance with and enforcement of the rules. We also regulate retail energy markets in the ACT, South Australia, Tasmania (electricity only) and New South Wales.

Our Better Regulation program involves the publication of several guidelines, including publication of the rate of return guideline (the guideline). The guideline will set out the approach we intend to take to determining the allowed rate of return in accordance with the National Electricity Law (NEL) and the National Gas Law (NGL) (collectively, the law).

This explanatory statement is the final paper in our consultation process for developing the draft guideline for the regulated electricity and gas transmission and distribution network service providers (the 'service providers'). It follows the Australian Energy Market Commission's (AEMC) changes to the rules on 29 November 2012. The aim of these reforms is to deliver an improved regulatory framework that focuses on the long term interests of energy consumers.

This chapter provides an introduction and background to the guidelines. First, the rate of return framework is discussed. This is followed by a summary of the role of the guideline and the applicability of this guideline to forthcoming regulatory determinations. Lastly, issues arising from the implementation of the guideline are discussed.

1.1 Rate of return regulatory framework

The return on capital often represents the largest component of the revenue determinations of service providers. A service provider should be provided with a reasonable opportunity to recover at least the efficient costs it incurs in providing regulated services and complying with a regulatory obligation or requirement or making a regulatory payment. The allowed rate of return allows service providers to obtain necessary funds from capital markets to fund capital investments and service the debt they incur in borrowing the funds. The rate of return can make up approximately 50 per cent of the revenue needs for a service provider. Therefore, the rate of return is a key element of the network charges that consumers pay.

The previous frameworks for estimating the rate of return for electricity transmission, electricity distribution and gas service providers differed in a number of respects, in particular the extent of prescription in the rules and whether the estimate was made at each determination or in a periodic review.⁷

The changes to the rules made by the AEMC were initiated by the AER in September 2011.⁸ In the rule change request, we stated:⁹

⁷ The former frameworks refer to frameworks prior to issuance of AEMC's final determination published on 29 November 2012 which sets out the amendments that have been made to the rules. The former frameworks are provided in chapter 6A of the NER for electricity transmission, chapter 6 of the NER for electricity distribution, and rule 87 of the NGR for gas service providers.

⁸ For more on the rule change process, see: <http://aemc.gov.au/Electricity/Rule-changes/Completed/economic-regulation-of-network-service-providers-.html>.

⁹ AER, *Cover letter to AEMC - Rule change proposal - energy network regulation reform*, 29 September 2011, see: <http://www.aemc.gov.au/electricity/rule-changes/erc0134--initiation-documents.html>.

The current restrictions on an objective assessment of the efficiency or the necessity of expenditure proposed by electricity businesses is causing consumers to pay more than they should for a safe and reliable supply of electricity services. Our proposed changes allow for a more effective and robust assessment of the costs proposed by electricity network businesses.

...The AER is also proposing a consistent approach for setting the rate of return on investment for gas and electricity network businesses. These changes would provide certainty for investors while ensuring that the regulator's approach can keep pace with changing financing practices.

The AEMC was concerned that the AER should be better able to respond to changing financial market conditions and the availability of new evidence. In its final determination, the AEMC concluded that none of the previous rate of return frameworks was capable of best fulfilling the requirements of the National Electricity Objective (NEO) and the National Gas Objective (NGO) (collectively, the objectives), and the Revenue and Pricing Principles (RPP). The AEMC considered that a new rate of return framework was therefore needed.¹⁰

After an extensive consultation process, the AEMC amended the rules to include new requirements relating to the framework for estimating the rate of return on capital. The new rules require us to determine an allowed rate of return that achieves the allowed rate of return objective at the time we make a revenue or access arrangement determination. The allowed rate of return for a regulatory year must be a weighted average of the return on equity for the regulatory control period in which that regulatory year occurs and the return on debt for that regulatory year.¹¹ The allowed rate of return objective is:¹²

...that the rate of return for a [regulated network] is to be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the [service provider] in respect of the provision of [regulated services].

The new rules give us the discretion to adopt the approach we consider most appropriate to estimate the rate of return with the ability to take into account a wider range of relevant estimation methods, financial models, market data and other evidence as well as considering inter-relationships between parameter values. This will enable us to determine the best estimate of the required rate of return at the time of each regulatory determination.

Further, this aspect of the new rate of return framework incorporates a greater degree of regulatory judgement than did the previous framework. As part of the new framework, the AEMC has not included any preferred methods for estimating components of the rate of return. Instead, the AEMC has provided high-level principles to guide the estimation of the rate of return consistent with achieving the overall allowed rate of return objective.

To assist us in this assessment process and to provide greater transparency around this, we are proposing to use a set of criteria which we will apply in making judgements and decisions about the estimation methods, financial models, market data and other evidence. This discussed in chapter two.

Further, we consider that the objectives, and the overall rate of return objective, will be best achieved through the exercise of regulatory practices that:

- recognise the desirability of consistent approaches to regulation across the energy industry, so as to promote economic efficiency
- promote incentives to finance efficiently

¹⁰ AEMC, *Final determination*, 29 November 2012, p. 42.

¹¹ NER, cl. 6.5.2(d), cl. 6A.5.2(d). should there be a reference to the NGR as well?

¹² NER, cl. 6.5.2(c) and cl. 6A.6.2(c); NGR, r. 87(3).

- promote reasoned, predictable and transparent decision making
- promote flexibility and adaptability, to allow our decisions to respond to changing circumstances, and to take account of a wider range of assessment methods and information in estimating the rate of return; and
- improve the regulatory determination process to allow us adequate time for decision making, to enhance consumer engagement, and to increase transparency and accountability.

In our view, the framework allows us to focus on the overall objective of making decisions that are in the long-term interests of consumers. In essence this requires the regulatory process to look not only at the short term impact of proposals but also how these will affect price and service outcomes for customers over a longer period. It is important to keep this longer term perspective in mind when considering improvements to our regulatory approaches. In keeping with the overall objectives of incentive regulation, the overall rate of return should provide service providers effective incentives to promote economic efficiency with respect to services they provide.

The desirability of achieving the specific aims of incentive regulation may be linked back to the efficiency requirements of rules. For example, the revenue and pricing principles refer explicitly to the need to provide effective incentives to promote economic efficiency.¹³

A service provider should be provided with effective incentives in order to promote economic efficiency with respect to the regulated services that it provides, this includes promoting the:

- efficient investment in a distribution or transmission system
- efficient provision of energy network services
- efficient use of the distribution system or transmission system.¹⁴

Accordingly, the RPPs are an important framework issue for assessing how the national electricity and gas objectives and the rate of return objective interrelate. In assessing the rate of return we must be consistent with the objectives. This is more likely to be achieved where our decisions are consistent with the principles of incentive based regulation.

For example, it is important that the regulatory framework delivers incentives for the service providers to undertake efficient investment. This will be achieved where the required rate of return is set at the level which is commensurate with the risks facing the benchmark efficient entity. In circumstances where the allowed rate of return is higher (lower) than the required rate of return, this may lead to inefficient over investment or under investment.

1.2 The role of the guideline

The new rules require us to develop a rate of return guideline that sets out the approach we intend to take to determining the allowed rate of return for both electricity and gas service providers. To give effect to the new rules on the rate of return, we are required to develop and a publish rate of return guideline covering:

¹³ NEL, s. 7A. Similar provisions are included for the NGL, see section 24.

¹⁴ NEL, s. 7A. Similar provisions are included for the NGL, see section 24.

- (1) The methodologies that the AER proposes to use in estimating the allowed rate of return, including how those methodologies are proposed to result in the determination of a return on equity and a return on debt in a way that is consistent the allowed rate of return objective.
- (2) The estimation methods, financial models, market data and other evidence we propose to take into account in estimating the return on equity, the return on debt and the value of imputation credits.¹⁵

Accordingly, the guideline sets out:

- our proposed positions on the elements for assessing the rate of return including the return on equity and return on debt
- the estimation methods, financial models, market data and other evidence that we propose to take into account when estimating the allowed rate of return
- the way in which we propose to take into account the estimation methods, financial models, market data or other evidence.

The aim of the guideline is to provide sufficient detail to allow a service provider or other stakeholders to understand our approach and how we will exercise our discretion consistent with the rate of return objective.

In its final determination, the AEMC specifically stated that the guideline would be non-binding on us or on service providers. Although the guideline is non-binding in nature, in practice we and the service providers will be expected to follow the guideline when setting the rate of return. In the event that a service provider seeks to depart from the guideline in proposing an alternative approach to setting the rate of return, they would need to provide compelling reasons and evidence for a proposed departure. The same obligation rests on us if we wished to depart from the approach set out in the guideline.

The rules require us to review the rate of return guideline at least every three years. In our view subsequent guidelines are likely to be limited to incremental changes in approach.

1.3 **Applicability of this review to forthcoming regulatory determinations**

Once completed, we intend to apply the guideline to the next round of regulatory determinations to be submitted to us in 2014 (see table 1.1 and table 1.2).

The rules include transitional arrangements to enable us to apply the new rules as soon as possible. This will allow the benefits of the new rules to flow through to consumers more quickly.

¹⁵ NER, cl. 6.5.2 and 6A.6.2(c); NGR, r. 87.

Table 1.1 Timetable for regulatory determinations (electricity)

Service provider	Framework and approach paper published	Regulatory proposal due	Regulatory period commence	
TransGrid and Transend (NSW and Tas transmission)	31 January 2014	Transitional: 31 January 2014 Full: 31 May 2014	Transitional: 1 July 2014 Full: 1 July 2015	
2014–15 Group of NSPs	ActewAGL, Ausgrid, Endeavour Energy and Essential Energy (ACT and NSW distribution)	Part 1: 31 March 2013 Part 2: 31 January 2014	Transitional: 31 January 2014 Full: 31 May 2014	Transitional: 1 July 2014 Full: 1 July 2015
Directlink (Interconnector between Qld and NSW)	31 January 2014	31 May 2014	1 July 2015	
2015–16 Group of DNSPs	Ergon Energy, Energex and SA Power Networks (Qld and SA distribution)	30 April 2014	31 October 2014	1 July 2015
	Jemena, United Energy, Citipower, Powercor and SP AusNet (Vic distribution)	31 October 2014	30 April 2015	1 January 2016
	Aurora Energy (Tas distribution)	31 July 2015	31 January 2016	1 July 2017
Post 2016 Group	Powerlink (Qld transmission)	31 July 2015	31 January 2016	1 July 2017
	ElectraNet (SA transmission)	31 July 2016	31 January 2017	1 July 2018
	Murraylink (Interconnector between SA and Vic)	31 July 2016	31 January 2017	1 July 2018

Source: AEMC, *Final rule determination*, 29 November 2012, p. 229.

Table 1.2 Timetable for regulatory determinations (gas)

Service provider		Regulatory proposal due	Access arrangement period commence
Gas Distribution			
2014–15 Group of NSPs	Envestra (Wagga Wagga), Jemena (NSW Gas Distribution)	June 2014	1 July 2015
	ActewAGL (ACT Gas Distribution)	June 2015	1 July 2016
Post 2016 Group	APT Allgas, Envestra (Qld), Envestra (SA) (Qld and SA Gas Distribution)	June 2015	1 July 2016
	Envestra (Albury), SP AusNet, Multinet, Envestra (Vic) (Vic Gas Distribution)	December 2016	1 January 2018
Gas Transmission			
2014–15 NSP	Dawson valley pipeline (Qld Gas Transmission)	September 2014	September 2015
Post 2016 Group	Amadeus gas pipeline (NT Gas Transmission)	July 2015	1 July 2016
	Roma to Brisbane pipeline (Qld Gas Transmission)	August 2016	1 July 2017
	APA GasNet (Vic Gas Transmission)	December 2016	1 January 2018

Source: AER analysis.

4 Consultation process

Important to our success in developing the guideline was to hear from all stakeholders on the matters that are important to them. In developing the guideline we have undertaken extensive consultation process to provide stakeholders with multiple opportunities to raise and discuss matters.

This comprehensive consultation process is intended to ensure that the guideline addresses all relevant issues and reduces the need for any unnecessary departures from the guideline. This should also minimise the scope for extensive review of the proposed approach at each revenue or access arrangement determination. This should provide stakeholders with greater certainty and predictability as to how we will assess rate of return requirements at each determination. An outline of the consultation process that was undertaken in the development of the guideline is provided below:

- On 18 December 2012, we released an issues paper. This paper raised and sought comment on a broad range of issues at a high level with no firm positions taken by us. We received 20 submissions on the issues paper.

- On 5 February 2013, we hosted a forum on the development of the guideline. A range of stakeholders including representatives of regulated energy businesses, energy users, state regulatory authorities, government statutory authorities and investors in regulated utilities participated in this forum. At the forum we sought high level views from participants on key matters. Forum participants discussed issues set out in our issues paper. Stakeholders sought clarification on how we would apply the principles set out in the issues paper and explain how these principles related to the objectives and the RPP.
- On 25 and 26 February 2013 we held two sub-group workshops on: i) the overall rate of return and cost of equity ii) the cost of debt. Again a range of stakeholders attended these workshops and discussed the key issues relating to development of guideline including the role of the principles, the nature of the benchmark efficient entity, the use of financial models and approaches for estimating the cost of equity and cost of debt.
- In May 2013 we released a consultation paper. This paper sought comments on our preliminary positions on some elements of the rate of return. We received 41 submissions on the consultation paper.
- On 3 and 4 June 2013 we held two sub-group workshops on: i) approach to return on debt benchmark and ii) return on equity—models assessment. A large number of stakeholders attended these workshops. The debt workshop discussed the key issues relating to approach to return on debt- benchmark ('on-the day' and portfolio), trailing average, annual updating of a trailing average, weighting, and transitional arrangements. The equity workshop discussed various models used for assessing the return on equity.
- On 18 June 2013 we held another workshop on relationship between risk and the rate of return, and implications for the definition of the benchmark efficient entity. Again a large number of stakeholders and the consultants attended this workshop. Frontier Economics made presentations on: i) characteristics and exposures of energy networks in general and ii) differences in risk exposures of different types of energy networks. Associate Professor Graham Partington made a presentation on accounting for risk within the regulatory framework. The consultants also responded to the stakeholders questions.
- On 30 August 2013, following the release of the draft rate of return guideline we held an information session presented by the AER Chairman, Andrew Reeves outlining the details of our draft guideline. We published a copy of the presentation and answers to all questions raised during the session. In response to the draft guideline and accompanying explanatory statement we receive 46 submissions.
- On 1 October 2013 we held a stakeholder forum to discuss our draft rate of return guideline. The forum provided interested stakeholders with an opportunity to clarify aspects of the draft guideline and to present their views on the draft guideline.
- On 11 October 2013, we released an issues paper on equity beta as part of our consultation for developing the rate of return guideline. This issues paper set out our proposed approach to estimating the equity beta. We received 14 submissions on this issues paper.
- In addition, we have held a number of bilateral meetings during the process with the QTC, TCorp, ERA, IPART, APIA, , EUAA, ENA, PIAC, Merrill Lynch, Moody's, Standard and Poor's, Goldman Sachs, Westpac. We also held a number of meetings with the Consumer Reference Group (customer group representatives) to receive feedback from on key issues from a consumer perspective.

We have published notes on key aspects of the discussions we had at the public forums. These can be found on our website at <http://www.aer.gov.au/node/18859>.

1.5 Implementation

This section outlines our approach on a number of issues arising from the implementation of the rate of return guideline.

1.5.1 Transaction costs and forecast inflation

We previously sought submissions from interested stakeholders regarding our proposed approach to allowing for debt and equity raising costs in the revenue building blocks. We also sought comments on the method we proposed to estimate forecast inflation.

As discussed with stakeholders, the final guideline does not cover our position on transactions costs or forecast inflation. These issues will need to be considered in upcoming determinations.

5.2 Amendments to the Post Tax Revenue Model

We will need to amend the PTRM to reflect the change to method of estimating the return on debt due to:

- Our proposal to estimate the return on debt using a trailing average portfolio approach and the proposal to annually update the return on debt allowance. Different return on debt inputs will be required in the WACC sheet each year within the regulatory period rather than a single return on debt input.
- The proposed gradual transitional arrangement from the current 'on the day' approach to the trailing average portfolio approach to estimate the return on debt. A new sheet is required for the calculation of weights to be applied to the estimate of return on debt during the transitional period.
- Different return on debt inputs for each regulatory year. This may require us to re-run the PTRM each regulatory year to update the annual building block revenue requirement and corresponding X factor for the relevant regulatory year.

The PTRM will need to be amended through a separate consultation process in accordance with the consultation procedures outlined in the rules.

1.6 Structure of this explanatory statement

This explanatory statement is structured as follows:

- Chapter 2 discusses our proposed approach to application of criteria for assessing the allowed rate of return.
- Chapter 3 discusses our proposed definition of benchmark efficient entity and compensation of risk.
- Chapter 4 discusses our proposed approach to estimating the overall return of return.
- Chapter 5 discusses the proposed approach to estimating the expected return on equity.
- Chapter 7 discusses our proposed approach to estimating the return on debt.

- Chapter 8 discusses our implementation of the estimated return on debt.
- Chapter 9 discusses our proposed approach to estimating imputation credits.

2 Application of criteria

This chapter discusses our understanding of the terms 'estimation methods, financial models, market data and other evidence' and how we propose to take this information into account in setting the allowed rate of return. We set out criteria that we propose to use to assess the merits of the various sources of information. This will help ensure that information is used in a manner that contributes to decisions which achieve the allowed rate of return objective.

2.1 Issue

The AEMC in its final rule determination considered that the estimation of the required rate of return could be improved by permitting us to take account of a broad range of information.¹⁶ The AEMC specifically did not include in the new rules any preferred methods for determining the rate of return.¹⁷ Instead it provided for the AER to exercise its judgement as to the best approach.¹⁸

Estimating the rate of return ultimately requires a regulator to exercise judgement about the analytical techniques and evidence to use to make an estimate that is commensurate with efficient financing costs. The new framework does not prescribe methodologies or lock-in specific benchmark characteristics other than providing high-level principles that should be taken into account when estimating various components, such as return on equity and debt. While the judgement as to the best approach is left to the regulator, the preferred methods must be developed to meet the overall allowed rate of [return] objective.

To guide our exercise of judgement the new rules specify that we must have regard to 'estimation methods, financial models, market data and other evidence' relevant to the assessment of the allowed rate of return.¹⁹ In this guideline we set out criteria that will assist our assessment of the various estimation methods, financial models, market data and other evidence and our exercise of judgement on the use of this information.

2.2 Approach

We propose to adopt a set of transparent criteria to assist our assessment of the various estimation methods, financial models, market data and other evidence to which we must have regard in our rate of return decisions. We used these criteria to assess these sources of information in developing this guideline. In future determinations we may also use these criteria to assess information presented during the determination that supports or departs from these estimation methods, financial models, market data and other evidence.

The criteria are subordinate to the law, the rules and the objectives. We anticipate that the criteria will improve the transparency, certainty and predictability of decision-making and contribute to decisions that achieve the allowed rate of return objective.

2.2.1 The criteria for assessing information

We consider that decisions on the rate of return are more likely to achieve the allowed rate of return objective if they use estimation methods, financial models, market data and other evidence that are:

¹⁶ AEMC, Rule determination: National electricity amendment (Economic regulation of network service providers) Rule 2012: National gas amendment (Price and revenue regulation of gas services) Rule 2012, 29 November 2012, p. 67 (AEMC, *Final rule change determination*, November 2012).

¹⁷ See, for example, AEMC, *Final rule change determination*, 29 November 2012, p. iv.

¹⁸ AEMC, *Final rule determination*, 29 November 2012, p. 38.

¹⁹ NER, cl. 6.5.2(e) and cl. 6A.6.2(e); NGR, r. 87(5).

- (1) where applicable, reflective of economic and finance principles and market information
 - (a) estimation methods and financial models are consistent with well accepted economic and finance principles and informed by sound empirical analysis and robust data
- (2) fit for purpose
 - (a) the use of estimation methods, financial models, market data and other evidence should be consistent with the original purpose for which it was compiled and have regard to the limitations of that purpose
 - (b) promote simple over complex approaches where appropriate
- (3) implemented in accordance with good practice
 - (a) supported by robust, transparent and replicable analysis that is derived from available credible datasets
- (4) where models of the return on equity and debt are used these are
 - (a) based on quantitative modelling that is sufficiently robust as to not be unduly sensitive to errors in inputs estimation
 - (b) based on quantitative modelling which avoids arbitrary filtering or adjustment of data, which does not have a sound rationale
- (5) where market data and other information is used, this information is
 - (a) credible and verifiable
 - (b) comparable and timely
 - (c) clearly sourced
- (6) sufficiently flexible as to allow changing market conditions and new information to be reflected in regulatory outcomes, as appropriate.

2.3 Reasons for approach

Estimating the allowed rate of return ultimately requires us to exercise judgement about the estimation methods, financial models, market data and other evidence (which we refer to collectively as 'information') to be used. The new rules framework does not prescribe any specific models or evidence to be considered or methodologies or frameworks to be used. This is left to the discretion of the regulator, subject to the requirement to determine a rate of return that achieves the allowed rate of return objective. The new framework provides considerable flexibility in determining the allowed rate of return. Also, the broad terms in the allowed rate of return objective mean that there may be several ways of practically implementing it. Therefore, we consider it helpful to set out criteria that will structure our consideration of various sources of information and how we propose to use this information to determine a rate of return. This will provide a greater degree of certainty and transparency for our future determinations. We also consider applying these criteria will ensure a robust approach and contribute to the achievement of the allowed rate of return objective

We draw a distinction, as the AEMC did, between the consideration of this information and the methodologies used, drawing upon this information, to determine the rate of return.²⁰

The criteria will assist us to evaluate the available information and its relevance to the determination of the rate of return in a structured, transparent and consistent manner. This feeds into the methodology set out within this guideline for the determination of the rate of return. As the AEMC acknowledged, this requires the exercise of judgement and discretion guided by the allowed rate of return objective. The methodology set out in this guideline guides, but does not constrain, the exercise of this discretion. The framework will provide greater consistency and transparency in the exercise of this discretion and contribute to the achievement of the allowed rate of return objective.

These criteria do not supplant the new rules. Rather, the criteria are subordinate to the law, the rules, and the objectives. We consider these criteria will provide stakeholders with greater certainty, and more importantly provide a framework, as to how we intend to exercise our regulatory judgment in respect of this information, while allowing us sufficient flexibility to make decisions in changing market conditions. Not all the various estimation methods, financial models, market data and other evidence will be of equal value in determining the efficient return on capital for the benchmark entity. For example, some information may be more relevant, more feasible to construct, or more reliable than others. The criteria will help us assess this.

The proposed approach to the consideration of information from estimation methods, financial models, market data and other evidence set out in this guideline reflects the use of these criteria. However, at the time of an individual service provider's determination, we will also use these criteria to assess information presented by that service provider that supports or departs from the methods, financial models, market data and other evidence set out in the guideline.

We received several submissions from stakeholders on the assessment criteria that were included in the consultation paper. Most submissions generally supported our proposed approach and criteria.²¹ For example, PIAC submitted that:²²

Important to achieving these outcomes is the use of well accepted models with sound theoretical and empirical support, fit for purpose and with internal consistency, along with reliable and well-defined data sets, and implemented appropriately for the circumstances. The AER has identified a similar set of criteria in the consultation paper and PIAC strongly supports this approach for the reasons outlined above.

However, some stakeholders expressed concerns and sought greater clarity from the guideline. Our draft report provided further explanation of the criteria and their use. In response to the draft guideline APIA expressed concern that we went beyond using the criteria to assess the relevance of the sources of information and used the criteria 'to assess the appropriateness of [the AER's] methods and methodologies for determining the rate of return for debt and equity in a way that effectively replaces the [allowed rate of return objective]'.²³ APIA proposed that the methods to be used in determining the rate of return must be assessed directly against the allowed rate of return objective

²⁰ NER, cl 6.5.2(n) and 6A.6.2(n); NGR, r. 87(14).

²¹ Australian Pipeline Industry Association Ltd, *Submission to the Australian Energy Regulator's rate of return guidelines consultation paper*, June 2013, p. 1 (APIA, *Submission on the consultation paper*, June 2013); Major Energy Users Inc, *Australian Energy Regulator, Better Regulation, Rate of return guidelines: Comments on the consultation paper*, June 2013, pp. 9–11 (MEU, *Comments on the consultation paper*, June 2013); The Financial Investor Group, *Response to the AER consultation paper: Rate of return guidelines*, 24 June 2013, pp. 13–14 (FIG, *Response to the consultation paper*, June 2013); Public Advocacy Centre Ltd, *Balancing risk and reward: Submission to the AER's consultation paper: Rate of return guidelines*, 21 June 2013, p. 4 (PIAC, *Submission on the consultation paper*, June 2013); Council of Small Business of Australia, *Australian Energy Regulator – Better Regulation program: Rate of return guidelines consultation paper: Comments*, 5 July 2013, p.5 (COSBOA, *Comments on the consultation paper*, July 2013).

²² PIAC, *Submission on the consultation paper*, June 2013, p. 4.

²³ Australian Pipeline Industry Association Ltd, *Meeting the ARORO? A submission on the Australian Energy Regulator's draft rate of return guideline*, 11 October 2013, p. 1 (APIA, *Submission to the draft guideline*, October 2013).

and that we had not done this in the draft guideline. The ENA expressed concern that ‘the potential for the criteria to conflict with the binding rule provisions and lead the AER into decisions inconsistent with the rules is in ENA’s view high’.²⁴ However, the ENA agreed that criteria can be used in assessing the quality and relevance of evidence.²⁵ In this final report we have clarified that the criteria will be used in the assessment of relevant sources of information and evidence on rates of return and that the use of the criteria will be subordinate to the law, the rules, and the objectives.

The APIA also set out some specific concerns in regard to some of the criteria. These concerns are addressed in section 2.3.2, which provides further explanation of our proposed criteria.

2.3.1 Estimation methods, financial models, market data and other evidence

The new rules require us to set out in the guideline:²⁶

1. The methods we propose to use.
2. The estimation methods, financial models, market data and other evidence we propose to take into account.

In determining the allowed rate of return, we must have regard to ‘relevant estimation methods, financial models, market data and other evidence’.²⁷

Our understanding of what these terms mean and how we may use them in determinations is discussed below. The criteria listed in section 2.2 provide a framework for assessing the relevance and quality of this information. We assess the return on equity models and information against these criteria in appendices A and B.

Estimation methods

We consider estimation methods to mean some processes or procedures used to compute an estimate of a parameter within a model or a component of the rate of return.

An example of an estimation method is the method we have previously used to estimate the risk free rate. To do so we have averaged the observed yield on 10 year Commonwealth Government Securities (CGS) over a defined period. Another example is the use of historical excess returns to inform the forward looking market risk premium (MRP) estimates in the CAPM.

We propose to use estimation methods to determine parameters, values or any other inputs to the rate of return where a financial model is not applicable, or to support a financial model.

Financial models

We consider financial model means an abstract representation of a financial decision-making situation. Examples of financial models include the Sharpe–Lintner CAPM, the Black CAPM, the Fama–French three factor model and the dividend growth model (DGM). These models are discussed in greater detail in appendix A.

²⁴ Energy Networks Association, *Response to the draft rate of return guideline of the Australian Energy Regulator*, 11 October 2013, p. 2 (ENA, *Response to the draft guideline*, October 2013).

²⁵ ENA, *Response to the draft guideline*, October 2013, pp. 14, 26, 44.

²⁶ NER, cls. 6.5.2(n), 6A.6.2(n); NGR, r.87(14).

²⁷ NER, cls. 6.5.2(e)(1), 6A.6.2(e)(1); NGR, r.87(5)(a).

The strength of financial models is that they provide a consistent and coherent framework for considering the rate of return and its components. We expect that financial models will continue to play a central role in the determination of the allowed rate of return. We will use financial models to estimate the return on equity. We may also use one financial model to estimate parameters within another financial model. An example might be using a DGM to estimate the MRP within the Sharpe–Lintner CAPM. Our previous use of the Sharpe–Lintner CAPM has rested upon its sound theoretical foundations and strong degree of acceptance and use in practice. Regulators in Australia and overseas have used this model, as well as capital market participants more generally.²⁸

Market data

We consider market data to include:

- prices, maturities, and terms and conditions of government and non-government bonds, financial derivatives, and other financial instruments
- equity prices and ratios, such as price earnings ratios and RAB multiples
- financial structures, such as gearing levels and credit ratings.

An example of market data is the data we have used in the past to determine the risk free rate. We have used data on the observed yield on 10 year CGS. Another example of market data is the data on corporate bond yields. These can be used to estimate the return on debt directly or cross-check estimates of the return on debt derived from other sources, such as the Bloomberg fair value curves.

We might use market data as inputs to estimation methods or financial models, or as alternative estimates and cross-checks of the outputs of those methods and models.

Other evidence

Examples of other evidence might include broker reports, experts' reports or feedback from market participants and stakeholders.

We might use other evidence at any point in the estimation of the rate of return, where we consider it will contribute to achieving the allowed rate of return objective. This may be as a cross-check on the overall WACC or return on equity estimates, or as a consideration when estimating a particular parameter value.

2.3.2 Assessment of proposed criteria

Reflective of economic and finance principles and market information (criterion one)

We consider economic and finance theory provides important insights into the conditions for achieving economic efficiency, including for the setting of revenue and prices for natural monopoly service providers. Economic theory also suggests economically efficient outcomes are in the long-term interests of consumers. This criterion is intended to draw on these theoretical insights to maximise the likelihood that regulatory outcomes would promote economic efficiency, and thus would achieve the allowed rate of return objective and the (national electricity and gas) objectives.

²⁸ See, for example, Grant Samuel, *Financial Services Guide and Independent Expert's Report in relation to the takeover offer by Pipeline Partners Australia Pty Limited - Appendix 2: Selection of discount rate*, 3 August 2012, p. 1.

This criterion is also intended to recognise that a sound and well-accepted theoretical foundation for a regulatory approach is highly desirable. This desirability was grounded within an interpretation of the objectives and their requirement for regulation to:²⁹

...promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect...to price, quality, safety, reliability and security of supply of electricity...

...promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.

We consider the reference to 'economic' principles is important, as it relates to the achievement of efficiency, as set out above. It is less likely that other methods—that are not grounded in the concept of economic efficiency—would be as effective in achieving the objectives.

We consider that models, estimation methods, and other information that 'are well accepted' will help to deliver outcomes that achieve the allowed rate of return objective. The intention here is to ensure models and information well-grounded in economic theory will have greater recognition and acceptability, and be more likely to be widely used in the practical estimation of efficient financing costs. We consider this will, in turn, enhance the credibility and acceptability of a decision. The allowed rate of return objective requires us to set a rate of return commensurate with the efficient financing costs of the benchmark efficient entity.³⁰ We do not consider this to be only a theoretical proposition. Rather, it should be consistent with observable good practice in efficient businesses. We consider that, in practice, businesses make financing and investment decisions using widely accepted economic and financial models of the efficient cost and allocation of capital. To the extent that we use models for estimating the rate of return that are consistent with those widely used in practice, we are more likely to achieve the allowed rate of return objective.

Most stakeholders made no specific comments on this criterion. However, the APIA stated that 'the link [of economic principles to the NGO through] efficiency is not explicitly made and we doubt such a link can be made'.³¹ APIA considered that the NGO is concerned pragmatically with efficient investment and the long term interest of consumers.³² As noted above we consider that economic and finance principles provide practical guidance on the efficient cost and allocation of capital. This in turn guides efficient investment and the efficient allocation of resources more generally, both of which are in the long-term interests of consumers.

Fit for purpose (criterion two)

There are two aspects of this criterion: firstly, that the use of the information should be consistent with its original purpose and limitations; and, secondly, that simpler, less complex approaches should be preferred.

Some information may be of value in the determination of the rate of return, but its value may be diminished because it was constructed for a different purpose. For example, an investment fund may use a model of relative return for allocating investments within a fund. The primary purpose of such a model may be to distinguish between the relative return of different businesses within an industry sector rather than the estimation of the absolute return. That is, for its purpose it may be less sensitive

²⁹ NEL, section 7; NGL, section 23.

³⁰ NER, cls.6.5.2(c) and 6A.6.2(c); NGR, r.87(3).

³¹ APIA, *Submission to the draft guideline*, October 2013, p.5.

³² APIA, *Submission to the draft guideline*, October 2013, p.5.

to common parameters, such as the risk free rate. In contrast, we have to set an absolute value for the rate of return, for which these common parameters are quite important.³³

An important limitation of some of the information may be its past performance in forecasting returns or its robustness or sensitivity to assumptions. For example, dividend growth models can be quite sensitive to assumptions on growth in future earnings.³⁴ This factor is relevant to how the information from these models should be considered. Information that is considered less reliable may be considered qualitatively rather than quantitatively.

We prefer simpler over more complex approaches. This is because simpler models are more likely to be understandable, less prone to data mining and inappropriate correlation within the model and may have fewer data requirements. Accordingly, we consider simple models that perform as well as complex models should be preferred, all other things equal. This explanatory statement provides examples of how we intend to apply this criterion.

APIA submitted that there was no clear basis for consideration of fitness for purpose independently of the primary requirements of rule 87 of the NGR.³⁵ As discussed we consider that all the criteria for the exercise of regulatory discretion are subordinate to the law and the rules; hence, there is no scope for inconsistency. We agree with APIA that simple approaches must not be chosen simply as a matter of convenience.

Implemented in accordance with good practice (criterion three)

Information from estimation methods and models implemented in accordance with good practice will be preferred and given greater consideration. Such information is more likely to be reliable and result in consistent decision making in accordance with the allowed rate of return objective. By 'good practice' we mean that the information is supported by robust, transparent and replicable analysis, and derived from credible data sets.

We consider this criterion captures the notion of sound estimation approaches. It is consistent with the desirability of best-practice methods in achieving the allowed rate of return objective referred to by the AEMC.³⁶

Models based on quantitative modelling (criterion four)

Models will be preferred if they are based on sound quantitative modelling principles. For example, where models of the return on equity and debt are used, they are based on quantitative modelling that is sufficiently robust such that they are not unduly sensitive to errors in input estimation. We also propose that the models used should be based on quantitative modelling that avoids arbitrary filtering or adjustment of data that does not have a sound rationale.

The primacy of the allowed rate of return objective suggests where constituent components have been used to inform the overall rate of return estimate, these constituent components must be

³³ For example, under the CAPM the MRP is a common input for estimating the return on equity across different companies and sectors. A variation in the MRP, so long as it is consistently applied, will have a relatively small effect on the relative return on equity but will have a direct effect on the absolute value of the estimated return on equity.

³⁴ See Appendix E for further discussion of dividend growth models.

³⁵ APIA, *Submission to the draft guideline*, October 2013, p.6.

³⁶ AEMC, *Final rule change determination*, November 2012, pp. 42, 43, 56, 71.

estimated such that they contribute to the achievement of the rate of return objective.³⁷ These constituent components include the return on equity and return on debt.

We do not consider that robust outcomes from quantitative modelling necessarily prescribe a mechanistic interpretation. Rather, we consider that best practice statistical approaches would help to deliver robust estimates. To the degree that estimates are not robust or statistically sound, we need to take that performance into account in terms of making a judgment as to the effectiveness of that particular method.

Market data and other information (criterion five)

Where market data or other information is used, this information should be:

- credible and verifiable
- comparable and timely
- clearly sourced.

The intention of the above criterion is to ensure the empirical analysis and data supporting the estimation of the rate of return are employed in a sound manner.

Have the flexibility to reflect changing market conditions (criterion six)

The rate of return for the benchmark efficient entity will vary with changing conditions. In this context, the determination of the rate of return is more likely to achieve the allowed rate of return objective if it draws upon data that reflects changing market conditions and new information, where relevant. We consider this criterion would help to deliver the requirements of the law and the rules.

The rules refer to the need to have regard to prevailing market conditions when estimating the return on equity.³⁸ However, what is intended in this criterion is that relevant estimation methods are capable of capturing the relevant changes in prevailing market conditions or changes that have occurred over time. For example, a capable estimation method would be based on data that is updated on a timely basis. Such capability could assist the method to meet the requirement for the return on equity to reflect prevailing conditions in the market for equity funds.

.3.3 Application of proposed criteria

Table 2.1 summarises our application of the criteria in assessing the return on equity models and related information.

³⁷ The new rules require the use of a weighted average cost of capital, but this is subject to the requirement that the weighted average must contribute to the allowed rate of return objective (NER, cls. 6.5.2(d) and 6A.6.2(d); NGR, r.87(4)).

³⁸ NER, cl. 6.5.2(g) and cl. 6A.6.2(g) and NGR, r. 87(7).

Table 2.1 **Application of criteria**

Issue	Reference
Return on equity models	Appendix A
Return on equity (other information)	Appendix B
Sharpe–Lintner CAPM parameters	Chapter 6, and appendices C, D and E
Dividend growth models	Appendix E

Source: AER analysis.

3 Benchmark efficient entity and compensation for risk

This chapter outlines our proposed definition of the benchmark efficient entity. The definition of the benchmark efficient entity has implications for the estimated return on debt and equity (including the choice of data and models used to estimate the return on equity and debt).

3.1 Issue

The allowed rate of return objective requires that we set the rate of return for a distribution or transmission service provider which is commensurate with the efficient financing costs of a benchmark efficient entity. The benchmark efficient entity is to have a similar degree of risk as that which applies to the distribution or transmission service provider in respect of the provision of regulated services.³⁹

The AEMC provided for the possibility of more than one benchmark if there was not a similar degree of risk between the benchmark efficient entity and the network service providers.⁴⁰

In assessing whether more than one benchmark is required, we are directed to consider the risk characteristics of regulated energy network service providers in providing regulated services. We must assess whether the degree of risk exposure in providing regulated services is similar for the benchmark efficient entity and the regulated energy network service provider which is subject to the particular determination.⁴¹ In preparing our draft explanatory statement we sought advice from Frontier Economics on the risks to which regulated energy businesses are exposed in delivering regulated services.⁴²

This chapter outlines our considerations in making this assessment.

3.2 Approach

We propose to maintain our position in the draft guideline to:

- adopt a single benchmark across gas, electricity, transmission and distribution
- adopt a conceptual definition of the benchmark efficient entity that is 'a pure play, regulated energy network business operating within Australia'.

We have come to this view after further consideration of the issues and matters raised in submissions in response to the draft guideline.

Our approach to the implementation of the definition of the benchmark efficient entity is discussed in chapter 5 (for return on equity approach) and chapter 7 (for return on debt approach).

³⁹ NER, cls. 6.5.2(c), 6A.6.2(c); NGR, r. 87(2)(3).

⁴⁰ AEMC, *Final rule change determination*, 29 November 2012, p. 67.

⁴¹ In electricity distribution regulated services refers to standard control services, in electricity transmission it refers to prescribed transmission services and for gas distribution and transmission it refers to reference services.

⁴² Frontier Economics, *Assessing risk when determining the appropriate rate of return for regulated energy networks in Australia*, June 2013.

3.3 Reasons for approach

We consider that the risk exposure of the businesses we regulate, after taking into account the risk and the mitigating impact of the regulatory regime, is sufficiently similar to warrant the use of only one benchmark. We have reached this view for the following reasons:

- Differences in demand risk are mitigated by the regulatory regime through the revenue or price setting mechanism (form of control). In particular, under a revenue cap, where forecast quantity demanded differs from actual quantity demanded, in subsequent years price adjustments are made to enable the approved revenue to be received by the service provider. Further, in most cases, a transmission service provider will determine prices based on historical demand which reduces intra year revenue variations. This effectively mitigates the risk associated with demand volatility. Electricity transmission service providers are required to use a revenue cap.⁴³ We have indicated a preference for revenue caps.⁴⁴
- Under a price cap, service providers may mitigate the risk of forecast error by restructuring tariffs, such that higher fixed charges are set to offset demand volatility.
- Electricity distribution and gas service providers are able to propose the form of control they employ—revenue cap, price cap, or any variation thereof.⁴⁵ Service providers would be expected to choose the form of control which maximises its shareholder wealth. If a service provider chooses a price cap over a revenue cap it implies that any expected increase in cash flows must outweigh any expected increase in risk (that is, discount rate applied to the expected cash flows).
- With respect to competition risk, we considered that by virtue of being regulated, these service providers effectively face a very limited increase in risk due to competition.

We consider that it is generally accepted that the demand for gas and electricity is relatively inelastic.⁴⁶ With reference to price and income elasticities respectively, this means that prices or incomes have to change quite significantly for the end user to change the quantity of gas or electricity that they demand. We consider that, as a consequence of the inelasticity of demand and the slow technological change, changes in end user demand are generally likely to be small or business specific and to occur over a relatively lengthy period of time. To the extent that there are genuine risks of extreme changes in demand for specific service providers which present the potential for stranding of an asset, the regulatory regime for gas and electricity can mitigate this risk by providing prudent discount and accelerated depreciation provisions.⁴⁷

In reaching these views, we considered the risks which service providers are exposed to in delivering regulated gas and electricity, transmission and distribution services. We divided these risks into business and financial risks and considered whether they were systematic or non-systematic risks. Under this framework we considered only those risks for which investors would require compensation through the rate of return, as opposed to those risks which are compensated through cash flows or those which do not require compensation at all.

Our starting point was that we consider the businesses we regulate have similar risks in delivering regulated services and to explore areas of likely difference. We consider this approach is justified

⁴³ NER, cl. 6A.4.2(a)(1).

⁴⁴ AER, *Discussion Paper: Matters relevant to the framework and approach, ACT and NSW DNSPs 2014–2019, Control mechanisms for standard control electricity distribution services in the ACT and NSW*, April 2012, p. 15.

⁴⁵ NER, cl. 6.2.5(b), NGR, r. 97(2).

⁴⁶ Bureau of Resource and Energy Economics, *Gas Market Report 2012*, Canberra, May 2012, p. 47.

⁴⁷ NER, cl. 6A.26. NGR, r. 96; NER, cls. 6.5.5(b)(1), 6A.6.3(b)(1), NGR, r.89(1).

given these businesses have similar business characteristics (that is, they operate in Australia, are regulated and belong to the same industrial sub-sector).

In the draft explanatory statement, we considered the risk drivers which may have the potential to lead to different risk exposures. The differences were considered in terms of any differences that may exist between gas and electricity and transmission and distribution. Submissions in response to the draft explanatory statement restated some of these risks. We continue to hold the view that there are two major drivers of risk including:

- the businesses' types of end user customer, their demand sensitivity, and the impact of the regulatory regime on regulated revenues
- the competition to which a business is exposed in providing reference services and the impact of this on risks that require compensation, primarily systematic risks.

These considerations reinforce our view that a single benchmark efficient entity is appropriate for all of the network businesses we regulate.

Below we have provided reasons for each aspect of our definition of the benchmark efficient entity.

Pure play

A pure play business is one which offers services focused in one industry or product area. In this context, it means that the benchmark efficient entity provides only regulated energy network services.

We consider that the benchmark efficient entity should be a pure play business as a business that offers services which are not related to regulated energy network services is likely to have a different risk profile.

Regulated

A regulated entity for the purposes of our benchmark is one which is subject to economic regulation (that is, revenue price cap regulation) under the National Electricity Rules and/or the National Gas Rules.

We consider that the benchmark efficient entity should be a regulated entity as:

- The rules require that the risks associated with the provision of regulated services are considered in determining the required rate of return.⁴⁸ As regulated services are delivered by regulated entities, it is logically consistent to consider the benchmark efficient entity as a regulated entity.
- Regulated service providers are typically not exposed to competition from other firms (in the case of distribution and some transmission businesses) or exposed to limited competition (in the case of regulated transmission businesses). The limited competition may alter the relevant (systematic) risk profile when compared with an unregulated firm.
- Regulated service providers are able to earn more stable cash flows relative to most unregulated businesses. These cash flows are regularly updated at resets to reflect required revenue (including changes due to shifts in demand and expenditure drivers) and therefore have similar business risks. Regulated service providers are also provided with some protection to their cash flows during regulatory control periods (e.g. pass through provisions and reopeners).

⁴⁸ NER, cls. 6.5.2(c), 6A.6.2.(c); NGR, r.87(2)(3).

- Regulated service providers may align their business practices to the regulatory regime. This may lead to a different risk exposure than that faced by an unregulated firm.

Energy network business

'Energy network' refers to a gas distribution, gas transmission, electricity distribution or electricity transmission business.

We consider that the benchmark efficient entity should be a regulated energy network business as:

- The rules refer to the regulation of energy transmission and distribution
- Different sectors of the economy are expected to have different characteristics which will lead to different risk profiles. By limiting the benchmark to energy network businesses we are limiting the possibility that risks will be dissimilar due to sectoral differences.

Implicit in the adoption of 'energy business' in the proposed definition of the benchmark efficient entity is that there is a single benchmark for gas distribution, gas transmission, electricity distribution and electricity transmission. We consider that the evidence available does not suggest that the risks are likely to be sufficiently dissimilar between gas distribution, gas transmission, electricity distribution and electricity transmission to justify more than one benchmark (see section 3.3.3).

Operating within Australia

We consider that the benchmark efficient entity should be operating within Australia as the location of a business determines the conditions under which the business operates. This includes the regulatory regime, tax laws, industry structure and broader economic environment. As most of these conditions will be different from those prevailing for overseas entities, the risk profile of overseas entities is likely to differ from those within Australia.

Other issues

Parent ownership

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

We consider that firms either with or without parent ownership can be used for estimating the return on capital. As long as the risk of the parent is likely to be consistent with the risk of the regulated business, the estimated required return of investors in the parent or the subsidiary should reflect the required return of investors in the regulated business.

Our current definition of the benchmark entity includes 'without parent ownership'. We have reviewed this component of the definition. This review was motivated by the practical observation that over time the ownership of regulated assets has evolved towards a conglomerate structure. Today all regulated energy entities in Australia have parent ownership. Furthermore, there is evidence that credit rating agencies consider the parent ownership in assessing ratings. Parent ownership presents a different risk profile to an assumption of no parent ownership. An example of this is where the parent is able to influence negotiations to secure good terms, which results in a material decrease in the network

entity's refinancing risk.⁴⁹ Frontier identified that efficiencies may be available to the parent via scale economies associated with largely fixed issuance costs, access to markets with minimum issuance size requirements, pooling of risk across subsidiaries achieving internal diversification, lowering default risk and so borrowing costs.⁵⁰

However, we consider that it is not possible to specify a single particular ownership structure which is "efficient." Therefore, we propose not to take a view on ownership structure in the definition of the benchmark efficient entity. We continue to hold this view.

Efficiency of the benchmark entity

We consider that the benchmark entity is efficient as it responds to the incentives provided by the regulatory regime. The objectives of the regulatory regime include setting incentives which promote economically efficient investment, provision of services and use of the transmission or distribution system.⁵¹ In relation to efficient financing practices, in our draft explanatory statement we said that:⁵²

We consider that in efficient capital markets, all firms operate on the capital frontier. All firms should be priced efficiently and able to access capital at the cost associated with the risks they face that are priced by investors (e.g. under CAPM this would be the systematic risk as measured by the CAPM beta associated with their business operations). Outperformance or underperformance relative to the frontier is reflective of firm specific factors which are not of concern to the regulator as these are not priced in capital markets and do not require ex-ante investor compensation. We note that we compensate transaction costs according to the size of the firm so as not to bias firms towards larger firm structures due to economies of scale that may be associated with raising capital.

We continue to hold this view.

Submissions in response to our draft explanatory statement:

- proposed an alternative framework for considering risk
- questioned our interpretation of efficiency in relation to the benchmark efficient entity
- re-stated or proposed new issues supporting separate benchmarks for gas and electricity
- considered that there should be a separate benchmark for government and privately owned entities.

We consider each of these issues, in turn, below.

3.3.1 Framework for considering risk

We consider that our starting position that the businesses we regulate have similar risks in delivering regulated services is justified given these businesses have similar business characteristics (that is, they operate in Australia, are regulated and belong to the same industrial sub-sector).

APIA submitted that the AER should start from a position of no similarity between the businesses' risk in providing regulated reference services and then group businesses under a benchmark when

⁴⁹ Moody's Investor Service, *Credit Focus, SP AusNet, SPI (Australia Assets) Pty Ltd and Jemena Limited: Frequently Asked Questions*, 22 May 2013.

⁵⁰ Frontier Economics, *Assessing risk when determining the appropriate rate of return for regulated energy networks in Australia*, June 2013, p. 40.

⁵¹ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, pp. 17-18.

⁵² AER, *Explanatory statement: Draft rate of return guideline*, August 2013, p. 175.

similarity has been established.⁵³ It proposed a high level method for econometrically establishing the similarity of businesses.⁵⁴ The method requires the specification of a value for the deviation from the risk characteristics of the starting point business to allow for the grouping of businesses with a particular degree of similarity.⁵⁵ We do not accept APIA's submission. We consider that APIA's proposed high level econometric method for establishing the similarity of businesses would need to be operationalised before we could consider it. Our view is that the method raises the following issues:

- It is complex and it is likely to be data intensive
- There are likely to be significant issues regarding the establishment of a sufficient nexus between the data and the risk being proxied. Finding co-movement between data sets does not necessarily mean that the intended risk effects are being captured. There is a possibility that as a consequence of data mining, data used as proxy for risks would be used without a good theoretical basis. We note that this is akin to our reservations associated with using the Fama-French three factor model (see appendix A).
- As data on all risks is included it is likely to pick up many risks that are diversifiable and which do not require compensation under the assumption that investors hold fully diversified portfolios
- If a 'state of the world' and its consequence is to be interpreted across all businesses in a relative sense then coefficients from a system of equations, where all business relationships with the 'state of the world' are specified, would need to be jointly estimated, otherwise the error terms are not correlated. If the equations were separately estimated the coefficients would not reflect the relative influence of the particular risk across the businesses.
- In estimating the parameters, there are likely to be significant problems with multicollinearity and achieving statistically significant estimates⁵⁶
- For the above reasons, it is considered to be far too complicated for a regulatory benchmark and may not promote the achievement of the rate of return objective.

We consider that only those risks for which investors require compensation are relevant in determining a WACC. We provided detailed reasoning for this view in the draft explanatory statement. APA Group submitted that risks in general should be compensated. APA Group alluded to risks⁵⁷ which the AER considers are more appropriately factored into cash flows (for example, higher capex or opex allowances) rather than through the WACC. We reiterate our draft position in relation to the return on equity that:⁵⁸

[s]ystematic risk is the only risk that enters into the estimation of return on equity under the assumption that investors hold fully diversified equity portfolios. This is because it is only non-diversifiable risk that equity investors cannot manage.

With respect to the return on debt, we continue to hold our draft position in relation to return on debt. There we noted that to the extent that non-systematic risks cause an expectation of default the yield

⁵³ APIA, *Submission to the draft guideline*, October 2013, p. 14.

⁵⁴ APIA, *Submission to the draft guideline*, October 2013, pp. 16-20.

⁵⁵ APIA, *Submission to the draft guideline*, October 2013, p. 17.

⁵⁶ Multicollinearity results where variables move in a sufficiently similar or related way such that reliable attribution of impacts to a particular coefficient cannot be made. This means that the data does not explain the implied relationship at the chosen level of statistical significance.

⁵⁷ APA Group, *Submission to the draft guideline*, October 2013, p. 13. The example provided refers to businesses operating in higher risk environments (eg. pipelines within a major urban area versus operating in an area where there is minimal human habitation), which leads to higher operating costs.

⁵⁸ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, p. 35.

to maturity will reflect this.⁵⁹ We consider that default risk is likely to be small for regulated energy networks. This is because they are protected from competition, which is why they are regulated, and these businesses have relatively stable cash flows.

The NSW Irrigator's Council submitted that the AER should reference competitive firms rather than regulated firms in defining the benchmark entity.⁶⁰ As stated in the draft explanatory statement, we consider that the benchmark efficient entity should reference regulated energy network businesses as:⁶¹

- The rules require us to consider the risks associated with delivering regulated services
- Regulated businesses are typically either not exposed to competition or exposed to limited competition. Regulated businesses are able to earn more stable cash flows relative to most unregulated businesses. Consequently, these factors may alter the relevant (systematic) risk profile of a regulated business when compared with an unregulated business.
- Regulated businesses may align their business practices to the regulatory regime. This may lead to a different risk exposure than that faced by an unregulated firm.

3.3.2 Efficiency of the benchmark entity

We consider that the benchmark entity is efficient as it responds to the incentives provided by the regulatory regime. In relation to efficient financing practices, we consider that in efficient capital markets all firms operate on the capital frontier. All firms should be priced efficiently and able to access capital at the cost which reflects the risks they face and which investors consider should be priced.

APA Group submitted that the AER has not reflected the rules requirement that the benchmark efficient entity is efficient in the conceptual definition of the benchmark efficient entity. It suggested that the AER use formal efficiency analysis using econometric techniques such as data envelopment or stochastic frontier analysis. It also pointed to the use of APIA's method to address efficiency.⁶²

Given our position on the efficiency of the benchmark firm, we disagree with this submission. We do not consider these are necessary for the purposes of defining the benchmark efficient entity. APA Group referred to APIA's method addressing its efficiency concerns.⁶³ It is unclear to us what specification APIA's method makes in relation to efficiency.

3.3.3 Consideration of energy sector risks and differing risk between gas and electricity entities

We consider the two major drivers of different risk exposures between gas and electricity and transmission and distribution are demand and competition risk. However, for the reasons outlined above, we consider that the net risk exposure of the businesses we regulate is sufficiently similar to warrant the use of only one benchmark.

⁵⁹ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, p. 36.

⁶⁰ NSWIC, *Submission to the draft guideline*, October 2013, p. 5.

⁶¹ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, p. 48.

⁶² APA Group, *Submission to the draft guideline*, October 2013, p. 11.

⁶³ APA Group, *Submission to the draft guideline*, October 2013, p. 11.

Some submissions supported this view. The MEU submitted that gas and electricity and transmission and distribution should be subject to the same approach for setting the rate of return.⁶⁴ PIAC stated that it agrees with using a single benchmark efficient entity to assess the rate of return across gas and electricity and transmission and distribution.⁶⁵

ENA considered that the AER has not recognised the 'significant confluence of technological, commercial and regulatory risks' to which network businesses are exposed.⁶⁶ We disagree with this submission. We considered the impact of technological change and the impact of the proposed regulatory regime in the draft explanatory statement.⁶⁷ We did not consider them to be material.

We noted in the draft explanatory statement that gas and electricity production technology is relatively mature and technological advances which are likely to have a meaningful impact on prices have been relatively slow to commercialise.⁶⁸ The area of greatest development is in large scale renewables. However, while we note that renewables are projected to increase significantly, the intermittency of generation requires that there is concomitant development of gas peaking load to provide system stability.⁶⁹ Rooftop PV is projected to account for only a small amount of total electricity generation in 2050. Grid connection is still likely to be required for emergency and peak use and for deriving feed-in revenue.⁷⁰ Furthermore, businesses are able to change their tariff structures to mirror the change in use profile associated with rooftop PV, moving towards a higher fixed cost based on connectivity and capacity and a lower consumption cost.⁷¹ There is also the potential for distributed solar PV to defer the requirement for network investment associated with peak demand by reducing maximum demand.⁷²

In the draft explanatory statement we considered the impact of the regulatory regime on the risks to which regulated businesses are exposed in delivering regulated services. We referenced our proposed approach to the new rules which will modify the risks to which regulated businesses are exposed.⁷³ The changes relate primarily to electricity businesses. They include:

- the introduction of an ex post review where inefficient capex above the allowance, related party margins and opex amounts reclassified as capex are able to be excluded from the regulatory asset base. We note that regulated gas businesses are already subject to this.⁷⁴
- Modification to the capital expenditure sharing scheme.⁷⁵ The AER is proposing to allow service providers to retain 30 per cent of any underspend during the regulatory control period and make service providers bear 30 per cent of any overspend.⁷⁶

In the draft explanatory statement we noted that businesses have the flexibility to reprioritise capex between activities. They also have the ability to delay more discretionary projects and re-propose those projects for funding in subsequent access arrangement periods.⁷⁷ For electricity network service

⁶⁴ MEU, *Submission to the draft guideline*, October 2013, p. 12.

⁶⁵ PIAC, *Submission to the draft guideline*, October 2013, p. 10.

⁶⁶ ENA, *Submission to the draft guideline*, October 2013, p. 3.

⁶⁷ ENA, *Submission to the draft guideline*, October 2013, p. 44-46; ENA, *Submission to the draft guideline*, October 2013, Table 3.1, p. 37-40 and pp.40-41.

⁶⁸ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, p. 36.

⁶⁹ BREE, *Australian Energy Projections to 2049-2050*, Canberra, December 2012, Table 11, p. 41.

⁷⁰ Bain & Company, *Distributed energy: Disrupting the utility business model*, 2013, p. 1.

⁷¹ Bain & Company, *Distributed energy: Disrupting the utility business model*, 2013, p. 1.

⁷² BREE, *Australian Energy Projections to 2049-2050*, Canberra, December 2012, p. 45; Bain & Company, *Distributed energy: Disrupting the utility business model*, 2013, p. 3.

⁷³ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, p. 37.

⁷⁴ NER, cls. S6.2.2A and S6A.2.2A; NGR, r. 77(2)(b).

⁷⁵ NER, cls. 6.4A and 6A.5A.

⁷⁶ AER, *Better Regulation: Final Capital Expenditure Incentives Guidelines*, December 2013, p. 7.

⁷⁷ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, p. 164.

providers once the assets are included in the RAB, assets cannot be optimised out under the NER. We note that the proposed capital expenditure sharing scheme is symmetric—it rewards under spend as well as penalising overspend. It is also limited to 30 per cent. As businesses have a reasonable degree of flexibility in their expenditure and as there are rewards for underspending as well as penalties associated with overspending we do not consider that the new rules (and our proposed approach in applying those rules) will materially change the risk exposure compared with the former regulatory regime. This view is supported by Frontier Economics.⁷⁸

APIA, APA Group and Envestra stated that the AER has not taken account of a number of differences between gas and electricity. They consider these include:

- The differing impacts associated with the failure of a large customer which arises due to differences in the electricity and gas regulatory regimes.⁷⁹ In particular APIA and APA Group submitted that electricity transmission businesses, which are subject to a revenue cap, will not lose revenue, as the revenue is recovered from the residual customer base. APIA and APA Group stated that gas transmission businesses, which are subject to a price cap, incur the loss of revenue associated with the failed customer as they are unable to increase prices within the regulatory period. APIA stated that due to the prevalence of bilateral contracts (versus the use of reference tariffs) gas transmission businesses are unable to increase prices to other customers to cover the revenue loss. APA Group stated that the NER do not provide for a reduction in the regulatory asset base except for a reduction in dedicated connection assets while the NGR allow for the removal of redundant assets in subsequent regulatory periods.⁸⁰
- That while fuel switching may be limited (due to sunk costs), once a contract has been entered, major customers have significant market power resulting in both the customer and the energy business making significant sunk cost investment which both parties need to ensure is recoverable. APIA submitted that this results in favourable terms and risk minimising terms being negotiated by the customer.⁸¹
- That gas, as a fuel of choice, is subject to greater competition than electricity, which is an essential fuel. Envestra pointed to a 2006 report for the Ministerial Council on Energy, which was tasked with advising on a consistent approach to access pricing regulation across electricity and gas, transmission and distribution. It stated that gas is subject to more competition from substitutes.⁸²

We disagree with each of these points. Our reasons are below.

In relation to the first point, we consider that in order for the differential impact of large customer failure to be a consideration in determining a benchmark, we would need evidence of:

- past and expected future systematic customer failures across a particular business type in comparison with another business type (for example, gas transmission businesses on average have experienced a large customer loss more frequently than electricity transmission businesses over a reasonable period of time)

⁷⁸ Frontier Economics, *Assessing risk when determining the appropriate rate of return for regulated energy networks in Australia*, June 2013, p. 64.

⁷⁹ APIA, *Submission to the draft guideline*, October 2013, p. 11; APA Group, *Submission to the draft guideline*, October 2013, p. 12.

⁸⁰ We note that under the new rules there is provision for an ex-post review (NER s. S6.2.2A, s. S6A.2.2A)

⁸¹ APIA, *Submission to the draft guideline*, October 2013, pp.11-12.

⁸² Envestra, *Submission to the draft guideline*, October 2013, p. 5.

- the magnitude of the revenue impact associated with the large customer loss, relative to forecast or contracted revenues (to the extent that is related to non-diversifiable risk).

While there may be differential treatment afforded by the regulatory regime, it is the frequency and the magnitude of the revenue impact which will dictate whether this causes sufficiently different risk exposures between the business types as to warrant different benchmarks. We have not received any evidence of differences in the frequency and impact of large customer failure across service providers. Such would be necessary to enable us to accept these submissions. Furthermore we do not consider that the intent of the rules is to consider an individual businesses' contract risk, whereby risky contracting behaviour should have a separate benchmark to compensate for the risky behaviour. Indeed the NER provide guidance—where a transmission asset becomes redundant and amongst other provisions, the provider has not sought to reasonably allocate the risks of the value of the asset, it may be rolled out of the regulatory asset base.⁸³

In relation to the second point, we consider that the bargaining choices made by a business in distress⁸⁴ should not influence our assessment of risk. In the normal course of business, where there is a choice between electricity and gas suppliers, we expect that competition would be equally felt by both gas and electricity businesses. Furthermore, we would expect that an entity would only enter into a contract where it reasonably expected to recover its costs over the life of the asset. On this basis it is not clear how competition in advance of entering into a contract differentially affects the risk of a gas and electricity business.

In relation to the third point, we note that the quotes selected by Envestra were from a discussion on the appropriate form of regulation from full (price/revenue cap) to no regulation depending on the extent of market power which a business had in providing electricity and gas transmission/distribution services. One of the five factors assessed to contribute to market power was the presence of limited competition or substitutes for end-use gas or electricity services. Also discussed in this section of the report was that energy services are subject to 'some potential for users to shift consumption away from electricity or gas towards alternative fuels or other consumption areas altogether' and that '[s]hould the price of energy rise (including because of higher cost network services) such that consumers no longer find value in purchasing an additional unit, the most likely responses are either demand side management, in terms of reduced consumption, or a shift towards an alternative means of supply such as gas or embedded generation'.⁸⁵ We observe that where gas transmission pipelines are subject to sufficient competition as to ameliorate any market power, the transmission services provided using those gas transmission pipelines are not subject to regulation. This guideline relates to regulated gas transmission and distribution services. By virtue of being regulated, they are exposed to limited competition. In the draft explanatory statement we noted that the regulatory regime mitigates the differences in demand risk through the revenue or price setting mechanism (form of control). We stated that under a revenue cap, where forecast quantity demanded differs from actual quantity demanded, in subsequent years price adjustments are made to enable the approved revenue to be received by the service provider. Under a price cap, service providers may mitigate the risk of forecast error by restructuring tariffs, such that higher fixed charges are set to offset demand volatility. We reiterate, electricity distribution and gas service providers are able to propose the form of control—revenue cap, price cap, or any variation thereof—they employ.⁸⁶ We would expect service providers to choose the form of control which maximises its shareholder wealth. If a service provider chooses a

⁸³ NER s.6A.s.3(a)(3).

⁸⁴ As APIA describes the then position of DBP - see APIA, *Submission to the draft guideline*, October 2013, p. 12, footnote 9.

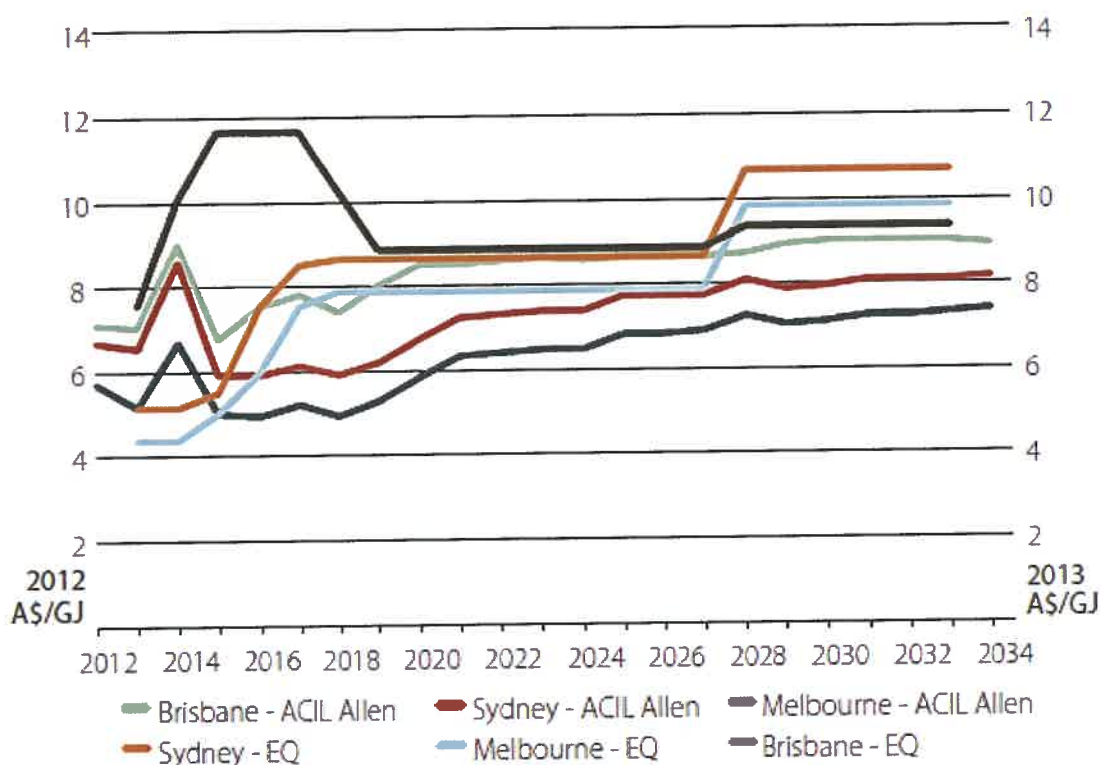
⁸⁵ Allen Consulting Group, *Expert panel on energy access pricing: Report to the Ministerial Council on Energy*, April 2006, p. 50.

⁸⁶ NER, cl. 6.2.5(b), NGR, r. 97(2).

price cap over a revenue cap it implies that any expected increase in cash flows must outweigh any expected increase in risk (i.e. discount rate applied to the expected cash flows).⁸⁷

Envestra, in response to our view that we consider material competition is likely to arise between gas and electricity use where there is a significant change in the relative price of gas and electricity which is viewed to be stable over the long term, raised that it does not consider the relative cost of gas to be stable in the short or medium term.⁸⁸ We note that gas prices are projected to increase temporarily around 2014 when Queensland LNG commences and then return towards production costs once the LNG projects reach capacity (see figure 3.1).⁸⁹ We consider that due to sunk costs associated with energy consumption, consumers will make fuel-switching decisions based on relative price expectations which are stable and over the longer term, rather than in response to shorter-term, uncertain price expectations.

Figure 3.1 Eastern market gas price projections, 2012 to 2034



Notes: ACIL Allen is the base scenario and is plotted on the left hand side. EQ is EnergyQuest's \$95 JCC scenario and is plotted on the right hand side.

Source: BREE, *Gas Market Report 2013*, October 2013, p. 43.

APIA submitted that the AER should consider US energy firms' asset betas in the absence of Australian data.⁹⁰ It stated that the US evidence indicates that gas transmission pipelines have a credit rating which is one notch below gas distribution, electricity transmission and distribution businesses and also have lower gearing and a lower EBITDA margin volatility. It stated that on an equal-gearing basis that gas transmission pipelines should be several notches below other energy

⁸⁷ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, p. 43.

⁸⁸ Envestra, *Submission to the draft guideline*, October 2013, pp. 5-6.

⁸⁹ BREE, *Gas Market Report 2013*, October 2013, pp. 42-43.

⁹⁰ APIA, *Submission to the draft guideline*, October 2013, pp. 12-13.

firms. APIA also pointed to the asset beta range among the US firms considered by CEG (0.10 to 0.79) and the Australian firms considered by SFG (0.26 to 0.81) and questions how investors could conclude that the firms face similar risks.

Envestra submitted that electricity business are on average rated BBB+ while gas businesses are rated BBB, which indicated that gas businesses are riskier than electricity businesses. It stated that any perceived favourable aspects of the regulatory regime are not sufficient to offset the different risk profiles of gas and electricity businesses.⁹¹ However, we are not aware that rating agencies distinguish between electricity and gas networks. Indeed Moody's has stated that.⁹²

Unlike issuers covered by the Rating Methodology for Regulated Electric and Gas Utilities (August 2009), regulated networks have generally been separated from supply and generation activities ("unbundling"). As such, they are exposed neither to end-users nor to commodity price risk as they charge tariffs to suppliers for the transportation of electricity and gas that are independent of the commodity price.....Moody's would therefore see regulated electric and gas networks as exhibiting relatively low business risk, which in turn translate into a significant capacity to sustain high debt levels.

We do not consider that US energy firms are a suitable proxy for Australian firms and so do not consider that the asset beta information from US energy firms is able to be used to provide evidence for separate benchmarks.

We note that for the distribution and transmission businesses that the AER regulates SFG's beta estimates ranged between 0.26 and 0.65 (see table 3.1). We note that APA GasNet, which is involved in gas transmission, is towards the lower end of the range of beta estimates. It also appears that the electricity and gas and transmission and distributions businesses are distributed throughout the range. This data would seem to indicate that there is no clear difference between gas and electricity or transmission and distribution.

Table 3.1 SFG beta estimates for AER regulated entities

	β_{OLS}	β_{Vas}	β_{Re-g}
SP AusNet	0.26	0.29	0.27
Gasnet	0.29	0.36	0.30
DUET	0.59	0.61	0.36
Envestra	0.65	0.66	0.47
Spark	0.39	0.42	0.54

Source: SFG, *Regression-based estimates of risk parameters*, June 2013, Table 5, p. 18.

We consider on the evidence before us that any difference in risk is not material enough to warrant separate benchmarks. We consider that our benchmark WACC will provide a regulatory return that should be at least as high as the expected cost of capital of the average regulated network gas businesses.

⁹¹ Envestra, *Submission to the draft guideline*, October 2013, pp. 6-7.

⁹² Moody's, *Global Infrastructure Finance, Rating Methodology, Regulated Electric and Gas Networks*, August 2009, p. 40.

3.3.4 Consideration of the elements of the definition of the benchmark efficient entity

We propose to define the benchmark efficient entity as 'a pure play, regulated network energy business operating within Australia'. We consider that we are unable to conclusively determine a single efficient ownership structure. Therefore, we did not include any ownership specification in our proposed definition of the benchmark efficient entity. We note that the finance principle that the rate of return should be based on the non-diversifiable or systematic risks of the assets (that is, regulated energy business) and not on the overall risk of the parent should apply. Consistent with this principle, we consider that firms either with or without parent ownership can be used for estimating the return on capital, as long as the risk of the parent is likely to be consistent with the risk of the regulated business.

The MEU, COSBOA, and the Queensland Cane Growers Organisation submitted that the AER should have a separate benchmark entity for government-owned network service providers, reflecting the lower cost of debt which they face.⁹³

The Queensland Cane Growers Organisation submitted that government-owned service provider's should have a separate benchmark entity to reflect the different financing practices and risk between government-owned and private service providers.

We observe that there are different financing practices across businesses, both private and government-owned. We have outlined the benchmark financing strategy at section 7.3.3. These practices are only relevant to the extent that they inform our benchmark efficient financing costs.

We consider that the systematic risks are likely to be almost identical between government-owned and private service providers. With respect to the difference in default risk, in the draft explanatory statement we considered that according to Klein, the lower cost of debt for government-backed entities is underwritten by taxpayers, through the government's ultimate recourse to taxation. If taxpayers were compensated for the risk they assume for tax-financed projects, then no capital cost advantage would be conferred through government finance. The risk premium on government finance would, in principle, be no different to that of private investors.⁹⁴ Indeed setting a lower WACC for government-owned businesses could place an incentive on government to sell service providers because the service provider would be worth more to private investors (who would get the higher WACC) than to government (who get the lower WACC). This could incentivise asset sales even in the absence of any efficiency reasons for privatisation. We therefore do not consider that there should be a separate benchmark for government-owned entities on the basis of different risk exposure.

The MEU considered this view was misguided. It submits that service providers' boards make decisions in the interests of the service provider, referencing its own rate of return and the allowed rate of return, rather than in the interests of taxpayers as assumed by Klein. The MEU stated there is therefore an incentive to overinvest. The MEU stated that applying the Klein assumption, the higher cost of capital allowed for the service provider relative to the cost of the whole-of-government borrowing infers that government-owned service providers have a higher risk than other users of government funds. The MEU submitted that the opposite is true—that regulated networks have excellent security, underpinned by rules, where the primary risk for non-payment is carried by retailers

⁹³ MEU, *Submission to the draft guideline*, October 2013, pp. 8-10; COSBOA, *Submission to the draft guideline*, October 2013; Queensland Cane Growers Organisation, *Submission to the draft guideline*, October 2013, p. 5.

⁹⁴ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, pp. 49-50.

and networks are able to increase prices to maintain their allowed revenues. It submitted that this revenue security is not available to other users of government debt (such as railways and hospitals).⁹⁵

The relevant issue in considering whether a government-owned business should have a lower benchmark rate of return compared to a privately-owned business is whether the relevant risks of the activity—investment in and operation of the energy networks is altered by government ownership. The MEU arguments addressed other issues, such as the comparison of risks and hurdle rates of return for general government capital expenditure and the costs of government-underwritten borrowing is less than that of the benchmark privately owned businesses. As the AEMC concluded:⁹⁶

If state-owned businesses issued their own bonds, without a government guarantee, they would face materially similar borrowing costs to privately-owned service providers. In the absence of competitive neutrality provisions, electricity consumers are unlikely to be better off from defining a separate benchmark for state-owned service. The most appropriate benchmark to use in the regulatory framework for all service providers, regardless of ownership in general, is the efficient private sector service provider.

⁹⁵ MEU, *Submission to the draft guideline*, October 2013, pp. 8-10.

⁹⁶ AEMC, *Final rule change determination*, November 2012, p. 72.

4 Overall rate of return

Under the rules, the allowed rate of return must be determined such that it achieves the allowed rate of return objective.⁹⁷ This includes that the allowed rate of return for a regulatory year must be:⁹⁸

- a weighted average of the return on equity for the regulatory control period in which that regulatory year occurs, and the return on debt for that regulatory year
- determined on a nominal vanilla basis that is consistent with the estimate of the value of imputation credits.

4.1 Issue

This chapter focuses on the determination of the overall rate of return using the nominal vanilla weighted average cost of capital (WACC) formula.⁹⁹ This includes the following considerations relevant to the overall rate of return:

- our use of the nominal post-tax framework and the form of the WACC (section 4.3.1)
- intra-period adjustments (section 4.3.2)
- consideration of other information at the overall rate of return level (section 4.3.3)
- the term of the WACC (section 4.3.4).

Our approach to estimating the overall rate of return is largely consistent with our draft guideline. This approach is outlined in section 4.2, and was broadly supported by all stakeholders. Consumer groups, however, submitted that we should consider additional material to inform whether our estimate of the overall rate of return achieves the allowed rate of return objective. Service providers were more circumspect on the use of such material, and requested we provide further guidance on how regulated asset base (RAB) acquisition and trading multiples will be considered. The role of these multiples is discussed in section 4.3.3.

For clarity, several of the issues relevant to the overall rate of return are also relevant to both the return on debt and the return on equity. The primary discussion of these issues, therefore, is included in the corresponding return on debt and return on equity chapters and appendices.¹⁰⁰

4.2 Approach

Our approach to determining an allowed rate of return that achieves the allowed rate of return objective includes the following characteristics:

- it estimates the rate of return on a nominal vanilla basis, as a weighted average of the point estimates of the return on equity and the return on debt¹⁰¹
- the weight given to the respective point estimates of the return on equity and the return on debt is based on our gearing ratio point estimate

⁹⁷ NER, cl. 6.5.2(b), and 6A.6.2(b); NGR, r. 87(2).

⁹⁸ NER, cl. 6.5.2(d), and 6A.6.2(d); NGR, r. 87(4).

⁹⁹ A nominal vanilla WACC is the combination of a nominal post-tax return on equity and a nominal pre-tax return on debt. For example, the term for the return on debt is principally discussed in chapter 8.

¹⁰¹ NER, cl. 6.5.2(d), and 6A.6.2(d); NGR, r. 87(4).

- the term of our estimates of both the return on equity and return on debt is 10 years
- our estimate of the return on equity will be made at the start of the regulatory control period and then held constant across the regulatory control period, whereas our estimate of the return on debt will be updated annually

4.3 Reasons for approach

This section provides the reasoning for our approach, and discusses the context in which it was developed.

4.3.1 Nominal post-tax framework and the form of the WACC

The rules prescribe that we must use a nominal post-tax framework to determine building block revenues.¹⁰²

A nominal framework means that the building block revenue forecasts include estimates of expected inflation. This means that we estimate the revenue allowance in nominal dollar terms. In particular, when calculating the rate of return on capital building block we index the regulatory asset base each year by expected inflation. We multiply this by a nominal rate of return that also includes expected inflation. To ensure that the impact of inflation is properly accounted for (that is, not included more than once), we make a corresponding reduction to the depreciation calculation. This produces the regulatory depreciation building block.

A post-tax framework means that the estimated rate of return does not include compensation for the cost of corporate income tax. Instead, the overall building block allowance includes a separate tax allowance building block. To implement this framework, we use a 'nominal vanilla' WACC, which is a combination of a pre-tax return on debt and a post-tax return on equity. Conceptually, this post-tax return on equity includes the value of dividends, capital gains and imputation credits. We also adjust the corporate income tax allowance for the value of imputation credits to investors.¹⁰³

4.3.2 Intra-period adjustments

In previous determinations, we have set the overall rate of return by estimating a rate for the start of the regulatory control period, and holding this rate constant over the whole regulatory control period (usually five years). Further, our rate of return in previous determinations has been based on prevailing conditions in the market for funds at the commencement of the regulatory control period.

The rules now allow annual adjustments to be applied to the return on debt (if the regulator decides such an approach is appropriate).¹⁰⁴ This requires the formula for calculating the updated return on debt to be specified in the regulatory determination. The formula must also be capable of being applied automatically.¹⁰⁵

As discussed in greater detail in chapter 7, our approach to estimating the return on debt includes annual updates. Accordingly, our overall rate of return estimate will be updated annually.

¹⁰² NER, cl. 6.4.2, 6.4.3, 6A.5.3 and 6A.5.4; NGR, r. 76, 87A.

¹⁰³ However, the accumulation indices used in historical estimates of the market risk premium (MRP) only include the returns from capital gains and dividends. Therefore, in using historical estimates to inform our forward looking MRP value, we 'gross up' these estimates for the value of imputation credits. We discuss our approach to the estimation of the MRP in chapter 6 and appendix D. We discuss imputation credits further in chapter 9 and appendix H.

¹⁰⁴ NER, cl. 6.5.2(i), and 6A.6.2(i); NGR, r. 87(9).

¹⁰⁵ NER, cl. 6.5.2(i), and 6A.6.2(i); NGR, r. 87(12).

4.3.3 Other information potentially considered at the overall rate of return level

In our draft guideline, we proposed to continue using regulatory asset base (RAB) acquisition and trading multiples to provide reasonableness checks on the overall rate of return. On reflection, we have modified our proposed approach for this final guideline.

We now propose to not apply levels and changes in RAB acquisition and trading multiples as a direct reasonableness check on the overall rate of return at the time of a particular revenue determination or access arrangement. Instead, we propose to use these multiples as part of a set of indicators that we monitor over time and across network businesses to help inform us of potential areas of inquiry and research. This more general use of these multiples reflects the fact that there are many potential influences on RAB acquisition and trading multiples, such as changes in the expectations and the realisations of business revenues, expenditures and rates of return. Given these many potential influences, any changes in these multiples may not be immediately attributable to any one factor. We propose to continue to monitor RAB acquisition and trading multiples to inform us of market outcomes over time and in response to changes in the environment of the network businesses, without making use of them directly in the rate of return determination process.

PIAC has submitted that we should consider direct measures of the profitability of service providers.¹⁰⁶ For example, the comparative performance report for Victorian electricity and gas service providers included a comparison of returns on service providers' asset bases with the allowed regulatory returns. As stated in our consultation paper, however, the incentive framework limits the usability of comparisons based on actual rates of return.¹⁰⁷ For example, service providers are incentivised to outperform regulatory benchmarks for opex, capex, debt, tax and service performance. The ability for a service provider to earn an actual return on equity higher than the allowed return on equity, therefore, may be due to the outperformance of these benchmarks. Importantly, outperformance does not necessarily imply that the regulatory rate of return is incorrect.

4.3.4 Term of the WACC

The rules require us to have regard to the desirability of using an approach that leads to the consistent application of any estimates of financial parameters.¹⁰⁸ The rules, however, do not mandate a consistent term across the return on equity and return on debt. Rather, the rules enable us to consider whether a consistent term for both the return on equity and the return on debt is appropriate.

For the reasons discussed in chapter 8, we have adopted a 10 year term for the return on debt. The reasons for this term reflect the consideration of service providers' debt portfolios. Alternatively, the term for the return on equity is discussed below.

Return on equity term

The Australian Competition Tribunal (the Tribunal) decided in its 2003 GasNet decision that 10 years is an appropriate term of the risk free rate in the Sharpe–Lintner capital asset pricing model (CAPM).¹⁰⁹ In the consultation paper, we sought submissions from stakeholders on the appropriate term of equity in the consultation paper. Consistent with our draft guideline, we have adopted a 10 year term for the return on equity.

¹⁰⁶ PIAC, *Submission to the draft guideline*, October 2013, p. 26.

¹⁰⁷ AER, *Rate of return consultation paper*, May 2013, p. 88.

¹⁰⁸ NER, cl. 6.5.2(e)(2) and 6A.6.2(e)(2); NGR, r. 87(5).

¹⁰⁹ Australian Competition Tribunal, *Application by GasNet Australia (Operations) Pty Ltd [2003] ACompT 6*, 23 December 2003.

There are reasonable arguments to support either a 10 year term or a five year term for the return on equity. The case for a 10 year term emphasises the long term nature of cash flows in equity investment, in general, and the long lived nature of the assets in an infrastructure business (such as electricity and gas service providers), in particular. The case for a five year term emphasises the similarity in the cash flows between a regulated electricity or gas service provider subject to five year regulatory control periods and the cash flows of a five year bond with annual coupon payments.

The opinions of experts on this matter are mixed. Some experts support a 10 year term while others support a five year term.¹¹⁰

In this guideline, we have adopted a 10 year term for the return on equity. This is because:

- On balance, we are more persuaded by the arguments for a 10 year term, than the arguments for a five year term.
- We have adopted a 10 year term in past decisions.¹¹¹ Maintaining our previous position, in the absence of good reasons for change, promotes certainty and predictability in decision making.
- Maintaining a 10 year term avoids some practical complexities in the estimation of certain return on equity parameters (specifically, the MRP) that would result from a change from a 10 year to five year term.
- The difference in the overall rate of return between a 10 year and five year return on equity is unlikely to be material.

We elaborated further on these reasons in our explanatory statement accompanying the draft guideline.¹¹²

For the above reasons, maintaining a 10 year term for the return on equity promotes the allowed rate of return objective. In their submissions on the draft guideline, service providers supported maintaining a 10 year term for equity.¹¹³ We did not receive any submissions from consumer groups that commented on the term for equity.¹¹⁴

¹¹⁰ For example, Pratt and Grabowski (2010) and Damodaran (2008) both propose that, in general, an equity investment in an ongoing business is long term. They suggest, therefore, that for an ongoing business, the term of the equity should be measured as the duration of the long-term—and potentially infinite—series of cash flows. Both conclude that it is appropriate to use long term government bonds to estimate the return on equity, with Damodaran suggesting that 10 years is generally appropriate. Alternatively, Lally (2012) argues that a five year term is consistent with the present value principle—that the net present value (NPV) of cash flows should equal the purchase price of the investment. Lally stated that the present value principle is approximately satisfied only if the term of equity matches the regulatory control period. S. Pratt and R. Grabowski, *Cost of Capital: Applications and Examples*, 4th edition, 2010, pp. 118–120; A. Damodaran, 'What is the risk free rate? A search for the basic building block', December 2008, pp. 9–10. M. Lally, *The risk free rate and the present value principle*, 22 August 2012.

¹¹¹ See, for example: AER, *Access arrangement final decision APA GasNet Australia (Operations) Pty Ltd 2013-17, Part 2: Attachments*, March 2013, p. 54.

¹¹² AER, *Better regulation: Explanatory statement, Draft rate of return guideline*, 30 August 2013, pp. 181–184.

¹¹³ See, for example: ENA, *Response to the draft rate of return guideline of the Australian Energy Regulator*, 11 October 2013, p. 30; APA Group, *Submission on the Australian Energy Regulator's draft rate of return guideline*, 11 October 2013, p. 23; NSW DNSPs, *Submission on the rate of return draft guideline*, 11 October 2013, p. 18; Spark Infrastructure, *Response to the AER's draft rate of return guideline*, 11 October 2013, p. 4; APIA, *Meeting the ARORO? A Submission on the Australian Economic Regulator's draft rate of return guideline*, p. 1.

¹¹⁴ Some submissions from consumer groups commented on the term for the return on debt. The term for debt is addressed in chapter 8.

5 Return on equity: approach

To determine the allowed rate of return, the rules require that we have regard to relevant estimation methods, financial models, market data and other evidence.¹¹⁵ For the purpose of estimating the expected return on equity, this involves the consideration of a number of alternative models and information sources. The rules also require the rate of return guideline set out:¹¹⁶

- the methods we propose to use in estimating the allowed rate of return, including how those methods are proposed to result in the determination of a return on equity that is consistent with the allowed rate of return objective
- the estimation methods, financial models, market data and other evidence we propose to take into account in estimating the return on equity.

5.1 Issue

In this chapter, we outline the reasons for our proposed approach to determining a point estimate of the expected return on equity. Our proposed approach for estimating the expected return on equity uses the Sharpe–Lintner capital asset pricing model (CAPM) as our ‘foundation model’. Our foundation model estimate provides a starting point, and our final estimate of the expected return on equity has regard to a broad range of relevant material. In this context, a key question for the guideline is how to distil a range of information into a point estimate of the expected return on equity.¹¹⁷

This chapter also refers to a number of appendices linked to the estimation of the return on equity. These include:

- chapter 6 outlines our approach to the estimation of the risk free rate, equity beta and market risk premium (MRP)
- appendix A assesses relevant models against our criteria, and discusses the role of relevant models
- appendix B assesses other relevant material against our criteria, and discusses the role of other relevant material
- appendix C discusses our approach to estimating the equity beta in greater detail
- appendix D discusses our approach to estimating the market risk premium in greater detail
- appendix E discusses dividend growth models (DGMs) in greater detail.

Our proposed approach for estimating the expected return on equity is consistent with the approach outlined in our draft guideline. This approach was supported by consumer groups.¹¹⁸ Alternatively, submissions from service providers generally supported a multiple–model approach. The multiple–model approach, as proposed by the ENA and the APIA, estimates the expected return on equity by

¹¹⁵ NER, cls. 6.5.2(e)(1) and 6A.6.2(e)(1); NGR, r. 87(5).

¹¹⁶ NER, cls. 6.5.2(n) and 6A.6.2(n); NGR, r. 87(14).

¹¹⁷ In our consultation paper we stated that we would determine a single point estimate for the return on equity before estimating the rate of return.

¹¹⁸ See, for example: Public Interest Advocacy Centre, *Reasonably rated: Submission to the AER's draft rate of return guideline*, 11 October 2013; Major Energy Users Inc., *Better Regulation rate of return guidelines: Comments on the draft guideline*, 10 October 2013; Energy Users Association of Australia, *Submission to the draft AER rate of return guideline*, 11 October 2013.

combining different estimates from a number of complex models.¹¹⁹ The limited submissions from investor groups also supported a multiple-model approach, but generally, advocated a shift away from any view that investors require a fixed return over the risk free rate.¹²⁰

Our final explanatory statement expands on our draft explanatory statement to include greater detail regarding the implementation of relevant material. Notably, it includes input parameter estimates for our foundation model as of December 2013. Our decision to include input parameter estimates in this final explanatory statement follows submissions from stakeholders, particularly service providers, seeking greater certainty of process.¹²¹ We recognise that this certainty is important for promoting investment in network infrastructure.¹²²

More broadly, the development of our approach to estimating the expected return on equity has followed an extensive stakeholder engagement process. This has included public workshops following the publication of both our consultation paper and draft guideline. Similarly, we held multiple meetings with service providers, network infrastructure investors and consumer representatives (including the Consumer Reference Group). As outlined previously, the discussions with stakeholders have informed our approach, and the issues raised are outlined in detail in this chapter and related appendices. The engagement process for the return on equity has also led to the following consultant reports being commissioned:

- Professor McKenzie and Associate Professor Partington developed a report titled 'Risk, asset pricing models and WACC'.¹²³ This report discussed the merits of alternative models used to estimate the expected return on equity, and is reflected in the analysis in appendices A and B.
- McKenzie and Partington, and Professor Lally developed separate reports on the construction of DGMs.¹²⁴ These reports are discussed further in appendix E.
- Frontier Economics developed a report titled 'Assessing risk when determining the appropriate rate of return for regulated energy networks in Australia'.¹²⁵ The analysis in this report, in particular the assessment of the risk profile of the provision of regulated services, was relevant to the estimation of the equity beta (in chapter 6 and appendix C).

5.2 Approach

Our proposed approach to determining a point estimate for the return on equity includes the following characteristics:

- It has regard to a broad range of relevant material.

¹¹⁹ The multiple-model approach is discussed in greater detail in section 5.3.10. See, for example: ActewAGL, *Response to draft rate of return guideline*, 11 October 2013; CitiPower, Powercor, SA Power Networks, *Submission to the draft AER rate of return guideline*, 11 October 2013; APA Group, *Submission on the Australian Energy Regulator's draft rate of return guideline*, 11 October 2013.

¹²⁰ Spark Infrastructure, *Response to the AER's draft rate of return guideline*, 11 October 2013, p. 4.

¹²¹ See, for example: NSW distribution network service providers, *Submission on the rate of return draft guideline*, 11 October 2013.

¹²² Spark Infrastructure, *Response to the draft guideline*, October 2013, p. 5.

¹²³ M. McKenzie and G. Partington, *Report to the AER: Risk, asset pricing models and WACC*, 27 June 2013.

¹²⁴ M. McKenzie and G. Partington, *Report to the AER: the Dividend Growth Model (DGM)*, December 2013; M. Lally, *Review of the AER's proposed Dividend Growth Model*, December 2013.

¹²⁵ Frontier Economics, *Assessing risk when determining the appropriate rate of return for regulated energy networks in Australia: A report prepared for the AER*, July 2013.

- Relevant material that may inform our estimate of the return on equity will be assessed against our criteria. This assessment will be used when we consider the merits and determine the role of relevant material in estimating the return on equity.
- The Sharpe–Lintner CAPM will be used informatively, rather than determinately, to provide the starting point estimate and range for the final return on equity. We describe the Sharpe–Lintner CAPM as our ‘foundation model’.
- Input parameter estimates for the Sharpe–Lintner CAPM will be informed by material including the Black CAPM and DGM estimates. We will also have regard to other theoretical and empirical evidence, including historical excess returns, survey evidence, implied volatility measures, other regulators’ MRP estimates, debt spreads and dividend yields.
- Regard will also be had to other information to determine the final return on equity point estimate. This includes an alternative implementation of the Sharpe–Lintner CAPM recommended by Professor Wright, and estimates of the return on equity from valuation reports, brokers and other regulators.¹²⁶
- Given the uncertainty inherent in estimating expected equity returns, the final return on equity estimate will reflect either the foundation model point estimate, or an alternative value that is a multiple of 25 basis points.¹²⁷

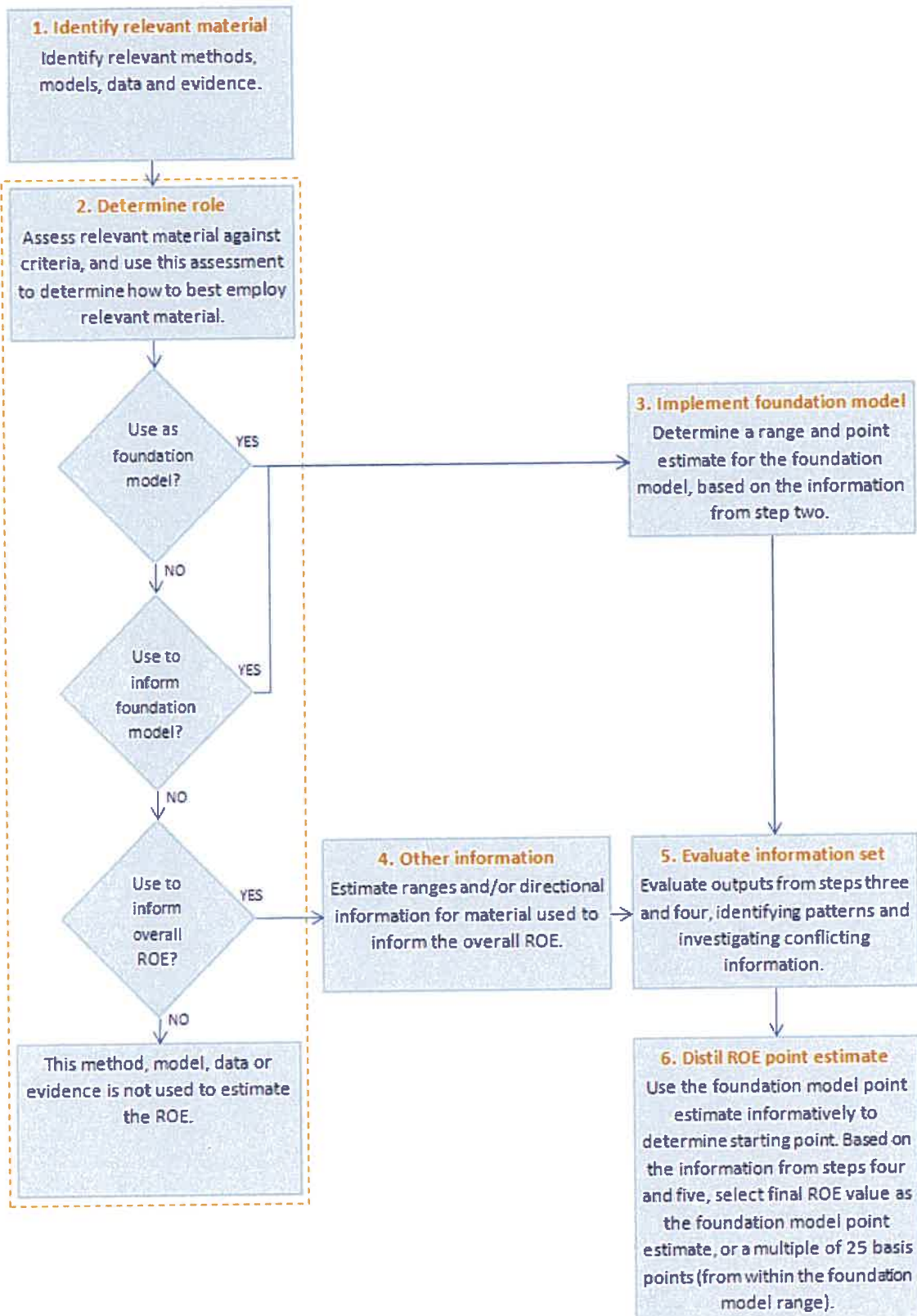
A flowchart outlining our approach is provided in figure 5.1. The implementation of this approach, and the reasoning underlying these steps, is discussed in greater detail in this chapter and in appendices A and B. We consider the information provided in our final explanatory statement will allow stakeholders to make a reasonable estimate of the return on equity that will apply at the time of a determination.¹²⁸

¹²⁶ During the Victorian gas access arrangement review, the Victorian gas service providers commissioned a report from Professor Stephen Wright. In this report, Wright proposed an alternative implementation of the Sharpe–Lintner CAPM for estimating the return on equity for the benchmark firm. See, for example: Wright, *Review of risk free rate and cost of equity estimates: A comparison of UK approaches with the AER*, October 2012.

¹²⁷ If the foundation model estimate is used, this estimate will be rounded to a single decimal point.

¹²⁸ For example, the inclusion on input parameter estimates for the Sharpe–Lintner CAPM should allow stakeholders to determine the starting point and expected range for the foundation model. Similarly, greater detail is provided regarding our implementation and use of the Wright approach, the dividend growth model, and expert valuation reports.

Figure 5.1 Flowchart of approach to estimating the return on equity



Source: AER analysis.

5.3 Reasons for approach

This section provides the reasoning for the development of our foundation model approach, followed by greater detail on the steps required to implement this approach. We also discuss the following:

- market practice for estimating the expected return on equity (section 5.3.3)
- regulatory judgement required to estimate the expected return on equity (section 5.3.4)
- role of our foundation model range (section 5.3.5)
- precision of expected return on equity estimates (section 5.3.6)
- stability of expected equity returns (section 5.3.7)
- development process and stakeholder engagement underpinning our approach (section 5.3.8)
- submissions from consumer groups, and alternative approaches proposed by stakeholders (section 5.3.9 and 5.3.10).

Further detail regarding our assessment and determination of the role of relevant material is provided in appendices A and B.

5.3.1 Development of our foundation model approach

In the development of our proposed approach for estimating the expected return on equity, we first considered four broad alternatives. These alternatives reflected the broad rules framework. Specifically, in our consultation paper we outlined the following four options:¹²⁹

- (1) Use one model to estimate the expected return on equity. This approach implied that the outcome of a single model is used to determine the return on equity. Other models would not form part of the estimation, and adjustments to the model outcome would not be made.
- (2) Use one primary model with reasonableness checks. Generally, it would be expected that the output from the primary model would be adopted as our estimate of the expected return on equity (as per option one). However, where the reasonableness checks suggested the output from the primary model was not reasonable, the expected return on equity would be determined based on regulatory judgement (informative use of primary model).
- (3) Use several primary models with quantitative but non-complicated fixed weighting. For example, this might entail the choice of two models with broad, simple weightings (such as 70:30).
- (4) Use multiple models and other information. The final return on equity would be determined based on regulatory judgment, taking into account the models and other information. No explicit weights would be provided, but models and other information could be given qualitative weighting (for example, 'most weight', 'less weight', and 'low weight').

In our consultation paper, we also discussed the merits of the four alternative approaches.¹³⁰ The key benefit of using a primary model is that it provides greater predictability of outcomes. At the extreme—that is, option one—stakeholders would be able to estimate the return on equity expected to be

¹²⁹ AER, *Consultation paper, Rate of return guidelines*, 10 May 2013, pp. 42–44.

¹³⁰ AER, *Rate of return consultation paper*, May 2013, pp. 42–44.

determined at the time of a determination with considerable accuracy. We also considered this option was transparent, replicable and simple to implement. This approach, however, may be too prescriptive.

Conversely, the other extreme—using multiple models and other information—draws on a range of material. This may reduce the significance of weaknesses in any one model or source of information. The limitations of this approach, however, is that it may be complex to implement (given multiple models must be estimated), and may not provide an appropriate level of predictability. A multiple model approach may also lead to inappropriate consideration being given to relevant material. These limitations are discussed in detail in section 5.3.10.

Using several primary models with quantitative but non-complicated fixed weighting shares many of the benefits and limitations of both options one and four, but to a lesser degree. Similar to option four, for example, it draws on a range of material and is complex to implement. Alternatively, similar to option one, it is predictable at the expense of flexibility.

Our proposed approach draws on elements from each alternative, but most closely resembles option two. For example, it draws on the key elements from a number of models, but recognises that all models are incomplete and that some approaches provide greater insight than others. For the following reasons, we consider this approach will deliver a robust estimate of the expected return on equity that will maximise the likelihood of our overall rate of return achieving the allowed rate of return objective:

- Using the foundation model and other information informatively (as opposed to determinately) to estimate the expected return on equity is consistent with the approaches adopted by market practitioners.¹³¹
- Using the foundation model and other information informatively acknowledges the inherent uncertainty in estimating the expected return on equity. That is, it recognises that all models are incomplete and that some approaches provide greater insight than others.
- Using the foundation model and other information informatively acknowledges the need for regulatory judgement in estimating the expected return on equity. Given the breadth of material and range of values that may represent reasonable estimates of the expected return on equity, the use of judgement is unavoidable.
- Using a foundation model approach is relatively simple to implement (particularly in comparison to combining different estimates of multiple models). For example, our foundation model—the Sharpe–Lintner CAPM—is a model that stakeholders are familiar with already (given its widespread use amongst market practitioners and other regulators).
- Using a foundation model approach may allow stakeholders to make reasonable estimates of the returns expected to be determined in advance of a determination. We consider that our proposed approach provides more guidance than the alternative of separately estimating and combining different models. As noted in stakeholder submissions, the guideline should provide certainty and predictability to assist investors in making their investment decisions.¹³²

¹³¹ See, for example: SFG, *Evidence on the required return on equity from independent expert reports: Report for the Energy Networks Association*, 24 June 2013; Ernst & Young, *Market evidence on the cost of equity: Victorian gas access arrangement review 2013–2017*, 8 November 2012.

¹³² See, for example: The Financial Investor Group, *Response to AER consultation paper: Rate of return guidelines*, 24 June 2013, p. 1.

- Using a foundation model, and drawing on other information to determine a final estimate of the expected return on equity, provides an appropriate balance between a relatively replicable and transparent process and providing flexibility in changing market circumstances. Such a process provides scope for engaging with the openness and flexibility of the rules within a broad structure.
- Using a foundation model and other information informatively, and selecting a final estimate of the return on equity that is a multiple of 25 basis points (if departing from the foundation model estimate), disavows the pursuit of false precision.
- Using the Sharpe–Lintner CAPM as the foundation model reflects our assessment of the model against our criteria. Specifically, we consider it is superior to alternative models (for the purposes of estimating the return on equity for the benchmark efficient entity).
- Our approach has also been developed in consultation with a range of stakeholders, including service providers and their industry associations, investors, and consumer groups. This engagement process is discussed in greater detail in section 5.3.8.

3.2 Our foundation model approach: step-by-step

To determine an estimate of the return on equity that is consistent with the allowed rate of return objective, we have adopted an approach based on a single foundation model. As summarised in section 5.2, this approach also draws on information and estimates from other relevant material. The reasons for adopting a foundation model approach are discussed in section 5.3.1.

Our approach represents a departure from the process undertaken during recent determinations. However, this approach is a result of the extensive stakeholder engagement for the development of this guideline. In particular, our approach draws on aspects of the four alternative approaches outlined in our consultation paper, as well as submissions from stakeholders. These alternative approaches, including those that combine direct estimates of multiple models (as proposed by both the ENA and APIA), are discussed in sections 5.3.1 and 5.3.10.

Step one: identify relevant material

The rules require us to have regard to all relevant estimation methods, financial models, market data and other evidence when determining our estimate of the return on equity for the benchmark efficient entity. The first step in our approach, therefore, is to identify the relevant material that may inform our estimate of the return on equity. Table 5.1 and table 5.2 list some of the material considered in this step.

We will, in accordance with the rules, have regard to all relevant material. However, this does not require us to use all of that material to inform our estimate of the return on equity.¹³³ Instead, we will use our assessment of the relevant material against the criteria to determine whether to use relevant material to inform our estimate of the return on equity. This assessment forms part of step two.

¹³³ This interpretation contrasts with submissions from the ENA and (to a lesser extent) the APIA. Specifically, the ENA submitted that our proposed approach was inconsistent with the rules as we proposed to not use specific material (for example, the Fama–French three factor model). The APIA shared the ENA’s concern that a foundation model approach may have legal implications in respect of meeting the NGR, but acknowledged that a foundation model approach may satisfy the economic intent behind the NGR. Energy Networks Association, *Response to the draft rate of return guideline of the Australian Energy Regulator*, 11 October 2013, p. 24; Australian Pipeline Industry Association Ltd, *Meeting the ARORO? A submission on the Australian Energy Regulator’s draft rate of return guideline*, 11 October 2013, p. 22.

Step two: determine role

Under step two, the relevant material (identified in step one) is assessed against our criteria. This applies a consistent framework for all material. This assessment is provided in appendices A and B.

The assessment of the relevant material against our criteria is further considered when determining where relevant material may inform our estimate of the return on equity. Specifically, we may use relevant material in one of four different ways:

(1) As the foundation model:

One possible use for relevant material under our approach is as the foundation model. As outlined in section 5.2, the foundation model is used to determine the starting point and expected range for our estimate of the return on equity. Given the prominence of the foundation model in our approach, it is critical that the model substantively meets our assessment criteria.

(2) To inform the estimation of parameters within the foundation model:

An alternative to using relevant material as the foundation model is to use such material to inform the input parameter estimates of the foundation model. Consistent with the current rules framework, this represents a balance between the assessment of relevant material against our criteria, and the desirability of drawing on the broadest range of evidence available.

(3) To inform where within the return on equity range (set by the foundation model) our 'final' return on equity point estimate should fall:

In addition to using relevant material as the foundation model, or to inform the foundation model parameters, relevant material may be used to inform the overall return on equity point estimate. This approach is consistent with using material where it is fit for purpose.

(4) Not used to estimate the return on equity:

The final category for consideration under step two is which relevant material will not be used for estimating the return on equity. This recognises that some material may not meet most of our assessment criteria, and/or may not be fit for the purpose of estimating the return on equity for the benchmark efficient entity.

Moreover, under our approach, relevant material will only be used once (to the extent practicable).¹³⁴ This avoids the potential for 'double counting' or unintended 'weight' to be assigned to a particular model or estimate. We consider this promotes transparency, and is consistent with our assessment criteria regarding the implementation of material in accordance with good practice.

Table 5.1 sets out our use of the relevant models identified in step one. We will use the Sharpe–Lintner CAPM as the foundation model, and the Black CAPM and DGM estimates to inform the Sharpe–Lintner CAPM input parameters. We propose not to use the Fama–French three factor model.

¹³⁴ It is recognised that some level of overlap of models and input evidence is unavoidable. For example, we propose to use other regulators' estimates of the return on equity, notwithstanding that other regulators may rely on much of the same material. Alternative implementations of a particular model may also be considered in multiple categories.

The reasoning and logic underlying this step is discussed in greater detail in appendix A. For example, the sensitivity of the Black CAPM to implementation variabilities limits the ability to use the Black CAPM as the foundation model. Theoretical and empirical evidence, however, supports using the Black CAPM, to some extent, in the process for estimating the return on equity. As such, we will use the Black CAPM to inform the selection of the equity beta.

Table 5.1 Role of relevant models

Material (step one)	Role (step two)
Sharpe–Lintner CAPM	Foundation model
Black CAPM	Inform foundation model parameter estimates (equity beta)
Dividend growth models	Inform foundation model parameter estimates (MRP)
Fama–French three factor model	No role

Source: AER analysis.

Table 5.2 sets out our proposed use of the other relevant material identified in step one. This includes information that we propose to use to inform foundation model input parameter estimates. It also includes material that we propose to use to inform our final estimate of the expected return on equity. For clarity, our use of debt spreads and dividend yields has changed from that outlined in the draft guideline. The reasons for this change are outlined in appendix D.

Table 5.2 Role of other relevant information

Material (step one)	Role (step two)
Commonwealth government securities	Inform foundation model parameter estimates (risk free rate)
Observed equity beta estimates	Inform foundation model parameter estimates (equity beta)
Historical excess returns	Inform foundation model parameter estimates (MRP)
Survey evidence of the MRP	Inform foundation model parameter estimates (MRP)
Implied volatility	Inform foundation model parameter estimates (MRP)
Other regulators' MRP estimates	Inform foundation model parameter estimates (MRP)
Debt spreads	Inform foundation model parameter estimates (MRP)
Dividend yields	Inform foundation model parameter estimates (MRP)
Wright approach	Inform the overall return on equity
Takeover/valuation reports	Inform the overall return on equity
Brokers' return on equity estimates	Inform the overall return on equity
Other regulators' return on equity estimates	Inform the overall return on equity
Comparison with return on debt	Inform the overall return on equity
Trading multiples	No role
Asset sales	No role
Brokers' WACC estimates	No role
Other regulators' WACC estimates	No role
Finance metrics	No role ¹³⁵

Source: AER analysis.

Step three: implement foundation model

As outlined in step two, our approach adopts the Sharpe–Lintner CAPM as the foundation model. The role of the Sharpe–Lintner CAPM, and the inclusion of only one model as a foundation model, reflects

¹³⁵ As discussed in detail in appendix B, we consider that finance metrics may prove useful in our decisions. However, at this stage we have not formed a view on how these tests should be applied. Therefore, we do not propose these tests in our final guideline.

our assessment of the models against the criteria.¹³⁶ The estimation of the Sharpe–Lintner CAPM input parameters, including the role of information used to inform these estimates, is discussed in greater detail in chapter 6 and appendices A, C and D. In summary, we propose to implement the Sharpe–Lintner CAPM as follows:

- The Sharpe–Lintner CAPM will be estimated as the sum of the risk free rate, and the product of the equity beta and MRP.
- The risk free rate will be estimated with regard to Commonwealth government securities. Given yields on these securities are readily observable, only a point estimate (and not a range) for the risk free rate will be determined. The method for estimating the risk free rate is set out in the guideline, with the actual point estimate determined during the determination process.
- The equity beta range will be estimated with regard to theoretical and empirical evidence—based on the observed equity beta for a comparator set of Australian energy networks, cross checked against overseas energy networks.
- The equity beta point estimate will be determined based on regulatory judgement, having regard to the theory underpinning the Black CAPM and regulatory precedent (as discussed in appendix C).
- The MRP range will be estimated with regard to theoretical and empirical evidence—based on evidence such as historical excess returns, survey evidence, financial market indicators, estimates from other regulators, and DGM estimates.
- The MRP point estimate will be determined based on regulatory judgement, taking into account estimates from each of those sources of evidence (as discussed in appendix D).
- The range and point estimate for the return on equity will be calculated based on the range and point estimates from the corresponding input parameters. For example, the lower bound of the return on equity range would be calculated by applying the point estimate for the risk free rate and the lower bound estimates for the equity beta and MRP.

For clarity, the use of ranges and point estimates for the equity beta, MRP and the return on equity reflects the inherent uncertainty in determining precise estimates for these values.

Step four: other information

Under step four, other information that may inform our final return on equity point estimate is considered. This material was outlined in table 5.2, and is further explained in appendix B.

The manner in which we may use other information, however, may differ for each alternative source. Specifically, some of the other information may provide a range (at a point in time) for the return on equity, while others may provide only directional information.¹³⁷ In this context, directional information refers to the relativity of current estimates to a baseline value. For example, directional information may inform how the current estimate of a particular source of information differs from the corresponding estimate observed in other recent determinations. In some cases, the information source may also suggest a rough magnitude (as well as a direction). That is, an explanation may be that a given directional indicator has increased since the most recent determination, though not by a

¹³⁶ See appendix A for our assessment of the models against our criteria.

¹³⁷ A relative assessment will also be considered for the comparison of the return on equity with the return on debt. As discussed in appendix B, the return on equity is expected to be above the return on debt.

large amount. This may suggest that the return on equity should also have increased since the most recent determination, though not by a large amount.

Table 5.3 outlines the manner of use for each source of information we propose to use to inform our final estimate of the return on equity. Similar to step two, the form of alternative estimates will be guided by an assessment against our criteria. For clarity, the form of takeover and valuation reports has changed from that outlined in the draft guideline. As outlined in appendix B, we consider takeover and valuation reports provide estimates of the expected return on equity for a broad range of businesses. Alternatively, the Wright approach, and other regulators and brokers provide more direct estimates of the expected return on equity for service providers.

Table 5.3 Form of other information

Additional information	Form of information
Wright approach	Point in time
Other regulators' return on equity estimates	Point in time
Brokers' return on equity estimates	Point in time and directional
Takeover and valuation reports	Directional
Comparison with return on debt	Relative

Source: AER analysis.

Step five: evaluate information set

This step requires the evaluation of the full set of material that we propose to use to inform, in some way, the estimation of the expected return on equity. This includes assessing the foundation model range and point estimate alongside the other information from step four.

In evaluating the full information set, the consistency (or otherwise) of the information is expected to be important. That is, circumstances where most of the other information suggests the return on equity should be above the foundation model estimate is likely to be more persuasive than if only a single estimate suggests an alternative value. The strengths and limitations of each source of additional information, however, will also be an important factor guiding the informative value of the available material. These strengths and limitations, as assessed against our criteria, are discussed in greater detail in appendices A and B.

Step six: distil a point estimate of the expected return on equity

Our approach requires the determination of a single point estimate for the return on equity. As outlined in section 5.2, our starting point for estimating the return on equity will be the foundation model point estimate. Moreover, the final point estimate is expected to be selected from within the foundation model range.

The final estimate of the expected return on equity, however, will ultimately require the exercise of regulatory judgement. This judgement will draw on the analysis of the other information provided in step five. For example, we may determine an estimate of the return on equity that is higher (lower) than the foundation model estimate where the other information indicates a higher (lower) return is

appropriate. As noted in section 5.2, the relative strengths and limitations of each source of other information, as well as the consistency of this information, will be important.

The use of regulatory judgement may also result in a final estimate of the return on equity that is outside the foundation model range. This recognises that, ultimately, our rate of return must meet the allowed rate of return objective. In these circumstances, we may reconsider the foundation model input parameter estimates, or more fundamentally, we may also reconsider the foundation model itself. That said, we consider it reasonable to expect our final return on equity estimate, in most market circumstances, to fall within the foundation model range. Specifically, the uncertainty inherent in estimating input parameters has led to ranges for the equity beta and MRP that are not particularly narrow. The corresponding range for the return on equity, given these input parameter ranges, is necessarily wider.

Further, under our approach, if the foundation model point estimate is not adopted the final estimate of the return on equity will be determined as a multiple of 25 basis points. This recognises the limited precision that the return on equity can be estimated. It is also consistent with our approach of only using the foundation model informatively.¹³⁸ The reasoning for this approach is discussed in greater detail in section 5.3.6. The selection of the final estimate of the return on equity as a multiple of 25 basis points, however, should not be interpreted as a rounding exercise. Instead, the analysis in step five will inform the direction and magnitude of the departure from the foundation model point estimate.

5.3.3 Market practice for estimating the expected return on equity

As described in section 5.2, we propose to estimate the expected return on equity using the Sharpe–Lintner CAPM as our foundation model. Our estimate of the expected return on equity, however, has regard to the limitations of the Sharpe–Lintner CAPM. Specifically, it considers other information to determine our Sharpe–Lintner CAPM input parameters. It also considers other information to determine our final estimate of the expected return on equity. For the following reasons, we consider this approach to estimating the expected return on equity is consistent with the broad approach adopted by many market practitioners:

- In a report commissioned by the ENA, SFG examined evidence on the approaches for estimating the expected return on equity adopted in independent expert reports. SFG stated that in half of the reports it reviewed, the expected return on equity was estimated by first using the Sharpe–Lintner CAPM, and then applying a specific uplift factor. This uplift factor was adopted to address perceived shortcomings in the Sharpe–Lintner CAPM estimates.¹³⁹
- SFG also referred to a similar report prepared by Ernst & Young that was submitted to us during the Victorian gas access arrangement process. In this report, Ernst & Young stated that independent expert reports often use the Sharpe–Lintner CAPM to estimate the cost of equity, but typically exercise discretion in the application of the model.¹⁴⁰

Conceptually, we consider the approaches outlined by SFG and Ernst & Young are very similar to our foundation model approach. That is, both approaches use the Sharpe–Lintner CAPM informatively, and consider other information to address any limitations inherent in the estimate. In contrast, we are not aware of any practitioner that determines estimates of the expected return on equity by combining

¹³⁸ That is, using the foundation model informatively, and determining a final estimate of the return on equity with regard to additional information, acknowledges a level of imprecision.

¹³⁹ SFG, *Evidence on the required return on equity for the ENA*, June 2013, pp. 1–2.

¹⁴⁰ Ernst & Young, *Market evidence on the cost of equity*, November 2012, p. 9.

different estimates from each of the Sharpe–Lintner CAPM, Black CAPM, Fama–French three factor model, DGM and arbitrage pricing theory.¹⁴¹

5.3.4 Regulatory judgement

Under the rules, we must have regard to relevant estimation methods, financial models, market data and other evidence when estimating the return on equity. However, this does not mean that we will use all that material in reaching our decision. Nor does this mean we will give equal (or any) regard to particular sources of evidence. The use of regulatory judgement in estimating the return on equity is unavoidable, given the nature of the evidence. This was acknowledged by the AEMC, and in submissions from stakeholders. For example, the AEMC stated that we:¹⁴²

...must make a judgement in the context of the overall objective as to the best method(s) and information sources to use, including what weight to give to the different methods and information in making the estimate.

The ENA also stated that:¹⁴³

...there is an inherent element of judgement involved in factoring in all the relevant evidence.

Our approach requires regulatory judgement throughout the process, including in the development of the rate of return guideline. In particular, our approach requires judgement to:

- determine the set of relevant material
- assess the relevant material against our criteria
- determine the role for all relevant material, based on our assessment against the criteria
- determine input parameter estimates from the relevant material
- determine a range and point estimate for the return on equity from our foundation model
- distil a final estimate of the return on equity from a range of alternative estimates.

The application of regulatory judgement must also be accompanied by an appropriate level of reasoning. There may be a limit, however, to the extent that any reasoning definitively points to a single estimate or outcome. For example, suppose we adopted an approach that applied quantitative weights to two alternative models. In these circumstances, the nature of the evidence means that we would be unable to show that a weighting of 60 per cent on one model and 40 per cent on another was the ‘best’ outcome (relative to, for example, an alternative weighting of 55:45 or 65:35 per cent). Rather, we would demonstrate that our preferred approach is reasonably open to us on the evidence before us.¹⁴⁴ For example, in the context of the MRP, the Tribunal has identified that there was:¹⁴⁵

no settled view among the experts as to what is the best methodology to employ in coming to such a conclusion... [and] substantial debates among the experts, as well as the parties, as to how particular

¹⁴¹ Combining different estimates of multiple models reflects the approaches proposed by the ENA and the APIA. For clarity, the Ernst & Young report stated that some experts assess the estimates obtained from the application of the Sharpe–Lintner CAPM with the values obtained using other methods. However, the other methods listed are not nearly as extensive as the list of relevant models proposed by the ENA and APIA. See, for example: Ernst & Young, *Market evidence on the cost of equity*, November 2012, p. 9.

¹⁴² AEMC, *Rule determination: National electricity amendment (Economic regulation of network service providers) Rule 2012: National gas amendment (Price and revenue regulation of gas services) Rule 2012*, 29 November 2012, p. 67.

¹⁴³ ENA, *Response to the AER's rate of return guidelines consultation paper*, 28 June 2013, p. 70.

¹⁴⁴ Application by Envestra Limited (No 2) [2012] ACompT 3 (11 January 2012) at [145].

¹⁴⁵ Application by Envestra Limited (No 2) [2012] ACompT 3 (11 January 2012) at [143].

methodologies should be employed and the nuances and assumptions that are necessary for their effectiveness.

The MRP is an example of a decision where we are faced with evidence supporting a range of alternative outcomes. In such circumstances, we exercise our regulatory judgment to determine a reasonable approach that is open on the evidence.

5.3.5 Foundation model range and point estimate

As outlined above, our approach uses regulatory judgement to determine input parameter estimates for our foundation model from a range of relevant material. This leads to a foundation model range, from which we expect to select our final estimate of the return on equity.

The ENA submitted that, dependent on the width and rigidity of this range, our approach may limit the weight given to relevant material.¹⁴⁶ For example, if the final point estimate of the return on equity was selected from within the foundation model range, the influence of alternative models would be limited to selecting an estimate from the top of our range. If this range is narrow, therefore, the influence of alternative models on our return on equity estimate may be limited. Similarly, the ENA stated that a problem with the foundation model range is that the weight placed on different pieces of evidence diminishes the further these estimates are from the boundaries of the range.¹⁴⁷

We consider, however, that the Sharpe–Lintner CAPM is superior to the alternative return on equity models. This is discussed in greater detail in appendix A. It is logical to expect, therefore, that in most circumstances our final estimate of the expected return on equity will be close to the foundation model point estimate. Moreover, as stated in section 5.3.2, we consider it reasonable to expect our final return on equity estimate, in most market circumstances, to fall within the foundation model range. Specifically, the uncertainty inherent in estimating input parameters has led to ranges for the equity beta and MRP that are not particularly narrow. The corresponding range for the return on equity, given these input parameter ranges, is necessarily wider.¹⁴⁸

5.3.6 Precision of estimates

Our approach also recognises that estimating the rate of return for a service provider is not a precise science. In particular, the expected return on equity is not observable. As stated by the APIA, estimates of the return on equity will be:¹⁴⁹

...approximations to unknown true values, and must be determined through the application of relevant theory and practice.

The application of relevant theory and market practice, however, may not necessarily result in the determination of precise estimates. Notably, all financial models are a simplification of the real world to allow us to draw insights into key relationships and determinants. Our approach draws on the key elements from a number of models, but recognises that all models are incomplete and that some approaches provide greater insight than others. In this context, we consider there is a limit to the specificity for which estimates of the return on equity can be determined. Accordingly, under our approach, we only use model estimates informatively.

Our approach further recognises the limited specificity for which estimates of the return on equity can be determined. It does so by only selecting estimates of the expected return on equity as multiples of

¹⁴⁶ ENA, *Response to the draft guideline*, October 2013, pp. 16–18.

¹⁴⁷ ENA, *Response to the draft guideline*, October 2013, pp. 18–19.

¹⁴⁸ For clarity, this does not mean that every value within our foundation model range is equally likely.

¹⁴⁹ APIA, *Submission to the draft guideline*, October 2013, p. 44.

25 basis points (if departing from the foundation model estimate). In reaching this view, we considered four alternatives, including determining the return on equity:

- (1) To two decimal places.
- (2) To one decimal place.
- (3) To a multiple of 25 basis points.
- (4) To a multiple of 50 basis points.

We consider that determining estimates of the expected return on equity as multiples of 25 basis points is reasonable, as the nature and breadth of the task before us does not support finer gradations. Notably, as discussed in section 5.3.4, the material we intend to consider spans a wide range of potential values and may not lead to single, definitive outcomes.

The ENA, however, stated that 'rounding' will always lead to an estimate which is worse than the best estimate.¹⁵⁰ The ENA also stated the final return on equity is a mathematical outcome from making a series of decisions throughout the estimation process.¹⁵¹

We disagree with the ENA's view. We consider that the ENA's discussion of a 'best estimate' misses the fundamental point. That is, the expected return on equity for the benchmark firm is unobservable.¹⁵² There is, therefore, no single correct estimate of the expected return on equity. Similarly, the ENA's statement implied that the determination of our final estimate of the expected return on equity should be a mechanistic process. This is contrary to the view that the ENA expressed during the public forums. Moreover, the current rules, in particular the requirement to achieve the allowed rate of return objective, are structured to avoid such mechanistic approaches.

We have also considered the materiality of determining estimates of the return on equity as multiples of 25 basis points. For example, a 25 basis point difference in estimates of the return on equity would result in a 10 basis point difference in the overall rate of return (based on our gearing estimate). This is expected to translate to revenue differences of less than one per cent.¹⁵³ We consider, therefore, that choosing a value as a multiple of 25 basis points (if departing from the foundation model estimate) appropriately balances the imprecise nature of the task before us with the materiality of our decision.¹⁵⁴

5.3.7 Stability of the expected return on equity

In our consultation paper, we stated that a relatively stable regulatory return on equity would have two effects:

- It would smooth prices faced by consumers.

¹⁵⁰ ENA, *Response to the draft guideline*, October 2013, p. 20.

¹⁵¹ ENA, *Response to the draft guideline*, October 2013, p. 20.

¹⁵² See, for example: Wright, *Review of risk free rate and cost of equity estimates: A comparison of UK approaches with the AER*, October 2012, p. 2.

¹⁵³ For example, using the published post-tax revenue models from a sample of service providers (ElectraNet, Powerlink, Envestra (Victoria) and Aurora), the respective revenue impacts of a 25 basis point change in the return on equity ranges from 0.7 to 0.9 per cent.

¹⁵⁴ The Council of Small Business Australia proposed that multiples of 10 basis points would be preferable. We consider, however, that the nature and breadth of the task before us does not support finer gradations. Council of Small Business Australia, *Australian Energy Regulator—Better Regulation program draft rate of return guideline—Comments*, 10 October 2013, pp. 3–4.

- It would provide greater certainty to investors about the outcome of the regulatory process.

In general, these considerations were supported by investors. For example, RARE Infrastructure stated the following:¹⁵⁵

A more stable return on equity would enhance clarity for all investors, and boost the desirability of Australian network businesses in the global investment universe (leading to lower cost of capital, which is in consumer interests).

Submissions in response to our draft guideline were also broadly supportive of stability. For example, the submission from the NSW DNSPs implied that a benefit of their proposed implementation of the Sharpe–Lintner CAPM is that it would provide stability in regulated returns on equity over time.¹⁵⁶

Given network assets are long-lived and typically generate stable cash flows, some stability in the return on equity may be expected. That is, it may be reasonable to expect that, on average, the difference between contemporaneous and long-term estimates of the return on equity should be relatively small. The theoretical and empirical evidence, however, suggests the return on equity is not stable over time.¹⁵⁷

We consider our approach appropriately balances the theoretical and empirical evidence with the characteristics of regulated infrastructure. For example, our implementation of the Sharpe–Lintner CAPM will result in estimates of the return on equity that may vary over time. Alternatively, the DGM and the Wright approach (for implementing the Sharpe–Lintner CAPM) will result in estimates of the return on equity that may be relatively stable over time. The informative use of these implementations of the Sharpe–Lintner CAPM, in addition to the DGM and other information, is expected to lead to more stable estimates of the return on equity than under our previous approach. The extent of this stability will depend on:

- the extent to which movements in the estimates of the risk free rate and market risk premium in the foundation model offset each other
- the informative value provided by the DGM and Wright approach (and other information that provides relatively stable estimates of the return on equity).¹⁵⁸

That required returns on equity are more stable over time than those generated using our previous approach is supported by the ENA and regulated infrastructure investors.¹⁵⁹ That said, consumer groups were more circumspect. Consumers supported more stable returns and consequently more stable prices, but not at any cost.¹⁶⁰ Specifically, consumers did not support more stable (long term) prices where these prices do not reflect efficient financing costs.¹⁶¹ For the reasons discussed within section 5.3.1, however, we consider that our approach will lead to estimates of the return on equity that reflect efficient financing costs.

¹⁵⁵ RARE Infrastructure Limited, *Submission to AER's rate of return guidelines consultation paper*, 14 June 2013. Also, see: The Financial Investor Group, *Response to the AER's rate of return guidelines consultation paper*, 24 June 2013.

¹⁵⁶ NSW DNSPs, *Submission on the draft guideline*, October 2013, p. 1.

¹⁵⁷ See, for example: AER, *Access arrangement final decision Envestra Ltd 2013-17, part 3: appendices*, March 2013, pp. 30–31.

¹⁵⁸ For example, takeover and valuation reports, and broker return on equity estimates may also be relatively stable.

¹⁵⁹ See, for example: Spark Infrastructure, *Response to the draft guideline*, October 2013, p. 5; ENA, *Response to the consultation paper*, June 2013, p. 46.

¹⁶⁰ See, for example: COSBOA, *Comments– draft guideline*, October 2013, p. 4; Public Advocacy Centre Ltd, *Submission to the AER's rate of return guidelines consultation paper*, 21 June 2013, p. 9.

¹⁶¹ Major Energy Users, *Response to the AER's rate of return guidelines consultation paper*, June 2013, p. 8.

5.3.8 Development process and stakeholder engagement

We consider the process that has led to the development of our proposed approach for estimating the expected return on equity has been thorough, logical and transparent.¹⁶² In particular, our process has received support from a range of stakeholders. For example, Spark Infrastructure stated the following:¹⁶³

We commend the AER for the transparency of the various review processes and for its demonstrated willingness to engage on the various arguments which have been put forward by network service providers and financial investors such as ourselves. We also believe the thoroughness of the process has been appreciated by the investment community as a whole.

Similarly, consumer groups commended our efforts to engage all stakeholders through the development of the Better Regulation program.¹⁶⁴

Alternatively, service providers have criticised our process for a number of reasons. For example, the ENA was critical of the development of our assessment criteria—specifically, they stated that the criteria are not found in the primary legislation or the regulatory rules.¹⁶⁵ The ENA also stated that our classification of relevant material (such as using material as the foundation model, or to inform the foundation model) was inconsistent with the rules, and that we excluded relevant material prematurely.¹⁶⁶ For the following reasons, we consider this criticism of the development of our foundation model approach is unfounded:

- We consider the relevant legislation supports the development of criteria to guide our exercise of regulatory judgement (including the assessment of relevant material). Notably, we have stated that these criteria do not supplant the rules, and nor do we consider they restrict the application of the rules.¹⁶⁷ Moreover, the AEMC considered that rate of return decisions should be principles based.¹⁶⁸
- Similarly, we consider using relevant material as the foundation model, to inform the foundation model input parameters, or to inform the final return on equity estimate is consistent with the broad rules framework. The rules do not stipulate that relevant material must be given equal regard in estimating the return on equity. Indeed, the AEMC was explicit that it is our role to determine what 'weight' to give to the different methods and information in estimating the return on equity.¹⁶⁹
- In developing our approach for estimating the return on equity we had regard to a range of alternative approaches. This included the concurrent consideration of the merits of these alternatives, as well as the merits of the relevant material to be used in these alternative approaches. That is, we did not form conclusions to exclude certain models from consideration before assessing their potential worth in practice. Instead, our use of a foundation model approach had regard to the merits of the relevant material.

¹⁶² This process was outlined in section 5.1.

¹⁶³ Spark Infrastructure, *Response to the draft guideline*, October 2013, p. 1.

¹⁶⁴ See, for example: PIAC, *Submission to the draft guideline*, October 2013, p. 3.

¹⁶⁵ See, for example: ENA, *Response to the draft guideline*, October 2013, pp. 11–13.

¹⁶⁶ See, for example: ENA, *Response to the draft guideline*, October 2013, pp. 11–13.

¹⁶⁷ AER, *Better Regulation: Explanatory statement, Draft rate of return guideline*, 30 August 2013, p. 27.

¹⁶⁸ AEMC, *Final rule determination*, 29 November 2012, pp. iv, 38, 42–44, 56–57.

¹⁶⁹ AEMC, *Rule determination: National electricity amendment (Economic regulation of network service providers) Rule 2012: National gas amendment (Price and revenue regulation of gas services) Rule 2012*, 29 November 2012, p. 67.

5.3.9 Consumer group submissions

Consumer group submissions broadly supported our foundation model approach, including the use of the Sharpe–Lintner CAPM as our foundation model.¹⁷⁰ For example, the MEU stated that our approach is sound, utilises available information in the most effective manner and provides a transparent method for developing an outcome.¹⁷¹ Similarly, PIAC submitted the following:¹⁷²

PIAC agrees with the importance of establishing a set of evaluation criteria and a clear framework for decision-making. In particular, PIAC is pleased that in establishing this framework, the AER has not adopted the ‘multi-model’ approach that has been suggested by some in response to the AEMC’s rule changes. PIAC has previously argued strongly that this type of approach would open the door for gaming and disputes between the NSPs and the AER, leaving consumers marginalised in the process. The current ‘multi-model’ approach that has been proposed by the ENA provides a real example of how the process of allowing NSPs to combine models in various ways can add complexity, minimise transparency and lead to unacceptable outcomes for consumers ...

PIAC also agrees with the use of the Sharpe–Lintner CAPM as the foundation model.

The EUAA also stated that preference should be given to approaches that are tractable and transparent, and for this reason, they supported our continued use of the Sharpe–Lintner CAPM.¹⁷³

Consumer group submissions are further discussed throughout the appendices related to estimating the expected return on equity.

5.3.10 Alternative approaches proposed by stakeholders

Section 5.3.1 outlined four broad approaches to estimating the return on equity that were considered during the development of our guideline. The ENA and APIA proposed a multiple model approach consistent with the fourth alternative. For example, the ENA described their approach as containing four key steps. These steps are:

- (1) Identify the models, methods, data and evidence to use.
- (2) Compute the best estimate of the required return for an average firm.
- (3) Compute the best estimate of the required return for a benchmark efficient entity using each approach and piece of evidence.
- (4) Distil a final estimate of the required return on equity.

The ENA initially proposed that step four would be implemented by applying quantitative weights to alternative models.¹⁷⁴ The ENA, however, have since stated that its multiple model approach could be implemented in a variety of forms. This includes ‘looser’ approaches that provide us with discretion to set out the reasons for alternative qualitative assessments.¹⁷⁵

¹⁷⁰ See, for example: COSBOA, *Comments – draft guideline*, October 2013; Ethnic Communities’ Council of NSW, *Submission to Better Regulation: Draft rate of return guidelines*, 10 October 2013.

¹⁷¹ MEU, *Comments on the draft guideline*, October 2013, p. 25.

¹⁷² PIAC, *Submission to the draft guideline*, October 2013, p. 29.

¹⁷³ EUAA, *Submission to the draft guideline*, October 2013, p. 2.

¹⁷⁴ ENA, *Response to the consultation paper*, June 2013, pp. 47–76.

¹⁷⁵ ENA, *Response to the draft guideline*, October 2013, p. 2.

Conceptually, the multiple model approach proposed by the APIA is similar. A notable difference is that the APIA proposed to make greater use of confidence intervals (in particular, the overlap of these intervals) to guide the selection of the final point estimate of the expected return on equity.¹⁷⁶

This section discusses multiple model alternatives in greater detail. In summary, we consider the ENA's and APIA's multiple model approaches have the following limitations:

- The regard given to relevant material in the proposed approaches is not supported by the merits of the material.
- The increased complexity of the proposed approaches is not justified. This applies to the estimation of the component models, as well as the process for combining estimates from multiple models into a single point estimate of the expected return on equity.
- The proposed approaches limit the ability for stakeholders to make reasonable estimates of the returns expected to be determined (in advance of a determination).
- The volume and nature of the relevant material required to be considered limits the transparency of these proposed approaches.

Use of relevant material

A key consideration in the ENA's and APIA's approaches is the concept that the required return on equity for the average firm should first be determined.¹⁷⁷ This return, which is equivalent to the return on the market portfolio, is then used to populate the alternative return on equity models. In the example submitted by the ENA, DGM estimates were used to inform the estimation of the return on the market, the Sharpe–Lintner CAPM, the Black CAPM and the Fama–French three factor model. Moreover, the ENA used DGM estimates to inform its overall estimation of the expected return on equity.

We consider that this approach may not be consistent with the implementation of an approach in accordance with good practice. For example, for the following reasons we consider this approach may lead to regard being given to relevant material beyond which the merits of that material support:

- Under the ENA's approach, the return on the market is determined solely from DGM estimates. The limitations of DGMs are discussed in appendices A and E. Given these limitations, and that the corresponding estimate of the return on the market is promulgated through each of the alternative models, this may give too much regard to DGM estimates.
- The ENA's and APIA's approaches place substantial weight on the Fama–French three factor model. As discussed in appendix A, we consider that this model may not meet most of our assessment criteria.
- The ENA's and APIA's approaches placed substantial weight on the Black CAPM. As discussed in appendix A, we consider that this model may not meet most of our assessment criteria.

Level of complexity

The ENA described its multiple model approach as lining up all the relevant evidence, discussing the reliability and precision of each piece of evidence, and giving more reliable and precise evidence

¹⁷⁶ See, for example: APIA, *Submission to the draft guideline*, October 2013, pp. 22–23.

¹⁷⁷ ENA, *Response to the consultation paper*, June 2013, p. 47; APIA, *Submission on the consultation paper*, June 2013, p. 32.

relatively more weight.¹⁷⁸ Similarly, the APIA refers to its approach as 'very simple'.¹⁷⁹ In contrast, the foundation model approach is described as highly complex and not at all transparent.¹⁸⁰

For the following reasons, we disagree with the ENA's and APIA's characterisation of both ours and their proposed approaches:

- The approach proposed by the ENA requires the full parameterisation of the Sharpe–Lintner CAPM, Black CAPM, Fama–French three factor model and multiple DGMs.¹⁸¹ The APIA also proposed to estimate the return on equity using Arbitrage Pricing Theory.¹⁸² In contrast, our foundation model approach only requires the full parameterisation of the Sharpe–Lintner CAPM and DGM.
- The estimation of the input parameters required to implement the Sharpe–Lintner CAPM is a complex and resource intensive task. For example, the estimation of the equity beta requires complex econometric analysis to determine a range of reasonable estimates. Regulatory judgement must then be used to determine a point estimate. Similarly, to determine a point estimate of the MRP from a range of evidence requires regulatory judgement. The Fama–French three factor model, however, requires the estimation of an additional two beta estimates, and an additional two risk premiums.
- The DGM proposed by the ENA is very complex. As discussed in appendix E, it estimates the expected return on equity by considering 2,672 possible combinations of input assumptions. An algorithm is then used to select one outcome from these 2,672 combinations. In contrast, the DGMs we have proposed adopt a more common approach, in which the long term dividend growth rate is an input to the model.
- The APIA proposed to use the overlap of statistical confidence intervals from multiple models to determine the expected return on equity. Determining the overlap of these intervals may be 'very simple', as stated by the APIA, but the econometric analysis required to develop these intervals would likely be complex.¹⁸³

Importantly, it is not clear how the full parameterisation of multiple models is in the long-term interests of consumers. For example, for the following reasons we consider the additional complexity in the ENA's and APIA's proposed approaches is not consistent with our fitness for purpose criterion:

- The full parameterisation of multiple models, including the greater use of complex econometric models, increases the arcane nature of the cost of capital debate. Given that the level of precision for which equity returns can be estimated is limited (see section 5.3.6), we consider such complexity may not be justified.
- The volume of material submitted by the ENA and APIA in support of their multiple model approaches certainly adds to the discourse on the return on equity. Nevertheless, it does not decide it. It is well recognised in the academic literature, as well as in reports submitted by service providers, that the available evidence that can be used to estimate the expected return on equity is imprecise and subject to varied interpretations.¹⁸⁴ In particular, there is often no consensus

¹⁷⁸ ENA, *Response to the draft guideline*, October 2013, p. 10.

¹⁷⁹ APIA, *Submission to the draft guideline*, October 2013, p. 22.

¹⁸⁰ ENA, *Response to the draft guideline*, October 2013, p. 10.

¹⁸¹ ENA, *Response to the draft guideline*, October 2013, pp. 21–23.

¹⁸² APIA, *Submission to the draft guideline*, October 2013, p. 22.

¹⁸³ APIA, *Submission to the draft guideline*, October 2013, p. 22.

¹⁸⁴ In regard to the MRP, for example, see academic papers by: R. Mehra and E. C. Prescott, *The equity premium, A puzzle*, *Journal of Monetary Economics*, 15, 1985, pp. 145–161; A. Damodaran, *Equity Risk Premiums (ERP), Determinants*,

among experts on either the appropriate method or the assumptions for different methods to be used in estimating the return on equity. Moreover, each of the methods have strengths and limitations. In this context, we consider that the rationale for increasing the arcane nature of the cost of capital debate may not be justified.

- It is not clear how the statistical confidence intervals in the APIA's proposal could actually be determined (irrespective of stakeholders' econometric expertise). For example, the estimation of input parameter estimates—such as the equity beta and MRP—typically draw on a range of information (both quantitative and qualitative in nature). Notably, qualitative information may be less amenable to the robust formation of confidence intervals.

Level of predictability

As noted in our consultation paper, and in stakeholder submissions, the guideline should provide certainty and predictability to assist investors in making their investment decisions.¹⁸⁵ The APIA proposed using the overlap of confidence intervals from multiple models to facilitate this predictability. The ENA initially proposed the application of quantitative weights to achieve predictability, but is now also open to qualitative assessments of alternative models.

For the following reasons, we consider it may be difficult for stakeholders to make reasonable estimates of the returns expected to be determined (in advance of a determination) under each of these approaches:

- The ability of stakeholders to examine ranges of overlap, and therefore make reasonable estimates of expected returns, is predicated on the assumption that stakeholders can readily determine the corresponding statistical ranges. As the APIA acknowledged, however, not every stakeholder can undertake econometric analysis.¹⁸⁶
- If qualitative assessments of alternative models are used in the ENA's multiple model approach, it may be difficult for stakeholders to make reasonable estimates of the returns expected to be determined (in advance of a determination). That is, even if stakeholders could determine estimates from the Sharpe–Lintner CAPM, Black CAPM, Fama–French three factor model and DGMs, they would have little guidance regarding how to combine the different estimates from these models.
- More generally, the complexity of the ENA's and APIA's proposed approach may make it difficult for stakeholders to make reasonable estimates of the returns expected to be determined in advance of a determination. For example, it may be difficult for stakeholders to form a view on the impact of prevailing market conditions on the factor exposure and premiums required to implement the Fama–French three factor model. Further, it may be difficult for stakeholders to form a view on the likely impact of prevailing market conditions on the informative value of alternative models.¹⁸⁷

Estimation and Implications, September 2008, p. 1; J. S. Doran, E. I. Ronn and R. S. Goldberg, *A simple model for time-varying expected returns on the S&P 500 Index*, August 2005, pp. 2–3. For an example report from regulated entities, see: Officer and Bishop, *Market risk premium, a review paper*, August 2008, pp. 3–4.

¹⁸⁵ FIG, *Response to the consultation paper*, June 2013, p. 1.

¹⁸⁶ APIA, *Submission to the draft guideline*, October 2013, p. 24.

¹⁸⁷ There is a high degree of imprecision already inherent in the available return on equity models. Given this imprecision, it is not feasible to take the additional step of determining which model may perform best in particular circumstances.

Level of transparency

We consider the allowed rate of return objective may be achieved if the proposed method for estimating the expected return on equity is implemented in accordance with good practice. In particular, this includes that the proposed method is supported by robust, transparent and replicable analysis. The reasons supporting this criterion are outlined in greater detail in chapter 2.

For the following reasons, we consider the volume and nature of the relevant material required to be considered limits the transparency of the multiple model approaches proposed by the ENA and APIA:

- The greater use of complex econometric models increases the potential for strategic behaviour. The Fama–French three factor model and the ENA's preferred DGM, for example, are both very complex. The merits of these models are discussed in detail in appendices A and E. This complexity limits the ability to understand the variables driving the models outputs, and to assess the reasonableness of these outputs. In contrast, the Sharpe–Lintner CAPM and more simplistic DGMs are intuitive, and are amenable to robust and coherent analysis.¹⁸⁸
- The ENA proposed that its multiple model approach may be implemented by applying quantitative weights to alternative models. We consider that quantitative weights imply a level of precision inappropriate for this task. For example, under the ENA's approach, some models may be assigned one third weight, whereas others may be assigned one sixth weight. It is not clear, however, whether assigning double the weight to one model indicates that it is twice as good. Similarly, it is unclear what reasons would justify one third weight relative to a slightly different weights—for example, why not one quarter, or one half weight?
- The ENA stated that their multiple model approach is transparent, as all the relevant material can be lined up and simply assigned value dependent on the merits of the relevant material.¹⁸⁹ We consider this overstates any inherent transparency. For example, the ENA proposed to determine estimates from four alternative models. If a qualitative assessment of this material is undertaken, however, it would be difficult to discern the relative value given to a particular estimate. For example, a final estimate that gives equal regard to four alternative models may produce an identical outcome to a final estimate that gives primary regard to three models, and lesser regard to one model.

For clarity, we recognise the final two dot points above may also apply to our foundation model approach.¹⁹⁰ Indeed, similar criticisms were submitted by the ENA.¹⁹¹ As discussed in section 5.3.1, however, the fundamental point is that all approaches have strengths and limitations. It is our role, therefore, to determine what 'weight' to give to different methods and information in estimating the expected return on equity.¹⁹²

¹⁸⁸ See, for example: S. Myers, *Estimating the cost of equity: Introduction and overview*, 17 February 2013; APA Group, *Submission on the draft guideline*, October 2013, p. 22.

¹⁸⁹ ENA, *Response to the draft guideline*, October 2013, p. 10.

¹⁹⁰ For example, as outlined in section 5.3.4, there may be a limit to the reasoning we can provide to justify our MRP estimate over another similar value. Likewise, if our final estimate of the expected return on equity differs from our foundation model estimate, it may be difficult to discern the qualitative value of other relevant information.

¹⁹¹ ENA, *Response to the draft guideline*, October 2013, pp. 16–18.

¹⁹² AEMC, *Rule determination: National electricity amendment (Economic regulation of network service providers) Rule 2012: National gas amendment (Price and revenue regulation of gas services) Rule 2012*, 29 November 2012, p. 67.

6 Return on equity: Sharpe–Lintner CAPM parameters

In chapter 5, we outline our proposed approach to determining the return on equity. This approach includes adopting the Sharpe–Lintner capital asset pricing model (CAPM) as our 'foundation model'.

The Sharpe–Lintner CAPM requires the estimation of three parameters:

- The risk free rate—this compensates investors for the time value of money. This is compensation for an investor having committed funds to an investment for a period of time and therefore forgoing the opportunity to immediately spend money or consume goods.¹⁹³
- The equity beta— the equity beta measures the correlation between the returns on an individual asset or firm with that of the overall market.¹⁹⁴ Beta multiplied by the MRP provides for the return above the risk free rate required to compensate the investor for the risk that cannot be diversified away.

The market risk premium (MRP)—this compensates an investor for the systematic risk of investing in the market portfolio or the 'average firm' in the market.¹⁹⁵ Systematic risk is risk that affects all firms in the market (such as macroeconomic conditions and interest rate risk) and cannot be eliminated or diversified away through investing in a wide pool of firms.¹⁹⁶ In this chapter, we set out our approach and high level reasons for our estimation of the three Sharpe–Lintner CAPM parameters. We also set out our estimate of the equity beta. We set out our estimate for the MRP and risk free rate in December 2013. In three appendices to this explanatory statement (appendices C, D and E), we expand on the reasons for our approach to estimating the equity beta and MRP, respectively. In these appendices, we also address issues associated with the equity beta and MRP that were raised in submissions on our draft guideline.

6.1 Risk free rate

In the Sharpe–Lintner CAPM, the risk free rate measures the return an investor would expect from an asset with no default risk.¹⁹⁷

6.1.1 Issue

In the draft guideline, we proposed to estimate the risk free rate using 10 year Commonwealth government securities (CGS) averaged over a short period of time as close as possible to the commencement of the regulatory period.¹⁹⁸ We maintain that position for the final guideline. Briefly, we consider this position appropriate because the CGS yield is an appropriate proxy for the risk free rate in Australia and a short averaging period is consistent with the CAPM and promotes regulatory certainty and consistency. These considerations are discussed in more detail in the application section below.

¹⁹³ M. McKenzie, and G. Partington, *Report to the AER: Supplementary report on the equity market risk premium*, 22 February 2012, pp. 11–12.

¹⁹⁴ R. Brealey, S. Myers, G. Partington and D. Robinson, *Principles of corporate finance*, McGraw–Hill: First Australian edition, 2000, pp. 186–188 (Brealey et al, *Principles of corporate finance*, 2000).

¹⁹⁵ VAA, *Review of debt risk premium and market risk premium*, February 2013, p. 7.

¹⁹⁶ M. McKenzie, and G. Partington, *Report to the AER: Supplementary report on the equity market risk premium*, 22 February 2012, p. 10.

¹⁹⁷ Gregory also identified the absence of re-investment risk and inflation risk and characteristics of a risk free rate. Gregory, *The risk free rate and the present value principle*, November 2012, p.5. Lally discussed these risks in his report: Lally, *The present value principle*, March 2013, p. 10–12.

¹⁹⁸ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, pp. 209–211

In their submissions on the draft guideline, service providers supported adopting a 10 year term and CGS yields as the proxy for the risk free rate.¹⁹⁹ APA Group supported a prevailing rate over a short averaging period as close as practicable to the final decision.²⁰⁰ However, on the averaging period, the NSW distribution network service providers (NSW DNSPs) proposed we adopt a historical average risk free rate, instead of a prevailing rate.²⁰¹ We address the NSW DNSPs' submission below. We did not receive any submissions from consumer groups that commented specifically on the risk free rate.

6.1.2 Approach

We propose to adopt a forward looking risk free rate that is commensurate with prevailing conditions in the market for funds at the commencement of the regulatory control period.

On the risk free rate proxy, we propose to adopt:

- the yield on CGS
- a 10 year term.

On the risk free rate averaging period, we propose to adopt a period that:

- is short—specifically, 20 consecutive business days in length
- is as close as practicably possible to the commencement of the regulatory period.

6.1.3 Reasons for approach

Conceptually, the adoption of a 10 year forward looking risk free rate, based on prevailing conditions in the market for funds at the commencement of the regulatory control period is:

- reflective of prevailing market conditions
- consistent with the Sharpe–Lintner CAPM
- internally consistent with our estimate of the MRP.

Practically, in estimating a 10 year forward looking risk free rate, we propose to adopt the prevailing yield on 10 year CGS averaged over a period which is short and as close as practicably possible to the commencement of the regulatory period. We adopt this method because:

- An observable market proxy for the risk free rate is available.
- The yield on CGS is the best proxy for the risk free rate in Australia, as supported by the RBA advice.²⁰²
- The RBA, Commonwealth Treasury and AOFM advised that the CGS market is liquid and functioning well.²⁰³

¹⁹⁹ ENA, *Response to the draft guideline*, October 2013, p. 30; APA Group, *Submission on the draft guideline*, October 2013, p. 23-24; NSW DNSPs, *Submission on the draft guideline*, October 2013, p. 18. Spark Infrastructure, *Response to the draft guideline*, October 2013, p. 4.

²⁰⁰ APA Group, *Submission on the draft guideline*, October 2013, p. 23–24.

²⁰¹ NSW DNSPs, *Submission on the draft guideline*, October 2013, pp. 18–24.

²⁰² RBA, *Letter regarding the CGS market*, July 2012, p. 1.

- CGS yields are an observable market determined parameter.
- The prevailing risk free rate at any point in time is the benchmark that returns on risky investments must outperform.²⁰⁴
- Prevailing 10 year CGS yields reflect expectations of the risk free rate over the appropriate forward looking investment horizon (which is 10 years).
- A short averaging period is a pragmatic alternative to the prevailing rate.
- Selecting an averaging period in advance ensures the method is unbiased.
- There is no clear evidence that CGS yields are abnormally low. McKenzie and Partington suggest that the current rates may be consistent with a longer term trend.²⁰⁵

CGS are an appropriate proxy for the risk free rate in Australia

The risk free rate measures the return an investor would expect from an asset with no default risk. CGS are low default risk securities issued by the Australian Government, and are therefore an appropriate proxy for the risk free rate.²⁰⁶ Each of the three major credit rating agencies issued its highest possible rating to the Australian Government.²⁰⁷

Experts generally acknowledge that an observable proxy for the risk free rate is available in Australia.²⁰⁸ We received advice from the RBA, Australian Treasury and AOFM in July 2012 that supported the use of CGS yields as a proxy for the risk free rate in Australia.²⁰⁹ In the RBA letter, Assistant Governor Guy Debelle stated:²¹⁰

I therefore remain of the view that CGS yields are the most appropriate measure of a risk free rate in Australia.

Similarly, the Treasury and AOFM stated:²¹¹

The nominal CGS market is liquid and continues to display the attributes of a well-functioning market.

For the above reasons, we consider CGS yields credible and verifiable, comparable and timely, and clearly sourced. These reasons also illustrate why we consider the CGS yield is fit for the purpose of estimating the risk free rate and will reflect changes in market conditions.

²⁰³ Reserve Bank of Australia, *Letter to the ACCC: The Commonwealth Government Securities Market*, 16 July 2012, (RBA, *Letter regarding the CGS market*, July 2012); Australian Treasury and Australian Office of Financial Management, *Letter to the ACCC: The Commonwealth Government Securities Market*, 18 July 2012, p. 2 (Treasury and AOFM, *Letter regarding the CGS Market*, July 2012).

²⁰⁴ By definition all investments other than the risk free rate are 'risky'.

²⁰⁵ McKenzie and Partington, *Review of the AER's overall approach*, February 2013, p. 5.

²⁰⁶ Gregory also identifies the absence of re-investment risk and inflation risk and characteristics of a risk free rate. Gregory, *The risk free rate and the present value principle*, November 2012, p.5. Lally discusses these risks in his report. Lally, *The present value principle*, March 2013, p. 10–12.

²⁰⁷ Standard and Poor's, viewed 18 November 2013, <http://www.standardandpoors.com/prot/ratings/entity-ratings/en/au/?entityID=268976§orCode=SOV>; Moody's, viewed 18 November 2013, <https://www.moodys.com/credit-ratings/Australia-Government-of-credit-rating-75300?cy=aus&lang=en>; Fitch Ratings, viewed 18 November 2013 <http://www.fitchratings.com/gws/en/esp/issr/80442187>

²⁰⁸ See, for example, Lally, *The present value principle*, March 2013, p. 13, and Wright, *Review of risk free rate and Cost of equity estimates: A comparison of UK approaches with the AER*, October 2012, p. 3.

²⁰⁹ RBA, *Letter regarding the CGS market*, July 2012; Treasury and AOFM, *Letter regarding the CGS Market*, July 2012.

²¹⁰ RBA, *Letter regarding the CGS market*, July 2012, p. 1.

²¹¹ Treasury and AOFM, *Letter regarding the CGS Market*, July 2012, p. 2.

Risk free rate averaging period

Our method for the risk free rate averaging period is to use a short and recent averaging period as close as practicably possible to the commencement of the regulatory control period. We explain our reasons for this position in the following sections.

In the Victorian gas review, we allowed service providers to nominate their preferred averaging period so long as it was consistent with certain criteria.²¹² The return on debt approach informed the rationale for allowing service providers to nominate an averaging period.²¹³ We formerly used an 'on the day' approach for the return on debt. In practice, this meant an estimate was required for both the risk free rate and the debt risk premium averaged from a short period before the determination.²¹⁴

As the risk free rate was identical across both the return on debt and return on equity, estimating these returns in the same period ensured they were consistent. Also, our understanding of the hedging arrangements of service providers informed the rationale for allowing them some control of the averaging period.²¹⁵ Allowing service providers to nominate an averaging period inevitably meant concurrent determinations could have different return on equity allowances, even though there is no particular economic reason why service providers with the same regulatory control period should have different returns on equity.²¹⁶

In the draft guideline we proposed a move away from providing service providers with the flexibility to determine the exact dates of the risk free rate averaging period.²¹⁷ In the final guideline, we propose the nominated averaging period for the risk free rate will be:

- 20 consecutive business days in length²¹⁸
- ending as close as practicably possible to the commencement of the regulatory period

We note the ENA and NSW DNSPs support a long term average estimate (for example, 10 year average) of the risk free rate in combination with a long term average MRP.²¹⁹ In the Victorian gas draft and final determinations we considered the use of a long term average risk free rate.²²⁰ We did not find the arguments in support of a long term average compelling.²²¹ Further, where the equity beta is not equal to one, using a long term average risk free rate can have a significant impact on the return on equity estimate.²²² Accordingly, we do not consider a long term average risk free rate appropriate.

²¹² AER, *Final decision: APA GasNet*, March 2013, Part 3, pp. 44–46.

²¹³ AER, *Final decision: APA GasNet*, March 2013, Part 3, p. 45.

²¹⁴ See, for example, AER, *Draft decision: Access arrangement draft decision: APA GasNet Australia (Operations) Pty Ltd 2013-17*, September 2012, Part 2, p. 102 (AER, *Draft decision: APA GasNet*, September 2012).

²¹⁵ AER, *Final decision: APA GasNet*, March 2013, Part 3, p. 45.

²¹⁶ See, for example, AER, *Final decision: APA GasNet*, March 2013, Part 2, p. 55; AER, *Final decision: Access arrangement final decision: SPI Networks (Gas) Pty Ltd 2013-17*, March 2013, Part 2, p. 75; AER, *Final decision: Access arrangement final decision: Envestra Ltd 2013-17*, March 2013, Part 2, p. 114; AER, *Final decision: Access arrangement final decision: Multinet Gas (DB No. 1) Pty Ltd, Multinet Gas (DB No. 2) Pty Ltd 2013-17*, March 2013, Part 2, p. 97.

²¹⁷ See chapter 8 for discussion of the averaging period for the return on debt. AER, *Explanatory statement: Draft rate of return guideline*, August 2013.

²¹⁸ In our experience, 20 business days has been the predominant averaging period over the past few years. See, for example, the Victorian gas review where three of the four businesses nominated a 20 business day averaging period. AER, *Final decision: APA GasNet*, March 2013, Part 3, p. 46.

²¹⁹ See, for example, ENA, *Response to the consultation paper*, June 2013, p. 57; NSW DNSP, *Submission to AER's rate of return guidelines consultation paper*, 21 June 2013, pp. 13-14.

²²⁰ AER, *Draft decision: APA GasNet*, September 2012, Part 2, p. 84, Part 3, pp. 12–15; AER, *Final decision: APA GasNet*, March 2013, Part 3, p. 25-28, 43, 72–73.

²²¹ AER, *Draft decision: APA GasNet*, September 2012, Part 2, p. 84, Part 3, pp. 12–15; AER, *Final decision: APA GasNet*, March 2013, Part 3, p. 25-28, 43, 72–73.

²²² See, for example, Lally, *The present value principle: risk, inflation, and interpretation*, March 2013, p. 9.

In the draft guideline we use the Wright approach as a source of additional information at the return on equity level.²²³ This approach recognises the possibility of a perfectly negative relationship between the risk free rate and the market risk premium (MRP). At the same time, it also recognises the importance of the equity beta estimate in determining the return on equity.

Prevailing CGS yields are consistent with the CAPM

For the following reasons, using a CGS yield estimated as close as practical to the commencement of the regulatory control period is consistent with the CAPM. Inputs to a model should be appropriate for use in that model, so individual equity parameters in this decision should be consistent with the CAPM framework.

The CAPM uses the most current information to derive the rate of return. In theory, it would use the risk free rate on the day (in this case, the commencement of the access arrangement period), as recognised by the Federal Court in *ActewAGL Distribution v The Australian Energy Regulator* [2011] FCA 639 (the ActewAGL matter).²²⁴

During the ActewAGL matter, Associate Professor Lally for the AER and Greg Houston for ActewAGL agreed theory requires the risk free rate be an 'on the day' rate.²²⁵ The Federal Court acknowledged this agreement.²²⁶

There was no dispute between the experts that the CAPM theory suggests that, ideally, the nominal risk-free rate input will be calculated on the day of the final determination.

Associate Professor Lally advised:²²⁷

In relation to the Sharpe–Lintner model, this model always requires a risk free rate prevailing at a point in time for some subsequent period rather than a historical average and application of the model to a regulatory situation would require the risk free rate prevailing at the beginning of a regulatory period.

A short averaging period is a pragmatic alternative to the prevailing rate

A short averaging period provides a reasonable estimate of the prevailing rate while not exposing service providers to unnecessary volatility. It is a pragmatic alternative to using a risk free rate that is precisely consistent with the CAPM.

As noted above, the CAPM theoretically requires the risk free rate be an 'on the day' rate—literally, the first market price on the first day of the access arrangement period.²²⁸ However, as Lally explained:²²⁹

... the use of this transaction would expose the regulatory process to reporting errors, an aberration arising from an unusually large or small transaction, and a rate arising from a transaction undertaken by a regulated firm for the purpose of influencing the regulatory decision.

²²³ See appendix B for further discussion of the Wright approach.

²²⁴ Federal Court of Australia, *ActewAGL Distribution v The Australian Energy Regulator* [2011] FCA 639, 8 June, 2011, paragraph 119.

²²⁵ In advice provided to SP AusNet by NERA, Greg Houston raised concerns with the AER's presentation of his advice to the Federal Court. NERA, *Estimating the cost of equity under the CAPM: Expert report of Gregory Houston*, November 2012, pp. 36-37. In response, we amended our discussion of Mr Houston's advice to the Federal Court.

²²⁶ Federal Court of Australia, *ActewAGL Distribution v The Australian Energy Regulator* [2011] FCA 639, 8 June 2011, paragraph 119.

²²⁷ Lally, *Risk free rate and present value*, August 2012, p. 3.

²²⁸ Lally, *Risk free rate and present value*, August 2012, p. 7

²²⁹ Lally, *Risk free rate and present value*, August 2012, p. 7

A short averaging period (for example, 20 business days) as close as practically possible to the commencement of the access arrangement period provides a pragmatic alternative—violating the theoretical requirements of the model only to a small extent. Lally states:²³⁰

The use of the CAPM in a regulatory situation requires that the risk free rate and the MRP must be the rates prevailing at the beginning of the regulatory period. However pragmatic considerations suggest that the risk free rate be averaged over a short period close to the beginning of the regulatory period.

On the other hand, Lally noted a long term average would more significantly violate the requirements of the CAPM without providing any pragmatic gain.²³¹

Rates averaged over a much longer historical period would be inconsistent with the present value principle, i.e., they would violate it without offering any incremental pragmatic justification.

Subsequent advice provided by Lally did not change this conclusion.²³² Therefore, we do not consider a long-term averaging period is an appropriate and reasonable departure from the requirements of the CAPM.

APA Group also seems to support this view. It submitted:²³³

The use of an averaging period of 20 trading days, as proposed in section 5.3.3 of the Draft Guideline, effects noise reduction without giving undue weight to superseded prior expectations.

This statement is supportive of our proposed approach for reasons in accordance with those outlined in this appendix.

In the past, we have identified the present value principle as supporting the use of a prevailing risk free rate.²³⁴

CGS are an observable market determined parameter

CGS yields are observable in a market. As that market is liquid and functioning well, we have confidence the market rate reflects the prevailing risk free rate and prevailing conditions in the market for funds.²³⁵

Changes in yields for securities traded in a liquid market are likely to reflect the actions of many market participants at each point in time. Therefore, market determined CGS yields are likely to reflect prevailing conditions in the market for funds. On its own, a yield that is low (or high) relative to historical averages is not a sign that the yield prevailing at any point in time is no longer a good proxy for the risk free rate. The current CGS yields are likely to reflect strong demand from foreign investors and a general re-assessment of the value of a risk free asset. Lower yields (higher prices) are an expected outcome from increased demand for those assets.

The Treasury and the AOFM noted this point:²³⁶

The weak and fragile global economy has put downward pressure on benchmark global long-term bond yields, and is driving investors into high quality government debt.

²³⁰ Lally, *The present value principle*, March 2013, p. 5

²³¹ Lally, *Risk free rate and present value*, August 2012, p. 7

²³² Lally, *The present value principle*, March 2013, p. 6

²³³ APA Group, *Submission on the draft guideline*, October 2013

²³⁴ AER, *Final decision: APA GasNet*, March 2013, Part 2, pp. 90–91.

²³⁵ Treasury and AOFM, *Letter regarding the CGS Market*, July 2012, p. 2.

²³⁶ Treasury and AOFM, *Letter regarding the CGS Market*, July 2012, p. 1

The prevailing yield is the benchmark that risky investments must out-perform

In previous advice, Professor McKenzie and Associate Professor Partington explained the relationship between the prevailing risk free rate and investment decisions.²³⁷

The fundamental point to be made is that the government bond rate sets the current benchmark that a risky project has to beat. Clearly there is little point in taking on a risky project if you can get the same or higher return by investing in a government bond. The government bond thus sets a benchmark; the time value of money.

They also advised:²³⁸

At the time of writing investors can invest in a 10 year government bond at yield of 3.84%. So a ten year project that offers say 4.5% is worth considering if the risk is low enough. The fact that government bond yields were higher in the past does not make 4.5% a bad deal, or 3.84% too low a benchmark. We see no reason to switch from using the current 10 year government bond yield as the proxy for the risk free rate.

The logic in Professor McKenzie and Associate Professor Partington's advice continues to apply. In prevailing market conditions as of December 2013, 4.11 per cent is the benchmark that a risky project must exceed. Similarly, at future points in time, specifically at the commencement of the regulatory control period for each determination, the prevailing risk free rate will be the benchmark that investments at that point in time must better. This supports our adoption of a prevailing risk free rate at the commencement of the regulatory control period.

Prevailing 10 year CGS yield is a forward looking 10 year rate

The prevailing 10 year CGS yield is a forward looking rate. The prevailing 10 year CGS yield varies over time. But, this variation does not mean the yield is a 'short term' rate. The prevailing 10 year CGS yield is a market determined yield investors expect on an investment with cash flows over the forthcoming ten year period.

Indeed, according to the expectations theory, at any point in time the yield on 10 year CGS incorporates the market's expectation of the yield on shorter dated bonds over that period.²³⁹ The expectations theory is generally regarded as a partial but not complete explanation of the term structure of interest rates. Other factors are also likely to be relevant.²⁴⁰

The method is unbiased

Determining the averaging period in advance helps achieve an unbiased risk free rate.

Regulated businesses have an incentive to seek a WACC that is as high as possible, because it will increase their revenue allowance. If a regulated business can select an averaging period by looking at historical yields, it may introduce an upward bias.²⁴¹ It can select a period with the highest yield available. But, when an averaging period is agreed or specified in advance, opportunistic behaviour is less likely because the risk free rate is unknown for that future period. This same possibility of upward

²³⁷ McKenzie and Partington, *Supplementary report on the MRP*, February 2012, pp. 11–12.

²³⁸ McKenzie and Partington, *Supplementary report on the MRP*, February 2012, p. 12.

²³⁹ The expectations theory suggests then that current yields on long-dated bonds incorporate current market yields on short dated bonds and expectations of future market yields on short dated bonds: T. Brailsford, R. Heaney, and C. Bilson, *Investments: concepts and applications*, Nelson Australia Pty Ltd: Third edition, 2007, p. 710. We discussed the expectations theory in more detail in the Victorian gas draft decision: AER, *Draft decision: APA GasNet access arrangement*, March 2013, Part 3, pp. 24–25.

²⁴⁰ The 'liquidity premium' theory and the 'preferred habitat' theory identify other important determinants of the term structure of debt. Elton et. al., *Modern Portfolio Theory and Investment Analysis 8th ed.* (2010), pp. 516–521.

²⁴¹ Lally, M., *Expert Report of Martin Thomas Lally*, 13 February 2011, pp. 9–10. Lally's comments in this report were made about a specific approach proposed in the relevant determination but are consistent with the approach taken by the AER in this decision.

bias also applies to a long term average. No particular long term averaging period is clearly superior to any other. Different averaging periods will produce different average yields. A regulated business would have an incentive to select the period with the highest yield.

We therefore maintain our position that a short averaging period, determined in advance, minimises the likelihood of bias.

There is no clear evidence that CGS yields are abnormally low

In the Victorian gas review, we considered whether CGS yields are 'abnormally' low.

The analysis above demonstrates that the CGS market is liquid and functioning well. We did not accept submissions that conditions in the CGS market are abnormal. Conversely, there is no clear understanding of what 'normal' market conditions mean. Prices (and yields) in markets move up and down all the time depending on the circumstances, demand and supply conditions, and investor expectations. We do not accept that the evidence before us suggests that there is mispricing in the CGS market.

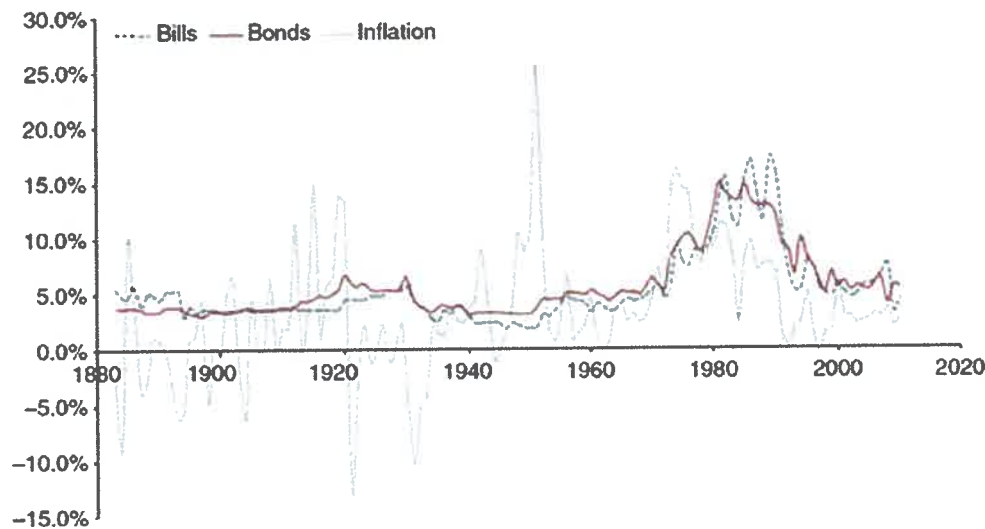
McKenzie and Partington also considered the question of whether CGS yields are abnormally low. They did not find that there was reason to describe current CGS yields as abnormally low. They state:²⁴²

The evidence provided by the data suggests that the history of interest rates over the last few decades is not truly representative of the long run in this market. For both the U.S., UK and Australian markets, evidence exists which suggests that bond yields were stable (and possibly even falling) in the long run. The history of data over the last few decades is anomalous and the high interest rates observed during this period are clearly not representative of the longer time series. As such, one conclusion may be that the current environment is nothing more than a return to the 'normal' long run interest rate regime. On the other hand, it could be argued that there is a new normal and the GFC represents a true regime shift for global financial markets. It is difficult to determine whether this is the case or not - only in the fullness of time will we be able to comment on this with any certainty.

Their report also presents the following figure from Brailsford et al (2012).

²⁴² McKenzie and Partington, *Review of the AER's overall approach*, February 2013, p. 5.

Figure 6.1 Bond yields, bill yields and inflation rates over time



Source: McKenzie and Partington, *Review of the AER's overall approach*, February 2013, p. 13.

The figure shows:

- yields in the 1970s and 1980s were high by comparison with historical rates
- yields have remained elevated (depressed) for long periods before falling (increasing).

The available evidence does not support a conclusion that yields on CGS are 'abnormally low'. Indeed, it may be more appropriate to conclude interest rates during the 1970s and 80s were abnormally high.

Internal consistency

We consider our approach to estimating the risk free rate internally consistent with our approach to estimating the MRP. Appendix D contains more detailed discussion supporting our position.

On the other hand, the NSW businesses submitted.²⁴³

When estimating the cost of equity using the Capital Asset Pricing Model (CAPM) using an estimate of the market risk premium (MRP) that primarily relies on long term historical data and an equity beta that relies on historical data, the risk free rate should also be estimated using historical data. This is an internally consistent approach, particularly when combined with a trailing average approach to the cost of debt, and should provide stability in the regulated return on equity over time...

Similarly, in its submission in response to our consultation paper, the ENA proposed the use of a long term average risk free rate.²⁴⁴ The NSW DNSPs identified a report by Professor Bruce Grundy and Dr Tom Hird for CEG in support of their proposal.²⁴⁵

We do not agree that internal consistency requires we use a long term average risk free rate in combination with our estimate of the MRP. We considered this issue at length in the Victorian gas

²⁴³ NSW DNSPs, *Submission on the draft guideline*, October 2013.

²⁴⁴ ENA, *Response to the consultation paper*, June 2013, p. 57.

²⁴⁵ CEG, *Estimating E[Rm] in the context of recent regulatory debate*, June 2013.

final decision.²⁴⁶ The Tribunal did not find error in that decision.²⁴⁷ Our reasoning on this issue can be briefly summarised as follows:

- As well as being consistent with the CAPM, we apply an approach that employs consistent definitions and logic throughout.
- A misunderstanding of our MRP estimate appears to underlie the suggestion that we should use a long term historical average of the risk free rate. We estimate a 10 year forward looking return on equity using an estimate of the 10 year forward looking MRP. We do not rely on historical data alone.

Our proposed approach in the draft and final guidelines is consistent with our proposed approach in the Victorian gas final decision. That decision contains further discussion of internal consistency.²⁴⁸

6.1.4 Application of approach

As set out above, our approach is to estimate the risk free rate based on market conditions that prevail as close as possible to the commencement of the regulatory control period. Accordingly, we propose to update the risk free rate, based on our approach, as close as possible to each individual reset determination.

6.1.5 Reasons for the application of approach

As we do not exercise discretion when estimating the risk free rate, there are no additional reasons for the application of the risk free rate approach.

6.2 Equity beta

Under our return on equity approach, we need to determine a point estimate and range for the equity beta of a benchmark efficient entity. The equity beta is a key input parameter in our foundation model, the Sharpe–Lintner capital asset pricing model (CAPM). It measures the sensitivity of an asset or business to the overall movements in the market (systematic or market risk).²⁴⁹

In this chapter, we will discuss our approach to estimating the equity beta and the reasons for our approach. In appendix C, we address issues relating to equity beta in more detail, and respond to matters raised in submissions.

6.2.1 Issue

In our consultation paper, we raised several key issues we considered relevant to the estimation of equity beta. Subsequently, on 11 October 2013, we released an issues paper on the equity beta as part of our consultation for developing the rate of return guideline. Further, we have also held a number of meetings with service providers, investors and consumer groups in relation to this issue.

In the issues paper, we proposed and set out our reasons for a 0.7 point estimate of equity beta, chosen from within a range of 0.4–0.7. On 28 October, we received submissions from interested

²⁴⁶ AER, *Final decision: Access arrangement final decision: SPI Networks (Gas) Pty Ltd 2013-17*, March 2013, Part 3, pp. 25-30.

²⁴⁷ Australian Competition Tribunal, *Application by APA GasNet Australia (Operations) Pty Limited (No 2) [2013] ACompT 8*, 18 September 2013, paragraphs 227–311.

²⁴⁸ AER, *Final decision: Access arrangement final decision: SPI Networks (Gas) Pty Ltd 2013-17*, March 2013, Part 3, pp. 25–30.

²⁴⁹ R. Brealey, S. Myers, G. Partington, and D. Robinson, *Principles of Corporate Finance*, McGraw-Hill Australia: First Australian Edition, 2007, p. 187.

parties on our equity beta issues paper. We have considered the issues raised and have reassessed our analysis and reasons in light of submissions. Generally speaking, consumer groups supported our range but considered we should chose a point estimate closer to the mid-point of that range.²⁵⁰ Service providers generally considered we should adopt a higher range and point estimate. For example, the Energy Networks Association (ENA) submitted we should adopt a point estimate of 0.94.²⁵¹

6.2.2 Approach

We estimate a range for the equity beta and select a point estimate from within that range. We propose to adopt the same point estimate and range for equity beta across each of the energy sectors we regulate (electricity transmission, electricity distribution, gas transmission and gas distribution). This is because our conceptual analysis suggests systematic risks are similar between the different sectors of the energy market. Further, the results of our empirical analysis are not sufficiently precise to distinguish a measurable difference between the gas and electricity sectors.

Under our approach, we estimate the range for the equity beta based on empirical analysis using a set of Australian energy utility firms we consider reasonably comparable to the benchmark efficient entity. This empirical range is consistent with our conceptual analysis, which we use to cross check our range for the equity beta. This is because our conceptual analysis suggests the systematic risks of a benchmark efficient entity would be less than the systematic risks of a market average entity (that is, less than 1.0). Our approach to estimating the range for the equity beta gives primary consideration to Australian empirical estimates.

We then use other information sources to inform a point estimate from within the empirical range of equity beta estimates. This additional information includes:²⁵²

- Empirical estimates of overseas energy networks. We use this information to inform our point estimate from within the range. We consider empirical estimates for a number of international energy networks across the US, UK and Europe, prepared by a number of different entities.
- The theoretical principles underpinning the Black CAPM.

6.2.3 Reasons for approach

Our approach to estimating the range for equity beta gives primary consideration to Australian empirical estimates. We consider these empirical estimates align with our rate of return criteria (see chapter 2). That is, these estimates are:

- Based on available market data and derived with sound, econometric techniques.
- Fit for purpose as they are based on businesses that most closely, albeit imperfectly, meet our definition of the benchmark efficient entity.
- Implemented in accordance with good practice as they are derived from robust, transparent and replicable regression analysis. We note that consistent results are derived from different studies using different econometric techniques and sampling periods.

²⁵⁰ COSBOA, *Comments: Return on equity issues paper*, November 2013, p. 1; MEU, *Submission to beta issues paper*, October 2013, p. 7; PIAC, *Submission to beta issues paper*, October 2013, p. 5.

²⁵¹ ENA, *Submission to beta issues paper*, October 2013, p. 5.

²⁵² AER, *Equity beta issues paper*, October 2013, pp. 54–56.

- Based on quantitative modelling in that they are derived using robust regression techniques with no arbitrary adjustment to the data.
- Based on market data that is credible, verifiable, comparable, timely and clearly sourced.

Further, we have confidence in our Australian empirical estimates because these present a consistent pattern that is robust to the use of different econometric techniques, comparator sets and time periods. For instance, consistent results have been produced under the following studies:

- Professor Henry's 2009 analysis (for the 2009 WACC review) examined data sampled at monthly and weekly frequencies over the period 1 January 2002 to 1 September 2008 for the nine comparable Australian-listed energy firms.²⁵³ Henry implemented two types of regression calculations, ordinary least squares (OLS) and least absolute deviations (LAD). Further, he examined equity beta estimates for individual firms, portfolios of firms with constant weights, and portfolios of firms with time varying weights. He also analysed different estimation periods—including a long estimation period from after the technology bubble to before the global financial crisis (GFC), and the last five years.²⁵⁴
- The Economic Regulation Authority's (ERA's) 2011 study largely replicated Henry's approach and updated the analysis to October 2011. The ERA introduced two further regression techniques to the analysis in its 2013 study—MM and Theil–Sen.²⁵⁵ Adding two new regression techniques did not change the results. Later, the ERA also further updated the analysis to April 2013. The ERA's 2013 analysis continued to show a similar pattern.²⁵⁶
- The ENA's consultant, SFG presented equity beta estimates in its June 2013 report. Its analysis of Australian data was based on the same nine comparable energy firms adopted by Henry and sampled over an 11 year period from 2 January 2002 to 19 February 2013. It computed total returns over a four-weekly period for each firm and repeated the analysis 20 times using different start points within this four-weekly period. SFG applied OLS regression to the data and incorporated the Vasicek adjustment.²⁵⁷

Notably, compared to our 2009 WACC review, we now have greater confidence in the empirical estimates for the following reasons:

- We now have greater confidence in the reliability of the empirical estimates. At one level, this reflects the substantial increase in the length of the time series of the data set. The core regressions in the 2009 WACC review were based on the periods from January 2002 to September 2008 (six years and eight months) and September 2003 to September 2008 (five years).²⁵⁸ Extending the data set to 2013 allows up to an additional five years of data.²⁵⁹ The more recent studies examining longer time periods provided results in line with Henry's 2009 study.

²⁵³ Henry, *Estimating β* , April 2009, p. 8.

²⁵⁴ Henry, *Estimating β* , April 2009, p. 8.

²⁵⁵ See ERA, *Explanatory statement for the draft rate of return guideline*, August 2013, pp. 168-180. The ERA state the MM regression is a form of robust regression that has the highest breakdown point and statistical efficiency of robust regression estimators currently available. The ERA states Fabozzi proposed using the Theil-Sen estimator for the equity beta in response to the OLS estimator being acutely sensitive to outliers. See Fabozzi, F.J.(2013) *Encyclopaedia of Financial Models*, Wiley Publications, p442.

²⁵⁶ See section 12.3.4 'estimating equity beta: Authority's enhanced study in 2013' in ERA, *Explanatory statement for the draft rate of return guideline*, August 2013, pp. 168-180

²⁵⁷ SFG, *Regression-based estimates of risk parameters for the benchmark firm*, June 2013, pp. 5-6.

²⁵⁸ For clarity, the 2009 WACC review also considered other periods, including longer periods submitted by ACG for the Joint Industry Association.

²⁵⁹ The Henry report we have commissioned will use data up to the end of June 2013, an increase of four years and nine months.

- In 2009, there was uncertainty due to the global financial crisis (GFC). Four years on, we now have empirical estimates generated from a broader set of different market conditions. The consistency of these results from markedly different environments also gives us increased confidence that the observed empirical range is reasonable. That is, the empirical estimates from the relatively stable period after the tech boom but before the GFC (2002–2008) are consistent with recent analysis using the period encompassing the GFC and its aftermath (2008–2013).²⁶⁰ This appears to suggest that the equity beta for the benchmark efficient entity is relatively stable across time, even when there are major fluctuations in the business cycle. This increases our confidence in the observed range of equity betas.

Our approach to selecting a point estimate for equity beta from within our range considers international equity beta estimates and the theory behind the Black CAPM. We do not consider this evidence can be used to justify adjusting our range for the following reasons:

- International comparators are less aligned with the benchmark efficient entity, compared to Australian comparators. It is difficult to use this information in accordance with good practice because it is difficult to adjust for these differences. These differences include, but are not limited to; differences in regulatory regimes, economic conditions and market structures (see appendix B).
- There are major problems deriving a reasonable empirical estimate using the Black CAPM. There is also no generally accepted method to generate a reliable estimate of the zero beta return. Further, the Black CAPM is sensitive to errors in estimating the zero beta portfolio. Also, theoretical analysis does not lead to a clear indication of the magnitude of the difference between the Black CAPM and the standard Sharpe–Lintner CAPM. Further, while the Black CAPM removes one of the assumptions underlying the standard CAPM, it replaces it with another assumption (see appendix A).²⁶¹

However, we use this evidence to inform the selection of a point estimate for equity beta from within our range. This is for the following reasons:

- We account for the Black CAPM because we recognise there is merit to its theoretical basis, particularly when viewed alongside the standard Sharpe–Lintner CAPM.²⁶² However, we propose to use the Black CAPM informatively, rather than mechanistically, because it is difficult to implement it in accordance with good practice.
- We recognise the limitations of having nine comparators in our Australian comparator set. Therefore, we consider empirical estimates of overseas energy networks. These are more statistically robust than our domestic estimates as they are generated from larger datasets. However, the firms in the international comparator set are less aligned with the benchmark efficient entity.

²⁶⁰ This does not mean that we consider a short data period centred on the GFC would be a reasonable basis for equity beta estimation. We consider a period of (at least) five years is appropriate for equity beta estimation and see no conceptual problem with incorporating GFC data within such a data period.

²⁶¹ The Sharpe–Lintner CAPM assumes there is unlimited risk free borrowing and lending, a simplification that does not hold in practice. The Black CAPM relaxes this assumption and acknowledges that investors may not be able undertake unlimited borrowing or lending at the risk free rate. However, in its place the Black CAPM assumes that unlimited short selling of stocks is possible with the proceeds available for investment. This assumption does not hold in practice either, and so there are still concerns over the basis for the model and as a result the empirical estimation of the return on the zero beta portfolio. See AER, *Explanatory statement: Draft rate of return guideline*, August 2013, p. 190.

²⁶² For clarity, this statement does not imply that we consider the theoretical basis for the Black CAPM to be completely accurate (or more reliable than the standard CAPM).

One element of our approach has changed since our equity beta issues paper. That is, we now give limited value to equity betas from regulated Australian water networks, rather than using this information as a cross check. We consider Australian water networks face reasonably comparable systematic risks to Australian energy networks. Further, adopting comparable rates of returns between energy and water decisions avoids potential investment distortions caused by different rates of return between the sectors. However, this data provides an immaterial amount of new information. Australian water regulators often base their beta estimates on equity betas from Australian energy networks.²⁶³ Notwithstanding, this information supports an equity beta estimate within our proposed range.

6.2.4 Application of approach

Applying our approach, we propose a range for the equity beta of 0.4–0.7. We consider the equity beta of a benchmark efficient entity is in this proposed range as:

- Conceptual analysis supports that the equity beta of a benchmark efficient entity would be low and below 1.0.
- The empirical evidence for Australian electricity and gas networks supports an equity beta of between 0.4 and 0.7 for the benchmark efficient entity.

Applying our approach, we propose a point estimate for beta of 0.7. This point estimate is for a benchmark efficient entity with a similar degree of risk as that which applies to the service providers we regulate, in respect of the provision of regulated services.

Our proposed point estimate is at the upper end of our 0.4–0.7 range. We have chosen this point estimate because:

- Theoretical principles underpinning the Black CAPM suggest the standard Sharpe–Lintner CAPM may underestimate the return on equity for firms with equity betas below 1.0. Although it is difficult to ascertain the magnitude (or materiality) of this effect, selecting a point estimate at the higher end of the range is an appropriate approach to allow for the theoretical differences between the Sharpe–Lintner CAPM and the Black CAPM.
- We have used overseas energy networks to inform our point estimate (see appendix C.3, international comparators). The pattern of overseas results is not consistent and there are inherent uncertainties when relating foreign estimates to Australian conditions. However, these results support choosing a point estimate in the upper end of our range.

6.2.5 Reasons for application of approach

We note our proposed range is consistent with the range proposed in our equity beta issues paper. Consumer groups agreed that the identified range is reasonable.²⁶⁴

A range of 0.4–0.7 is consistent with our conceptual analysis. Our conceptual analysis, including evidence from Professor McKenzie and Associate Professor Partington, suggests the equity beta of a benchmark efficient entity would be 'among the lowest possible' and below 1.0.²⁶⁵

²⁶³ See QCA, *Final report: Seqwater irrigation price review 2013-17, vol. 1*, April 2013, p. 273; ERA, *Inquiry into the efficient costs and tariffs of the Water Corporation, Aqwest and the Busselton Water Board: Revised final report*, March 2013, pp. 57–58; QCA, *Final report: SunWater, Irrigation price review: 2012-17, vol. 1*, May 2012, p. 492.

²⁶⁴ COSBOA, *Comments: Return on equity issues paper*, November 2013, p. 1; MEU, *Submission to beta issues paper*, October 2013, p. 1; PIAC, *Submission to beta issues paper*, October 2013, p. 5.

Our approach to estimating the range for equity beta gives primary consideration to Australian empirical estimates. Table 6.1 illustrates that these empirical evidence supports an equity beta within the range of 0.4–0.7 for the benchmark efficient entity. Further, table 6.1 demonstrates empirical studies based on Australian energy utility firms present a consistent pattern that is robust to the use of different econometric techniques, comparator sets and time periods.

Table 6.1 Average equity beta point estimates for Australian energy networks

Source	Estimation period	Individual firm averages	Fixed portfolios	Varying portfolios	Summary of analysis permutations
Henry 2009	2002–2008	0.45–0.71	0.49–0.66	0.43–0.78	Monthly/weekly intervals, 2002/2003 start, OLS/LAD regressions, value/equal Weighted fixed portfolios, average/median varying portfolios
ERA 2011	2002–2011	0.44–0.60	–	–	Monthly/weekly intervals, OLS/LAD regressions
ERA 2013	2002–2012	0.49–0.52	0.47–0.53	–	OLS/LAD/MM/TS regressions, value/equal weighted portfolios
SFG 2013	2002–2012	0.60	–	0.55	Four weekly repeat sampling

Source: Henry, *Estimating β* , 23 April 2009; ERA, *Draft decision: Western Power access arrangement*, March 2012, pp. 195–205; ERA, *Explanatory statement for the draft rate of return guidelines*, 6 August 2013, pp. 168–181; and SFG, *Regression-based estimates of risk parameters for the benchmark firm*, 24 June 2013, pp. 12–15. Note some averages are calculated by the AER.

We have transparently derived our range for equity beta using a single type of evidence—empirical estimates using our comparator set of Australian energy service providers traded on the Australian Stock Exchange. As demonstrated in table 6.1, most beta estimates fall within the 0.4–0.7 range. We have based our range on the range of point estimates derived from different samples and sampling periods. We have chosen not to base our range for equity beta on confidence intervals. This is consistent with our 2009 decision where we outlined our reasons for not basing the range for equity beta on confidence intervals.²⁶⁶ These reasons include:

- The presence of outliers can affect point estimates and their associated confidence intervals.
- The presence of autocorrelation and heteroskedasticity creates difficulties in discerning whether confidence intervals overstate or understate the upper bound estimate.²⁶⁷
- Confidence intervals are less likely to represent the 'true' equity beta point estimate, compared to the range of point estimates derived from different samples and sampling periods.

We recognise the values in our range are lower than the previous equity betas we have applied to the energy sector. We applied an equity beta of 1.0 before our 2009 WACC review. This was because the NER deemed the initial equity beta value for all transmission network service providers and the NSW/ACT distribution network service providers should be a default value of 1.0.²⁶⁸ Under the rules, there was a need for persuasive evidence before adopting a value or method that differed from those

²⁶⁵ McKenzie and Partington, *Estimation of equity beta*, April 2012, p. 15.

²⁶⁶ AER, *Final decision: WACC review*, May 2009, pp. 286–290.

²⁶⁷ Autocorrelation is present when the errors in the regression have a relationship or trend with errors in the past. Heteroskedasticity is where the variance in the errors is not constant (over time or as the values of the independent variables change).

²⁶⁸ See NER, cl. 6A.6.2(b) and 6.5.2(b) of chapter 11, appendix 1 (in pre- 2009 versions of the NER).

previously adopted.²⁶⁹ We lowered the equity premium to 0.8 in 2009 because there was persuasive evidence to depart from the previously adopted equity beta values.²⁷⁰ The point estimate of 0.8 was slightly above our range of empirical estimates. This took into account the likely precision of our empirical estimates, along with other relevant considerations.²⁷¹ However, relative to 2009, we now have greater confidence that the equity beta for the benchmark efficient entity is in the range of 0.4–0.7.

Several industry stakeholders disagreed with using an equity beta from within our range and submitted an equity beta point estimate from the top of this range would be too low.²⁷² We disagree with these submissions. As stated in our equity beta issues paper, we consider we have sufficient evidence to determine an equity beta from our range of empirical estimates reflects the systematic risks of a benchmark efficient entity. This range is robust to different econometric techniques and sampling periods. We address the issues raised by these stakeholders in appendix C.

Under our approach, we adopt a point estimate for equity beta from the top of the empirical range. This is consistent with the point estimate proposed in our equity beta issues paper. We consider a point estimate from the top of the range to be consistent with alternative evidence international equity beta estimates and the theory behind the Black CAPM for the following reasons:

- Theoretically, under the Black CAPM, firms with an equity beta below 1.0 should have higher returns on equity than what the standard Sharpe–Lintner CAPM predicts.²⁷³ This is because, as a result of different starting assumptions, the Black CAPM predicts the slope of estimated returns will be flatter than for the standard Sharpe–Lintner CAPM.²⁷⁴ This information informs our proposal to select a point estimate at the top end of the 0.4–0.7 range of empirical estimates.
- We consider empirical estimates from a number of international energy networks across the US, UK and Europe, support a point estimate closer to the upper end of our range.

We also consider an equity beta point estimate from any point of our 0.4–0.7 empirical range is not inconsistent with McKenzie and Partington's advice that, 'one would expect the beta to be among the lowest possible'. In their submissions to our equity beta issues paper, consumer groups submitted that we should not select an equity beta at the top of the 0.4–0.7 range.²⁷⁵ Each of these consumer groups submitted that a point estimate from the top of the range was inconsistent with our evidence from McKenzie and Partington. Further, MEU and PIAC both specified it would be more appropriate to adopt a point estimate around the mid-point of the range.²⁷⁶ We disagree with these submissions. We consider other relevant information suggests it is reasonable for us to select a point estimate from the upper end of the range of empirical equity beta estimates. This information includes the theoretical principles underpinning the Black CAPM and empirical evidence from international comparators. We address these submissions in detail in appendix C.

²⁶⁹ NER, cls. 6.5.4(e) and 6A.6.2(j).

²⁷⁰ AER, *Final decision: WACC review*, May 2009, p. 244.

²⁷¹ AER, *Final decision: WACC review*, May 2009, p. 307.

²⁷² CitiPower, Powercor, SAPN, *Submission to beta issues paper*, October 2013, pp. 3-4; Spark, *Response to beta paper*, October 2013, p. 3.

²⁷³ Conversely, for firms with an equity beta above 1.0, the Black CAPM predicts a lower return on equity than the standard CAPM.

²⁷⁴ This statement assumes that the representative investor can lend (but not borrow) at the risk free rate. The base form of the Black CAPM does not constrain the zero beta return to be above the risk free rate (which does not exist, by definition). In this case, the Black CAPM predicts a return on low beta equity that is below that of the standard CAPM.

²⁷⁵ COSBOA, *Comments: Return on equity issues paper*, November 2013; MEU, *Submission to beta issues paper*, October 2013; PIAC, *Submission to beta issues paper*, October 2013.

²⁷⁶ MEU, *Submission to beta issues paper*, October 2013; PIAC, *Submission to beta issues paper*, October 2013.

6.3 Market risk premium

Under the Sharpe–Lintner CAPM, the market risk premium (MRP) is the difference in returns between the risk free asset and the return on an average risky equity investment.

The MRP compensates an investor for the systematic risk of investing in the market portfolio or the 'average firm' in the market. Systematic risk is that which affects all firms in the market (such as macroeconomic conditions and interest rate risk) and cannot be eliminated or diversified away through investing in a wide pool of firms.

6.3.1 Issue

In the draft guideline we proposed to estimate a range and point estimate for the MRP. In doing so we proposed to consider a range of theoretical and empirical evidence—including historical excess returns, survey evidence, financial market indicators and dividend growth model (DGM) estimates. We maintain that position in the final guideline. We did not include a range and point estimate with the explanatory statement accompanying the draft guideline. In this explanatory statement we do.

In determining the MRP, we propose to consider each source of evidence identified above. This is consistent with our practice over the past five years where we have determined values for the MRP of 6.0 or 6.5 per cent. In response to our draft guideline, many stakeholders requested that we provide additional guidance and examples on the approach we are intending to apply. Therefore, in this explanatory statement to our final guideline we have included a worked example to show how we would apply the material available to inform the MRP in December 2013. The worked example settles on an MRP of 6.5 per cent based on the evidence before us.

We released the Victorian gas final decision earlier this year.²⁷⁷ That decision contained a detailed consideration of the theory and evidence underlying the MRP.²⁷⁸ This chapter and appendix D draw on that material. The Tribunal recently reviewed that decision and did not find error in our MRP estimate of 6.0 per cent.²⁷⁹ Since the Victorian gas final decision, the most significant development in this area is our proposal of a preferred construction of the DGM.

The inclusion of a range and point estimate for the MRP in this explanatory statement responds to submissions from various stakeholders requesting estimates be included with the final decision.²⁸⁰ In other submissions on this topic, the ENA supports the consideration of DGMs when estimating the MRP, with preference for estimates produced by the SFG model.²⁸¹ The APIA and APA Group appear to support the use of the Wright approach to allow for deficiencies they see in our proposed approach to estimating the MRP.²⁸² The EUAA appears to suggest a wider consideration of risk and return throughout the regulatory regime is required to determine an appropriate return on equity.²⁸³

This example is provided as a guide only. We intend to consider and review a range of material on the MRP, as it becomes available. We will draw on this material and will consider more up to date information when determining the MRP at each determination.

²⁷⁷ AER, *Final decision: APA GasNet*, March 2013.

²⁷⁸ AER, *Final decision: APA GasNet*, March 2013, Part 2, pp. 46–56, Part 3, pp. 46–56.

²⁷⁹ Australian Competition Tribunal, *Application by APA GasNet Australia (Operations) Pty Limited (No 2) [2013] ACompT 8*, 18 September 2013, paragraphs 227–308.

²⁸⁰ See, for example, ENA, *Response to the draft guideline*, October 2013, p. 5; Envestra, *Response to the draft guideline*, October 2013, p. 4; NSW DNSPs, *Submission on the draft guideline*, October 2013, p. 3; SP AusNet, *Submission on the*

ENA, *Response to the draft guideline*, October 2013, pp. 30–32.

²⁸² APIA, *Submission to the draft guideline*, October 2013, pp. 25–27; APA Group, *Submission on the draft guideline*, October 2013, pp. 27–29.

²⁸³ EUAA, *Submission to the draft guideline*, October 2013, p. 2.

6.3.2 Approach

We propose to estimate a range for the MRP, and then select a point estimate from within that range.

We propose to estimate the MRP range with regard to theoretical and empirical evidence—including historical excess returns, DGM estimates, survey evidence and conditioning variables. We will also have regard to recent decisions by Australian regulators. Each of these sources of evidence has strengths and limitations.²⁸⁴

We propose to estimate the MRP point estimate based on our regulatory judgement, taking into account estimates from each of those sources of evidence and considering their strengths and limitations.

The sources of evidence we propose to consider, and a summary of their strengths and weaknesses, are as follows:

- Historical excess returns:
 - Strengths include the estimation method and results are transparent, the estimation methods have been extensively studied and the results are well understood. Historical estimates are also widely used and have support as the benchmark method for estimating the MRP in Australia.
 - Also, over the past decade, there is an increased scepticism about the ability for particular variables to predict returns. New empirical evidence has cast doubt on previous empirical evidence that suggested particular variables were good predictors of returns. Some studies indicate there is no better forecast of excess returns than the historical average.
 - Limitations include concerns with the quality of the historical data (particularly the older data), the 'equity premium puzzle' which suggests historical excess returns may overstate expected returns, the proxy for the market return is not perfect, and there are challenges when selecting a measure of central tendency (arithmetic or geometric averages) and an appropriate averaging period.
- Dividend growth model estimates:
 - Strengths include the theoretical underpinnings of this estimation method and there is some support for the ability of valuation models (DGMs) to predict returns.
 - Limitations include the practical difficulties with estimating the DGM. These models are highly sensitive to assumptions made when estimating them and there is no clear answer about what those assumptions should be.
- Survey evidence
 - Strengths include the direct theoretical link between expected excess returns and stated expectations, and the triangulation of results across surveys and across time.
 - Limitations include timeliness, survey design and the representativeness of the respondents.
- Conditioning variables—these include dividend yields, credit spreads and implied volatility:

²⁸⁴ We discuss these estimation methods in more detail in appendix D.

- Strengths include these estimation methods are responsive to prevailing market conditions.
- Limitations include difficulties defining a robust estimation method and, as noted above, that there is greater scepticism than previously in the academic literature about the ability of these sources of evidence to predict returns.
- Recent decisions by Australian regulators:
 - Strengths include these estimates provide an indication of regulatory practice in Australia, and that consistency in approach between regulators can avoid distortions in investment between different regulated industries.
 - Limitations include the evidence will not necessarily be timely and there may be different frameworks used by different regulators (e.g. different benchmark entity assumptions). Further, other regulators may consider similar evidence to us. Accordingly, decisions of other regulators are not direct evidence on the MRP but reflect other assessments of some or all of the information available to us.

We explore these strengths and limitations in more detail below and in appendix D.

6.3.3 Reasons for approach

In this section we outline the reasons for our approach. Our reasons fall under three headings:

- consideration given to different estimation methods
- determination of the point estimate
- considerations informing our exercise of judgment.

Consideration given to different estimation methods

Under the new rules framework we are required to estimate a return on equity that contributes to the achievement of the allowed rate of return objective. The objective requires that the rate of return is commensurate with efficient financing costs of a benchmark efficient entity. In this context we contribute to the objective by estimating the expected return on equity, and as an input, the expected MRP.

Evidence suggests the MRP may vary over time.²⁸⁵ In their advice to the AER, Professor Lally and Professor Mackenzie and Associate Professor Partington have expressed the view that the MRP likely varies over time.²⁸⁶ They also suggest it would be better to use a wide range of models and information to estimate the MRP.²⁸⁷

²⁸⁵ For example, Dimson, Marsh and Staunton suggest there are 'good reasons to expect the equity premium to vary over time'. Dimson, Marsh and Staunton, *Sourcebook*, 2012, p. 37. Similarly, McKenzie and Partington suggest the fundamental determinants of the risk premium may change over time and, therefore, the market risk premium changes. M. McKenzie, and G. Partington, *Report to Corrs Chambers Westgarth: Equity market risk premium*, 21 December 2011, pp. 5–6.

²⁸⁶ M. McKenzie, and G. Partington, *Review of the AER's overall approach to the risk free rate and market risk premium*, February 2013, p. 20; M. Lally, *Review of the AER's methodology for the risk free rate and the market risk premium*, March 2013, pp. 14–15.

²⁸⁷ M. McKenzie, and G. Partington, *Review of the AER's overall approach to the risk free rate and market risk premium*, February 2013, p. 20; M. Lally, *Review of the AER's methodology for the risk free rate and the market risk premium*, March 2013, pp. 27–34.

However, it is well recognised that the MRP cannot be directly observed. Unlike the risk free rate, the evidence on the MRP is comparatively imprecise and subject to varied interpretation. In addition, different methods can produce widely different results at the same point in time.²⁸⁸ There is also debate in the finance literature on the predictability of returns.²⁸⁹ Ultimately, there is no consensus among experts on which method produces the best estimate. These differences reflect their consideration of the relative strengths and limitations of the various estimation methods, as well as their consideration of the best means of bringing these estimation methods together.

Determination of the point estimate

Given the range of estimates of the MRP and the variability of estimates over time, judgment is required when determining a point estimate for the return on equity. Just as there is no consensus among experts on the strengths and limitations of the various sources of evidence, there is no consensus among experts on the determination of a point estimate.

We propose to assess a range of evidence to inform our estimate of the MRP. In this assessment we must apply judgment to interpret the information before us. Our judgment is guided by the approaches we consider will satisfy the allowed rate of return objective and have regard to prevailing conditions in the market for funds.

Considerations informing our exercise of judgment

It is important to avoid bias in regulatory outcomes over time. Therefore, it is important we apply different sources of evidence symmetrically through time to avoid bias. Since the WACC Review in 2009, various sources of evidence on this topic have arguably been presented asymmetrically. An example is implied volatility. In periods where the implied volatility suggested the MRP should be significantly above the long term average, regulated businesses relied upon this evidence. Recently, when implied volatility estimates have fallen, regulated businesses have not relied upon, or even considered, this evidence. Asymmetric application of evidence may lead to biased outcomes. In contrast, we propose to consider each source of evidence symmetrically through time. Application of our proposed approach may result in an MRP below the long term average where the evidence supports this.

Good regulatory outcomes will be achieved by an approach that provides certainty and predictability to stakeholders. This certainty and predictability promotes the rate of return objective and comes in two forms:

- certainty of process
- certainty of value.

The process we have used to consider the relevant information and form a judgement on the MRP provides greater certainty that the rate of return objective will be achieved. Hence, it provides a better basis for future decisions and should increase certainty that we will promote the rate of return objective in future. It does not provide the same certainty of the future value of the MRP as an approach that gives greater consideration to long term averages. However, it is not clear that a relatively stable MRP provides greater certainty on the cost of equity at future decisions. The proposed approach should, however, provide greater certainty that the return on equity will be

²⁸⁸ See: Damodaran, *Equity risk premiums: determinants, estimation and implications - the 2012 edition*, March 2012, p. 93. He also noted: "No matter what the premium used by an analyst, whether it be 3% or 12%, there is back-up evidence offered that the premium is appropriate."

²⁸⁹ See appendix D for more detail on this debate.

consistent with the requirement to determine the return on equity having regard to prevailing conditions in the market for funds.

Under our foundation model approach, we propose to use our foundation model estimate of the return on equity informatively. At the return on equity level we propose to compare our foundation model estimate of the return on equity with other information. Some of that other information typically provides a relatively stable return on equity estimate. Because we have adopted a prevailing risk free rate with a MRP that may vary through time, our final return on equity estimate may be relatively less likely to depart from the foundation model estimate. This is because our foundation model estimate may be relatively closer to the other information.

6.3.4 Application of approach (at December 2013)

In the previous section, we outlined and summarised our approach to determining the MRP and the reasons for the approach. In this section, we apply that approach and set out our estimate of the MRP (point estimate and range) for December 2013.

We consider a range for the MRP of 5.0 to 7.5 per cent is reasonable based on the evidence before us. The range we determine in this decision reflects the span of the evidence before us. This is because:

- The geometric mean historical excess return currently provides the lowest estimate of the MRP with a range of 3.6 to 4.8 per cent. However, as we discuss in more detail in appendix D, there are concerns with using the geometric mean as a forward looking estimate. Therefore, we consider a reasonable estimate of the lower bound will be above the geometric average. However, we give some weight to geometric mean estimates. Therefore, we consider a lower bound estimate of 5.0 per cent appropriate. The arithmetic average provides a range of 5.7 to 6.4 per cent.
- On the other hand, using our proposed models, the DGM currently provides the highest estimate of the MRP at about 7.5 per cent.²⁹⁰ We consider this an appropriate upper bound for the range. The upper and lower bound estimates reflect the evidence before us. These estimates may change over time and likewise the upper and lower bounds may change.

Given the available information we consider 6.5 per cent an appropriate estimate of the MRP having regard to prevailing market conditions. After assessing the information, we consider this estimate contributes to the achievement of the allowed rate of return objective.

In reaching the conclusion that 6.5 per cent is an appropriate estimate, we had regard to the following sources of evidence:

- Historical excess returns—these estimates provide a range of 5.7–6.4 per cent if calculated using an arithmetic mean and a range of 3.6–4.8 per cent if calculated using a geometric mean. We consider 6.0 per cent a reasonable estimate based on this source of evidence.
- Dividend growth models—these estimates, from two applications of the DGM and a range of inputs, suggest a range of 6.1–7.5 per cent is reasonable for the two months to November 2013.

²⁹⁰ This is the average of the estimate of the MRP derived from our DGM models for the two months ending November 2013.

These estimates are broadly 60 to 80 basis points above the average for the period from March 2006 for which estimates are available.²⁹¹

- Survey evidence—surveys of market practitioners consistently support 6.0 per cent as the most commonly adopted value for the MRP. These surveys also indicate that the average MRP adopted by market practitioners was approximately 6.0 per cent. Like the conditioning variables, surveys are subject to various limitations.
- Conditioning variables—these give mixed results, and are each subject to various limitations. On the one hand, the dividend yield is approximately equal to its long term average with no discernible trend. On the other hand, credit spreads are above their pre-2007 levels and decreasing for lower quality instruments (for example, BBB) while being equal to their pre-2007 levels and decreasing for higher quality instruments (for example, swaps). Finally, implied volatility based MRP estimates suggest the MRP is currently below its historical average level at 5.6 per cent.

We have also considered:

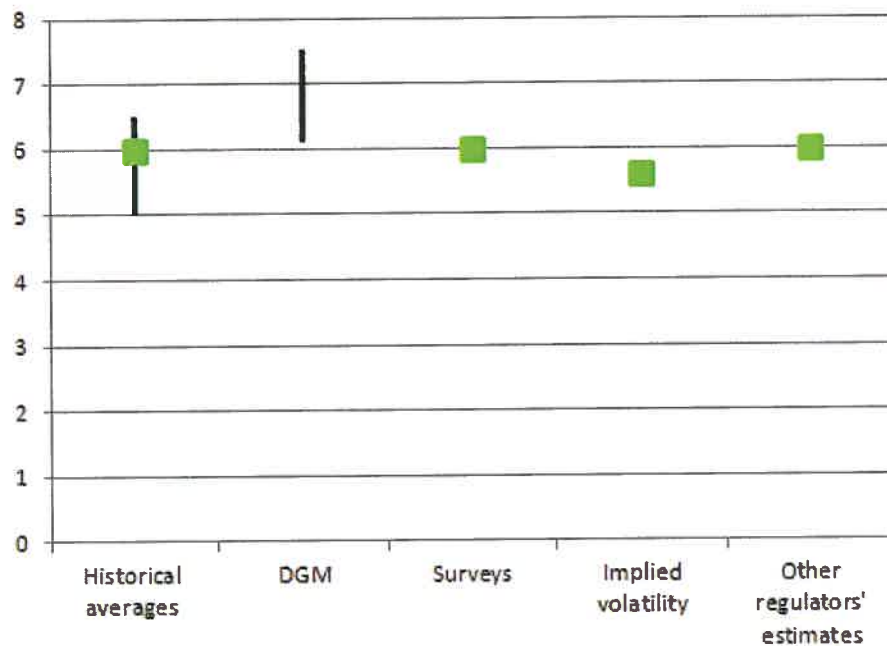
- Recent decisions among Australian regulators—the AER notes both the ERA and the QCA consistently adopted an MRP estimate of 6.0 per cent under the same CAPM framework. However, IPART proposes to use DGMs to estimate a range for the current market risk premium. Decisions of other regulators are not direct evidence on the MRP but reflect other assessments of some or all of the information available to the AER.
- Recent Tribunal decisions—the Tribunal held the view that it was open on the evidence for regulators to adopt a 6.0 per cent MRP in all of the recent decisions where regulated businesses sought Tribunal review.
- Consultant advice—Associate Professor Lally, Professor McKenzie and Associate Professor Partington all recently advised us that a 6.0 per cent MRP was reasonable around the time of the Victorian gas final decision.²⁹²

Appendix D contains more detailed discussion of the available evidence. Figure 6.2 below presents the empirical estimates.

²⁹¹ It should be noted that the average for this period has been affected by the GFC and this has been taken into account in considering the current MRP relative to the historical average.

²⁹² M. Lally, *Review of the AER's methodology for the risk free rate and the market risk premium*, March 2013, p. 34; M. McKenzie, and G. Partington, *Review of the AER's overall approach to the risk free rate and market risk premium*, February 2013, p. 32.

Figure 6.2 Empirical estimates of the MRP (per cent)



Source: AER analysis

In determining an MRP of 6.5 per cent, we had regard to each source of evidence. Reflecting our assessment of the various sources of evidence, we give greatest consideration to historical averages followed by estimates of the MRP from DGMs and then surveys. We also give some consideration to conditioning variables and other regulators' estimates of the MRP. In the next section we discuss our consideration of these sources of evidence.

6.3.5 Reasons for the application of approach (at December 2013)

We consider our estimate in this decision contributes to the achievement of the rate of return objective by taking into account all the available evidence while recognising the strengths and limitations of that evidence. We have also had regard to prevailing conditions in the market for funds. In reaching this decision we have assessed a range of estimates from various sources and models.

We note our estimate of 6.5 per cent is a departure from our most recent decisions. In the most recent decisions we have consistently adopted 6.0 per cent.²⁹³ In the past we have generally adopted MRP estimates of 6.0 or 6.5 per cent.

Consideration given to different estimates

Historical averages of the MRP are widely used by financial practitioners and regulators in Australia.²⁹⁴ While a point estimate of 6.0 per cent is common, the choice of the averaging period and judgements in the compilation of the data result in a range for plausible estimates of the MRP of about 5.0–6.5 per cent.²⁹⁵ We consider historical averages the best source of evidence available to estimate the MRP.

²⁹³ See, for example, AER, *Final decision: APA GasNet*, March 2013, p. 80.

²⁹⁴ M. McKenzie, and G. Partington, *Report to Corrs Chambers Westgarth: Equity market risk premium*, 21 December 2011.

²⁹⁵ See appendix D for more detail on the sources of evidence. The lower bound of this range reflects our judgment as outlined above in the discussion of the lower bound of the MRP range.

We consider DGM estimates of the MRP a useful source of evidence. While the estimates are not as robust as historical averages they may reflect current market conditions more closely. In the past we have raised concerns about the sensitivity of this source of evidence to the assumptions used.²⁹⁶

DGMs are recognised financial models that are commonly used in practice.²⁹⁷ They rest upon the fundamental proposition that the value of an asset is a function of expected future income and the discount rate, which in this case is the required return on equity.²⁹⁸ DGMs are suited to the estimation of the rate of return from current market information, as demonstrated by US regulators using them for this purpose.²⁹⁹ However, the outcomes are sensitive to the model assumptions, especially the assumed long term growth in dividends and the transition from current dividends to the long term growth path. There are a range of plausible assumptions that one could make on these parameters. We note, however, consistent applications of the various models appear to show similar trends over time.³⁰⁰ There are also issues in applying the models in Australian conditions with more limited data.

In the past our starting point for DGM estimates of the MRP has been the specifications presented to us by the regulated businesses.³⁰¹ Of which, there have been various specifications over time.³⁰² These specifications have differed from decision to decision. In conducting our analysis, our approach has been to adjust these estimates to reflect our consideration of the evidence.

In this guideline process we have taken a different, bottom-up approach. We have considered the available evidence on the DGM and proposed our preferred construction of the model.³⁰³ We have consulted with stakeholders on our preferred construction and engaged consultants to review our proposal.³⁰⁴ As a result, in this explanatory statement we propose our preferred DGM estimates. Consequently, we have greater confidence in the symmetry of this information through time and give these estimates greater consideration than we have in the past.

However, we nevertheless consider any DGM, including our preferred construction, sensitive to the assumptions employed. This sensitivity might be moderated to some extent by:

- having regard to the outcomes of a range of models and assumptions on the future growth in dividends; and/or
- having regard to the current estimate of the MRP compared to the long term average for each of the models to assess the extent to which the MRP is above or below its long term average.

We have regard to a range of plausible assumptions and estimate a range for DGM estimates of the MRP of about 140 basis points.³⁰⁵ We discuss our DGM estimates in more detail in appendices D and E.

We also give consideration to survey estimates of the MRP but consider this evidence less informative than historical averages and DGM estimates. This is because on the one hand survey estimates are a theoretically sound source of evidence and triangulation across various surveys and

²⁹⁶ See, for example, AER, *Final decision: APA GasNet*, March 2013, p. 101.

²⁹⁷ ENA, *Response to AER rate of return guideline consultation paper*, 28 June 2013, p. 32.

²⁹⁸ NERA Economic Consulting, *The market risk premium, analysis in response to the AER's draft rate of return guideline: A report for the Energy Networks Association*, 11 October 2013, p. 30.

²⁹⁹ SFG, *Dividend discount model estimates of the cost of equity*, June 2013, p. 9.

³⁰⁰ See, for example, IPART, *Draft report: WACC methodology*, September 2013, p. 23.

³⁰¹ AER, *Final decision: Access arrangement final decision: SPI Networks (Gas) Pty Ltd 2013-17*, March 2013, pp. 102-103.

³⁰² See, for example, discussion in appendix D.

³⁰³ See appendix E for more detail.

³⁰⁴ M. McKenzie and G. Partington, *Report to the AER: The Dividend Growth Model (DGM)*.

³⁰⁵ See appendices D and E for more detail.

different time periods provide support for this evidence. On the other hand, as outlined by the Tribunal and others there are various practical limitations with this evidence.³⁰⁶ The results may be affected by the sampling procedures and wording of the questionnaire. Furthermore practitioners may make adjustments to other parameters (for example, the risk free-rate) or to the return on equity or overall returns to reflect prevailing market conditions and this may not be picked up in the survey.

We also give some consideration to conditioning variables and other regulators' MRP estimates. These sources of evidence are subject to various limitations and should be used with caution. At the same time, we consider them relevant and worthy of limited consideration.

In summary, in this decision, we give DGM estimates greater consideration than other forward looking estimates of the MRP, such as dividend yields, implied volatility and credit spreads. This reflects our assessment of the relative strengths and limitations of these sources of evidence. However, we have continued to give greater consideration to long term average historical excess returns, consistent with common regulatory and market practice. We consider the strengths and limitations of the various estimation methods in more detail above and in appendix D.

Determination of the point estimate

Our considerations when determining the point estimate are as follows:

- Consistent with the discussion in the previous section, we give greatest consideration to historical averages. We consider 6.0 per cent an appropriate estimate of this source of evidence.³⁰⁷ This represents the starting point for our determination of a point estimate. We note that while a point estimate of 6.0 per cent is common, the choice of the averaging period and judgments in the compilation of the data result in a range for plausible estimates of about 5.0–6.5 per cent.
- We also give significant consideration to DGM estimates of the MRP. Using our preferred application of these models, we estimate a range of 6.1–7.5 per cent.
- We give some consideration to survey estimates which generally support an MRP estimate of about 6.0 per cent.
- We also give limited consideration to conditioning variables which give mixed results at the time of this decision. Credit spreads and dividend yields are stable, while implied volatility suggests the MRP may be below the historical average at 5.6 per cent.
- Lastly, we give limited consideration to other regulators' estimates of the MRP. These generally suggest an estimate of 6.0 per cent is appropriate. The Tribunal has also affirmed several of these decisions.³⁰⁸

We consider an MRP estimate of 6.5 per cent provides an appropriate balance between the various sources of evidence. This point estimate lies between the historical average range and the range of estimates produced by the DGM. This reflects our consideration of the strengths and limitations of each source of evidence as summarised above and expanded upon in appendix D.

³⁰⁶ See appendix D for more discussion.

³⁰⁷ See appendix D for more detail.

³⁰⁸ See appendix D for more detail.

7 Return on debt: approach

This chapter deals with the conceptual issues related to return on debt estimation. Sections 7.1 and 7.2 present the issue and the approach we propose in the guideline. Section 7.3 covers the reasons for the approach.

7.1 Issue

We must set out in the rate of return guideline the methodologies we propose to use in estimating the return on debt component of the allowed rate of return. We must also set out how those methodologies are proposed to result in the determination of a return on debt in a way that is consistent with the allowed rate of return objective. This is to apply to electricity and gas, and transmission and distribution businesses, taking into account the definition of the benchmark efficient entity (see chapter 3).

7.2 Approach

To estimate the return on debt we propose:

- to use a trailing average portfolio approach, that is, to estimate:³⁰⁹
 - the average return that would have been required by debt investors in a benchmark efficient entity if it raised debt over an historical period prior to the commencement of a regulatory year in the regulatory control period
- to update the return on debt estimate annually (that is, for each regulatory year)
- to apply equal weights to all the elements of the trailing average
- to implement transitional arrangements consistent with the 'QTC method' (an annual re-pricing of a portion of the notional debt portfolio) and the benchmark term of ten years.

7.3 Reasons for approach

In the draft guideline we proposed our conceptual approach to return on debt estimation. Specifically, we proposed to estimate the return on debt using a trailing average portfolio approach with equal weights applied to all the elements of the trailing average, and to update the return on debt estimate annually. We also proposed to implement transitional arrangements consistent with the 'QTC method' and our proposed benchmark debt term. We sought views of stakeholders on our proposed approach. Below we outline the reasoning for our approach in the final guideline and address stakeholder submissions.

This section details the reasons for our approach to estimating the return on debt:

- Subsection 7.3.1 provides the relevant background.
- Subsection 7.3.2 discusses our decision to propose a single approach for the benchmark efficient entity.
- Subsection 7.3.3 reviews efficient debt financing practices and provides reasons for our preferred approach.

³⁰⁹ NER, cls. 6.5.2(j) and 6A.6.2(j); NGR, r. 87(10).

- Subsections 7.3.4 and 7.3.5 consider specification of the trailing average portfolio approach with respect to annual updating and weighting schemes.
- Subsection 7.3.6 concludes with our considerations on the need for a transition and our proposed method of transition.

7.3.1 Background

Prior to the November 2012 rule change final determination, we used the return on debt definitions in the previous rules. As a result, the expected return on debt was the nominal risk free rate plus the debt risk premium (DRP).³¹⁰ We estimated the DRP in our recent decisions using an appropriate benchmark and a method that conforms to the benchmark parameters.³¹¹ The risk free rate was the same as for the return on equity.³¹²

We and the Energy Users Committee expressed concern during the rule change process that the approach under the previous rules was not producing an appropriate estimate of the return on debt for a benchmark efficient entity.³¹³ In the final rule change determination, the AEMC gave us the discretion to propose an approach that we consider best contributes to the achievement of the allowed rate of return objective.

The AEMC set out the characteristics of three approaches to estimating the return on debt that a regulator could reasonably contemplate, which should reflect one of the following:³¹⁴

- the return that would be required by debt investors in a benchmark efficient entity if it raised debt at the time or shortly before the making of the distribution determination for the regulatory control period;
- the average return that would have been required by debt investors in a benchmark efficient entity if it raised debt over an historical period prior to the commencement of a regulatory year in the regulatory control period; or
- some combination of the above.

For simplicity, we refer to these as the 'on the day', trailing average portfolio and hybrid portfolio approaches, respectively.

The AEMC also provided considerations with respect of the regulatory discretion we are to exercise in arriving at our proposed approach.³¹⁵

This discretion for the regulator includes the detail of any approach, such as the period over which a prevailing cost of debt is observed, the length of any historical averaging period, and the form of

³¹⁰ NER, version 52, cls. 6.5.2(b) and 6A.6.2(b).

³¹¹ See, for example: AER, *Access arrangement final decision APA GasNet Australia (Operations) Pty Ltd 2013-17 attachment*, March 2013, pp. 91–92; AER, *Access arrangement final decision Envestra Ltd 2013-17 attachment*, March 2013, p. 150; AER, *Access arrangement final decision Multinet Gas(DB No.1)Pty Ltd Multinet Gas (DB No.2) Pty Ltd 2013-17 attachment*, March 2013, pp. 133–134; AER, *Access arrangement final decision SPI Networks (Gas) Pty Ltd 2013-17 attachment*, March 2013, pp. 112–113; AER, *Draft decision, ElectraNet transmission determination 2013-14 to 2017-18*, 29 November 2012, pp. 167–170; AER, *APT Petroleum Pipeline Pty Ltd access arrangement final decision Roma to Brisbane Pipeline 2012-13 to 2016-17*, August 2012, pp. 62–64;

³¹² See, for example: AER, *Access arrangement final decision APA GasNet Australia (Operations) Pty Ltd 2013-17 attachment*, March 2013, p. 55.

³¹³ AEMC, *Summary of issues raised in submissions on the directions paper*, pp. 9, 15.

³¹⁴ AEMC, *Rule determination National Electricity Amendment Rule 2012, National Gas Amendment Rule 2012*, 29 November, 2012, p. 90.

³¹⁵ AEMC, *Final rule change determination*, November 2012, p. 90.

measurement of the observed financing costs. In all cases the regulator's judgement is to be exercised in such a way as to be consistent with the overall allowed rate of return objective.

7.3.2 Menu of approaches

As detailed in chapter 3, we propose to use a single definition of a benchmark efficient entity for the purpose of estimation of the allowed rate of return on capital. In particular, we consider that factors such as difference in size or ownership structure of service providers do not justify the adoption of different benchmark definitions. Given the definition of the benchmark efficient entity, we must specify the methodology we propose to use for estimating the allowed return on debt. There are two conceptually distinct options we could adopt in the guideline: providing details of a single estimation approach and a so called 'menu approach'.

A 'menu approach' would involve us providing details in the guideline on how we would estimate the return on debt under each of the three approaches. During a particular determination, service providers could then propose, and we could adopt the approach to estimating the return on debt that best matches the debt management practice of a benchmark efficient entity in the circumstances.³¹⁶

We propose to maintain our proposal in the draft guideline to use a single approach to estimating the return on debt for the benchmark efficient entity, rather than a menu of approaches.

Our reasoning for this position is as follows:

1. We acknowledge there may be a number of approaches to the return on debt estimation that could be consistent with the rules, the RPP, and the objectives. However, we consider that the rules do not require us to discuss and provide detail of all possible variations of approaches to estimation of return on debt. Rather, our task is to detail the methodologies we propose to use.³¹⁷ In addition, we consider that, as long as the adopted approach satisfies the rules, the RPP, and the objectives, there is no need for it to be further tailored to the individual circumstances of service providers.
2. Further, we consider that one of the objectives of the guideline and the Better Regulation program is to provide regulatory certainty and transparency. Regulatory certainty and transparency are important factors for both energy consumers and service providers and their investors.³¹⁸
3. We consider that the 'menu approach' would not be consistent with the principles of incentive-based regulation. Specifically, it would not encourage efficient debt financing. A service provider would have an incentive to propose the option that maximises its total allowed revenue, but not necessarily use the proposed approach in managing its actual debt portfolio. For instance, the prevailing rate of return on debt at the start of a regulatory control period may be high relative to its historic average. If so, a service provider might prefer the 'on the day' approach to a portfolio approach. If the prevailing rate of return on debt subsequently fell by the beginning of the next regulatory control period, its preferences may change in favour of a portfolio approach. These incentives to behave strategically may be reduced by introducing transitional arrangements between the approaches. However, a 'menu approach' coupled with transitional arrangements would still raise concerns. If a service provider chose to switch back to a different approach at a later date, the regulator would potentially face the complex task of working out a transitional

³¹⁶ See, for example: ENA, *Response to the AER's rate of return guidelines issues paper*, February 2013, pp. 27–29.

³¹⁷ NER, cls. 6.5.2(n) and 6A.6.2(n); NGR, r. 87(14).

³¹⁸ PIAC, *Submission to the consultation paper*, June 2013, p. 6; Paul Johnston, *Investor perspectives on energy market reform*, Presentation to ENA forum, 24 July 2013, p. 2.

arrangement to apply within another transitional arrangement. We do not consider this to be a desirable outcome, particularly given it may not promote the long term interests of consumers.

4. We consider that the proposed adoption of the trailing average approach is a major change in the regulatory framework. We arrived at this decision through an extensive consultation process and analysis. A major change in regulatory approach requires a strong level of commitment from all stakeholders. We do not consider that the use of a 'menu approach' would be consistent with the commitment required for this regulatory change.

We also received submissions on specific issues in relation to a menu approach. We consider these submissions below.

Thus, for the above reasons, we consider that it is preferable to set out one approach consistent with the rules, the RPP, and the objectives in the guideline rather than providing a menu of possible approaches. The above reasoning is consistent with the reasoning we presented in the draft guideline.

Response to key issues raised in stakeholder submissions

In their submission to the draft guideline consumer groups generally supported our proposal to use a single approach to estimating the return on debt for the benchmark efficient entity. They submitted that a menu of approaches would not be consistent with incentive based regulation and would provide service providers with incentives to behave strategically.³¹⁹

The submissions on this issue we received from industry stakeholders fall into two categories: comments on the reasoning we used to arrive to our conclusion and comments related to the preferred choice of approach.

In the first category, APA and APIA emphasised the need for the proposed approach to satisfy the requirements of the rules and, especially, the allowed rate of return objective.³²⁰ In particular, APIA submitted:³²¹

We do not have a particular problem with the [trailing average approach], and believe the availability of a trailing average approach will enhance efficiency within the energy industry. Where we have issue is with the preclusion of other approaches to the cost of debt, which the NGR has deemed to be acceptable; an on-the-day and a hybrid approach. ... Additionally, while we take the AER's point that, so long as its approach satisfies the rules, the NEO and the NGO, it does not need to take individual circumstances into account in this particular context, we would remind the AER that the rules also require it to provide support for or against methodologies that makes direct reference to the ARORO. The AER has not done this; neither its support for its trailing average approach nor the reasons it gives for not supporting for other models makes reference to the ARORO.

In the second category, consistent with its submission to the consultation paper, Jemena submitted that it 'favours the hybrid cost of debt approach because it leads to lower financing costs for smaller networks like JEN and JGN, which benefits both the firms and their customers'.³²²

The ENA expressed the following view:³²³

³¹⁹ Public Interest Advocacy Centre, *Reasonably rated: Submission to the AER's draft rate of return guideline*, 11 October 2013, pp. 10, 40–41; Council of Small Business Australia, *Australian Energy Regulator – Better Regulation program draft rate of return guideline – Comments*, 10 October 2013, p. 4.

³²⁰ APA Group, *Submission on the Australian Energy Regulator's draft rate of return guideline*, 11 October 2013, p. 33; Australian Pipeline Industry Association Ltd, *Meeting the ARORO? A submission on the Australian Energy Regulator's draft rate of return guideline*, 11 October 2013, pp. 4, 8–9, 35–36.

³²¹ APIA, *Submission to the draft guideline*, October 2013, pp. 35–36.

³²² Jemena Ltd., *Rate of return guideline: Jemena submission on the draft guideline*, 11 October 2013, p. 1.

The ENA agrees that the trailing average approach to estimating the cost of debt should be set out in the guideline. ...The ENA also recognizes the AER's preference that the guideline should specify a single approach to estimating the return on debt. However, as the ENA has previously submitted, some businesses consider that the hybrid or current approaches better reflect efficient debt management practices in some cases. While the AER has chosen to include only the trailing average approach in the draft guideline, as the guideline is not binding, businesses have the opportunity to present alternative approaches as part of their revenue determinations.

We address the above submissions in more detail in section 7.3.3. In particular, we have provided more detailed discussion of how our proposed approach addresses the allowed rate of return objective in response to the submissions from the ENA, Jemena, APIA and APA Group.

Overall, we consider that no new evidence was presented that would justify our departure from the preferred approach. Therefore, we propose to use a single approach to estimating the return on debt for the benchmark efficient entity. Section 7.3.3 of this chapter sets out how such an approach contributes to achievement of the allowed rate of return objective.

7.3.3 Efficient debt financing practices and conceptual approach to return on debt estimation

We propose to use a trailing average portfolio approach to estimating the return on debt of the benchmark efficient entity.

In this section we discuss our considerations of efficient debt financing practices of the benchmark efficient entity and provide reasons for our preferred approach.

In summary:

- We propose to use a single definition of a benchmark efficient entity and specify a single approach to estimating the return on debt.
- We consider that holding a portfolio of debt with staggered maturity dates is likely an efficient debt financing practice of the benchmark efficient entity operating under the trailing average portfolio approach.
- We consider that the regulatory return on debt allowance under the trailing average portfolio approach is, therefore, commensurate with the efficient debt financing costs of the benchmark efficient entity.
- We further consider that the trailing average portfolio approach is consistent with other requirements of the rules, RPP, and the objectives.

Efficient debt financing of the benchmark efficient entity

The allowed rate of return objective requires 'the rate of return for a [service provider] is to be commensurate with the efficient financing costs of a benchmark efficient entity with a similar degree of risk as that which applies to the [service provider] in respect of the provision of [regulated services]'.³²⁴ Therefore, it is important to be clear about how we identify efficiency and what would represent efficient debt financing costs.

³²³ Energy Networks Association, *Response to the draft rate of return guideline of the Australian Energy Regulator*, 11 October 2013, p. 56.

³²⁴ NER, cls. 6.5.2(c) and cl. 6A.6.2(c); NGR, r. 87(3).

As we discussed in the draft guideline, we consider that satisfying the requirements of the rules, the objectives, and RPP is aligned with promoting economically efficient outcomes.³²⁵ The AEMC's rule change determination recognised these considerations. It noted that the rate of return on debt framework should reflect the allowed rate of return objective and:³²⁶

...should try to create an incentive for service providers to adopt efficient financing practices and minimise the risk of creating distortions in the service provider's investment decision.

We propose that the benchmark efficient entity should be a regulated energy business (see chapter 3). It then follows that efficiency of different debt financing practices of the benchmark efficient entity needs to be considered in the context of the adopted regulatory regime and, specifically, the adopted approach to return on debt estimation.

We acknowledge the QTC's view on the relevance of financial risk management principles in assessing the efficiency of different return on debt approaches:³²⁷

These principles allow the broader objectives of debt management to be considered, such as managing various risks to reduce the probability of financial distress. The principles can also capture the risks faced by consumers under different return on debt approaches.

...an efficient debt financing strategy is one that results in a business's equity providers being exposed to an acceptable level of refinancing and interest rate risk, taking into account the business's size, asset life, capital structure and the characteristics of the firm's cash flows.

Therefore, we interpret 'the efficient financing costs of a benchmark efficient entity' as financing costs resulting from the benchmark efficient entity minimising the expected present value of its financing costs over the life of its assets. In doing so, the benchmark efficient entity would take into account the regulatory framework and the associated financial risks it faces and expects to face in the future. That is, *all other things being equal*, each regulatory approach to estimating return on debt corresponds to:

- the efficient financing costs of the benchmark efficient entity under this approach; and
- a range of efficient financing practices—including a range of efficient debt financing practices—that result in those efficient financing costs.

These considerations provide a basis for assessing how different approaches to estimating the return on debt satisfy the requirements of the rules and promote overall efficiency in a manner consistent with the objectives and RPP.

Current 'on the day' approach

In this section we analyse our current methodology that is an 'on the day' approach. The purpose of the following analysis is not to establish whether the 'on the day' approach is consistent with the requirements of the rules. Rather, the aim is to provide a starting point for our consideration of the trailing average portfolio approach in later sections. As we stated in section 7.3.2, we consider that our task is to establish consistency with the rule requirements only for the methodologies we propose to use.³²⁸

³²⁵ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, pp. 76–78.

³²⁶ AEMC, *Rule Determination*, 29 November 2012, p. 73.

³²⁷ Queensland Treasury Corporation, *Rate of return guidelines consultation paper: Submission to the Australian Energy Regulator*, 21 June 2013, p. 21.

³²⁸ NER, cls. 6.5.2(n) and 6A.6.2(n); NGR, r. 87(14).

Our current methodology estimates the return on debt of a service provider as the prevailing return on debt as close as possible to the start of the regulatory control period.³²⁹ Conceptually, the 'on the day' return on debt estimate would reflect the return on debt of the benchmark efficient entity that raises all debt required to satisfy its financing needs once for every regulatory control period (that is, just ahead of the start of each regulatory control period).

The efficient debt financing practices of the benchmark efficient entity under the 'on the day' approach would depend on a number of factors. These include debt financing costs, the associated financial risks and the risks the benchmark efficient entity expects to face in the future.

In the 2009 WACC review we recognized that 'the central task of the Treasury function at [regulated energy network] businesses is to manage risks (that is, refinancing, interest rate and currency risks) at the lowest possible costs' and the 'complex trade-off between refinancing risk and the cost of debt'.³³⁰ We observed that 'according to the Treasurers, having a debt portfolio with staggered maturity dates is critical to mitigating refinancing risk'.³³¹ We also observed that '[t]he Treasurers explain that interest rate risk is managed separately by hedging against movements in base rates away from the risk-free rate assumed by the regulator at the reset'.³³² These risks are discussed below.

Refinancing risk is the risk that a firm would not be able to efficiently finance its debt at a given point in time. This may be because the debt instruments that it seeks are not available to it, or because they are expensive.³³³ Refinancing risk is often due to systematic factors, such as macroeconomic trends or changes in debt market liquidity. However, refinancing risk may also result from company specific matters. For example, if lenders knew that a company needed to refinance its debt at a certain time or risk bankruptcy, they might raise the interest rates that they demand from the company.

The need to manage refinancing risk is balanced against the overall cost of the benchmark efficient entity's debt portfolio. For example, a longer average term of debt for a debt portfolio means lower refinancing risk. But it also means the total cost of the debt portfolio is higher.³³⁴ Hence, the efficient debt financing practices would address this trade-off.

Further, regulated businesses face **interest rate risk**, resulting from a potential mismatch between the regulatory return on debt allowance and their actual return on debt.³³⁵

Consider a firm that operates a single regulated network. For such a business, any difference between the costs of servicing its debt and the allowed return on debt will flow through to (or from) equity holders. This is because the firm must pay its debt holders exactly what it has promised them, irrespective of whether the regulatory allowance is more or less than what is to be paid. Any surplus or deficit will then flow to (or from) the equity holders as the residual claimants. Consequently, if a regulated firm is able to match its debt servicing costs to the regulatory revenue allowance, it will remove this source of cash flow volatility to equity holders. It is for this reason that many regulated businesses seek to create the best possible match between their borrowing costs and the regulatory revenue allowance in relation to those borrowing costs.

³²⁹ In practice, this approach uses a short averaging period of 5–40 days shortly before the determination is made. See, for example: AER, *Final decision: WACC review*, May 2009, pp. 19–20, 171.

³³⁰ AER, *Final decision: WACC review*, May 2009, pp. 150, 152.

³³¹ AER, *Final decision: WACC review*, May 2009, p. 151.

³³² AER, *Final decision: WACC review*, May 2009, p. 144.

³³³ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, p. 169.

³³⁴ Assuming a positively sloping yield curve.

³³⁵ SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return*, Report for AEMC, 21 August 2012, p. 22.

Under the 'on the day' approach, the benchmark efficient entity can manage its interest rate risk in a number of ways. For example, it can raise all debt required to satisfy its financing needs once (i.e., just ahead of the start of each regulatory control period). Alternatively, it can engage in some other debt financing practice, but enter into hedging arrangements. Entering hedging arrangements aims to replicate a borrowing cost structure that would arise if the benchmark efficient entity did refinance the entirety of its debt at the beginning of the regulatory control period.

Under the former scenario, the benchmark efficient entity may be able to alleviate the potential mismatch between the regulatory return on debt allowance and its expected return on debt. However, raising the entirety of its debt once for every regulatory control period would expose the benchmark efficient entity to substantial refinancing risk.

Under the latter scenario, the benchmark efficient entity would be able to address both its interest rate risk and refinancing risk. For example, the benchmark efficient entity could hold a floating-rate debt portfolio with staggered maturity dates. It could then overlay this with 'pay fixed' interest rate swaps to hedge the base rate to the regulatory allowance for the duration of the regulatory control period. This strategy would address its refinancing risk and limit the potential mismatch between the regulatory return on debt allowance and its expected return on debt to their DRP components. As Chairmont Consulting pointed out:³³⁶

For an Australian efficient operator there is no market to effectively, and in a cost efficient manner, hedge their DRP.

Therefore the benchmark efficient entity would not be able to alleviate all potential mismatch in relation to the debt margin component of the return on debt, unless it issues the entirety of its debt during the averaging period. To this extent, under the 'on the day' approach the benchmark efficient entity faces a potential trade-off between the need to manage its refinancing and interest rate risk.

Further, the need to manage interest rate risk is also balanced against the overall cost of the benchmark efficient entity's debt portfolio.

The efficient debt financing practices of the benchmark efficient entity would address all of the above considerations and trade-offs. Thus, determining which debt financing practices of the benchmark efficient entity are efficient under the 'on the day' approach is a complex and, to a large extent, theoretical exercise. However, we can inform our analysis by observing market outcomes in the regulated energy sector.

Many debt financing strategies may have been available to service providers under the current 'on the day' approach. However, we observe that most service providers hold a diversified portfolio of debt with staggered maturity dates.³³⁷ This means that a service provider will only have to refinance a proportion of its debt at any point in time. Holding a portfolio of debt with different terms to maturity allows a service provider to manage its refinancing risk.³³⁸ This view, for example, is supported by the submission from CitiPower, Powercor, and SAPN:³³⁹

³³⁶ Chairmont Consulting, *Comparative Hedging Analysis*, 12 June 2013, p. 17.

³³⁷ See, for example: ENA, *Response, Attachment 17: Debt strategies of utility businesses*, CEG, June 2013, pp. 16–22; SP AusNet, *Submission to the consultation paper*, June 2013, p. 1; NSW DNSP, *Submission to the consultation paper*, June 2013, p. 5.

³³⁸ NSW DNSP, *Submission to AER's rate of return guidelines consultation paper*, 21 June 2013, p. 3; PIAC, *Submission on the consultation paper*, June 2013, p. 20.

³³⁹ CitiPower, Powercor and SA Power Networks, *Response to the AER's rate of return guidelines consultation paper*, 28 June 2013, p. 6.

The characteristics of an Australian network business are such that it is efficient financing practice to stagger issuances to manage refinancing risk.

Further, in its report for AEMC, SFG analysed common debt management strategies used by service providers under the current 'on the day' approach to address interest rate risk. It noted that:³⁴⁰

One debt management approach that is commonly used by small to medium sized regulated businesses is to "lock in" the base interest rate at the time of the determination using the interest rate swaps market...

This strategy would involve the following steps:

- A service provider would issue floating rate debt prior to the regulatory determination (or issue fixed rate debt and immediately swap it into floating rate debt with the same maturity).
- The service provider would then enter 'pay fixed – receive floating' interest rate swap contracts during the averaging period prior to the regulatory determination.³⁴¹

Under these contracts, the business receives the relevant risk-free rate of interest from the counterparty and pays to the counterparty a fixed rate of interest that is set at the time the contract is entered into. The term of the swap will be set to match the length of the regulatory period (usually five years).

- On balance, such strategy 'leaves the business paying only the fixed rate under the swap contract'.³⁴²

SFG also observed that businesses that might be 'too large to lock in interest rates using swap contracts' during the averaging period use 'different techniques to match their debt service cash flows with the regulatory revenue allowance, including':³⁴³

a) Locking in base interest rates in the swaps market over a much longer time period (e.g., 6 to 12 months) rather than seeking to do this during the 20- to 40-day averaging period, and simply accepting the inevitable mis-match between interest payments and the regulatory allowance; and

b) Issuing fixed rate bonds well before the determination and "parking" the proceeds until the determination – for government-owned businesses who raise their finance through treasury corporations.

...The issue-early-and-park approach is not feasible for private sector businesses.

Finally, SFG noted that businesses that own a portfolio of multiple assets, with regulatory determinations occurring at different points in time 'are able to use a portfolio debt management approach':³⁴⁴

This involves accessing debt markets from time to time when conditions are considered to be favourable, and not seeking to actively hedge interest rate risk at the time of each determination.

Overall, SFG suggested that:³⁴⁵

...for a single-asset firm, it is highly unlikely that the firm would elect not to attempt to match its debt service costs with the allowed return on debt.

³⁴⁰ SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return, Report for AEMC*, 21 August 2012, p. 24.

³⁴¹ SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return, Report for AEMC*, 21 August 2012, p. 24.

³⁴² SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return, Report for AEMC*, 21 August 2012, p. 24.

³⁴³ SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return, Report for AEMC*, 21 August 2012, pp. 25–26.

³⁴⁴ SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return, Report for AEMC*, 21 August 2012, p. 27.

³⁴⁵ SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return, Report for AEMC*, 21 August 2012, p. 23.

Consistent with this view, NSW TCorp submitted:³⁴⁶

...privately- and government-owned utilities will seek to minimise uncompensated financial risk by closely matching debt costs to the debt allowance benchmark.

In practice, we observe that most privately-owned businesses typically manage their interest rate risk by entering into interest rate swap contracts in order to 'lock in' the base rate at the time of the determination. This is consistent with Jemena's submission:³⁴⁷

NSPs typically use swap transaction to hedge interest rate exposure for the duration of the regulatory period...and issue timing and market choice to manage risks in the DRP component.

This observation is also consistent with our consultant's report for the 2009 WACC review:³⁴⁸

Typically private companies borrow on the longest tenor available, and then convert the fixed rate debt into synthetic floating rate debt. This would then be hedged during the reset period via an interest rate swap for the duration of the regulatory period.

In the absence of the long term bond market, corporates will typically borrow bank debt on the longest tenor available on a floating basis and then again hedge their interest rate risk to match the regulatory period.

Given the observed practices of regulated network businesses and the definition of the benchmark efficient entity, we consider that the following practice is likely to constitute an efficient debt financing practice of the benchmark efficient entity under current 'on the day' approach:

- holding a debt portfolio with staggered maturity dates and using swap transactions to hedge interest rate exposure for the duration of a regulatory control period.

Outline of alternative approaches

Below we outline other alternative approaches.

The trailing average portfolio approach estimates the return on debt as 'the average return that would have been required by debt investors in a benchmark efficient entity if it raised debt over an historical period prior to the commencement of a regulatory year in the regulatory control period'.³⁴⁹ This reflects the forward-looking return on debt that would be incurred by the benchmark efficient entity for debt raised incrementally.

The hybrid portfolio approach incorporates elements from the 'on the day' and trailing average portfolio approaches. Under this approach, the estimate of the risk free rate roughly corresponds to the one derived under the 'on the day' approach (that is, reflecting market conditions around the time of the determination). The DRP estimate roughly corresponds to the one derived under the trailing average portfolio approach (that is, a long-term estimate). Similar to the trailing average portfolio approach, the return on debt estimate under the hybrid portfolio approach reflects the forward-looking return on debt that would be incurred by the benchmark efficient entity for debt raised incrementally.

Finally, we note that the methodology we currently adopt is only one example of an 'on the day' approach. 'On the day' approaches contain a range of methods that can differ with respect to the length and timing of the averaging period, as well as the structure of the return on debt allowance. For instance, another example of an 'on the day' approach would be to align the term of the base rate of

³⁴⁶ NSW Treasury Corporation, *AER's proposal for a 7-year debt allowance benchmark*, 9 October 2013, p. 1.

³⁴⁷ Jemena, *Submission to the consultation paper*, June 2013, p. 19.

³⁴⁸ Deloitte, *Refinancing, debt markets and liquidity*, 12 November 2008, p. 13.

³⁴⁹ NER, cls. 6.5.2(j)(2) and cl. 6A.6.2(j)(2); NGR, r. 87(10)(b).

the return on debt allowance with the length of the regulatory control period and its credit margin component with the benchmark debt maturity.³⁵⁰

Our preferred approach: overall considerations

We propose to use a trailing average portfolio approach to estimating the return on debt of the benchmark efficient entity. As we state in section 7.3.2, we consider that the guideline should specify a single approach to estimating the return on debt for the benchmark efficient entity.

In this section we set out our considerations of how our proposed approach to estimating return on debt would result in the determination of a return on debt in a way that contributes to the achievement of the allowed rate of return objective.

Under the trailing average portfolio approach the return on debt estimate is computed as a weighted average of the total return on debt over a period spanning up to the start of the regulatory control period (or regulatory year). The length of this period would be informed by the benchmark debt maturity. We discuss the choice of the weighting scheme in section 7.3.5 and the choice of the benchmark term to maturity in section 8.3.3.

To assess this approach against the requirements of the rules, we need to consider what would represent efficient debt financing practices of the benchmark efficient entity under the trailing average portfolio approach. We cannot directly observe the efficient debt financing practices of the benchmark efficient entity under the trailing average portfolio approach. Therefore, we need to rely on theoretical reasoning and indirect evidence. This indirect evidence includes observed debt financing practices of service providers under the current 'on the day' regulatory approach and, to the extent they are relevant, observed debt financing practices of unregulated businesses.

As we observed above, under current 'on the day' approach most service providers hold a diversified portfolio of debt with staggered maturity dates. Most privately-owned service providers also manage their interest rate risk via 'locking in' base interest rates in the swap market for the duration of a regulatory control period. We agree with SFG that this interest rate risk management strategy is likely a product of the 'on the day' approach, and if the trailing average portfolio approach is implemented.³⁵¹

...it would make no sense for businesses to seek to lock in interest rates at the time of the determination. To manage interest rate risk, the business would need to match, as best it can, its debt service costs with the average cost of debt estimated by the regulator. This would require the business to actually issue debt throughout the period over which the average was taken. That is, no business would have any incentive to adopt the approach of using swaps to lock in the rate at the time of the determination or the raise-early-and-park approach, because those approaches are designed to match market rates at the time of the determination. Both of these approaches would be abandoned in favour of an approach whereby debt was issued approximately uniformly over the historical averaging period.

In other words, the trailing average portfolio approach allows a service provider—and therefore also the benchmark efficient entity—to manage interest rate risk arising from a potential mismatch between the regulatory return on debt allowance and the expected return on debt of a service provider without exposing itself to substantial refinancing risk.

³⁵⁰ M.Lally, *Estimating the cost of debt of the benchmark efficient regulated energy network businesses*, 16 August 2013, p. 8.

³⁵¹ SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return, Report for AEMC*, 21 August 2012, p. 32.

Thus, we consider that holding a (fixed rate) debt portfolio with staggered maturity dates to align its return on debt with the regulatory return on debt allowance is likely to be an efficient debt financing practice of the benchmark efficient entity under the trailing average portfolio approach.

If a benchmark efficient entity holds a debt portfolio with staggered maturity dates, the expected return on debt for any regulatory year can be computed as follows. It is a weighted average of the returns on debt issued prior to that regulatory year and the expected returns on debt issued during the regulatory year. Where weights depend on the size of each particular issue. We discuss annual updating of the return on debt estimate and the choice of a weighting scheme in more detail in sections 7.3.4 and 7.3.5, respectively. Overall, we are satisfied that the chosen specification of the trailing average portfolio approach performs well in terms of minimising the potential difference between the return on debt allowance and the expected return on debt of the benchmark efficient entity. Annual updating of the trailing average improves the match between the return on debt allowance and the expected return on debt, as it allows the incorporation of newly revealed market information into the estimate more frequently.

To summarise, we are satisfied that the trailing average portfolio approach is likely to contribute to the achievement of the allowed rate of return objective and recognises 'the desirability of minimising any difference between the return on debt and the return on debt of a benchmark efficient entity referred to in the allowed rate of return objective'.³⁵²

If the expected return on debt (and equity) raised in a period is different from the return on debt (and equity) allowance for the period, this difference may distort intertemporal investment and consumption decisions. That is, it may result in dynamic inefficiency. In particular, if the return on debt allowance is below the expected return on debt this might result in under-investment. On the other hand, if the return on debt allowance is above the expected return on debt this would lead to over-compensation for the regulated business and customers paying prices that are above efficient levels.

Under the trailing average portfolio approach, movements in the market return on debt from year to year are reflected in the allowed return on debt. Reflecting market changes during the regulatory control period reduces the scope for sub-optimal investment and consumption levels. We discuss annual updating in section 7.3.4 and different weighting schemes in section 7.3.5. Overall, we are satisfied that the trailing average portfolio approach provides service providers with incentives to engage in efficient debt financing practices. We consider this promotes overall efficiency of investment, operation and use of, electricity and natural gas services for the long term interest of consumers in a manner consistent with the objectives.

Finally, we consider the trailing average portfolio approach is capable of providing the benchmark efficient entity with a staggered debt portfolio with a reasonable opportunity to recover at least the efficient debt financing costs. This implies that a service provider with a similar degree of risk is also provided with the same opportunity.

In addition to the considerations above, the trailing average portfolio approach provides the following benefits:

- It smooths movements in the return on debt over a number of years. We consider this would result in lower price volatility (from one regulatory control period to the next) for energy consumers and more stable returns for investors than the "on the day" approach. Consideration of consumer

³⁵² NER, cls. 6.5.2(k)(1) and cl. 6A.6.2(k)(1); NGR, r. 87(11)(a).

price volatility is an important factor, since the price volatility affects intertemporal decisions of energy consumers and hence affects the overall efficiency of economic outcome.

- It minimises the consequences of a single measurement error.³⁵³
- It may be more reflective of the actual debt management approaches of non-regulated businesses.³⁵⁴ It might, therefore, be more likely to represent efficient financing practice.

The above reasoning is consistent with the draft explanatory statement. It also takes into account stakeholder submissions to the draft guideline. We have provided more detailed discussion of how our proposed approach addresses the allowed rate of return objective in response to the submissions from ENA, Jemena, APIA, and APA Group.³⁵⁵ Below we respond to other key issues raised in stakeholder submissions.

Response to key issues raised in stakeholder submissions

The majority of stakeholders supported our proposal to use the trailing average portfolio approach in their submissions to the draft guideline.³⁵⁶ For example, the ENA submitted:³⁵⁷

The trailing average approach performs well in terms of minimizing the potential difference between the return on debt allowance and the expected required return on debt, as required under the National Electricity Rules. It also better reflects the actual and efficient financing practices of the majority of businesses and will result in lower volatility in both revenue and prices, compared with the current approach.

At the same time, the stakeholders expressed preferences regarding certain aspects related to the implementation of the approach. These included annual updating, particular weighting schemes, benchmark term, and the presence of transitional arrangements. We discuss these aspects in the relevant sections of the explanatory statement.

On the other hand, NSW Irrigators' Council submitted that:³⁵⁸

...the seven year trailing average portfolio approach will provide less clarity and transparency for the overall determination of the allowed WACC parameter. As such, NSWIC submits that the allowed WACC should be set for the entirety of the regulatory period instead of being re-evaluated every time period.

³⁵³ Since a larger number of observations are used to come up with the final estimate, a single measurement will have a smaller distorting impact on the overall estimate than with the short averaging period used for the 'on the day' approach.

³⁵⁴ See, for example, CEG, *Efficiency of staggered debt issuance*, February 2013, pp. 30–32.

³⁵⁵ APA Group, *Submission on the Australian Energy Regulator's draft rate of return guideline*, 11 October 2013, p. 33; Australian Pipeline Industry Association Ltd, *Meeting the ARORO? A submission on the Australian Energy Regulator's draft rate of return guideline*, 11 October 2013, pp. 4, 8–9, 35–36; Jemena Ltd., *Rate of return guideline: Jemena submission on the draft guideline*, 11 October 2013, pp. 1–2; ENA, *Response to the draft guideline*, October 2013, p. 56.

³⁵⁶ ActewAGL, *Response to draft rate of return guideline*, 11 October 2013, p. 3; APA Group, *Submission on the draft guideline*, October 2013, p. 33; Council of Small Business Australia, *Australian Energy Regulator – Better Regulation program draft rate of return guideline – Comments*, 10 October 2013, p. 4; Ethnic Communities' Council of NSW, *Submission to Better Regulation: Draft rate of return guidelines*, 10 October 2013, p. 2; ENA, *Response to the draft guideline*, October 2013, p. 4; Energex Ltd., *Response to the AER's draft rate of return guideline*, 11 October 2013, p. 3; Envestra, *Response to AER draft rate of return guideline*, 11 October 2013, p. 8; Ergon Energy, *Submission on the draft AER rate of return guidelines and explanatory statement: Australian Energy Regulator*, 11 October 2013, p. 4; Energy Users Association of Australia, *Submission to the draft AER rate of return guideline*, 11 October 2013, p. 2; NSW distribution network service providers, *Submission on the rate of return draft guideline*, 11 October 2013, pp. 1, 4; Public Interest Advocacy Centre, *Reasonably rated: Submission to the AER's draft rate of return guideline*, 11 October 2013, pp. 10, 41–43; Queensland Treasury Corporation, *Submission to the draft rate of return guideline*, 11 October 2013, p. 1; SP AusNet, *Submission on the draft rate of return guideline*, 11 October 2013, pp. 1–3; Spark Infrastructure, *Response to the AER's draft rate of return guideline*, 11 October 2013, p. 3; TransGrid, *Submission on the rate of return draft guideline*, 11 October 2013, p. 3.

³⁵⁷ ENA, *Response to the draft guideline*, October 2013, p. 56.

³⁵⁸ NSW Irrigators' Council, Draft submission: Australian Energy Regulator, *Better Regulation – Draft rate of return guideline*, 14 October 2013, p. 5.

We disagree. As long as the parameters and the formula for the trailing average are specified at the time of regulatory determination, the approach is transparent. The regulatory return on debt estimate can be reproduced by applying the formula. In addition, as we propose to update the estimate for each regulatory year, we must apply annual updating through the automatic application of a formula.³⁵⁹ Therefore, annual updating would also be transparent and reproducible.

Finally, in their submissions to the consultation paper the ENA and Jemena submitted that some businesses might consider that 'a hybrid approach will better reflect their own efficient debt management practices'. They also submitted that the trailing average portfolio approach 'has some material negative consequences for smaller network service providers'.³⁶⁰ In the draft guideline we provided the following considerations in regard to these submissions:

- As detailed in chapter 3, we propose not to use size as a part of the benchmark efficient entity definition. We do not consider that risks associated with difference in size of service providers should be rewarded through the allowed rate of return on capital. Thus, to the extent that Jemena is facing higher risks due to its smaller size, these risks should not be compensated through the rate of return allowance.
- Further, as long as the return on debt allowance is specified ex ante, service providers have the incentive to use debt financing practices in a way that allows them to seek least cost debt financing and manage their refinancing and interest rate risks. A service provider is free to choose whatever debt financing practices it sees fit, given the incentives provided by the regulatory framework.

The remaining question is whether and to what extent would the trailing average portfolio approach distort investment decisions of smaller service providers like Jemena and thus, result in an inefficient outcome.

In its submission to the draft guideline, Jemena expressed its preference for the hybrid portfolio approach 'because it leads to lower financing costs for smaller networks like JEN and JGN' and submitted:³⁶¹

Finally, we recognise the AER's preference for the guideline to set out only one cost of debt approach (i.e. the trailing average approach). We also note that the guideline is not binding and the National Electricity Rules and National Gas Rules allow for alternative cost of debt approaches. We therefore look forward to further consulting with the AER on alternative approaches during the JEN and JGN price reviews.

The ENA also suggested that some businesses might have a preference for the hybrid or 'on the day' approaches.³⁶² We acknowledge the position expressed by the ENA and Jemena. We were not, however, persuaded that Jemena provided enough supporting evidence that our use of the trailing average portfolio approach would result in significant distortion of its investment decisions.

7.3.4 Annual updating

We propose to update the allowed return on debt estimate in each regulatory year of a regulatory control period.

³⁵⁹ NER, cls. 6.5.2(i), 6.5.2(l), 6A.6.2(i) and 6A.6.2(l); NGR, rs. 87(9) and 87(12).

³⁶⁰ ENA, *Response to the consultation paper*, June 2013, pp. 6-7; Jemena, *Submission to the consultation paper*, June 2013, p. 1.

³⁶¹ Jemena Ltd., *Rate of return guideline: Jemena submission on the draft guideline*, 11 October 2013, pp. 1-2.

³⁶² ENA, *Response to the draft guideline*, October 2013, p. 56.

The rules allow for two options in designing the return on debt estimation methodology:³⁶³

1. The same estimate applies to each regulatory year within the regulatory control period.
2. The estimate can be (potentially) different for different regulatory years within the regulatory control period.

Under the trailing average portfolio approach, the first option implies that the trailing average is computed at the start of the regulatory control period and not updated until the next regulatory control period. The second option is consistent with the trailing average estimate being updated annually. As we observed in the consultation paper, the second option can be implemented either by annually updating the allowed revenue in each regulatory year of a regulatory control period, or via a retrospective (net present value-neutral) true up at the next determination.

We propose to update the allowed return on debt estimate annually for the following reasons:

1. Annual updating minimises the potential mismatches between the benchmark efficient entity's return on debt and allowed return on debt during the regulatory control period. This, in turn, reduces the scope for dynamic inefficiency.
2. Annual updating is feasible and its costs are relatively small. We propose to use a third-party data provider to estimate the allowed return on debt. In this case, on balance, the advantages of annual updating outweigh the associated additional resource requirement and other potential disadvantages, such as potentially higher volatility of consumer prices within a regulatory control period.

Each of the two options allowed by the rules has advantages and disadvantages. In particular, option one (no annual updating) may lead to mismatches between the benchmark efficient entity's return on debt during the regulatory control period and the regulatory return on debt allowance. This could create investment distortions for the benchmark efficient entity and result in dynamic inefficiency.³⁶⁴ This problem would be exacerbated where there is a prolonged period of increasing or decreasing rates of return on debt and when the return on debt displays significant autocorrelation.³⁶⁵ The paper by the ACCC's Regulatory Development Branch (RDB) on the return on debt suggested that the issue is partly resolved due to the inherent lagged self-correction mechanism that accounts for the changes in the return on debt at the next determination.³⁶⁶ However, such self-correction does not take into account the time value of money. Further, it may take more than one regulatory control period in the circumstances described above.

On the other hand, option two (estimate updated annually) minimises the potential mismatches between the benchmark efficient entity's return on debt and allowed return on debt during the regulatory control period. However, it introduces additional complexity to the tariff computation (that is, the CPI-X profile would need to be recalculated annually). Option two may also be more resource intensive on both us and stakeholders. In addition, any difference between the benchmark rate of return on capital computed with and without annual updating becomes less significant if the benchmark debt tenor is long.

³⁶³ NER, cls. 6.5.2(i) and 6A.6.2(i); NGR, r. 87(9).

³⁶⁴ See section 7.3.3 for more detail.

³⁶⁵ See, for example, QTC, *Submission to the consultation paper*, June 2013, pp. 29-38. We provided further analysis of this quantitative study in the draft explanatory statement: AER, *Explanatory statement: Draft rate of return guideline*, August 2013, pp. 88-89.

³⁶⁶ RDB, *Estimating the return on debt*, April 2013, pp. 30-35.

Further, the rules require that we must apply annual adjustments in an automatic way.³⁶⁷ Therefore, our decision on whether to use annual adjustments or not cannot be made without also considering implementation issues. These include whether the return on debt is estimated using a third-party dataset (such as the ones produced by Bloomberg or expected to be produced by the RBA) or a dataset we create.³⁶⁸ In particular, if a third-party dataset is used, annual updating would likely be less resource intensive than if an in-house dataset is used.

Finally, on the issue of annual updating that is implemented via a retrospective true up, industry stakeholders submitted in their response to the consultation paper that:

- use of a retrospective true up would potentially lead to higher volatility of consumer prices and revenues of service providers from one regulatory period to the next³⁶⁹
- use of a retrospective true up would result in high cash flow mismatches for service providers within a regulatory control period, which would flow through to equity holders.³⁷⁰

CEG also expressed this view.³⁷¹ We consider that the results presented by CEG should be interpreted with caution. It is not clear that the historical US data sample used in the study is of direct relevance to the current domestic capital market that functions under inflation targeting. Nevertheless, we consider that the study suggests that updating annually may be in some circumstances preferable to a retrospective true up.³⁷²

In the draft explanatory statement we proposed to use a third-party data provider to estimate the allowed return on debt. We then considered that in this case, on balance, the advantages of annual updating outweigh the associated additional resource requirement and other potential disadvantages, such as potentially higher volatility of consumer prices within a regulatory control period.³⁷³ Therefore, we proposed to update the return on debt estimate in each regulatory year of a regulatory control period. Taking into consideration stakeholder submissions to the draft guideline, we propose to maintain this approach in the final guideline. The final guideline outlines the annual updating process. We provide an overview of stakeholder submissions in relation to annual updating below.

Response to key issues raised in stakeholder submissions

The majority of submissions supported our proposal to update the return on debt estimate annually.³⁷⁴ For example, SP AusNet submitted:³⁷⁵

³⁶⁷ NER, cls. 6.5.2(i), 6.5.2(l), 6A.6.2(i) and 6A.6.2(l); NGR, rr. 87(9) and 87(12).

³⁶⁸ The RBA expects to start publishing monthly credit spreads of Australian non-financial corporations from December 2013.
³⁶⁹ NSW DNSP, *Submission to the consultation paper*, June 2013, p. 7; Envestra, *Submission to the consultation paper*, June 2013, p. 10; CitiPower, Powercor and SA Power, *Response to the consultation paper*, June 2013, p. 7; ENA, *Submission to the consultation paper*, June 2013, p. 7; TransGrid, *Response to the consultation paper*, June 2013, Attachment p. 3; SP AusNet, *Submission to the consultation paper*, June 2013, p. 3; APIA, *Submission on the consultation paper*, June 2013, p. 37; QTC, *Submission on the consultation paper*, June 2013, p. 2.

³⁷⁰ CitiPower, Powercor and SA Power, *Response to the consultation paper*, June 2013, p. 7; ENA, *Submission to the consultation paper*, June 2013, pp. 7, 100; SP AusNet, *Submission to the consultation paper*, June 2013, p. 2.

³⁷¹ CEG, *Impact of annual updating on revenue smoothing, Memorandum*, 17 June 2013, p. 6.

³⁷² We provided further analysis of this quantitative study in the draft explanatory statement: AER, *Explanatory statement: Draft rate of return guideline*, August 2013, pp. 88–89.

³⁷³ AER, *Better Regulation: Explanatory statement, Draft rate of return guideline*, 30 August 2013, pp. 86–89.

³⁷⁴ APA Group, *Submission on the draft guideline*, October 2013, p. 37; COSBOA, *Comments– draft guideline*, October 2013, p. 4; ENA, *Response to the draft guideline*, October 2013, pp. 4, 56; Energex, *Response to the draft guideline*, October 2013, p. 3; Envestra, *Response to the draft guideline*, October 2013, p. 8; Ergon Energy, *Submission on the draft guideline*, October 2013, p. 4; EUAA, *Submission to the draft guideline*, October 2013, p. 6; MEU, *Comments on the draft guideline*, October 2013, p. 42; NSW DNSPs, *Submission on the draft guideline*, October 2013, pp. 1, 5; QTC, *Submission to the draft guideline*, October 2013, p. 1; SP AusNet, *Submission on the draft guideline*, October 2013, pp. 1–2.

³⁷⁵ SP AusNet, *Submission on the draft guideline*, October 2013, pp. 1–2.

The inclusion of annual updating is necessary to allow NSPs to minimise the mismatch between the return on debt allowance and the actual return on debt. This will also result in smoother prices for consumers, as changes to the cost of debt are gradually reflected in the allowance rather than aggregated and passed through at the beginning of the next regulatory control period.

The ENA and APA Group expressed similar concerns related to the implementation of the formula for annual updating. In particular, APA Group submitted:³⁷⁶

APA understands the reasons for, and is generally supportive of, the AER's proposal to update the allowed rate of return in each year of a regulatory period by updating the estimate of the rate of return on debt used in determining that allowed rate.

If the allowed rate of return is updated annually as proposed, then rules 6.5.2(l) and 6A.6.2(l) of the NER, and rule 87(12) of the NGR, require that a change to the service provider's total revenue be effected through the automatic application of a formula. This formula is to be established for each service provider individually, and is to be set out in a regulatory decision pertaining to the service provider. We expect that the form of this formula and its use will involve some complexity. The way in which the AER intends to flow the annually updated rate of return through to regulated revenue should, therefore, be the subject of consultation, and (at minimum) key principles should be set out in the rate of return guidelines.

The ENA submitted:³⁷⁷

The ENA strongly supports that annual updating of the cost of debt will be carried out as part of the trailing average approach set out in the draft guideline. ...The ENA would welcome further details on how annual updating would be carried out to be provided by the AER. An opportunity to comment on the implementation of this process, for example, changes to be made to the PTRM, would also be welcome.

We acknowledge the above considerations. As discussed in chapter 1, we recognise that the post-tax revenue model (PTRM) will need to be amended to reflect our adoption of a trailing average portfolio approach. This includes annually updating the trailing average. We will consult on proposed amendments to the PTRM in accordance with the consultation procedures outlined in the rules.

Further, PIAC submitted that it 'does not have a strong preference with respect to annual updating' and that:³⁷⁸

PIAC recommends that the AER undertake further assessment on the length of interest rate cycles in order to inform the final decision on annual updating of the return on debt and the trade-off between the cost of this and the long-term benefit to consumers.

PIAC also submitted:³⁷⁹

If automatic annual updating were to proceed PIAC would recommend the following:

- the AER confirms that the process of updating will not be so complex for either the AER or the NSP that it will add to overall costs and/or reduce transparency in the process;
- the AER note the significant increase in the burden on consumers to engage effectively in the process and investigate ways this might be addressed;
- the AER ensure that the reduction in interest rate risk for the NSP is appropriately captured in the cost of equity, for instance, by a further reduction in equity beta.
- At a minimum, the benefits of annual updating should outweigh any additional costs that NSPs may claim for implementing annual updating; and

³⁷⁶ APA Group, *Submission on the draft guideline*, October 2013, p. 37.

³⁷⁷ ENA, *Response to the draft guideline*, October 2013, p. 56.

³⁷⁸ PIAC, *Submission to the draft guideline*, October 2013, pp. 9, 43.

³⁷⁹ PIAC, *Submission to the draft guideline*, October 2013, p. 44.

- the AER closely monitor the outcomes of annual updating so that a more robust statistical assessment of its value and costs can be conducted in the future.

We acknowledge PIAC's position. We consider that, on balance, the benefits of annual updating outweigh the relevant costs and that annual updating is consistent with the requirements of the rules. We would expect that annual updating would be likely to minimise the potential mismatch between the allowed return on debt and the expected return on debt for the benchmark efficient entity.

As discussed above, the rules require that the return on debt calculation must be capable of automatically updating.³⁸⁰ We intend to set out the process for automatic updating that will be transparent in service providers' relevant determinations. Consumer groups will have an opportunity to comment on the proposed process for updating the return on debt estimate during a relevant determination process. We also acknowledge that the PTRM (revenue/price control model) will need to be amended to reflect our approach to estimating the return on debt (including the need to annually update the return on debt). We will consult with stakeholders on any proposed amendments (refer to 1.5.2).

Finally, we have addressed the submission of NSWIC in section 7.3.3.

7.3.5 Weighting

We propose to maintain our proposed approach in the draft guideline and to adopt a simple (equally weighted) trailing average to estimate the return on debt allowance.

As the term suggests, the trailing average estimate of the return on debt is a weighted average of individual rates of return on debt within a certain time period. The choice of individual weights depends on the assumptions we make about the efficient financing practices and debt profile of the benchmark efficient entity. If we assume the benchmark efficient entity issues debt uniformly over time in tranches of equal size (that is, the debt balance remains constant over time), it is reasonable to apply equal weights. That is, for a benchmark term of 10 years, a weight of 1/10 would be given to each year in the trailing average.³⁸¹ We refer to such a weighting scheme as a simple (unweighted) average. If the benchmark efficient entity has an increasing (or decreasing) debt balance, using a simple trailing average might result in a mismatch between its return on debt and the allowed return on debt. This mismatch might potentially distort investment decisions and lead to a dynamically inefficient outcome.

Alternatives to simple trailing average suggested by stakeholders include.³⁸²

- weights based on the actual debt issuance data
- weights based on the actual changes in RAB, adjusted by the benchmark gearing
- weights based on the debt issuance assumptions in the PTRM.

We propose to adopt a simple trailing average rather than the alternative weighting scheme for the following reasons:

1. All three of the alternative approaches imply that the weights used in a trailing average would be different for each individual service provider. We do not consider that differences in investment

³⁸⁰ NER, cls. 6.5.2(l) and 6A.6.2(l); NGR, r. 87(12).

³⁸¹ See section 8.3.3 for further detail on the proposed benchmark term of debt.

³⁸² AER, *Rate of return consultation paper*, May 2013, pp. 111–113.

profiles of individual service providers justify adoption of different benchmark definitions. Since we propose to use a single definition of the benchmark efficient entity, there should be a single weighting scheme.

2. Weighting schemes based on actual data (the first two approaches) may not provide a service provider with incentives to review the efficient timing of investment in response to the cost and availability of finance (as we further discuss below). In addition, these approaches would need to be implemented via a retrospective true up, since such weights can only be computed after the parameters they are based on have been observed.
3. Service providers may not (and indeed, often do not) follow their forecast PTRM profile. We consider the relative complexity of the PRTM-based weighting scheme, and forecast imprecision outweigh potential benefits of the approach.

Below we detail our reasoning.

All three approaches imply that the weights would be different for each individual service provider. We previously considered that this would represent a departure from the benchmarking approach and the allowed rate of return objective.³⁸³

In response to this position, the QTC submitted:³⁸⁴

The use of different weights for each service provider is not a departure from benchmark regulation, as the efficient cost of debt for the benchmark efficient firm will depend on its investment and funding profile during a period.

We recognise that the debt financing requirements of the benchmark efficient entity are informed by its investment profile. To that extent, the efficient debt financing practices of the benchmark efficient entity would be affected by its efficient investment profile and debt financing needs. The benchmark efficient entity is a conceptual notion rather than a real entity. So, therefore, are its investment profile and debt financing needs, as no entity with that profile or those needs actually exists. Individual service providers' expected funding profiles are therefore only of limited use. They may inform our view about the efficient financing practices of the benchmark efficient entity with a similar degree of risk. However they are not a substitute for the investment profile and debt financing of the benchmark efficient entity. Further, since we propose to use a single definition of the benchmark efficient entity, we propose that there should be a single weighting scheme.

In addition to the above considerations, the three alternative approaches suggested by stakeholders also have other limitations.

We consider that the return on debt allowance which relies on the actual value of a parameter that the service provider can influence (such as debt balances and capex) is not consistent with incentive-based regulation. In particular, such weighting schemes may not provide a service provider with incentives to minimise its return on debt and, therefore, to engage in efficient financing practices. The QTC submitted that:³⁸⁵

A weighting scheme based on the actual increase in the RAB would provide incentives for efficient financing practices, because the service provider is incentivised to fund at a lower cost relative to prevailing rates at the time of the investment. ... The advantage of weighting using the actual increase in RAB is that

³⁸³ AER, *Consultation paper, Rate of return guidelines*, 10 May 2013, pp. 111–113; AER, *Explanatory statement: Draft rate of return guideline*, August 2013, pp. 89–92.

³⁸⁴ QTC, *Submission to the draft guideline*, October 2013, p. 20.

³⁸⁵ QTC, *Submission to the draft guideline*, October 2013, p. 20.

the service provider is not influenced by the absolute level of interest rates in regards to the timing of its investment.

We acknowledge that the benchmark entity would still have an incentive to reduce interest costs relative to prevailing rates. However, we do not consider that removing the link between the absolute level of interest rates and timing of investment would necessarily lead to an efficient outcome. For an investment decision to be efficient, it needs to take into account a number of factors. One of the factors, arguably, is the prevailing rates at which a service provider can obtain funding.

In addition, the weighting based on the actual changes in RAB (or, for that matter, any historical values) would need to be implemented via a retrospective (NPV-neutral) true up, since such weights can only be computed after the parameters they are based on have been observed. This would increase the complexity of the estimation process. This also could potentially result in higher price volatility for consumers and cash flow volatility for investors.³⁸⁶

Further, we consider weights based on the PTRM (forecast) debt balances.

During the regulatory control period, a service provider might choose not to follow the debt issuance profile assumed in the PTRM forecast. We agree that the 'PTRM debt balances ... are ultimately approved by the AER' and 'reflect the new funding required to maintain and expand a service provider's network'.³⁸⁷ However, the PTRM is approved at the time of regulatory determination and relies on forecasts incorporating all the available relevant information at that time. It is conceivable that future capital expenditure which is considered efficient at the time of the determination might no longer be considered to be efficient at a later date, as new information becomes available. For example, a significant change in the prevailing conditions in capital markets might influence the efficiency of such investment.

We acknowledge the QTC's view that it might not be possible to forecast future interest rates with any certainty.³⁸⁸ At the same time, it might be possible to observe whether the prevailing rate is relatively low or relatively high. This appears to be consistent with the QTC's statement referring to 'a time when interest rates are relatively low (for example, due to continued quantitative easing)'.³⁸⁹ To clarify, it might be possible to tell that the rates are relatively high without it being possible to tell whether or not they continue being relatively high next year. In that case, it might be efficient for a service provider to postpone investment if it considers the prevailing rate of return on debt is relatively high.

To summarise:

- Service providers may not (and indeed, often do not) follow their forecast PTRM profile. Moreover, there are circumstances when it might be efficient for a service provider to do so.
- PTRM forecast debt balances of individual service providers are not a substitute for debt financing profile of the benchmark efficient entity.
- Given the above, PTRM-based weighting scheme might not minimise the mismatch between the expected return on debt of the benchmark efficient entity and the allowed return on debt.
- Implementation of the PTRM-based weighting scheme is relatively complex.

³⁸⁶ See, section 7.3.4 for a discussion of retrospective true ups.

³⁸⁷ QTC, *Submission to the draft guideline*, October 2013, p. 21.

³⁸⁸ QTC, *Submission to the draft guideline*, October 2013, p. 20.

³⁸⁹ QTC, *Submission to the draft guideline*, October 2013, p. 20.

For the above reasons, we are not convinced that trailing average with PTRM-based weights will perform better than the approach with simple weights in terms of addressing the allowed rate of return objective and other requirements of the rules. We consider the relative complexity of the PTRM-based weighting scheme, and forecast imprecision outweigh potential benefits of the approach. We propose not to use the PTRM-based weighting scheme.

Other considerations

The above analysis acknowledges that the potential mismatch between the regulatory return on debt allowance based on a trailing average with uniform weights and the efficient debt financing costs can potentially cause investment distortions. However, alternative weighting approaches also have disadvantages.

Below we provide additional considerations that inform our proposed approach.

The QTC submitted that:³⁹⁰

It is possible that an unweighted average may perform adequately if normal circumstances are assumed to occur in the future, with interest rates relatively near to their longer-term average and a relatively low rate of growth in regulated asset bases (RAB). ... An unweighted average is likely to prove problematic in circumstances where interest rates are volatile, and where interest rates are persistently higher or lower than the trailing average value. These are the conditions which currently exist...

We note that an unweighted average would be 'problematic' when interest rates are volatile only to the extent that the efficient investment profile of the benchmark efficient entity leads to increasing debt balances/increasing RAB over time.³⁹¹ If it is efficient for the benchmark efficient entity to maintain a constant RAB which would be funded by issuing debt in equal tranches over time then the equally weighted trailing average would be reflective of its efficient debt financing costs.

Further, in the case of an increasing or decreasing RAB, the potential mismatch between the benchmark efficient entity's efficient debt financing costs and the equally-weighted return on debt allowance would be smaller:

- the longer is the benchmark term of debt
- the smaller is the growth rate of RAB/debt balances.

Response to key issues raised in stakeholder submissions

In their submissions to the draft guideline stakeholders expressed different views on our proposed approach. Several consumer groups expressed their preference for simple weights.³⁹² For example, PIAC submitted:³⁹³

With respect to the various options for weighting years within the trailing average portfolio, PIAC agrees with the AER's conclusions that there should be no weighting applied. Any weighting complicates the analysis but provides no better guarantee that it will replicate the prudent practices of an efficient benchmark entity. The fact that NSPs will have a different profile than the 'equal weight' profile is not a relevant consideration unless it is found that there is some consistent cycle of debt issuances that would be adopted by a benchmark efficient NSP over time.

³⁹⁰ QTC, *Submission to the draft guideline*, October 2013, p. 18.

³⁹¹ Assuming that the benchmark gearing ratio is constant.

³⁹² EUAA, *Submission to the draft guideline*, October 2013, p. 6; PIAC, *Submission to the draft guideline*, October 2013, p. 44; COSBOA, *Comments- draft guideline*, October 2013, p. 4.

³⁹³ PIAC, *Submission to the draft guideline*, October 2013, p. 44.

NSWIC, however, stated.³⁹⁴

Should a trailing average approach be adopted however, NSWIC submits that the weights should reflect the approximation to the present regulatory period, instead of having equal weights for each year of the seven year period.

At the same time, NSWIC provided no further recommendation on a specific design of such a weighting scheme.

Many industry stakeholders did not explicitly address the issue of weighting in their submissions. At the same time, several stakeholders supported QTC's proposal to adopt 'a weighted average based on the PTRM debt balances'.³⁹⁵ We have addressed the QTC's position above. Consistent with the QTC's view, Ergon Energy submitted that 'use of unweighted average may lead to investment distortions especially for service providers with large capital expenditure programs'.³⁹⁶ Further, CitiPower and Powercor submitted that 'under the simple average approach it will be impossible for a distribution business to effectively hedge its costs when its RAB is growing'.³⁹⁷

Energex submitted that.³⁹⁸

Given that capital expenditure in network businesses invariably follows a 'lumpy' profile characterised by large, less frequent investments, the consequences of a mismatch between the regulated cost of debt and the actual cost of debt can be significant and difficult to hedge in advance (as the exact amount and timing of future expenditures is rarely certain).[Emphasis added]

...Energex therefore supports QTC's proposed weighted average approach as it will properly take account of the cost of new borrowings expected to be undertaken at the start of each regulatory period based on the approved capex forecasts.

We acknowledge that Energex views the timing and amount of future expenditures as uncertain. However, we consider that this view emphasises difficulties in forecasting future debt financing needs and, therefore, is not consistent with Energex's recommendation.

Finally, United Energy and Multinet did not recommend a specific approach. They submitted that:³⁹⁹

The Companies consider that the use of fixed weights over time (or an equally weighted average) may be inappropriate in certain circumstances, such as in those cases in which a business is experiencing marked growth in its regulatory asset base. ...Regulated businesses should be presented with an opportunity to prepare arguments for the use of time-varying weighting schemes. Businesses may be able to devise weighting methods that make use of information pertinent to a benchmark efficient entity, and thereby overcome potential problems associated with the use of firm specific data.

We consider that in future regulatory determinations (given the non-binding nature of the guideline) stakeholders have an opportunity to propose alternative approaches to estimating return on debt.

Taking into account all of the considerations above as well as computational and conceptual simplicity of an equally-weighted trailing average, we maintain our proposal in the draft guideline to adopt an equally-weighted (simple) trailing average.

³⁹⁴ NSWIC, *Submission to the draft guideline*, October 2013, p. 5.

³⁹⁵ QTC, *Submission to the draft guideline*, October 2013, pp. 1–2, 18–21; Ergon Energy, *Submission on the draft guideline*, October 2013, pp. 5–6; Energex, *Response to the draft guideline*, October 2013, pp. 2–3; CitiPower, Powercor, SA Power Networks, *Submission to the draft guideline*, October 2013, p. 7.

³⁹⁶ Ergon Energy, *Submission on the draft guideline*, October 2013, p. 5.

³⁹⁷ CitiPower, Powercor, SA Power Networks, *Submission to the draft guideline*, October 2013, p. 7.

³⁹⁸ Energex, *Response to the draft guideline*, October 2013, pp. 2–3.

³⁹⁹ United Energy and Multinet, *Submission to the AER's draft rate of return guideline*, 15 October 2013, p. 5.

7.3.6 Transitional arrangements

We propose to maintain our approach in the draft guideline to apply uniform transition to all service providers in moving to the trailing average return on debt. That is, we propose to use a single transitional arrangement consistent with the 'QTC method', based on the proposed benchmark debt term of 10 years. This is based on the following considerations:

- consideration that the benchmark efficient firm is likely to need a transition in moving from the current 'on the day' approach to the trailing average approach
- proposing an approach that is likely to contribute to the achievement of the allowed rate of return objective and other requirements of the rules
- providing a gradual transition to the trailing average approach given a possible change in prior expectations regarding the regulatory framework by stakeholders
- practical considerations regarding use of historical information (and possible agreement) to calculate the return on debt
- minimising incentives for potential strategic behaviour of service providers.

In this section we consider the reasons above in more detail as well as review the relevant stakeholder submissions.

Background

Our intention to adopt the trailing average approach to estimate the allowed return on debt within this guideline raises a question of whether we need a transition to move away from the current 'on the day' approach. An alternative would be to apply the trailing average approach to service providers immediately at the start of their next regulatory control period.

The amended rules allow us to apply a transition if considered appropriate. The rules state that in estimating the return on debt regard must be had to the following (transition) factor:⁴⁰⁰

...**any impacts** (including in relation to the costs of servicing debt across regulatory control periods) on a **benchmark efficient entity** referred to in the allowed rate of return objective that could arise as a result of changing the methodology that is used to estimate the return on debt from one regulatory control period to the next... [emphasis added]

We note that the term 'any impact' allows us to address a wide range of concerns. The AEMC in its reasons accompanying the final rule determination stated that the purpose of this factor was:⁴⁰¹

The purpose...is for the regulator to have regard to the impacts of changes in the methodology for estimating the return on debt from one regulatory control period to another. Consideration should be given to **the potential for consumers and service providers to face significant and unexpected change in costs or prices that may have negative effects on confidence in the predictability of the regulatory arrangements.** [emphasis added]

The AEMC then further stated:⁴⁰²

Its purpose is to allow consideration of transitional strategies so that any **significant costs and practical difficulties** in moving from one approach to another is taken into account. [emphasis added]

⁴⁰⁰ NER, cls. 6.5.2(k)(4) and 6A.6.2(k)(4); NGR, r. 87(11)(d).

⁴⁰¹ AEMC, *Final rule change determination*, 29 November 2012, p. 85.

⁴⁰² AEMC, *Final rule change determination*, 29 November 2012, p. 85.

As we discussed in the consultation paper, we do not support the notion that transitional arrangements should be specific to individual service providers' debt financing practices.⁴⁰³ The return on debt for each regulatory year needs to be determined so that it contributes to the achievement of the allowed rate of return objective. That is, debt financing practices of individual service providers inform the return on debt estimate to the extent that they inform our view of what represents the efficient debt financing costs of the benchmark efficient entity.

We propose to use a single definition of a benchmark efficient entity and we do not consider that factors such as difference in size or ownership structure of service providers justify the adoption of different benchmark definitions. Further, given our definition of the benchmark efficient entity, we propose to adopt a single approach to return on debt estimation. Therefore, if a transition is needed for the benchmark efficient entity, we consider it should be implemented via a single transitional method. As we pointed out in our consultation paper, we also would not expect a transition to occur more than once, unless we changed the approach to estimating the return on debt in future guidelines.

Overall considerations

Considering whether a transitional arrangement is necessary in moving from the current 'on the day' approach to the trailing average portfolio approach focuses on the potential for:

- significant costs and practical difficulties for the benchmark efficient entity in moving to another approach for estimating the return on debt
- significant and unexpected change in costs/prices that may have negative effects on confidence in the predictability of the regulatory arrangements.

We consider that the AEMC's reasoning provides us with some guidance regarding important considerations for determining whether a transitional arrangement is required.

Overall, we consider that there should be a transition from the 'on the day' approach to the trailing average portfolio approach for the benchmark efficient entity.

In section 7.3.3 we considered what would constitute the efficient debt financing practices of the benchmark efficient entity under the current 'on the day' approach. We considered it likely that holding a debt portfolio with staggered maturity dates and using swaps to hedge interest rate exposure for the duration of a regulatory control period would constitute such an efficient debt financing practice. Further, we consider that holding a (fixed rate) debt portfolio with staggered maturity dates to align its return on debt with the regulatory return on debt allowance is likely to be an efficient debt financing practice of the benchmark efficient entity under the trailing average portfolio approach. That is, it is likely that the benchmark efficient entity would need to unwind its hedging contracts in moving from the current 'on the day' approach to the trailing average portfolio approach. Therefore, if transition is immediate (that is, if there is no transitional arrangement), the benchmark efficient entity is likely then to face costs or practical difficulties, as:

- It would have likely entered hedging contracts to manage its interest rate risk in the past.⁴⁰⁴

⁴⁰³ AER, *Rate of return consultation paper*, May 2013, p. 115.

⁴⁰⁴ For example, the benchmark efficient entity could have entered into 'pay floating' interest rate swap contracts matching its term of the debt immediately after issuing fixed rate debt. This would effectively convert the issued fixed rate debt into floating rate debt. Therefore, at the time of the next regulatory determination, it would have floating rate exposure on its historical debt.

- It would be impossible for it 'to go back and lock in rates that applied some time ago'.⁴⁰⁵
- Without transition there would be, therefore, a mismatch between the expected return on debt of the benchmark efficient entity and the regulatory return on debt allowance set according to the trailing average portfolio approach.⁴⁰⁶ This mismatch could potentially be significant.

A gradual transition, on the other hand, can take into account the efficient financing practices under the current 'on the day' approach. It can also address the need for the benchmark efficient entity to unwind its historical hedging contracts. As SFG suggested:⁴⁰⁷

The type of "rolling in" arrangement that has been proposed by QTC would be an effective means of transitioning from the current Rules to the use of an historical average cost of debt approach.

Further, we consider that a gradual adjustment is also consistent with the need to account for the effect of the change in the return on debt approach on confidence in the predictability of the regulatory regime. This would accommodate any potential discrepancy between the proposed approach to estimating the return on debt and reasonable expectations consumers, service providers, and investors formed before the rule change.

In particular, unexpected and immediate changes in approaches to setting regulatory allowances for the return on debt can be disruptive to both businesses and consumers (to the extent that they may result in significant and unexpected changes in energy prices and cash flows compared to the expected levels under the continuation of the previous policy). Gradual changes to the regulatory framework may be more desirable. For instance, under the 'on the day' approach energy consumers may have reasonably expected energy prices to be based on the 'on the day' rate at the next determination. In particular, to the extent that the prevailing market rate of return on debt is mean-reverting, consumers would expect that if they face higher than average energy prices today, they would face lower than average prices in the future.

The reasonable expectations of consumers may not be met if a switch to the trailing average portfolio approach were implemented without a transition. A transition would allow for a more gradual adjustment to the change in regulatory approach. The same logic, of course, also applies to the reasonable expectations formed by service providers. In particular, the benchmark efficient entity may have reasonably expected that the current 'on the day' regulatory approach would continue into the future. As we observed in section 7.3.3, it is likely that it would then be holding a debt portfolio with staggered maturity dates and using swap transactions to hedge interest rate exposure for the duration of the current regulatory control period. As we discussed above, in this case, an immediate transition to the trailing average portfolio approach could potentially result in significant costs and practical difficulties for the benchmark efficient entity.

We have also had regard to the issues, related to the implementation of the return on debt approach. Without a transition, we would need to estimate the trailing average of the return on debt for each service provider at the commencement of the next regulatory control period. Some elements of the average would be based on historical data that might not be readily available, particularly, to the extent that we are proposing to use a third-party data set. We would also need to reach an

⁴⁰⁵ SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return, Report for AEMC*, 21 August 2012, p. 45.

⁴⁰⁶ This is because the expected return on debt of the benchmark efficient entity would reflect the hedging contracts it entered into. For example, if it entered into 'pay floating' interest rate swap contracts immediately after issuing fixed rate debt, the respective portion of its debt servicing costs would be linked to the prevailing base rate, rather than historical base rate at the time of debt issuance.

⁴⁰⁷ SFG Consulting, *Rule change proposals relating to the debt component of the regulated rate of return, Report for AEMC*, 21 August 2012, p. 46.

agreement with each service provider on the averaging periods for historical data where there is no transition. In this case, a service provider may prefer the averaging periods that deliver the highest estimates of the past rates of return. A transition that does not use historical data would avoid this issue.

Finally, as we discussed in section 7.3.2, there is a concern that, given the guideline is not binding, service providers would seek to switch from proposing one return on debt approach to proposing another and back at the time of their determinations. Service providers could propose to adopt whichever approach provided them with the highest allowed revenue. A transitional arrangement may deter a service provider from seeking to opportunistically switch between approaches, given this would require a further transitional arrangement. Any further transitional arrangement would delay the full commencement of the new approach. In turn, this would delay any 'windfall gains' received by the service provider from changing approaches.

We consider that the 'QTC method' of transition, consistent with simple weighting, addresses all of the reasons for a transition specified above. In addition, the 'QTC method' received the most support from stakeholders throughout the guideline process. We provide details on the 'QTC method' in appendix G.

Below we provide an overview of stakeholder submissions to the draft guideline on the issue of a transition and explain how our proposed approach addresses the stakeholders' comments.

Response to key issues raised in stakeholder submissions

In their submissions to the draft guideline consumer groups expressed the following range of views:

- Whether or not a transition is needed depends on other factors, such as the benchmark debt term and the length of the averaging period.⁴⁰⁸
- The benchmark debt term should be five, rather than seven, years. If a five-year tenor is adopted, there is lesser or no need for a transition.⁴⁰⁹
- Our proposed transition is too long. A transition is needed to accommodate prior expectations of consumers, but:⁴¹⁰
 - it should be no longer than five years
 - it should start on July 1 2013 for all service providers, except the Victorian distributors (for them it should start on January 2014 to match their regulatory year).
- If a transition is adopted, it should be uniform, based on consideration of the benchmark efficient entity and allowed rate of return objective, and should not 'be driven by the particular preferences of NSPs with particular ownership characteristics'.⁴¹¹

PIAC also submitted.⁴¹²

⁴⁰⁸ PIAC, *Submission to the draft guideline*, October 2013, p. 51; EUAA, *Submission to the draft guideline*, October 2013, p. 6.

⁴⁰⁹ MEU, *Comments on the draft guideline*, October 2013, p. 42; PIAC, *Submission to the draft guideline*, October 2013, p. 7; COSBOA, *Comments– draft guideline*, October 2013, p. 5; ECC, *Submission to the draft guidelines*, October 2013, p. 2.

⁴¹⁰ EUAA, *Submission to the draft guideline*, October 2013, p. 6.

⁴¹¹ PIAC, *Submission to the draft guideline*, October 2013, p. 52; COSBOA, *Comments– draft guideline*, October 2013, p. 5.

⁴¹² PIAC, *Submission to the draft guideline*, October 2013, p. 51.

This is perhaps one of the more difficult decisions the AER will have to make. There are arguments for providing a period of adjustment for the NSPs from one regulatory approach to another. However, there are very good arguments for not having a transition period, not least of which is the precedence it sets, the complexity and time lag to achieve the final objective and the risks on the way to that goal.

With respect to the above submissions, we consider:

- The length of transition is determined by considerations of the efficient debt financing practices of the benchmark efficient entity and, as such, is related to the benchmark debt term. We propose to adopt the benchmark debt term of 10 years. Therefore, the corresponding transition period would also be 10 years. This takes into account the period of time that is likely to be needed for the benchmark efficient entity to unwind its hedging contracts.⁴¹³ Accordingly, we do not consider that adopting a shorter benchmark debt term reduces the need for transition.
- We consider that the beginning of the transition period for each service provider should match the beginning of the regulatory control period in which new rules apply to that service provider.
- We consider that the key objective of the transitional arrangements is to estimate the return on debt so that it contributes to the achievement of the allowed rate of return objective. As such, we do not consider that the proposed transitional method creates a 'time lag to achieve the final objective'.

Many service providers generally supported our proposed approach to transition, provided the approach is based on a 10 year benchmark term of debt.⁴¹⁴ For example, QTC submitted:⁴¹⁵

QTC supports the proposed transitional arrangements (but based on the original 10-year benchmark debt tenor and transition period), **which are appropriate for service providers that have attempted to align their funding with the 'on the day' method**, although we note that different transitional arrangements may be appropriate for other service providers. [emphasis added]

On the other hand, ActewAGL expressed a view that 'a transition may not be necessary for businesses that already follow [the portfolio approach]'.⁴¹⁶

Further, the NSW DNSPs and TransGrid supported an immediate transition (that is, no transitional period) to trailing average for their businesses, as these businesses 'already [use] a benchmark efficient portfolio approach to manage [their] debt'.⁴¹⁷ The NSW DNSPs submitted:⁴¹⁸

- Throughout previous regulatory frameworks and the Global Financial Crisis (GFC), the NSW DNSPs have managed their debt on a staggered portfolio basis. We agree with the AER that a staggered portfolio approach is an efficient approach to debt management. The cost of debt under this approach is reflected in a trailing average cost of debt. As such we have serious concerns over the AER's proposed approach of adopting a transition to the trailing average, which would under-compensate a "benchmark efficient firm" with a debt portfolio size of the NSW DNSPs by more than \$700 million over a seven year transition period based on current forward rate projections;
- In our view, if the AER was to apply a transition to the trailing average for the NSW DNSPs, this would provide an allowed cost of debt lower than the efficient cost of debt, which would not satisfy the Revenue and Pricing Principles in Section 7A of the National Electricity Law (NEL) to provide a

⁴¹³ For example, if the benchmark efficient entity entered into a 10 year swap contract (the duration of the swap contract would then match the benchmark debt term) a year before the regulatory determination, such a swap contract would take 10 years to unwind.

⁴¹⁴ APA Group, *Submission on the draft guideline*, October 2013, p. 33; Ergon Energy, *Submission on the draft guideline*, October 2013, p. 6; Jemena, *Submission on the draft guideline*, October 2013, p. 1; QTC, *Submission to the draft guideline*, October 2013, p. 2; SP AusNet, *Submission on the draft guideline*, October 2013, p. 3.

⁴¹⁵ QTC, *Submission to the draft guideline*, October 2013, p. 2.

⁴¹⁶ ActewAGL, *Response to the draft guideline*, October 2013, p. 3.

⁴¹⁷ TransGrid, *Submission on the draft guideline*, October 2013, p. 3.

⁴¹⁸ NSW DNSPs, *Submission on the draft guideline*, October 2013, pp. 1–2.

network service provider with a **reasonable opportunity to recover at least its efficient costs**. We also consider that any such decision by the AER to adopt a debt transition to the NSW DNSPs would be inconsistent with the National Electricity Objective and the Rate of Return Objective...

TransGrid expressed a similar view.⁴¹⁹ The NSW DNSPs' submission also included supporting reports by CEG and UBS.⁴²⁰

The ENA summarised the views expressed by the member service providers as follows:⁴²¹

In some circumstances, it may be that no transition is required if the business already uses a debt financing approach consistent with an efficient benchmark or this is the best way of facilitating a business to hedge its efficient interest costs to the regulatory allowance.

The ENA considers that the transition path set out by the AER in its draft guideline is **appropriate, where a business is in transition from a debt raising practice that is consistent with the AER's current approach** to establishing the cost of debt. [emphasis added]

We detailed our reasons for a single transition method for the benchmark efficient entity above, taking into account the stakeholders submissions we received. Further, we consider that the trailing average portfolio approach and the proposed transition method is capable of providing the benchmark efficient entity with a reasonable opportunity to recover at least the efficient debt financing costs. This implies that a service provider with a similar degree of risk is also provided with the same opportunity.

Overall, we propose to maintain our approach in the draft guideline to use a single transitional arrangement consistent with the 'QTC method' (based on the proposed benchmark debt term of 10 years) in moving to the trailing average return on debt to apply to all service providers.

⁴¹⁹ TransGrid, *Submission on the draft guideline*, October 2013, pp. 3–4.

⁴²⁰ Competition Economists Group, *Transition to a trailing average approach: A report for the NSW distribution network service providers*, 11 October 2013; UBS [commercial in confidence].

⁴²¹ ENA, *Response to the draft guideline*, October 2013, p. 77.

8 Return on debt: implementation

This chapter deals with the implementation issues for estimating the return on debt. Section 8.1 and 8.2 presents the issue and the approach we propose in the guideline. Section 8.3 elaborates on the reasoning for the proposed approach.

8.1 Issue

We must set out in the rate of return guideline the methodologies we propose to use in estimating the return on debt component of the allowed rate of return. We must also set out how the implementation of those methodologies is proposed to result in the determination of a return on debt in a way that contributes to the achievement of the allowed rate of return objective.⁴²² In the draft guideline, we sought views regarding implementation issues for estimating the return on debt. Specifically, we need to make decisions on the following matters:

- Whether to use a third party data service provider (such as Bloomberg) or produce an estimate in-house.
- The averaging periods used to estimate the prevailing return on debt.
- The inputs to estimate the return on debt, including the benchmark term of maturity of debt and credit rating.

8.2 Approach

After further consideration of the issues and submissions to the draft guideline, we propose to use:

- an independent third party data service provider to estimate the return on debt
- an averaging period of 10 or more consecutive business days to estimate the prevailing return on debt, where the averaging period should be as close as practical to the commencement of the each regulatory year in a regulatory control period
- a benchmark credit rating of BBB+ or its equivalent.

We also propose to use a benchmark term of debt of 10 years, whereas in the draft guideline we proposed a term of seven years.

8.3 Reasons for approach

In the draft guideline, we sought stakeholder views on our proposed use of a third party data service provider. We also sought views on the proposed benchmark credit rating, average term of debt and an averaging period to calculate the return on debt of 10 or more consecutive business days.

Each of these issues is discussed below.

8.3.1 Third party data service provider

At this time, we propose to use a third party data service provider as the source of an estimate of the benchmark return on debt. We consider that this method has the following advantages:

⁴²² NER, cls. 6.5.2(n), 6A.6.2(n); NGR, r.87(14).

- It is independent expert advice.
- It can be implemented in the context of automatically updating a trailing average of the return on debt as required by the NER/NGL.

We have previously expressed a preference for using an independent third party data service provider, where the method for estimating the return on debt is transparent. However, other factors—such as differences in debt selection criteria—would also need to be considered in assessing which of the competing data providers to adopt in a determination. We consider that an assessment of the relative merits of a data service provider is consistent with the allowed rate of return objective and recognises 'the desirability of minimising any difference between the return on debt and the return on debt of a benchmark efficient entity referred to in the allowed rate of return objective'.⁴²³

We propose to specify in a service provider's determination how an automatic update to the trailing average can be applied in circumstances where the method of calculating the allowed return on debt is no longer available or has been amended during a service provider's regulatory control period.

Our further reasoning for adopting an independent third party data provider and our response to submissions is summarised below.

As previously discussed in the explanatory statement, the return on debt could be estimated either by reference to an estimate developed by a third party dataset service provider, or by an AER in-house method. We currently use the BBB seven year Bloomberg fair value curve (FVC), extrapolated to a 10 year maturity (based on a benchmark credit rating of BBB+ and a 10 year term to maturity).

For the draft guideline, we proposed to estimate the return on debt using a third party data service provider. We considered that using a third party data service provider has the following advantages:

- Third party data sources are provided for use by market practitioners and developed independently from the regulatory process.
- Third party data sources are constructed by finance experts with access to a comprehensive financial database, where judgements are made in terms of debt selection and any necessary adjustments to yields. Using an independent third party also reduces the scope for debate on debt instrument selection issues and curve fitting or the use of some form of averaging methods to derive the estimate of the return on debt. As we have previously highlighted, if we used an in-house method, we would need to develop and apply:⁴²⁴
 - detailed criteria for selecting debt instruments with appropriate specification of contingencies to allow automatic updating.
 - a detailed description of the estimation method (that is, a curve fitting technique or some form of averaging observed yields—for example, Nelson–Siegel, Svensson or spline-based approaches).
- A third party data source can be more readily implemented in the context of automatically updating a trailing average of the return on debt as required by the rules.

⁴²³ NER, cls. 6.5.2(k)(1), 6A.6.2(k)(1); NGR, r.87(11)(a).

⁴²⁴ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, pp. 98–99.

At the time the draft guideline was published, Bloomberg was the only independent third party data service provider that published an independent estimate of the return on debt.⁴²⁵ At the same time while we proposed to rely on a third party data service provider such as Bloomberg for the estimation of return on debt, we acknowledged the known issues with this dataset or potential issues with using a third party dataset. In particular:⁴²⁶

- The third party data service provider may stop publishing data.
- The third party data service provider may stop publishing the data at maturities and/or credit ratings that are consistent with the definition of the benchmark efficient entity.
- The methodology used by the third party data service provider may not be shared publicly thus reducing transparency and making it harder to identify any divergences between the estimates derived from this source and the return on debt of the benchmark efficient entity.
- The lack of transparency around the methodology may also reduce confidence in the consistency of estimates over time and between different points on the curve.

It is now expected that the Reserve Bank of Australia (RBA) will publish an estimate for return on debt, on both broad band BBB (includes BBB-, BBB and BBB+) and an A credit rating band (includes A-, A and A+), with a range of maturities (for example, three, five, seven and 10 year average debt terms). Importantly we also understand that the RBA's method will be transparent.

ENA supported the use of the Bloomberg BBB FVC as the mechanism to implement a curve fitting process to determine the benchmark return on debt. ENA also considered the curve fitting process proposed by CEG as a useful cross-check on the proprietary methods employed by Bloomberg.⁴²⁷ APA also supported the continued reliance on Bloomberg to estimate the return on debt but provided no basis for this support.⁴²⁸ Similarly, COSBOA did not oppose the use of third party data, but encouraged the AER to develop an in-house dataset.⁴²⁹ As indicated in the draft guideline, for the reasons outlined above, we prefer to use an independent third party data service provider to estimate the return on debt.

PIAC submitted that the AER needs to undertake an assessment of the consistency of the third party provider's yield curves from year to year, to maintain the integrity of the annual updating process.⁴³⁰ PIAC also submitted that:⁴³¹

The AER should continue to develop its own database of information on relevant corporate bonds in the Australian market place and relevant overseas markets, in order that it can critically evaluate commercial third-party providers of bond yields.

We acknowledge PIAC's views. However, at this time, we propose to use a third party data service provider as the source of an estimate of the benchmark return on debt, given that this method has advantages as discussed above.

⁴²⁵ Bloomberg generates fair market sector curves for many bond sectors, grouped by currency, sovereign, agency, corporate, industry, issuer, and credit ratings. A yield curve is built daily for each sector based on the population of bonds directed to that sector or curve. A zero coupon yield curve is modelled and all other curves (par, coupon curve and forward curve) are derived from the zero coupon yield curve.

⁴²⁶ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, p. 100.

⁴²⁷ ENA, *Response to the draft guideline*, October 2013, p. 56.

⁴²⁸ APA, *Submission to the draft guideline*, October 2013, p. 35.

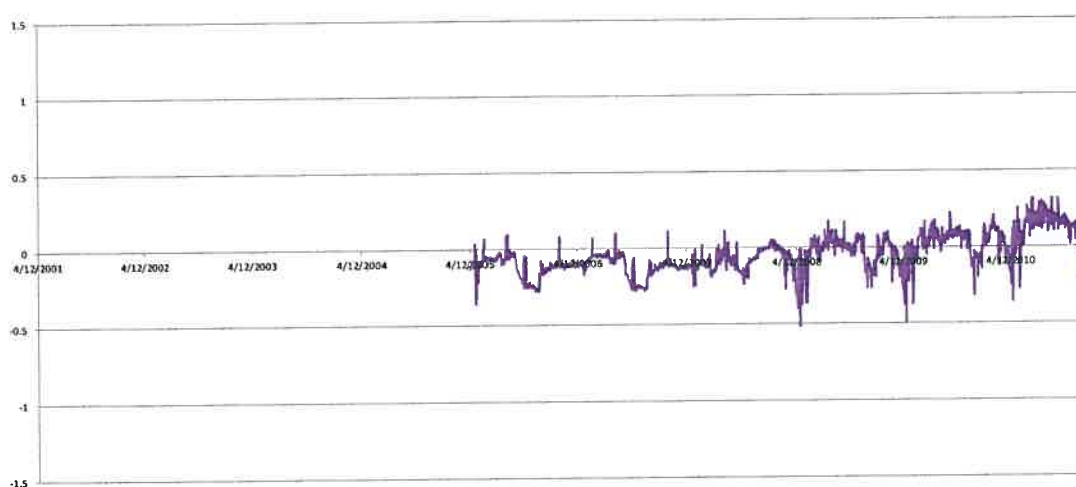
⁴²⁹ COSBOA, *Comments- draft guideline*, October 2013, p. 4.

⁴³⁰ PIAC, *Submission to the draft guideline*, October 2013, p. 46.

⁴³¹ PIAC, *Submission to the draft guideline*, October 2013, pp. 45–46.

EUAA submitted that the analysis by Smyczynski and Popovic in figure 8.1 shows that for most of the time since the global financial crisis the five year annual Bloomberg FVC has been above the five year average bond yield. It also suggested the use of weighted average yield of bonds with three to seven years to mature.⁴³² However, this analysis also indicates that prior to 2008 the five year annual Bloomberg FVC has typically been below the five year average bond yield. Importantly, based on the longer-term historical experience, this evidence does not support the view that the Bloomberg FVC will have a systematic bias towards the overestimation of the relevant average bond yield.

Figure 8.1 Spreads between 5 year annual average BBB 5 year BFV and 5 year annual average of the average yield on bonds with maturity of 3 to 7 years and BBB band credit rating



Source: Smyczynski and Popovic, *Estimating the Cost of Debt: A Possible Way Forward*, Regulatory Development Branch, Australian Competition and Consumer Commission, April 2013, p. 44.

MEU supported an AER developed dataset and estimation technique, and stated that:⁴³³

- The industry the firm operates in is the critical determining factor in setting the cost of the bond, and not the credit rating (and noted the analysis by Oakvale and Chairmont Consulting to support this view).
- Bloomberg FVCs have consistently provided an overstatement of the observed costs for bonds that are incurred by regulated energy networks.
- The AER, by using the Bloomberg FVCs, effectively persists in assuming all bonds rated to the same credit rating are equivalent and all should be used to provide the benchmark.
- The AER should use a cohort of bonds that are comparable to those sourced by firms similar to the firms that are to be regulated as this will provide a more accurate benchmark for the cost of debt sourced by service providers.
- The AER should consider all investment-rated bonds when calculating the benchmark return on debt.

⁴³² EUAA, *Submission to the draft guideline*, October 2013, pp. 2–3.

⁴³³ MEU, *Comments on the draft guideline*, October 2013, pp. 29–33; EUAA, *Submission to the draft guideline*, October 2013, p. 6.

We agree the industry a business operates in is an important factor but the credit rating is still a relevant and an important factor to take into account when considering proxy selections for a benchmarking process. Both Oakvale and Chairmont Consulting agreed with our view.⁴³⁴ However, in practice we are using a range of credit ratings to estimate the return on debt for a benchmark efficient entity. This is because we understand that the available independent third party data providers use a range of ratings (for example, the Bloomberg FVC uses a BBB credit rating band).⁴³⁵

We agree that, ideally, we should use a cohort of bonds that are comparable to those sourced by businesses similar to the benchmark efficient entity. However, we consider that the number of close comparators in the BBB band is too small to be reliable for the estimate of return on debt. Lally has also recognised this issue and proposed a 'four tiered approach' where the first tier would include those businesses to be the closest comparators (that is, regulated energy network businesses).⁴³⁶ The fourth tier would include unregulated businesses whose principal activities would be monopolistic (for example, airfield operations). However, we note that even with this approach to bond selection, the sample size is limited.⁴³⁷ Further, the ERA has indicated that it would ideally select bonds from the regulated sector. But, due to the lack of bonds, the ERA has considered it is necessary to widen the criteria to all Australian entities.⁴³⁸

Finally, in response to the inclusion of all investment grade bonds to estimate the return on debt for a benchmark efficient entity, we consider it may be too broad to include all investment rated bonds. For example, this would include government-owned businesses, which we have excluded from the definition of the efficient benchmark entity. However, as acknowledged above in practice we are using broad BBB band credit ratings for the estimate of return on debt.

8.3.2 Approach to calculating the averaging period to estimate the allowed return on debt

The averaging period is used to smooth out short term volatility in the annually updated return on debt allowance. This smoothing can be achieved by averaging the daily estimates published by an independent third party data service provider over a number of days.

At this time we propose to estimate the prevailing return on debt using a simple average of the prevailing rates observed over a period of 10 or more consecutive business days up to a maximum of 12 months. The proposed averaging period will be subject to the following principles to be included in the guideline:

- The period must be specified prior to the commencement of the regulatory control period.
- At the time the period is nominated, all dates in the averaging period must take place in the future.
- The averaging period should be as close as practical to the commencement of each regulatory year in a regulatory control period.
- A period needs to be specified for each regulatory year within a regulatory control period.

⁴³⁴ Chairmont Consulting, *Debt risk premium expert report*, 9 February 2012, p. 8; Oakvale Capital, *Report on the cost of debt during the averaging period: The impact of callable bonds*, February 2011, pp. 1–2.

⁴³⁵ While the benchmark credit rating is BBB+, Bloomberg's BBB rated FVC is based on a composite of BBB–, BBB, and BBB+ rated bonds.

⁴³⁶ M. Lally, *Estimating the cost of debt of the benchmark efficient regulated energy network business*, August 2013, p. 23.

⁴³⁷ A review of bond data on Bloomberg on 28 June 2013 indicates that there were only 12 outstanding bonds on issue for a 10 year BBB rated entity. This sample size increases to only 14 bonds, if a five to seven year term to maturity is adopted.

⁴³⁸ ERA, *Final decision on WA Gas Networks Pty Ltd proposed revised access arrangement for the Mid-West and South-West Gas Distribution Systems*, 28 February 2011, pp. 79–85.

- The specified periods for different regulatory years are not required to be identical, but should not overlap.
- Each agreed averaging period is to be confidential.

The allowed return on debt averaging periods can be either:

- proposed by the service provider during the Framework and Approach process or in its initial regulatory proposal, and agreed by the AER; or
- determined by the AER, and notified to the service provider within a reasonable time prior to the commencement of the regulatory control period, if the periods proposed by the service are not agreed by the AER.

We consider this approach has advantages, in terms of:

- providing clear principles and guidance to be applied in considering a service provider's proposed averaging period
- providing flexibility to accommodate different averaging period windows for different service providers for the first regulatory year, as a result of different transitional arrangements.

In the draft guideline we specified averaging periods for different groups of service providers, depending on their transitional arrangements as outlined in the rules. Meanwhile, we also recognised that the averaging period window would vary widely between service providers for the first regulatory year of the regulatory control period as a result of the transitional rules.⁴³⁹ Consequently, for the final guideline we do not consider that it is appropriate to specify the averaging periods for service providers (or groups of service providers). This is also consistent with the AEMC view that implementation issues are better dealt with through the Framework and Approach paper rather than through the guidelines, which are not intended to apply in a service provider specific manner.⁴⁴⁰

In the draft guideline, we proposed that the service provider's averaging period for the subsequent regulatory year should end six months before the commencement of the relevant regulatory year to:

- provide service providers with sufficient time to calculate the return on debt
- obtain our approval before they submit their annual pricing proposals for the upcoming regulatory year.

In response, some submissions considered that specifying an averaging period which ends six months before the commencement of the relevant regulatory year is too far from the start of the regulatory year.⁴⁴¹ QTC considered that it would be appropriate to allow service providers to nominate averaging periods that end no later than three months prior to the start of the next regulatory year, rather than the proposed six months.⁴⁴² CitiPower, Powercor and SA Power Networks also noted that investors require a premium to be paid for committing to the provision of funds between date of pricing and provision of funds, unless the time period is very short.⁴⁴³

⁴³⁹ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, pp. 102–105.

⁴⁴⁰ AEMC, *Final rule change determination*, November 2012, pp. 248–249.

⁴⁴¹ CitiPower, Powercor and SA Power Networks, *Submission to the draft guideline*, October 2013, pp. 7–8; Ergon Energy, *Submission on the draft guideline*, October 2013, pp. 6–7; QTC, *Submission to the draft guideline*, October 2013, p. 22.

⁴⁴² QTC, *Submission to the draft rate of return guideline*, October 2013, p. 22.

⁴⁴³ CitiPower, Powercor and SA Power Networks, *Submission to the draft guideline*, October 2013, pp. 7–8.

Submissions from service providers that are subject to a 'preliminary determination with mandatory re-opener' in the rules expressed concern that they will be disadvantaged. They submitted that they are only be able to nominate an averaging period within the window of five months for the estimating the allowed return on debt in the first regulatory year. These service providers suggested the start date for the first agreed averaging period should be brought forward in advance of their initial regulatory proposal.⁴⁴⁴

We recognise it is desirable for the averaging period to be as close as practical to the start of the relevant regulatory year. At the same time, the annual updating process requires service providers to submit their pricing proposals for approval in advance of the upcoming regulatory year. Therefore, we propose that the service provider's averaging period be as close as practical to the commencement of the relevant regulatory year (rather than no closer than six months as proposed in the draft guideline). In addition, we propose that a service provider can nominate the averaging periods during the Framework Approach (F&A) process (rather than limiting the nomination in their regulatory proposal). However, we consider that any averaging periods nominated by a service provider should be as close as practical to the commencement of the relevant regulatory year within a regulatory control period.

The MEU and PIAC submitted that our proposed averaging period window of 12 months is too long and too open-ended. MEU and PIAC consider that service providers can 'cherry pick' if there are consistent cycles of interest rates within the year. To minimise this concern, they recommended that we should assess whether there is an intra-year cycle for bond yields, and that we should consider taking an average of all business days across a year or selecting a period of 40 consecutive business days close to the final determination.⁴⁴⁵ The MEU presented figure 8.2 that tracks the long term average monthly changes of 10 year CGS yields since 1970. It noted that interest rates are likely to fall in the third and fourth quarters of a year and likely to rise in the first and second quarters of the year. MEU concluded that this 'unequivocal bias' would be used by the service providers to maximise their benefit.⁴⁴⁶ Further, EUAA noted the proposed averaging period calculation effectively reduces service providers' interest rate risk and users do not benefit from it.⁴⁴⁷

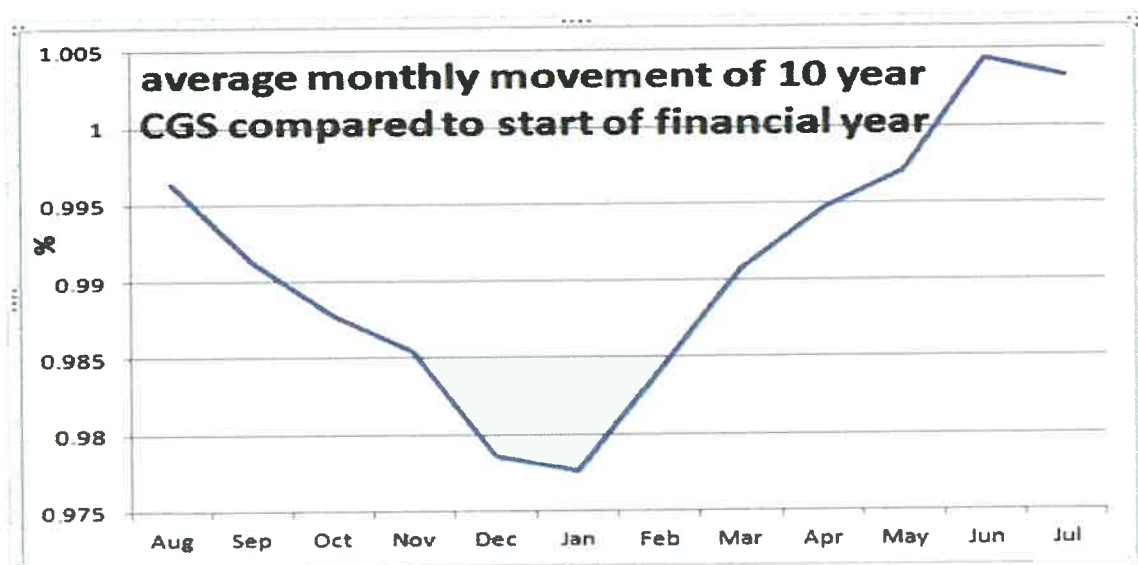
⁴⁴⁴ Ergon Energy, *Submission on the draft guideline*, October 2013, pp. 6–7; Energex, *Response to the draft guideline*, October 2013, p. 3.

⁴⁴⁵ EUAA, *Submission to the draft guideline*, October 2013, p. 3; MEU, *Comments on the draft guideline*, October 2013, pp. 38–40; PIAC, *Submission to the draft guideline*, October 2013, pp. 47–48.

⁴⁴⁶ MEU, *Comments on the draft guideline*, October 2013, pp. 39–40.

⁴⁴⁷ EUAA, *Submission to the draft guideline*, October 2013, p. 3.

Figure 8.2 MEU averaging period analysis

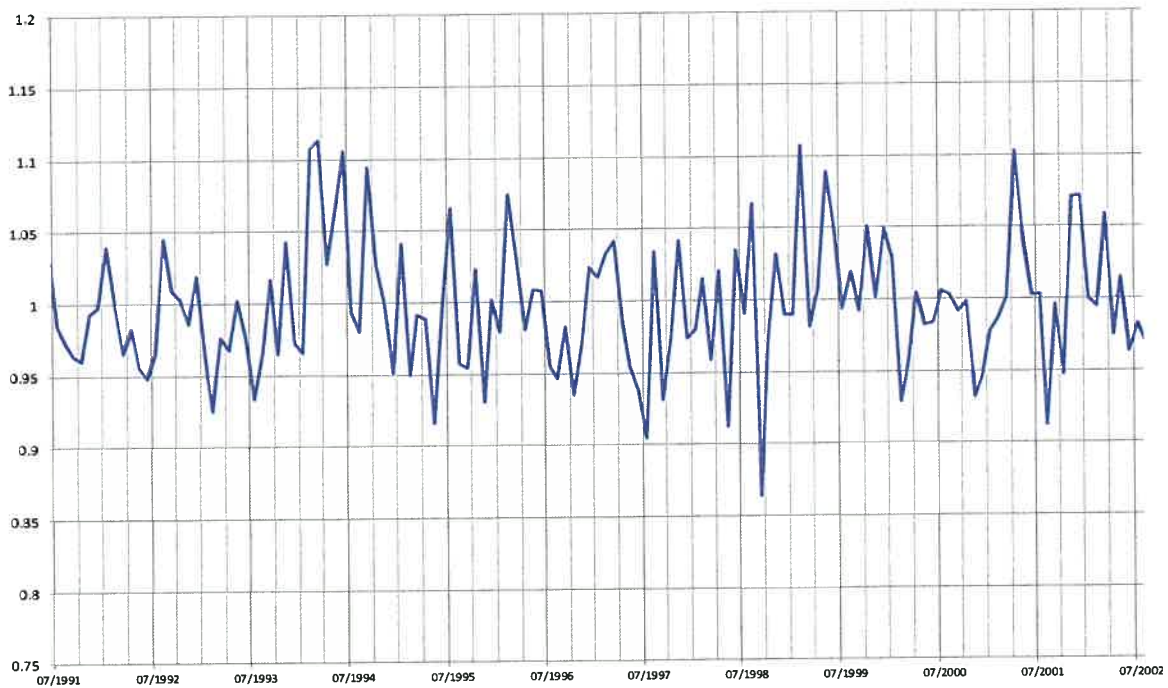


Source: MEU, *Submission to the draft guideline*, October 2013, p. 39.

We propose that the averaging period window should be 10 or more consecutive business days up to a maximum of 12 months. We consider that regulatory gaming is less likely when the averaging periods are specified and agreed upon in advance. This is because the return on debt will be unknown for future periods. That said, we have reviewed historical CGS yields and Bloomberg FVCs to assess whether the intra-year pattern as suggested by the MEU exists.⁴⁴⁸ In particular, we have analysed both the CGS yields and the Bloomberg BBB FVC yields from the time that data is first available on Bloomberg. As presented in figure 8.3 to figure 8.5, this evidence does not support the view that there is a consistent intra-year pattern for interest rate movements in the 10-year CGS yields and the seven year Bloomberg BBB FVC. In addition to the graphical analysis, regression analysis can be used to test for seasonality effects. However, as the seven year Bloomberg BBB FVC yields are only available from January 2002, we do not have a sufficiently large sample for the regression analysis. The regression analysis will not be robust given this sample is small. However, if any robust analysis becomes available in the future that suggests the existence of such an intra-year pattern, we will reconsider our position. In addition, we will use our discretion to reject the averaging periods proposed by the service provider if the service provider is found to choose the averaging periods opportunistically according to an intra-year pattern.

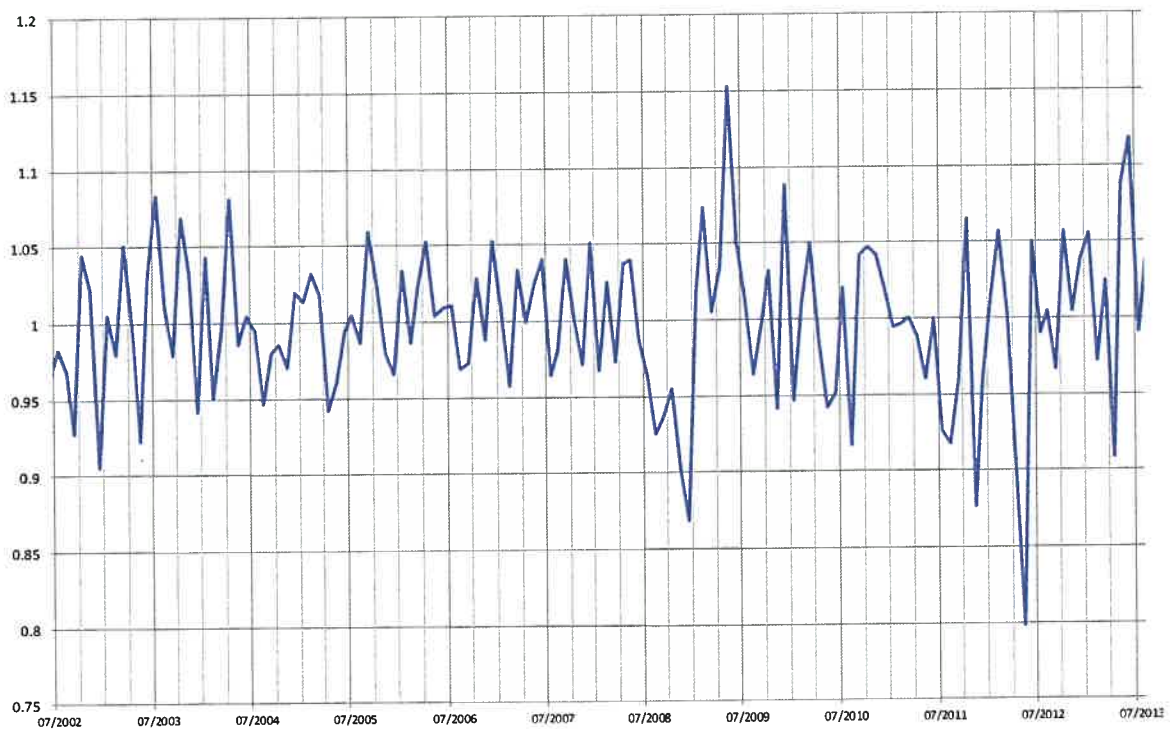
⁴⁴⁸ We consider the Bloomberg BBB FVC data is more relevant than the CGS yield when analysing the intra-year pattern of return on debt over time.

Figure 8.3 Average monthly movement of 10-year CGS yields (July 1991 – July 2002)



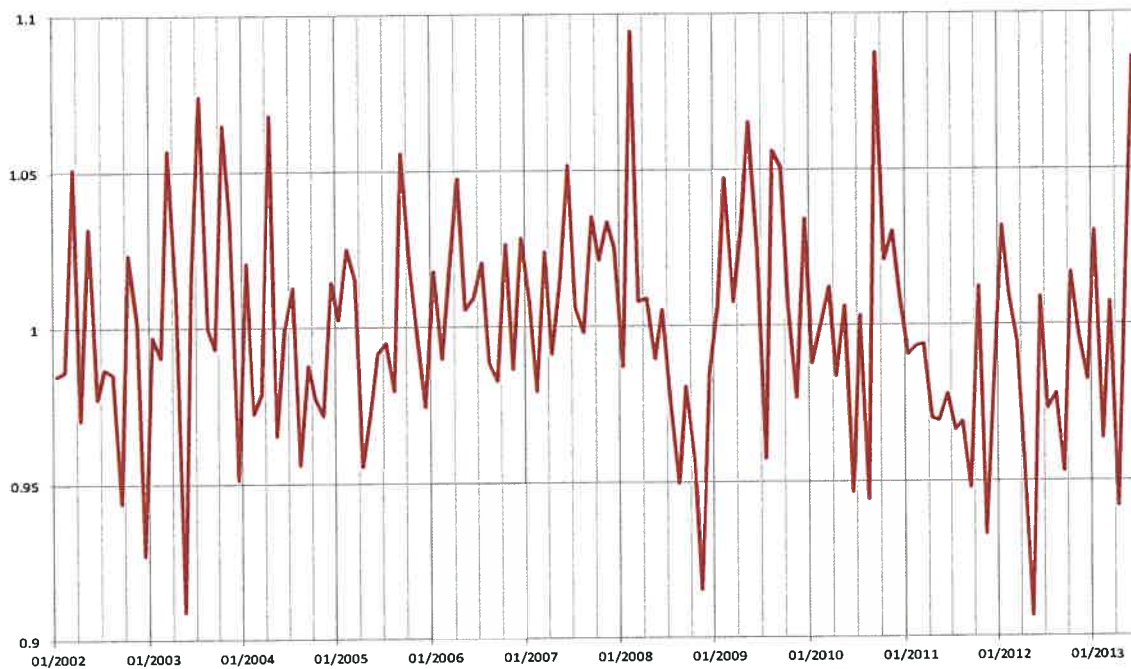
Source: Bloomberg and AER analysis.

Figure 8.4 Average monthly movement of 10-year CGS yields (July 2002 – July 2013)



Source: Bloomberg and AER analysis.

Figure 8.5 Average monthly movement of 7-year Bloomberg BBB FVC (January 2002 – January 2012)



Source: Bloomberg and AER analysis.

Additionally, Ergon Energy commented that service providers cannot issue debt twice. Therefore, our example in the draft guideline for overlapping averaging periods for the first and second agreed averaging periods cannot be replicated in practice.⁴⁴⁹ As outlined above, we propose that the averaging period should be as close as practical to the commencement of the relevant regulatory year. Further, we have included a condition that the specified averaging periods for different regulatory years should not overlap.

8.3.3 Benchmark term of debt

We need to specify the benchmark debt term for a debt portfolio in order to estimate the allowed return on debt for a benchmark efficient entity. The benchmark debt term:

- establishes the period over which the trailing average is calculated
- determines the period of the transition to the trailing average
- is an input to obtaining yields to estimate the return on debt.

In the explanatory statement accompanying the draft guideline, we proposed a seven year debt term at issuance. PwC and CEG estimated a debt term of approximately 10 years from debt portfolio data derived from Bloomberg and annual reports. We considered that there were methodological issues with the term inferred and did not rely upon it. In the absence of actual debt portfolio information we noted the 2009 WACC Review finding of a term of 7.4 years after making adjustments to convert floating rate notes into a fixed rate equivalent term and for hedging. We considered that the debt term was likely to be less than 10 years. Adding weight to the decision to move to a shorter debt term, we

⁴⁴⁹ Ergon Energy, *Submission on the draft guideline*, October 2013, pp. 6–7.

noted the difficulty in finding a mechanistic extrapolation method for annual updating. In using Bloomberg FVCs to estimate the yield on debt, extrapolation is required from the 7-year BBB Bloomberg FVC yield to a 10-year yield estimate. We considered that our current paired bond extrapolation approach could not be specified in a way that would reliably result in either the derivation of a bond sample (if specifications were too tight) or an acceptable error level (if specifications were too loose). We considered two other approaches which we discounted due to a lack of robustness and applicability.⁴⁵⁰

In the final guideline we are proposing an average term of debt for the benchmark debt portfolio of 10 years. We have reached this view for the following reasons.

Conceptually we consider that businesses will seek to issue longer-term debt. As the assets are long-lived the fewer times that the debt which funds them is required to be refinanced, the lesser is the risk. The risk consists of firstly, securing funding and secondly, with securing this funding at rates which do not vary considerably from the prevailing rates associated with financing that debt. Generally the cost of longer term debt is higher than shorter term debt as debt holders require compensation for the risks associated with holding debt over a longer time period.

A business will consider the trade-off of the higher cost of issuing long term debt against the reduction in costs associated with lowering refinancing risk.⁴⁵¹ Lally suggests that one way of lowering the cost of debt is to swap the risk-free component to a shorter term.⁴⁵² However, businesses state that under a trailing average approach hedging is either not required, not relevant or not possible.⁴⁵³

The determination of the benchmark debt term is a complex theoretical exercise. While we consider businesses will seek to issue longer-term debt, conceptually it is not clear what that term should be. Accordingly, we have considered the current debt financing practices of businesses considered to be close comparators to the benchmark efficient entity to inform us in arriving at a proposed debt term.

Based on observed practice we have assessed that the businesses' debt portfolio weighted average term at issuance is 8.7 years (ranging between 6.7 years to 16.3 years). We observe that businesses are securing bank debt with an average term at issuance of 4.3 years, issuing Australian bonds with an average term of 9.7 years and offshore bonds of 9.7 years. We understand that the current domestic bond market is not liquid in Australia beyond an issuance of seven years. However, businesses appear to be issuing offshore to cover any lack of liquidity in the domestic market. Further, when they issue offshore they appear to issue at multiple maturities (for example, seven, 10 and 15 years). We note that issuances beyond 15 years are currently not common.

Given that the empirical evidence lies between a seven and 10-year term we have considered that:

- The move to a trailing average approach effectively builds in a term for a longer period than the current approach.
- There is variability in the weighted average term at issuance over time.⁴⁵⁴

⁴⁵⁰ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, pp. 105-109.

⁴⁵¹ AER, *Final decision: WACC review*, May 2009, p. 152.

⁴⁵² M. Lally, *Estimating the cost of debt of the benchmark efficient regulated energy network business*, August 2013, pp. 11-12.

⁴⁵³ ENA, *Response to the draft guideline*, October 2013, p. 67; QTC, *Submission to the draft guideline*, October 2013, pp. 8-9; APLA, *Submission to the draft guideline*, October 2013, p. 33; SP AusNet, *Submission on the draft guideline*, October 2013, p.2.

⁴⁵⁴ In the 2009 WACC Review the weighted average debt term at issuance was 9.14 years. For the same businesses, the weighted average in August/September 2013 was 8.70 years.

- We regulate under objectives of promoting efficient investment and allowing businesses to recover their efficient costs.⁴⁵⁵

Accordingly, in moving to a trailing average approach we consider that we are committing to a debt term for the period nominated. To change the benchmark debt term in response to updated debt portfolio information would not be conducive to regulatory stability. In light of this, in order to ensure that the benchmark efficient entity is able to recover its efficient financing costs consistent with the allowed rate of return objective, we propose to use a 10 year debt term for the purposes of estimating the return on debt and for setting the period of the trailing average. It also means that a 10-year transition will apply.

We will, however, continue to monitor the average debt term at issuance of the regulated network service providers against the benchmark term. We will consider this information when we are assessing future transactions costs and any proposed adjustment of the return on equity.

With respect to the issue of extrapolation, we acknowledge businesses submissions that stated that at times the difference between 10-year and 7-year yields may be material.

We consider that, at a minimum, the difference between the 10-year and 7-year risk-free rates should be added to the estimated yield on a BBB+ 7-year debt term (if extrapolation is required). We propose to calculate the risk-free 10-year/7-year yield differential as the average difference between the annualised yield on 10-year and 7-year CGS bonds. The nominated averaging period (see 8.3.2) that we propose to use is the period over which the average risk-free yield differential is calculated.

We do not consider it prudent to commit to a particular method in the guideline for extrapolating the 10-year/7-year debt risk premium (DRP) differential. We consider that it is more appropriate to examine the possible methods at the time of the reset, in the context of the prevailing conditions. We consider that the 10-year/7-year DRP differential estimated via extrapolation should be capped to minimise any significant unexpected error associated with the extrapolation technique.

These issues are discussed in more detail below.

Conceptual issues in managing a debt portfolio for regulated energy businesses

We consider that in managing a debt portfolio for regulated energy businesses the following issues will be contemplated:

- Matching debt funding to the asset lives to manage refinancing risk
- Using interest rate swaps to reduce the cost of debt.

These issues are considered in turn below.

Long-term debt funding to match long-lived assets to manage refinancing risk

We consider that a business will, within the constraints of the market for corporate bonds, aim to match the length of the debt term to the asset life in order to minimise refinancing risk. We note, however, that this is subject to consideration of the increased cost of debt associated with a longer term.

⁴⁵⁵ NGL, ss.23, 24; NEL, ss.7, 7A.

A significant proportion of regulated energy assets are long-lived. We observe that electricity transmission lines and gas pipelines are depreciated for regulatory purposes over as long as 60 years.⁴⁵⁶ Accordingly, we consider that the entity will seek to fund the long-lived energy assets with longer debt tenors in order to manage refinancing and interest rate risk. By issuing longer term debt the entity reduces the frequency with which it must approach the market, thereby reducing the risk associated with not being able to secure funding at the time when it is required, or at rates that are higher or lower than those it currently pays. In approaching the market less frequently there is less risk associated with changing interest rates, which reduces the volatility in debt servicing costs and the likelihood of mismatch between the business' cash flows and its debt servicing obligations.

However, longer-term debt costs more than shorter-term debt in normally functioning markets, as debt holders require compensation for the risks associated with committing capital over a longer period of time. This will lead the entity to trade-off the increase in refinancing risk and the increase in transactions costs due to more frequent issuance associated with shorter-term debt against the increased cost of longer-term debt. The AOFM stated, 'a debt portfolio that reprices less frequently gives rise to less volatile debt servicing cost outcomes... Experience suggests that this risk reduction usually comes at appreciable cost.'⁴⁵⁷

CEG submitted that besides the cost trade-off described by the movement down an upwards sloping issuer yield curve, lenders will seek a higher risk premium (that is, interest costs will increase) for the effect of the increased refinancing risk on the overall risk of the entity if it shortens its maturity period. That is, the yield curve for the business will shift up. CEG stated that it is unclear conceptually whether the two opposing effects will result in a lowering of the cost of debt.⁴⁵⁸ However, CEG did not provide evidence of its practical significance.

AOFM stated that the term premium associated with issuing longer-term debt 'has been significantly reduced in recent years, both because of low historical outright levels of borrowing and because the yield curve has tended to be 'flatter' than history would suggest be the case. In view of this the AOFM has been strategically lengthening its issuance activities since mid-2011'.⁴⁵⁹

We note that despite what AOFM describe as current favourable conditions, the actual business' debt portfolios we accessed did not indicate an increase in the tenor of bonds being issued recently (see figure 2). We observe that for the same businesses, the average term at issuance at the 2009 WACC Review was 9.1 years and is now estimated to be 8.7 years. This suggests that the optimal term and refinancing risk/debt cost trade-off does not appear to have changed materially.

A number of submissions stated that it is desirable to issue longer-term debt in order to match the asset life and so minimise interest rate and refinancing risk.⁴⁶⁰ Further, some submissions submitted that the shortening of the debt term from 10 years, which is stated to be current financing practice, to seven years will increase their refinancing risk.⁴⁶¹ QTC, NSW DNSPs and NSW TCorp stated that compared with a 10-year term, a seven year term will increase the proportion of the total debt portfolio which is required to be annually refinanced from 10.0 per cent to 14.3 per cent.⁴⁶² QTC also stated

⁴⁵⁶ As indicated by PTRM models from the following determinations: AER, *Final decision: Envestra access arrangement Vic, Part 2: Attachments*, March 2013; AER, *Final decision: Aurora distribution determination*, April 2012; AER, *Final decision: SPI Networks (Gas) access arrangement*, March 2013

⁴⁵⁷ AOFM, *Email to the AER "Rate of Return Guideline - Review"*, received 23 October 2013.

⁴⁵⁸ CEG, *Review of Lally and Chairmont for the ENA*, October 2013, p. 4.

⁴⁵⁹ AOFM, *Email to the AER "Rate of Return Guideline - Review"*, received 23 October 2013.

⁴⁶⁰ AFMA, *Submission to the draft guideline – Benchmark term of debt*, October 2013, p. 2; Ergon Energy, *Submission on the draft guideline*, October 2013, p. 4; NSW DNSPs, *Submission on the draft guideline*, October 2013, pp. 4,12.

⁴⁶¹ Ergon Energy, *Submission on the draft guideline*, October 2013, p. 4; NSW DNSPs, *Submission on the draft guideline*, October 2013, p. 4

⁴⁶² NSW DNSPs, *Submission on the draft guideline*, October 2013, p. 14.

that assuming a five per cent annual growth rate in the debt balance, a seven year benchmark will increase the annual funding requirement to approximately 20 per cent. QTC stated that this will create a mismatch between the return on debt and the cost of debt for firms that continue to issue 10-year debt to keep refinancing risk at an acceptable level. NSW DNSPs and NSW TCorp stated that the increased annual refinancing will increase the liquidity requirements accordingly.⁴⁶³ Finally, NSW DNSPs stated that the increase in short-term debt would cause credit metrics to deteriorate, requiring review of the benchmark credit rating, in turn increasing the cost of debt and equity.⁴⁶⁴

We understand that the credit metrics which the ratings agencies are interested in are as specified in table 8.1.

Table 8.1 Credit metrics considered by rating agencies

Moody's	S&P's
Adjusted interest cover ratio or FFO interest cover (sub-weighting 15%)	FFO/Debt
Net debt/regulatory asset value (15%)	Debt/EBITDA
FFO/net debt (15%)	Debt/Capital
RCF/capex (5%)	

Source: Moody's, *Rating Methodology: Moody's Global Infrastructure Finance – Regulated Electric and Gas Networks*, August 2009, p. 28; Standard & Poor's Rating Services, *Ratings Direct: Methodology: Business Risk/Financial Risk Matrix Expanded*, September 2012, p. 3.

We recognise that the amount to be annually refinanced will increase under a seven year term relative to a 10-year term. However, the annual interest and the net debt, all else equal, should be no higher under a 10-year term than a seven year term. It is therefore unclear to us how the credit metrics could deteriorate.

We note that the businesses have in place policies regarding annual refinancing amounts in order to manage refinancing risk. For example, Envestra and APA Group have a policy of not refinancing more than 15 and 20 per cent of their debt portfolio respectively in one year. This implies a minimum average term at issuance of seven and five years respectively.⁴⁶⁵ For the 2009 WACC Review, statements outlining treasury practices were received from Jemena, Envestra, Citipower and Powercor, SP AusNet and QTC. The policies on the maximum percentage of the debt portfolio to be refinanced in a year ranged between 15 and 25 per cent, implying a minimum term at issuance of between seven and four years.⁴⁶⁶ We note that a seven year debt term is within the guidelines set in treasury policies.

McKenzie and Partington consider that given the low default risk of regulated utilities, refinancing and interest rate risk are unlikely to be substantive in normal market conditions.⁴⁶⁷

⁴⁶³ NSW DNSPs, *Submission on the draft guideline*, October 2013, p. 14.

⁴⁶⁴ NSW DNSPs, *Submission on the draft guideline*, October 2013, p. 14.

⁴⁶⁵ Envestra, 2013 Annual Report, p. 56.

⁴⁶⁶ AER, *Final decision: WACC review*, May 2009, p. 151.

⁴⁶⁷ McKenzie and Partington, *Risk, asset pricing models and WACC*, June 2013, p. 12.

We also note CEG's remarks that any increase in refinancing risk associated with adopting a seven year term, if businesses do in fact have a longer debt term at issuance currently, will be reflected as a shift in risk from debt to equity.⁴⁶⁸

Use of interest rate swaps to reduce the cost of debt

We consider that an efficient financing practice will be to minimise financing costs subject to managing refinancing and interest rate risk. We consider that, post transition, the benchmark efficient entity is not likely to engage in an active debt management strategy using swaps.

In the explanatory statement accompanying the draft guideline, we referred to the likely use of hedging, drawing on advice from Lally. Lally advised that firms will minimise refinancing risk by issuing longer-term debt. However, in order to decrease the cost of debt, firms will swap the base rate into a shorter-term fixed rate. The term of the swap will be determined by the firm optimally trading-off the increase in interest rate risk and the transactions costs associated with the swap against the interest rate differential between the longer-term fixed rate and the shorter-term swap base rate.⁴⁶⁹

AFMA submitted that due to recent international regulatory developments it considers that interest rate swaps are likely to increase the cost of debt rather than reduce the cost of debt.⁴⁷⁰ NSW DNSPs stated that issuing shorter term debt will proportionately shift premiums away from longer term debt to shorter term debt. It also stated that the transaction costs associated with engaging in interest rate swap contracts would be 'prohibitively high for businesses with notional debt portfolios the size of NSW DNSPs'.⁴⁷¹

A number of industry submissions submitted that the current use of interest rate swaps is to hedge to the five year regulatory period under the current 'on the day' approach, thereby minimising the interest rate risk associated with the resetting of the risk free rate at each regulatory determination. The submissions stated that hedging is not required, not relevant, or not possible under a trailing average approach.⁴⁷² ENA stated '[t]he trailing average cost of debt allowance is explicitly calculated on the basis that there is no swap overlay to a business's debt portfolio. It is illogical to base the term of debt under the trailing average approach on an assumption that businesses will enter swap contracts'.⁴⁷³ ENA and QTC suggested that the use of floating rate debt and interest rate swaps, as suggested by Lally, is more akin to a hybrid approach than a portfolio approach.⁴⁷⁴ QTC also suggested that as Lally has stated that the term of the base rate under the trailing average approach is indeterminable, Lally's arguments cannot be used to support a seven year term.⁴⁷⁵

ENA and QTC also argued that in the presence of relatively stable revenues, a shorter-term base interest rate exposure will increase the potential for a mismatch between the firm's revenues and its debt servicing costs.⁴⁷⁶ QTC submitted that this will increase the probability of financial distress, especially if the firm is highly geared. QTC questions whether the lower interest rate would offset this increase in risk.⁴⁷⁷

⁴⁶⁸ CEG, *Review of Lally and Chairmont for the ENA*, October 2013, p. 5.

⁴⁶⁹ AER, *Explanatory statement: Draft rate of return guideline*, August 2013, pp. 105-106.

⁴⁷⁰ AFMA, *Submission to the draft guideline – Benchmark term of debt*, October 2013, p. 3.

⁴⁷¹ NSW DNSPs, *Submission on the draft guideline*, October 2013, p. 16.

⁴⁷² ENA, *Response to the draft guideline*, October 2013, p. 67; QTC, *Submission to the draft guideline*, October 2013, pp. 8-9; APIA; Energex; SP AusNet;

⁴⁷³ ENA, *Response to the draft guideline*, October 2013, p. 69.

⁴⁷⁴ ENA, *Response to the draft guideline*, October 2013, p. 67; QTC, *Submission to the draft guideline*, October 2013, p. 9.

⁴⁷⁵ QTC, *Submission to the draft guideline*, October 2013, p. 10.

⁴⁷⁶ ENA, *Response to the draft guideline*, October 2013, p. 67; QTC, *Submission to the draft guideline*, October 2013, p. 9.

⁴⁷⁷ QTC, *Submission to the draft guideline*, October 2013, p. 9.

We note that when businesses issue debt, for example into the US Private Placement market, they often issue at the same time, multiple bonds with staggered maturities. From the observed debt portfolios we note that there have been simultaneous issues of five, seven and 10 year bonds, and 10, 12 and 15 year bonds. We also note that approximately one third of the total value of all the portfolios has been issued as floating rate notes.

As discussed in chapter seven, we consider that an efficient financing practice of the benchmark efficient entity would be to minimise the expected present value of its financing costs over the life of its assets subject to managing the associated financial risks (and subject to the regulatory regime). On this basis we have concluded that the benchmark efficient entity would have likely entered into hedging contracts to manage its interest rate risk in the current regulatory control period (that is, under the 'on the day' approach). Further, we consider that holding a (fixed rate) debt portfolio with staggered maturity dates to align its return on debt with the regulatory allowance is likely to be an efficient financing practice of the benchmark efficient entity under the trailing average portfolio approach. To achieve this the benchmark efficient entity would need to unwind its existing hedging contracts and issue new (fixed rate) debt over a transition period to gradually accumulate a portfolio that matches the trailing average regulatory return on debt allowance. Consistent with this, we consider that post transition the benchmark efficient entity is not likely to engage in an active debt management strategy using swaps.

Current regulated energy business evidence of term at issuance

Evidence provided by the businesses indicates that the current average term at issuance is 8.7 years.

We consider that the choice of term at issuance is informed by market practice given the trade-offs identified above. However, the reliance on observed practice is complicated by a change in approach to estimating the return on debt. In particular, observed practice relates to the current 'on the day' approach and this may differ under the trailing average approach.

In the explanatory statement accompanying the draft guideline, we stated that we had concerns about PwC's and CEG's analysis of debt term at issue. In the absence of actual debt portfolio information we referred to the 2009 WACC Review conclusion of an effective term of 7.4 years (consisting of 7.1 years after adjusting floating rate notes into a fixed-term equivalent and 7.4 years after adjusting floating rate notes into a fixed-term equivalent and after accounting for hedging).

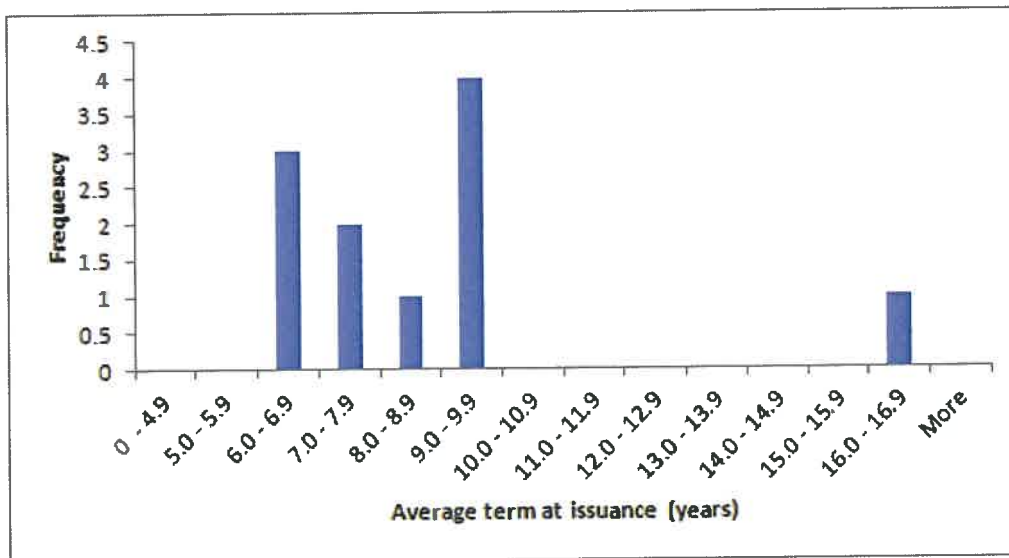
ENA provided actual debt portfolio information to the AER in its response to the draft guideline. In particular, actual debt portfolio information for Envestra, ElectraNet, Multinet and United Energy, Powercor, SA Power Networks and SP AusNet was provided. Inferred debt portfolio information⁴⁷⁸ was also provided for APA Group. ENA also collected debt portfolio information from SPIAA (parent of Jemena) and Dampier Bunbury Pipeline but excluded this information on the basis that SPIAA (parent of Jemena) is government-owned and that Dampier Bunbury Pipeline is not regulated by the AER. We sought this information from the ENA and also requested actual data for the APA Group. We also sought formal assurances, via statutory declaration, from the businesses that the information provided represented the business' full debt portfolio and accorded with its financial records. During this process we were provided with CitiPower's debt portfolio and minor amendments to maturity dates or amounts and correction of omitted instruments.

⁴⁷⁸ This information was drawn from APA Group's annual report, a slide presentation (dated 21 August 2013) and Bloomberg.

In reviewing the updated information we observe that the average term at issuance, calculated using each business' drawn debt share of the total sum of all entities drawn debt as weights, varied from 6.7 years to 16.3 years, but on average was 8.7 years (see Figure 8.6 and Table 8.2).

While this is a point in time estimate, we note that it has not changed considerably since the 2009 WACC Review, where the average term at issuance was 9.1 years. There are indications that the current market environment is favourable for issuing longer-term debt due to the low prevailing interest rates and increased appetite for corporate debt domestically. This would lead us to expect that the current environment is supportive of businesses issuing longer tenors. However, from 2011 (post the GFC credit tightening) we are observing tranches of offshore issues (mainly in the US private placement market) at a range of relatively short tenors. Eighty per cent of the bonds issued from 2011 had an average tenor of 10 years or less. We therefore consider that an average term of issuance around nine years is reasonably stable over time.

Figure 8.6 Histogram of businesses' weighted average term of issuance of total debt portfolio



Source: ENA provided eleven business debt portfolios, AER analysis.

Table 8.2 Energy business' debt value and term at issuance

Business	Total debt (\$m)	Drawn debt (\$m)	Term at issuance - drawn debt (yrs)	Term at issuance - bank debt (yrs)	Term at issuance - AUD bonds (yrs)	Term at issuance - offshore bonds (yrs)
Envestra	2,453.9	2,053.9	16.3	4.4	19.7	15.3
ElectraNet	1,520.5	1,367.8	9.0	2.7	14.8	7.8
Multinet and United Energy	3,355.8	3,062.7	7.1	4.8	8.3	8.1
CitiPower, Powercor and SA Power Networks	7,293.0	6,833.8	8.8	3.4	10.0	8.6
SP AusNet	6,289.5	5,364.5	8.6	3.6	8.4	8.8
APA Group ^(a)	5,307.9	4,416.3	9.2	3.0	7.5	10.7
SPIAA (parent of Jemena)	4,703.0	4,239.9	6.7	4.6	5.3	10.8
Dampier Bunbury Pipeline	2,745.0	2,540.0	6.7	4.7	8.2	N/A
Average term at issuance (all debt)	33,668.5	29,879.7	8.7	4.3	9.7	9.7

Source: AER analysis of ENA, *Submission to the draft guideline*, October 2013.

Note: (a) AER has adjusted the maturity of APA Group subordinated notes from 2072 to 2018.

The NSW DNSPs submitted that 'the corporate bond market is not sufficiently liquid to provide Australian energy network businesses with the option to issue the majority of their debt beyond 10 years' which necessitates that entities issue offshore.⁴⁷⁹ This is supported by the business debt portfolios provided to the AER which currently have on issue:

- bank debt and commercial paper which have issuance tenors of between 1 month and 7.0 years
- Australian bonds which have issuance tenors of between 2.7 and 21.3 years
- offshore bonds which have tenors of between 4 and 30 years (see figure 8.7).

⁴⁷⁹ NSW DNSPs, *Submission on the draft guideline*, October 2013, p. 12.

compensation is the same. Under competitive neutrality requirements, governments in Australia are required to charge their departments and statutory bodies a fee such that the interest rates they are exposed to are equivalent to those they would face in accessing capital without the benefit of the effective underwriting by the taxpayer. To estimate the fee, treasuries reference the debt issuances of privately-owned business at the same credit rating as the stand alone credit rating of the government energy network service provider. Given the reference to privately-owned businesses, we do not consider that any further information is provided by using government-owned energy business debt portfolio information relative to using privately-owned energy debt portfolio information.

CEG undertook analysis of the revised portfolio on behalf of ENA. It did not include Jemena or Dampier Bunbury Pipeline in its revised analysis. CEG reported a simple/weighted average term at issuance of 10.9/10.5 years.⁴⁸² This calculation of term at issuance differs from the AER's calculation of an average term at issuance of 8.7 years because we have:

- Included SPIAA (parent of Jemena) and Dampier Bunbury Pipeline debt portfolio into the calculation. These businesses both had average terms at issuance of 6.7 years.
- Adjusted APA Group's maturity date for its subordinated notes from 30 September 2072 to 30 September 2018 on the basis that this is how APA Group is representing the maturity of the bond⁴⁸³ and investment commentary indicates that the expected maturity is 2018⁴⁸⁴. This is because at this time credit ratings agencies will no longer treat 50 per cent of this debt as equity, as is currently the case, thereby negatively impacting APA Group's credit rating.

CEG submitted that a weighted average of the entire drawn debt portfolio is likely to understate the debt used to fund the regulatory asset base. It states that an amount of short-term debt should be excluded as short-term debt is used to provide the cash balance or to fund the repayment of soon-to-mature debt.⁴⁸⁵ After excluding an amount equal to the value of the cash and cash equivalents balance or other liquid funds it calculates a simple/weighted average term at issuance of 11.0/10.7 years.

We do not agree with CEG's submission that a portion of short-term debt (bank debt and commercial paper) may be excluded as negative cash. We consider that a cash balance will reflect a number of items, including receivables and the proceeds of asset sales, which are not debt transfers. We understand that short-term debt is primarily used by the businesses to fund new capital expenditure, until such time as a marketable parcel (approximately \$500 million) is accumulated that may be refinanced by issuing longer-term (bond) debt. We also understand that businesses try to have enough residual bank debt drawn to maintain competition between a pool of banks in order to provide competitively priced capex facilities. We therefore do not consider that it is appropriate to discount short-term debt by an amount equal to cash and cash equivalents.

CEG submitted that SP AusNet should be excluded from the analysis on the basis that its debt management policy to date is likely to be affected by its majority government ownership. If it is excluded, CEG calculates a simple/weighted average term at issuance of 11.5/11.3 years. As stated above, our basis for excluding government-owned network service providers from our sample is that

⁴⁸² CEG, *Response to AER criticisms of estimates of average term of debt for the ENA*, October 2013, p. 2.

⁴⁸³ See slide 23 of the Full Year Results Presentation, 21 August 2013, <www.apa.com.au/media/214600/apa_fy13_presentation.pdf> accessed 25 October 2013.

⁴⁸⁴ See Wealth Focus, *APA Group Subordinated Notes Analysis & Research*, 10 August 2012, <www.fundsfocus.com.au/managed-funds/pdfs/lpo/apa-analysis.pdf> accessed 25 October 2013; Morning Star, *APA Group Subordinated Notes (AQHHA): Piping hot margin but be comfortable with the risk!*, 13 August 2012, <www.morningstar.com.au/s/documents/20120813-APA-Group-New.pdf> accessed 25 October 2013;

⁴⁸⁵ CEG, *Response to AER criticisms of estimates of average term of debt for the ENA*, October 2013, p. 2.

we cannot observe their cost of debt. We consider that this is not the case with SP AusNet and Jemena. SP AusNet and SPIAA have their own treasuries which raise funds in the private capital market. We can and do observe their cost of debt. Singapore Power (SP) currently holds 51 per cent of SP AusNet and 100 per cent of SPIAA (parent of Jemena⁴⁸⁶). These Australian assets constitute approximately 70 per cent of SP's assets. While the ratings agencies consider that SP supports SP AusNet and SPIAA, we consider that SP is likely to have similar risk to SP AusNet and SPIAA given the high weighting of the Australian regulated network service providers in the SP portfolio and that the other subsidiaries are Singapore's monopoly electricity and gas distribution and transmission network service providers. We consider SP is run as an independent company to Temasek Holdings, its holding company, who as a policy does not guarantee the financial obligations of its portfolio companies.⁴⁸⁷ We also note that Temasek Holdings is a corporation run on a commercial basis.⁴⁸⁸ We therefore consider that SP AusNet and SPIAA are suitable comparators and should be included in the sample used to inform the debt term at issuance.

QTC presented the debt maturity profiles of non-regulated infrastructure businesses and businesses operating in capital intensive industries. It argued that while these firms' business risk profile may differ from that of a regulated service provider, they are presented with the same requirement to refinance maturing debt or fund new investment when credit markets are unfavourable. On the assumption that a seven year term at issuance results in a 3.5 year term to maturity, QTC states that this is shorter than these firms, which have gearing less than 60 per cent.⁴⁸⁹ However, we do not consider a term at issuance can be inferred from the series of business graphs' term to maturity data presented by QTC. We consider that more robust analysis of the data is required in order to substantiate this assertion.

Support for a 5-year debt term

The MEU, COSBOA and the Ethnic Communities' Council of NSW stated that we should consider the extensive evidence provided by the ERA that suggests that the average term of debt is closer to five years than seven years.⁴⁹⁰

PIAC's preference is for a five year term to match the regulatory period and, on the basis of Davis and Lally's recommendation to IPART, to achieve net present value neutrality of regulated cash flows under the building block model.⁴⁹¹

PIAC and the Ethnic Communities Council of NSW state that a five year term is also more practically advantageous, leading to more accurate and consistent estimation of yields via the Bloomberg FVCs.⁴⁹²

COSBOA and the Ethnic Communities Council of NSW stated that a five year term would also lessen the need for a transition.⁴⁹³

⁴⁸⁶ SPIAA also holds interests in ActewAGL, United Energy Distribution and other Australian gas pipelines.
⁴⁸⁷ Temasek Holdings (Private) Limited, 'Investor FAQs', <<http://www.temasek.com.sg/investorrelations/investorlibrary/investorfaqs>> accessed 3 December 2013.
⁴⁸⁸ Temasek Holdings (Private) Limited, 'About Temasek', <<http://www.temasek.com.sg/abouttemasek/faqs>> accessed 3 December 2013.
⁴⁸⁹ QTC, *Submission to the draft guideline*, October 2013, p. 10.
⁴⁹⁰ MEU, *Submission to the draft guideline*, October 2013, pp. 33-37; COSBOA, *Submission to the draft guideline*, October 2013, p. 5; ECC, *Submission to the draft guidelines*, October 2013, p. 2.
⁴⁹¹ PIAC, *Submission to the draft guideline*, October 2013, pp. 48-51.
⁴⁹² PIAC, *Submission to the draft guideline*, October 2013, p. 49.
⁴⁹³ ECC, *Submission to the draft guidelines*, October 2013, p. 2; COSBOA, *Submission to the draft guideline*, October 2013, p. 5; ECC, *Submission to the draft guidelines*, October 2013, p. 2; PIAC, *Submission to the draft guideline*, October 2013, p. 50.

We consider that the evidence of the term at issuance presented by the ERA is consistent with that found by us. However, the ERA has a different approach to us. It states that:⁴⁹⁴

The Authority considers that it is the average remaining term to maturity that determines the debt profile of a firm at a given time. That is, the yield required to service a firm's cost of debt is a function of the remaining term to maturity, and not the term to maturity at issuance. Investors will price bonds based on the coupons they are eligible to receive, the face value of the bond and the credit risk of the bond issuer. The prior history of the bond does not determine the current market value of a bond, and therefore does not determine the current market value of a firm's debt. Therefore, the term to maturity at issuance is irrelevant for the pricing of a firm's debt, and consequently irrelevant for determining the relevant term to maturity for estimating the risk-free rate of return.

Our preference is to use the opportunity cost of capital, rather than the new entrant cost of capital, for calculating the return on debt. This is for two reasons. Under this approach as the regulatory framework does not revalue the RAB to current market value, we do not consider that the new entrant cost is consistent with this regulatory framework. Also businesses incur a term premium on the issuance of new debt. This term premium may not be priced when the debt is sold on the secondary market. However, the business which initially issued the debt must pay the term premium for the life of the debt..

Under a trailing average approach we do not consider that the NPV neutrality objective is appropriate. We expect that a business will recover its return on debt on average over the term of the trailing average rather than over the regulatory period. An assumption of NPV neutrality over a five year regulatory period may, on average, be unlikely to equal the firms' debt financing costs.

Conclusion on the debt term

We consider that a business will, within the constraints of the market for corporate bonds, aim to match the length of the debt term to the asset life in order to minimise refinancing risk. We note, however, that this objective is subject to consideration of the increased cost of debt associated with a longer term. Businesses in their submissions indicated that the use of interest rate swaps will no longer be required under a trailing average approach. Current debt portfolio information indicates that firms are choosing weighted average debt terms of between 6.7 years to 16.3 years, but on average 8.7 years. We note that of the 11 businesses, 10 have an average term at issuance of less than ten years.

In moving to a trailing average approach we consider that we are committing to a debt term for the period nominated. To change the benchmark debt term in response to updated debt portfolio information would not be conducive to regulatory stability. In light of this, in order to ensure that the benchmark efficient entity is able to recover its efficient financing costs consistent with the allowed rate of return objective, we propose to use a 10 year debt term for the purposes of estimating the return on debt and for setting the period of the trailing average. It also means that a 10-year transition will apply.

We will, however, continue to monitor the average debt term at issuance of the regulated network service providers against the benchmark term. We will consider this information when we are assessing future transactions costs and any proposed adjustment of the return on equity.

⁴⁹⁴ ERA, *Explanatory Statement for the Draft Rate of Return Guidelines - Meeting the requirements of the National Gas Rules*, August 2013, p. 75.

Extrapolation—technical assessment

In the explanatory statement accompanying the draft guideline, we raised concerns over the ability to find a reliable extrapolation method for mechanistically calculating the 10-year DRP for annual updating purposes. The need for extrapolation has arisen due to the absence of a Bloomberg FVC BBB+ at the benchmark term of 10 years.

As discussed in the explanatory statement accompanying the draft guideline, in attempting to automate the AER's current paired bonds extrapolation method, we found difficulties in specifying binary requirements which enable choosing two bonds for a company, with a term approximating seven years and another approximating 10 years. We outlined that there is a trade-off between specifying the term requirements too tightly, such that a pair of bonds is not found, and specifying the term requirements too loosely, such that the yield curve differences for the two terms lead to unacceptable error in the DRP term differences. We also raised that it is difficult to specify factors which would lead to the exclusion of bonds on the basis of unusual trading activity (for example, such as if the company was subject to merger and acquisition activity).

In the explanatory statement accompanying the draft guideline, we considered two alternative extrapolation methods:

- The 7-year/5-year Bloomberg Australian BBB FVC spread.
- The 10-year/7-year Bloomberg US BBB FVC spread (post swapping back to Australian dollars).

In relation to the first method, PwC noted that the extrapolation method may be inaccurate during periods of increased market uncertainty.⁴⁹⁵ We also found that this method resulted in much larger error than other methods.⁴⁹⁶ We commented that this method would require an overall constraint to be specified in the automation process to address the likelihood of unacceptable error. We considered that it would be difficult to specify such a constraint.

With respect to the second alternative method, we considered that there are likely to be different risk exposures for a business operating in the US compared with one operating in Australia. We therefore considered that using the US Bloomberg curves to proxy for Australia would be likely to result in unacceptable estimation error.

A number of submissions commented that they did not consider that the limitations associated with extrapolation methods should influence the choice of debt term.⁴⁹⁷

The ENA, based on the advice of CEG, proposed two alternative extrapolation methods:⁴⁹⁸

- CGS spread plus a fixed DRP spread, calculated using the AER's current paired bond approach, to be set at the determination and carried over for five years
- CGS spread plus the specification of a formula for calculating the DRP spread. The ENA points to the use of QTC's proposed formula based on the historical relationship between the 10-year DRP

⁴⁹⁵ PwC, *Powerlink Methodology to estimate the debt risk premium: Report to Powerlink Queensland*, April 2011, p. 11.

⁴⁹⁶ AER, *Final decision – Public: Jemena Gas Networks, Access arrangement proposal for the NSW gas networks 2010-15*, June 2010, p. 188.

⁴⁹⁷ APIA, *Submission to the draft guideline*, October 2013, p.33; APA Group, *Submission on the draft guideline*, October 2013, p. 34.

⁴⁹⁸ ENA, *Response to the draft guideline*, October 2013, p. 62.

and the interest rate swap curve. The ENA stated that the formula 'need not be based on purely contemporaneous data during each annual averaging period'⁴⁹⁹.

Box 8.1 Discussion of QTC's proposed extrapolation method

QTC's proposed method of extrapolation involves:⁵⁰⁰

Establishing a simple linear relationship between 7- and 10-year BBB+ credit margins from the QTC quarterly credit margin survey⁵⁰¹. QTC estimated the relationship for data between March 2006 and June 2013 using linear regression. The relationship is specified as:

$$10 \text{ yr}/7 \text{ yr BBB}^+ \text{ SRP}^{502} \text{ term premium} = 0.0015 + 0.0778 \times 7 \text{ yr BBB}^+ \text{ SRP}^{503} \quad (1)$$

AFMA 7- and 10-year fixed swap mid rates (which are published daily) are used in the formula from the first step above in order to estimate the 10-year BBB+ yield.

$$10 \text{ yr BBB}^+ \text{ yield} = 10 \text{ yr swap rate} + 7 \text{ yr BBB}^+ \text{ SRP} + 10 \text{ yr}/7 \text{ yr BBB}^+ \text{ SRP term premium}$$
$$10 \text{ yr BBB}^+ \text{ yield} = 10 \text{ yr swap rate} + 7 \text{ yr BBB}^+ \text{ SRP} + (0.0015 + 0.0778 \times 7 \text{ yr BBB}^+ \text{ SRP}) \quad (2)$$

where:

10 yr swap rate = 10 yr AFMA fixed swap mid rate

7 yr BBB+ SRP = 7 yr Bloomberg BBB+ FVC debt yield - 7 yr AFMA fixed swap mid rate.

The AER has a number of concerns regarding this method:

We consider that the particular estimated relationship, specified in (1) above, may not always perform well. Importantly, we have no reality check for the QTC survey data, apart from a short period between March 2006 and September 2007 when the Bloomberg 10-year BBB FVC was available. During this short period the difference between the Bloomberg 10-year BBB FVC debt yield and the 10-year BBB debt yield estimated using QTC's method was relatively small. On average, the difference between the QTC method and the Bloomberg FVC between March 2006 and October 2007 was 1 basis point. The maximum difference was 22 basis points and the minimum difference was -11 basis points. However, we have reason to expect that this may not be the case recently. We consider there are likely to be two sources of differences. We note that over the same period the 10-year/7-year Bloomberg SRP ranged between -0.17 and 0.18 while the QTC 10-year/7-year SRP ranged between 0.16 and 0.24. In addition to significantly different levels, the shape of the curves were also quite different (see figure 8.8).

⁴⁹⁹ ENA, *Response to the draft guideline*, October 2013, p. 64.

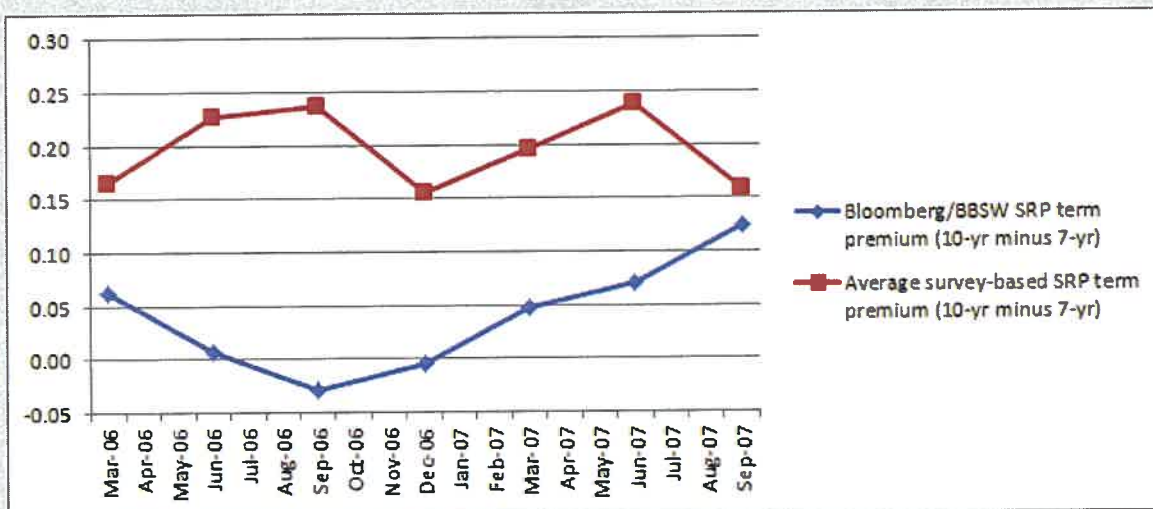
⁵⁰⁰ QTC, *Submission to the draft guideline*, Attachment A, October 2013, pp. 1-8.

⁵⁰¹ QTC undertakes a quarterly credit margin survey as part of the administration of the competitive neutrality fee on behalf of Queensland Treasury and Trade, to determine credit margins on corporate debt issuance for various tenors and credit ratings. The QTC quarterly survey requests data on indicative A\$ issue margins to swap for new debt issuance based on a minimum total annual borrowing program of A\$1 billion, with a credit rating of AAA to BBB-, for between a 3 month and 10 year tenor and excluding margins for facility, underwriting or Commonwealth guarantees. Six debt capital market specialists are surveyed.

⁵⁰² SRP is the swap risk premium. It is the margin between the annualised fixed corporate yield and the annualised fixed swap rate for the same term to maturity.

⁵⁰³ QTC advised of this update to the original specification of the relationship due to an error it found in its data transposition.

Figure 8.8 Comparison of Bloomberg and survey-based SRP term premium (10-yr minus 7-yr)

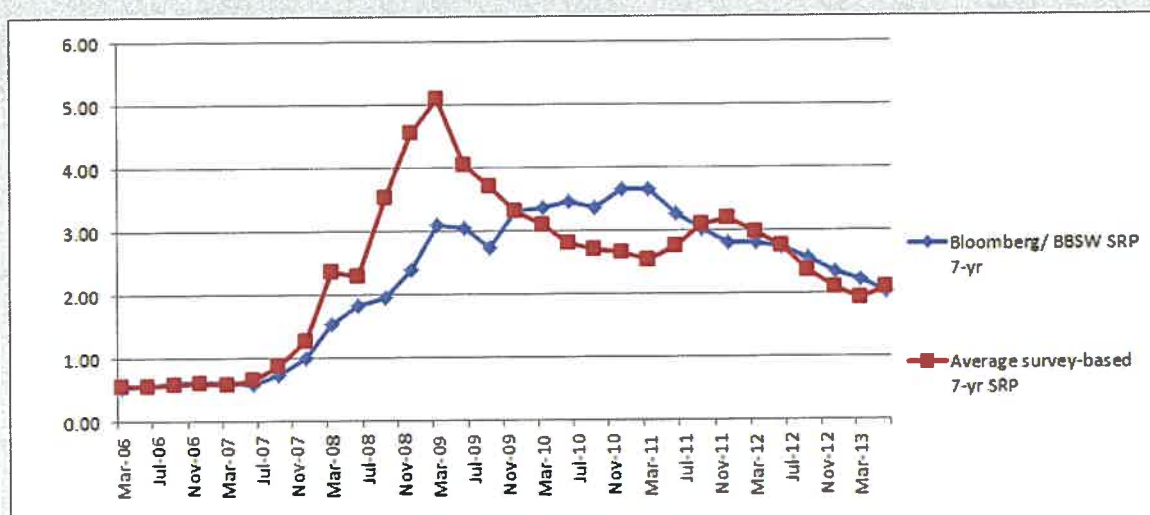


Source: QTC credit margin survey, Bloomberg, AER analysis.

Note: The Bloomberg/BBSW SRP term premium (10-yr/7-yr) is the difference between the 10-yr SRP (Bloomberg BBB+ 10-year FVC yield less the BBSW 10-year rate) and the 7-yr SRP (Bloomberg BBB+ 7-year FVC yield less the BBSW 7-year rate)

We also note that during the 2006-07 period the QTC 7-year SRP and Bloomberg 7-year SRP were closely aligned. However, it can be seen in Figure 8.9 that the 7-year QTC SRP and the 7-year BBB Bloomberg FVC/BBSW SRP have diverged frequently since July 2007. The difference between the 7-year QTC SRP and the 7-year BBB Bloomberg FVC/BBSW SRP was on average 17 basis points, between March quarter 2006 and June quarter 2013. The minimum and maximum were -219 and 113 basis points respectively (see Figure 8.9). We consider that these two sources of error margins are significant such that we do not propose to make an upfront commitment to using the QTC method in the guideline.

Figure 8.9 Comparison of Bloomberg and survey-based 7-yr SRP



Source: Bloomberg, QTC credit margin survey, AER analysis.

Note: The Bloomberg/BBSW SRP 7-yr premium is the Bloomberg BBB+ 7-year FVC yield less the BBSW 7-year rate. The QTC SRP 7-yr is the swap risk premium reported by debt market specialists, collected quarterly by QTC.

We consider that the use of two separate datasets may result in inconsistencies. QTC survey data is used to establish the coefficients describing the relationship between the 7- and 10-year credit margins (equation (1)) for inclusion in estimating the 10-year BBB+ debt yield (equation (2)). However, as the QTC data is only available on a quarterly basis, AFMA and Bloomberg data is used to estimate the daily 10-year BBB+ yield in the second step (equation (2)). The validity of using one data set to establish the coefficients and then another data set to populate the relationship is questionable. As the data sources are different there may be inconsistencies which lead to error.

The 7-year/10-year credit margin relationship is estimated over a historical period of seven years between March 2006 and June 2013 so is not a contemporary indication of the credit margin relationship, as would be expected for annual updating. The coefficients describing the relationship are sensitive to the time period chosen.

Approximately five years of quarterly data (18 observations) is required to achieve statistical significance at a 5 per cent significance level. At this time, in advance of a determination, it is unclear whether the five years of data is representative of the conditions prevailing at the time of the annual updating of the debt yield estimate. For example, if there were to be a reversal in interest rate trends shortly before a determination, it would be unlikely to be reflected in a linear relationship estimated over 5 years. The ENA noted that the actual difference in any given period could be much greater than the long run average estimate.⁵⁰⁴ We consider the reverse may also be true—that the actual difference in any given period could be much less than the long run average estimate.

For the reasons discussed in Box 8.1 we do not consider that it is advisable to commit to the method proposed by QTC in advance of considering the specific circumstances of a determination.

AFMA also proposed a method of extrapolation which involved:⁵⁰⁵

- Using the AFMA 10-year swap rate, which AFMA states would account for a significant component of the debt risk premium, and adding a margin for the BBB versus swap component at a 10-year tenor
- AFMA suggests that the margin may be calculated as the difference between the 7-year BBB Bloomberg FVC yield and the 7-year AFMA swap rate plus an additional adjustment for the 7 to 10-year BBB Bloomberg FVC yield.

The AER consider that the difficulty with this method is arriving at a consensus on estimating the additional adjustment for the 7- to 10-year BBB Bloomberg FVC yield.

Materiality of 10-year/7-year yield spread

In the explanatory statement accompanying the draft guideline, we noted that actual Bloomberg 10-year and 7-year BBB FVC yield data was only available up to October 2007. We calculated a yield spread of 21 basis points over the period for which both the 10-year and 7-year Bloomberg BBB FVC were available. However, a number of submissions stated that they considered the 10-year/7-year yield spread to be material.⁵⁰⁶

⁵⁰⁴ ENA, *Response to the draft guideline*, October 2013, p. 59.

⁵⁰⁵ AFMA, *Submission to the draft guideline – Benchmark term of debt*, October 2013, p. 3.

⁵⁰⁶ ENA, *Response to the draft guideline*, October 2013, p. 58; SP AusNet, *Submission on the draft guideline*, October 2013, pp. 2-3; Transgrid, *Submission to the draft guideline*, October 2013, p. 4; Energex, *Submission to the draft guideline*, October 2013, p. 2.

QTC analysed the AER's decisions from 2012 to date, which were calculated using the paired bond approach. It found an average 10-year/7-year term premium of 64 basis points.⁵⁰⁷ APIA submitted that recent ANZ evidence on the 10-year/7-year spread on A- to A+ bonds is on average 30 basis points. It states that this creates a WACC difference of 18 basis points.⁵⁰⁸ AFMA stated that the spread between the 10-year and 7-year swap rate for the last ten years has ranged between -23 and 40 basis points. It stated that the current spread is approximately 35 basis points. It indicated that the swap difference is only a proxy for the BBB curve spread, which is likely to be wider, as lower credits tend to have steeper curves. It stated that this indicates that the term premium is likely to be quite material at times.⁵⁰⁹

Conclusion on extrapolation

We note that there is no Bloomberg data beyond October 2007 against which the accuracy of an extrapolation method is able to be assessed. After this date, extrapolation methods are being compared against each other with no "truth" comparison available. It is not clear which method should be held up as the base "best performer", against which other methods should be compared.

We consider that the 10-year/7-year risk free component of debt yield is able to be robustly estimated due to the current existence and expected future existence of 10-year and 7-year CGS data. As such, whether we estimate an extrapolation of the total debt yield or separately estimate the risk free rate and DRP components (if extrapolation is required), we consider that the risk free component should be applied at the annual update.

On balance, we consider that where the 10-year/7-year BBB+ DRP component of debt yield is able to be robustly estimated in a mechanistic way that it should be applied. We consider that there are a number of alternative methods and no method addresses the issue of containing unexpected errors. For the purposes of the guideline, we do not consider that we are able to specify a method which will satisfy this requirement at the time of each determination. We therefore intend to consider the method of extrapolation (if required) for annual updating of the return on debt at a service provider's determination.

At the time of each service provider's determination we will be better placed to consider the contemporaneous performance of QTC-type specifications for extrapolation. If there continues to be a concern regarding exposure to material error in extrapolating the DRP, we will consider setting bounds on the DRP estimate, consistent with DRP estimates observed close to the time of each determination.

8.3.4 Credit ratings

The credit rating is an input into deriving the benchmark return on debt. As with all other WACC parameters, the credit rating level of a benchmark efficient entity is not directly observable and must be estimated. We propose to use a benchmark credit rating of BBB+ or its equivalent to estimate the return on debt. Our position is based on:

- a single credit rating of BBB+ is consistent with the definition of the benchmark efficient entity
- the view that credit ratings should be relatively steady for businesses considered to be close comparators to the benchmark efficient entity over time

⁵⁰⁷ QTC, *Submission to the draft guideline*, October 2013, p. 14.

⁵⁰⁸ APIA, *Submission to the draft guideline*, October 2013, p. 34.

⁵⁰⁹ AFMA, *Submission to the draft guideline – Benchmark term of debt*, October 2013, pp. 3-4.

- empirical evidence of credit ratings from businesses considered to be the closest comparators to the benchmark efficient entity
- a credit rating of BBB+ is consistent with the previously adopted value.

Overall, we have informed our view by examining empirical evidence based on expanded samples which include the full sample of regulated networks and the historical rating data series. Further, we consider that as discussed in the 2009 WACC review, in considering empirical evidence, there is a trade-off in determining the length of the estimation period. In particular, older data might be considered less reflective of current risk assessments (which would suggest a shorter period) but recent data may not provide reliable (which would suggest using a longer period). On balance, we consider it reasonable to use an estimation period of at least five years consistent with our approach to estimating the equity beta. Accordingly, this analysis supports the adoption of BBB+ or its equivalent for the benchmark efficient entity.

Our reasoning is detailed below.

The definition of the benchmark efficient entity

The rate of return objective requires that the benchmark efficient entity must have a similar degree of risk as that which applies to the service provider.⁵¹⁰ We consider that the relevant risks between gas and electricity and transmission and distribution businesses are sufficiently similar (refer to chapter three). As such we consider that there should be a single benchmark efficient entity. For this guideline, we have adopted the definition of the benchmark efficient entity, which is a pure play, regulated energy network business operating within Australia (see chapter three).

Implicit in the adoption of 'energy network business' in the proposed definition of the benchmark efficient entity is that there is a single benchmark for electricity and gas, and transmission and distribution networks. Adopting a single credit rating is consistent with a single benchmark.

APA submitted that there is no basis for the use of a single credit rating, given that there is no basis for the single 'benchmark'.⁵¹¹ We disagree with this view. We consider that the risks between gas and electricity and transmission and distribution businesses are sufficiently similar, as discussed in chapter three and the equity beta section in chapter six. Accordingly, we maintain a single credit rating is appropriate for a single 'benchmark'.

Median credit ratings

For the draft guideline, we derived a median credit rating from the full sample of regulated energy networks operating within Australia over the period 2002–2013.⁵¹² The full sample comparators are listed below:⁵¹³

- APT Pipelines Ltd
- ATCO Gas Australian LP
- DBNGP Trust

⁵¹⁰ NER, cl. 6.5.2(c). It similarly applies for the Transmission Network Service Providers, see NER, cl. 6A.6.2(c).

⁵¹¹ APA Group, *Submission on the draft guideline*, October 2013, pp. 35–37.

⁵¹² AER, *Explanatory statement: Draft rate of return guideline*, August 2013, pp. 111–112.

⁵¹³ This set of firms was drawn from Standard and Poor's industry report cards (November 2012, table 2), with the exclusion of a firm that is government owned (Ergon Energy Corp Ltd).

- DUET Group
- ElectraNet Pty Ltd
- Energy Partnership (Gas) Pty Ltd
- Envestra Ltd
- ETSA Utilities
- Powercor Australia LLC
- SP AusNet Group
- SPI (Australia) Assets Pty Ltd
- The CitiPower Trust
- United Energy Distribution Pty Ltd

This evidence supports a BBB+ credit rating. This analysis covered both electricity and gas networks, which is consistent with our position to have a single benchmark, given that the regulated energy networks are considered to have a similar degree of risk.

ENA and service providers recommended a BBB credit rating based on recent market evidence.⁵¹⁴ Envestra submitted that credit ratings are forward looking and the analysis on historical credit rating medians between 2002 and 2012 is irrelevant. Envestra stated that the main reason for this is that until 2009 the AER adopted an equity beta value of one, which provides higher equity returns and a larger cash flow buffer from which to service interest payment obligations (that is, the service provider has a stronger financial risk profile).⁵¹⁵ ENA also considered that there is no basis to have regard to credit ratings prior to 2008–2009.⁵¹⁶

ENA also stated that there is a need to.⁵¹⁷

.....consider the interrelationships between the financial risk profile and the credit rating, and ensure the combination of allowed RoD, RoE, RoR, expenditures and related revenue building blocks in the PTRM result in FFO-to-Interest and FFO-to-Debt that are commensurate with the benchmark credit rating.

Based on the credit matrix analysis submitted by Kanagra, recent AER's regulatory decisions have resulted in rating on the lower limit of BBB and this is below the BBB+ benchmark proposed in the draft guideline.

As we discussed in the 2009 WACC review, in the context of using empirical evidence to estimate the equity beta in determining the length of the estimation period, there is a trade-off. On one hand, older data might be considered less reflective of current risk assessments (which would suggest a shorter period). On the other hand, in order to obtain a robust and statistically reliable equity beta estimate we need to have sufficient number of observations (which would suggest a longer period). The sample of Australian businesses that can be considered close comparators to the benchmark efficient entity is limited. Therefore, one option to increase the number of observations is to consider the longest available time period. On balance, we consider it reasonable to use an estimation period of at least five years consistent with our approach to estimating the equity beta.

⁵¹⁴ ENA, *Response to the draft guideline*, October 2013, pp. 73–75.

⁵¹⁵ Envestra, *Response to the draft guideline*, October 2013, p. 7.

⁵¹⁶ ENA, *Response to the draft guideline*, October 2013, pp. 73–75.

⁵¹⁷ ENA, *Response to the draft guideline*, October 2013, pp. 73–75.

Further, we disagree with the view that the most recent information at one point in time on credit ratings should inform the benchmark credit rating on the basis that:

- Credit ratings are relatively steady for regulated service providers over a longer period of time.
- We are unaware of evidence that supports the view that the overall financial risk profile for regulated service providers has changed since 2009 WACC review.

It is not clear that overall the financial risk profiles for service providers have changed due to the new equity beta value since last WACC review. We note while we lowered equity beta from 1.0 (and 0.9) to 0.8 since the 2009 WACC review, both MRP and gamma increased (even though gamma is not part of return of equity).⁵¹⁸ We are unaware of any specific financial performance thresholds which suggest that lower (higher) credit matrix outcomes will automatically result in a lower (higher) credit rating. Further, the equity beta only applies to the return on equity component of the building block revenue allowance. This means even where a service provider incurs a relatively reduced revenue requirement on this revenue component, they will still receive revenues from all other components of the building blocks, which may also change.

We are unaware of any evidence suggesting that service providers' financial risk profiles have changed since the last WACC review. On the contrary, in advising us on issues related to different risks across asset pricing models and the WACC, McKenzie and Partington found the credit rating has been steady for regulated utilities in Australia. They concluded that the credit risk for regulated utilities is likely to be relatively small under normal market conditions. This is because the default risk is small and the risk of credit migrations for utilities is low and stable.⁵¹⁹

The rating agency Moody's concurred with this view. In its recent industry outlook analysis, Moody's stated that the credit profile for Australia's regulated utilities sector continues to be underpinned by a regulatory framework that is mature and supportive in general, noting that.⁵²⁰

We believe that the Australian regulatory regime remains fundamentally supportive under the new rules. This is partly because one of its long-standing objectives - that is, to incentivize investments in the network assets - remains in place.

In spite of changes made to the WACC setting process, other credit supportive features of the Australian regulatory regime are still in place. These include the regulator's independence, timely recognition of capital investments through the 'building block' and the Regulated Asset Base (RAB) approach, as well as the fixed tariff path for the five-year regulatory period. These features continue to underpin a generally supportive - albeit weakened - regulatory environment in Australia. Background information on the building block approach is provided in Appendix 1.

Furthermore, the regulators' track record and the institutional strength of the Australian regulatory environment - developed over the past 10 years - provides some reassurance that the likelihood of an abrupt change owing to the increased regulatory discretion is not high.

Finally, the sector's monopoly position insulates it from the direct impact of competition. The essential nature of its energy transportation business supports the long-term demand for its services. These characteristics further enhance the sector's strong business risk profile and provide a backstop against detrimental changes in regulation, which could stifle the required investment in these networks.

⁵¹⁸ Gamma changed from 0.65 to 0.25 in the 2011 Victorian electricity appeal and has remained 0.25 since. We changed the MRP in the 2009 WACC review from 6.0 per cent to 6.5 per cent for all distribution determinations, until the gas distribution determination in 2011, when MRP went back down to 6.0 per cent. For transmission network service providers, MRP has remained 6.5 per cent for all determinations since the 2009 WACC review.

⁵¹⁹ M. McKenzie, and G. Partington, *Risk, asset pricing models and WACC*, June 2013, p. 15.

⁵²⁰ Moody's, *Industry outlook: Australian Regulated Utility Networks*, 21 February 2013, p. 8.

Further, Standard and Poor's consider that the regulatory framework itself is the most critical aspect that underlies regulated utilities' creditworthiness.⁵²¹ Standard and Poor's also acknowledge that the stable cash flows of regulated network utilities mean that less weight is given to their more aggressive metrics.⁵²² While a rating agency's exact method is proprietary, it seems likely that a holistic assessment is undertaken when determining credit ratings. We also consider that the assessment of credit ratings is inherently subjective, and the outcomes highly sensitive to various assumptions. As a result, a 'financeability' assessment—whether by rating agencies or by a regulator—necessarily involves judgement.

Empirical evidence

To inform our view on the benchmark credit rating we have had regard to empirical evidence. We consider that the empirical evidence supports a BBB+ credit rating or its equivalent.

Table 8.3 Median credit rating of Australian regulated energy networks (2002–2013)

Measure	Energy Networks
Median credit rating (2002–2012)	BBB+
Median credit rating (2002–2013)	BBB+, Negative watch
Median credit rating (November 2013)	BBB

Source: AER analysis.

For the 2002–2012 period, our analysis indicates a median rating of BBB+. However, we observe that the credit rating outcomes can be sensitive to the time period used for estimation purposes (for example, inclusion of 2013 data changes the median credit rating to BBB+ with a negative watch, while the median credit rating for 2013 only is BBB). We also note that there have been some recent credit downgrades. Notwithstanding, our view is that credit ratings are relatively steady for regulated energy businesses over a period of time. Therefore, we consider a historical credit rating analysis produces a more reliable result.

In the draft guideline, we also replicated Kanangra's full sample analysis using a median credit rating approach rather than using its average approach.⁵²³ As indicated in table 8.4, our analysis using Kanangra's sample of businesses and credit ratings gives a median Standard and Poor's credit rating of BBB+ with a positive outlook when 2013 data is included. Further, exclusion of 2013 data changes the median credit rating to A-.

⁵²¹ Standard and Poor's, *Key credit factors: Business and financial risks in the investor-owned utilities industry*, November 2008, p. 8.

⁵²² Standard and Poor's, *Key credit factors: Business and financial risks in the investor-owned utilities industry*, November 2008, p. 17.

⁵²³ AER, *Final decision: WACC review*, May 2009, p. 267. During the last WACC review, we considered that examining median credit ratings of sample businesses was the most appropriate approach to determining a benchmark efficient credit rating.

Table 8.4 Median credit rating of Australian regulated energy networks (2008–2013)

Measure	Energy Networks
Median credit rating (2008–2013)	BBB+, Pos
Median credit rating (2002–2012)	A-

Source: This set of firms and ratings was drawn from Kanangra's report, ENA, *Response to the AER's rate of return guidelines consultation paper, Attachment 16: Credit Ratings for Regulated Energy Network Services, table 15*, KANANGRA, June 2013, p. 25.

Note: NB: "Pos" = positive outlook.

9 Imputation credits

In this chapter, we outline our proposed position on the value of imputation credits in building block revenue determinations and their relationship to the rate of return. We set out our proposed conceptual approach for estimating the value of imputation credits (γ)—determined as the imputation credit payout ratio multiplied by the utilisation rate. We also apply that approach to estimate a value of imputation credits.

9.1 Issue

Under the Australian imputation tax system, investors receive an imputation credit for income tax paid at the company level.⁵²⁴ For eligible investors, this credit offsets their Australian income tax liabilities. If the value of imputation credits exceeds an investor's tax liability, that investor can receive a cash refund for the balance. The credits are therefore a benefit to investors in addition to any cash dividend or capital gains from owning shares.

The value of imputation credits affects the estimation of building block revenue allowances. However, the manner in which imputation credits are accounted for depends on whether cash flows are pre-tax or post-tax. We use a post-tax framework with a rate of return that is after company tax but before personal tax. Under a pre-tax WACC framework, the value of imputation credits is a WACC parameter. In contrast, under a post-tax WACC framework, the value of imputation credits is not a WACC parameter.⁵²⁵ Instead, it is a direct input into the calculation of tax liability for the company, via the corporate tax component of the building block model. This approach is consistent with standard Australian regulatory practice and is the approach prescribed in the rules.⁵²⁶

9.2 Approach

We propose that the value of imputation credits within the building block revenue framework is an estimate of the expected proportion of company tax which is returned to investors through utilisation of imputation credits. This is consistent with the Officer framework, which models the value of imputation credits via the parameter γ (usually labelled using the Greek letter, γ):⁵²⁷

γ [γ] is the proportion of tax collected from the company which gives rise to the tax credit associated with a franked dividend.

Further, and consistent with the Monkhouse formula, we propose to estimate γ as the product of two parameters:⁵²⁸

- The payout ratio, which is the proportion of imputation credits generated by the benchmark efficient entity that are distributed to investors.⁵²⁹ In estimating the payout ratio, our proposed approach primarily considers tax statistics (on franking account balances).

⁵²⁴ See *Income Tax Assessment Act 1997*, parts 3–6.

⁵²⁵ However, in estimating the MRP, the AER 'grosses up' the measurement of observed excess returns (from capital gains and dividends) to consistently value the imputation credits distributed with those dividends. This is to be consistent with a framework that is after company tax but before personal tax.

⁵²⁶ NER, cl. 6.5.3, NER, cl. 6A.6.4 and NGR r.87A.

⁵²⁷ R. Officer, 'The cost of capital of a company under an imputation tax system', *Accounting and finance*, May 1994, vol. 34(1), p. 4.

⁵²⁸ See P. Monkhouse, 'The Valuation of Projects Under the Dividend Imputation Tax System', *Accounting and finance*, 1996, vol. 36(2), pp. 185–212.

⁵²⁹ The imputation credit payout ratio is distinct from the dividend payout ratio, which is the proportion of available firm free cash flow distributed to equity holders via dividends. This choice of terminology is consistent with the draft guideline and

- The utilisation rate, which is the extent to which investors can use the imputation credits they receive to reduce their personal tax.⁵³⁰ In estimating the utilisation rate, our approach considers implied market value studies, including both dividend drop off studies and alternative market value studies. Our approach also considers equity ownership, tax statistics, conceptual analysis and other supporting information.

We propose that gamma be set with regard to a benchmark efficient entity informed by market wide behaviour rather than with regard to industry or firm specific values.

Applying this approach, we propose to adopt 0.5 as the value of imputation credits. This is the product of:

- A payout ratio of 0.7. This is NERA's estimate for the payout ratio, based on taxation statistics.⁵³¹
- A utilisation rate of 0.7. We have chosen this value with regard to the alternative estimation approaches presently before us, and their relative strengths and weaknesses. In particular, we have higher regard to those approaches that:
 - Accord with our interpretation of the nature of the utilisation rate parameter in the conceptual framework provided by Officer and Monkhouse (while acknowledging that interpretation of this framework is a matter of debate)
 - Are simpler and more transparent
 - Produce reasonable estimates in light of empirical realities and conceptual considerations. These are namely that, most investors are eligible to redeem imputation credits and that investors in the possession of imputation credits have the incentive to redeem them.

The estimation approaches we considered were:

- The equity ownership approach, which suggests a utilisation rate of 0.7 to 0.8. We have significant regard to this approach. This is primarily because we consider that it is consistent with our interpretation of the conceptual framework provided by Officer and Monkhouse. This approach is also simple, intuitive and uses a relatively transparent source of data.
- Tax statistics studies, which suggest a utilisation rate of 0.4 to 0.8. We have regard to this approach. This is mainly because we consider it is consistent with our interpretation of the conceptual framework provided by Officer and Monkhouse. However, we acknowledge that the authors of some of these studies report problems with data quality and consistency.
- Implied market value studies, which suggest a utilisation rate of 0 to 0.5. We have somewhat less regard to this approach. This is mainly because we consider it is not consistent with our interpretation of the conceptual framework provided by Officer and Monkhouse. It also employs complex and sometimes problematic estimation methodologies.
- The conceptual goalposts approach, which suggest a utilisation rate of 0.8 to 1.0. This is not an empirical estimation approach like the three above. Rather, this approach suggests there are

most submissions on this issue. It is sometimes called the distribution rate or the access fraction, and in equations is sometimes referred to using the symbol F .

⁵³⁰ More formally, as set out below, the utilisation rate is the complex weighted average (by value and risk aversion) of individual investors' utilisation rates. In turn, these reflect each investor's expected ability to use imputation credits to reduce their tax (or get a refund).

⁵³¹ NERA, *The payout ratio: A report for the Energy Networks Association*, June 2013.

conceptual boundaries for estimates of the utilisation rate. That is, the utilisation rate should produce a return on equity that lies between the return on equity under complete market segmentation and the return on equity under complete market integration.⁵³² Estimates of the utilisation rate in the range 0.8 to 1.0 meet this test.⁵³³

- Other supporting evidence, including observations about market practice, government tax policy, and imputation equity funds.

On balance, we consider that an estimate for the utilisation rate of 0.7 reasonably reflects the estimates produced by the alternative approaches presently before us. This is with due regard to the strengths and weaknesses of each approach. The equity ownership approach, to which we have most regard, suggests a utilisation rate of 0.7 to 0.8. Taxation studies, to which we have regard, suggest estimates of 0.4 to 0.8. These give us some cause to consider that a reasonable estimate lies closer to 0.7 than 0.8. We have less regard to implied market value studies and the conceptual goalposts approach. However, the former suggests the utilisation rate might be lower than 0.7, and the latter suggests it might be higher than 0.7. In view of the limitations of these final two approaches, and the offsetting directional implications, we consider our estimate is reasonable.

9.3 Reasons for approach

We consider that our approach is reasonable because it:

- is consistent with our interpretation of the conceptual framework for the value of imputation credits provided by Officer and Monkhouse
- is consistent with the role of imputation credits in the regulatory framework, as this framework reflects the Officer framework
- estimates parameters on a market-wide basis, and this is supported by stakeholders and an expert review from Lally
- estimates the payout ratio in a manner that is simple and intuitive, uses long-term, published data, and is supported by stakeholders and an expert review from Lally
- estimates the utilisation rate in manner that recognises the strengths and weaknesses of the existing body of utilisation rate estimates.

9.3.1 The conceptual framework for the value of imputation credits

We have re-evaluated the conceptual task of estimating the value of imputation credits. In this section, we discuss the results of this analysis.

Imputation credits are an additional return to investors, beyond the capital gains and dividends they receive from owning shares. Under the rules, the value of imputation credits is applied as a reduction to the estimated cost of corporate income tax.⁵³⁴ This is because some of the tax that the company pays generates imputation credits. Where investors receive and redeem these imputation credits, the

⁵³² Under complete segmentation, there are no foreign investors in domestic equity and no domestic investors in foreign equity. Under complete integration, domestic and foreign equity markets (and investors) are completely integrated.

⁵³³ M. Lally, *The estimation of gamma*, 23 November 2013, pp. 46–47 (Lally, *The estimation of gamma*, November 2013).

⁵³⁴ NGR, r. 87A; NER, cl. 6.5.3 and NER, cl. 6A.6.4.

government reduces their tax liability or pays them a cash refund to the face value of the credit.⁵³⁵ Further, to operate consistently with the rate of return, the value of imputation credits should fit within the Officer and Monkhouse frameworks in the presence of imputation credits.⁵³⁶

Those frameworks require that:

- The value of imputation credits is investors' expected reduction of effective company tax paid because of imputation credits. Specifically, this is the reduction of company tax measured before personal tax.
- The value of imputation credits is calculated as a weighted average across investors in the defined market.⁵³⁷ Specifically, investors are weighted by their value of shares owned and their risk aversion.⁵³⁸ Consequently, the commonly referred to concept of the market price being set by the 'marginal investor' is not particularly meaningful or helpful in this context. Rather, all investors collectively set the market price, to the extent they participate in the defined market. Consistent with the 2009 WACC review, we propose that the defined market is an Australian domestic market that recognises the presence of foreign investors to the extent they invest in the Australian market.⁵³⁹ This definition reflects the realities of capital markets. It also sits between the purely theoretical definitions of a 'fully segregated' and a 'fully integrated' market. This definition has critical implications for the value of imputation credits.
- The CAPM assumes investors value the equity returns over the full CAPM period, with no trading during that period.⁵⁴⁰ In reality, trading is ongoing. However, where the model's inputs draw on trading data, it is important that this data has arisen throughout the trading year. This ensures that the data is not especially sensitive to any specific trading circumstances at particular times.

To varying extents, these framework requirements relating to the conceptual task have been discussed in past regulatory analysis.⁵⁴¹ However, we consider the implications of these requirements have not been fully considered and used in previous analysis to inform the selection of estimation methods.⁵⁴²

From this re-evaluation, we have determined that the regulatory debate on the value of imputation credits did not fully address this conceptual task. Instead, the previous regulatory debate has included an economic and econometric debate over certain arcane details. The debate has also solely relied on a particular class of evidence that has a number of significant limitations.⁵⁴³ We consider this outcome is not in the long-term interests of energy consumers. We consider a wider appraisal of the available evidence is better regulatory practice.

⁵³⁵ This is correct under the AER's consistent position of estimating parameters after company tax but before personal tax. If we considered parameters after personal tax, we would have to use a different CAPM, and the value of an imputation credit would depend on an investor's marginal tax rate.

⁵³⁶ See R. Officer, 'The cost of capital of a company under an imputation tax system', *Accounting and finance*, May 1994, vol. 34(1), pp. 1–17; P. Monkhouse, 'The cost of equity under the Australian dividend imputation system', *Accounting and finance*, November 1993, vol. 33(2), pp. 1–18.

⁵³⁷ See, for example: P. Monkhouse, 'The cost of equity under the Australian dividend imputation system', *Accounting and finance*, November 1993, vol. 33(2), pp. 1–18; M. Lally and T. van Zijl, 'Capital gains tax and the capital asset pricing model', *Accounting and finance*, July 2003, vol. 43(2), pp. 187–210.

⁵³⁸ See M. Lally and T. van Zijl, 'Capital gains tax and the capital asset pricing model', *Accounting and finance*, July 2003, vol. 43(2), p. 192.

⁵³⁹ AER, *Final decision: WACC review, May 2009*, pp. 97–101.

⁵⁴⁰ See for example: J. Lintner, 'The valuation of risk assets and the selection of risky investments in stock portfolios and capital budgets', *The review of economics and statistics*, February 1965, vol. 47(1), p. 15.

⁵⁴¹ For example: Handley, *Further comments on imputation credits: A report prepared for the AER*, April 2009, p. 12.

⁵⁴² This includes the analysis in the 2009 WACC review (including the material submitted by stakeholders) and in the regulatory decisions that were the subject of Tribunal appeal in 2010 and 2011.

⁵⁴³ See 'Implied market value estimates' in section 9.3.5.

Much of the regulatory debate from the 2009 WACC review and the Tribunal review focused on evaluating detailed technical issues around specific studies or pieces of evidence. It would have assisted us and the Tribunal to have taken a step back from the detail and to have started from a better conceptual understanding of imputation credits within the building block revenue model. The Tribunal stated:⁵⁴⁴

The Tribunal has found some deficiencies in its understanding of the foundations of the task facing it, and the AER, in determining the appropriate value of gamma. These issues have not been explored so far because they have not arisen between the parties, who appear to be in agreement about how the Rules should be interpreted regarding the treatment of corporate income tax. They may be matters that the Tribunal will take up in its further decision in these matters; or they may best be left until the next WACC review. Indeed, they may go to the basis for the Rules themselves.

In responding to the Tribunal's comments, we have now considered the questions raised in McKenzie and Partington's March 2011 report.⁵⁴⁵ We have also extended them by revisiting the foundational theory of the value of imputation credits. Having done so, we have reached views on these issues that were not before the Tribunal at the time of its review.

Further, we consider that in the 2009 WACC review and subsequent decisions, we adopted too narrow a scope of evidence to estimate the utilisation rate. Specifically, our analysis was limited only to tax statistic estimates and dividend drop off studies. Accordingly, in this guideline, we have endeavoured to draw on a broader range of evidence with regard to its strengths and weaknesses. Much of this evidence was also not before the Tribunal at the time of its review.

9.3.2 The role of imputation credits in the regulatory framework

Under the rules, we are required to use a building block framework to estimate revenue for service providers. The building block framework sets out how to estimate the various revenue streams that make up a total revenue allowance.⁵⁴⁶ The function of this building block revenue estimate is to determine the allowed revenue that a service provider requires to:

- Fund its operating expenses.
- Achieve adequate returns to raise debt and equity in order to finance its capital investments. This is made up of a rate of return on capital, to compensate investors for the risks of investment. It also includes a return of capital (depreciation), which gradually returns the initial principal of the investment, and subsequent investments, back to investors.
- Pay its tax liability.
- Reflect any incentive increments or decrements in the design of the regulatory regime.

It is important that under the building block framework, investors own the service provider's benefits from its operating profits, and/or capital gains. As an example, holding all else constant, if a service provider paid tax but was not compensated for its taxation expense, this shortfall would reduce the pool of funds available for reinvestment or for distributing dividends to investors. Therefore, all building block revenue allowances ultimately affect the total return to investors. In this way, increasing or decreasing a building block revenue component will increase or decrease the return to investors, all else being equal.

⁵⁴⁴ Australian Competition Tribunal, *Application by Energex Limited (No 2) [2010] ACompT* October 2010, paras 149, 150.

⁵⁴⁵ M. McKenzie and G. Partington, *Report to the AER: Response to questions related to the estimation and theory of theta*, 7 March 2011.

⁵⁴⁶ NER, cl. 6.4.3; NER, cl. 6A.5.4; NGR, r. 76.

One important expense that a company faces is taxation. An allowance for taxation can be estimated as a separate building block allowance, or through the rate of return. Either way, the service provider and, ultimately investors are compensated for the company's tax liability. The difference is only how this return is presented. The rules specify that the AER must estimate a nominal vanilla rate of return.⁵⁴⁷ Amongst other things, this means the return on capital does not include an allowance for the cost of taxation.⁵⁴⁸ As a result, the building block framework includes an estimate of the cost of corporate income tax as a separate revenue item. The construction of the rule governing the cost of corporate income tax is consistent with the treatment of imputation credits in the Officer framework.⁵⁴⁹

The cost of company tax rule

The electricity distribution rule governing the cost of company tax includes this adjustment.⁵⁵⁰

The estimated cost of corporate income tax of a Distribution Network Service Provider for each regulatory year (ETC_t) must be calculated in accordance with the following formula:

$$ETC_t = (ETI_t \times r_t) (1 - \gamma)$$

Where:

ETI_t is an estimate of the taxable income for that regulatory year that would be earned by a benchmark efficient entity as a result of the provision of standard control services if such an entity, rather than the Distribution Network Service Provider, operated the business of the Distribution Network Service Provider, such estimate being determined in accordance with the post-tax revenue model.

r_t is the expected statutory income tax rate for that regulatory year as determined by the AER; and

γ is the value of imputation credits

The electricity transmission rules and gas rules contain equivalent provisions.⁵⁵¹

This formula can be broken down into two components which explain the intuition of the rule:

- (ETI_t × r_t) is an estimate of the benchmark efficient entity's tax payments to the government.
- (1 – γ) is an adjustment to reduce the tax allowance for the value (γ) of tax payments which are then transferred from the government to investors via imputation credits.

This rule, and the Officer framework, suggests that the value of imputation credits is an estimate of the expected proportion of company tax which is returned to investors through imputation credits.

9.3.3 Selection of market-wide, industry-wide or firm-specific basis of estimation

A key question is whether to estimate gamma on a market-wide, industry-wide or firm-specific basis. Consistent with the draft explanatory statement and the 2009 WACC review, we propose to estimate gamma (and its components) as a market-wide parameter.⁵⁵²

We propose to continue estimating gamma as a market-wide parameter. This is because:

⁵⁴⁷ NGR, r. 87; NER, cls. 6.5.2, 6A.6.2.

⁵⁴⁸ However, the calculation of historical excess returns on stocks (used in estimation of the MRP) requires that returns be 'grossed up' for the assumed value of imputation credits. This is because share prices used to estimate these returns are post-personal tax. That is, investors trading in these shares have already incorporated their personal tax circumstances into bid prices. This is to be consistent with a framework that is after company tax but before personal tax.

⁵⁴⁹ See appendix H.

⁵⁵⁰ NER, cl. 6.5.3

⁵⁵¹ NGR, r. 87A and NER, cl. 6A.6.4.

⁵⁵² AER, *Final decision: WACC review*, May 2009, p. 421.

- Estimating the utilisation rate on a market-wide basis is consistent with our interpretation of the nature of this parameter in the Officer framework. In his report, Lally explains why, conceptually, the utilisation rate is a market-wide parameter under the Officer framework.⁵⁵³
- We prefer to estimate the payout ratio on a market-wide basis given the likely problems presented by estimating it on either a firm-specific or industry-wide basis. Lally's recent report supports this position.⁵⁵⁴
- Stakeholders supported estimating gamma as a market-wide parameter.⁵⁵⁵

Lally demonstrates that, in the Officer framework, the utilisation rate is a market-level parameter while the distribution rate (that is, the payout ratio) is a firm-specific parameter.⁵⁵⁶ Therefore, the utilisation rate should be estimated on a market-wide basis. For the payout ratio, however, Lally suggests that firm-specific estimation would present the following problem:⁵⁵⁷

However firm-specific estimates of the distribution rate are subject to the difficulty that, if the firm's dividends are fully franked, then the firm will be able to manipulate (raise) its price or revenue cap by reducing its dividends (so as to reduce its distributed credits, which lowers its distribution rate and therefore raises its cost of capital estimated from the Officer model used by regulators).

Lally suggests that the alternatives, industry-wide or market-wide estimation, represent a trade-off between statistical reliability versus potential bias.⁵⁵⁸ On current evidence, and from a pragmatic perspective, Lally favours market-wide estimation.⁵⁵⁹

In the consultation paper, we sought submissions on whether we should continue to estimate gamma as a market wide parameter. The ENA supported this position.⁵⁶⁰ There were also no further substantive comments from stakeholders on this question in submissions to the draft guideline.⁵⁶¹

9.3.4 The payout ratio

We propose to apply the cumulative payout ratio approach (based on taxation statistics) to estimate the payout ratio. Applying this approach, we propose to adopt a payout ratio of 0.7.

Consistent with our analysis in the explanatory statement accompanying the draft guideline, we consider that the cumulative payout ratio method is likely to produce a reasonable estimate of the payout ratio. This is because:

- it is simple and intuitive
- it uses long-term, published data
- it was broadly supported in submissions to the consultation paper, and there were no further substantive comments on the payout ratio in submissions to the draft guideline⁵⁶²

⁵⁵³ Lally, *The estimation of gamma*, November 2013, pp. 10–11.

⁵⁵⁴ Lally, *The estimation of gamma*, November 2013.

⁵⁵⁵ For example, see: ENA, *Response to AER rate of return guideline consultation paper*, 28 June 2013, p. 82.

⁵⁵⁶ Lally, *The estimation of gamma*, November 2013, pp. 10–11.

⁵⁵⁷ Lally, *The estimation of gamma*, November 2013, p. 50.

⁵⁵⁸ Lally notes that bias 'will arise if industry or market-level data are used because the parameter value varies over firms. Industry-level data is likely to be less biased because firms within the same industry are likely to be less variable than firms in general'. M. Lally, *The estimation of gamma*, 23 November 2013, pp. 50–51.

⁵⁵⁹ Lally, *The estimation of gamma*, November 2013, p. 54.

⁵⁶⁰ ENA, *Response to AER rate of return guideline consultation paper*, 28 June 2013, p. 82.

⁵⁶¹ However, regarding the rate of return guideline as a whole, some stakeholders argue against the use of a single benchmark entity. These arguments are considered in chapter 3.

- it is supported by Lally's report on our estimation of gamma in the explanatory statement accompanying the draft guideline.⁵⁶³

Further, we note that, based on current evidence, the method produces a value for the payout ratio that is consistent with that previously determined by the Tribunal (that is, 0.7).⁵⁶⁴

The payout ratio is the proportion of imputation credits that the benchmark company or market distributes, out of the total credits it generates. For example, if a company generates \$100 of imputation credits and distributes \$80 of imputation credits, its payout ratio for that year is 0.8. Since Australian companies generate one dollar of imputation credits per one dollar of tax they pay, this is equivalent to the value of imputation credits distributed divided by the total value of company tax paid.

In section 9.3.3, we consider it is preferable to estimate the payout ratio as a market-wide parameter for practical reasons. This section sets out our approach to estimating the payout ratio on a market-wide basis.

As noted above, we propose the cumulative payout ratio method be used to estimate the payout ratio. This method starts with the total value of franking credits that are in firms' franking account balances, reflecting the cumulative additions and subtractions of franking credits since the commencement of the imputation tax system. Then, subtracting this from total company tax paid over the same time period produces an estimate of the franking credits that have been distributed in total. This relies on the idea that every dollar of company tax paid generates an imputation credit, which can either be distributed or retained in franking account balances. Then, dividing this estimate by company tax paid to the ATO over the same time period produces an estimate of the total payout ratio over this time. Using this method, NERA estimates the cumulative payout ratio from 1987–88 to 2010–11 as 0.7.⁵⁶⁵

We have also considered whether the payout ratio might be rising over time. We do not find the current evidence conclusive. However, we propose that future consideration is warranted regarding our previous suggestion that a payout ratio of 0.7 was more likely to understate than overstate a forward looking payout ratio.⁵⁶⁶

9.3.5 The utilisation rate

The utilisation rate is the before-personal-tax reduction in company tax per one dollar of imputation credits that the representative investor receives. For this guideline, we consider the utilisation rate should be based on the body of utilisation rate estimates with regard to its strengths and weaknesses. This includes the equity ownership approach, tax value studies, implied market value studies and the conceptual goalposts approach. With current evidence, we consider this suggests a utilisation rate of 0.7. This is a departure from the value for the utilisation rate that the Tribunal adopted. In light of only one source of evidence which it considered in 2011, the Tribunal determined that the utilisation rate should be 0.35.⁵⁶⁷ This estimate was based on a single dividend drop off study.⁵⁶⁸

⁵⁶² ENA, *Response to AER rate of return guideline consultation paper*, 28 June 2013, p. 83; APIA, *Submission on the consultation paper*, June 2013, p. 40; Major Energy Users (MEU), *Response to the AER's rate of return guidelines consultation paper*, June 2013, pp. 49–50; FIG, *Response to the consultation paper*, June 2013, pp. 35–36; Citipower, Powercor and SA Power Networks, *Response to the AER's rate of return guidelines consultation paper*, 28 June 2013, p. 9.

⁵⁶³ Lally, *The estimation of gamma*, November 2013, pp. 4–5.

⁵⁶⁴ Australian Competition Tribunal, *Application by Energex Limited (Distribution Ratio (Gamma)) (No 3) [2010] ACompT 9*, 24 December 2010, para 4.

⁵⁶⁵ NERA, *The payout ratio: A report for the Energy Networks Association*, June 2013, p. ii. Also, see appendix H for our analysis of the NERA report.

⁵⁶⁶ See appendix H for a more detailed discussion.

⁵⁶⁷ Australian Competition Tribunal, *Application by Energex Limited (Gamma) (No 5) [2011] ACompT 9*, May 2011, para 42.

In reaching our view, we have re-examined:

- the operation of imputation credits and how investors use them
- the representative investor and observed utilisation estimates
- the utilisation rate as a proportion of tax cash flows
- sources of evidence for the estimate—including the equity ownership approach, tax statistic estimates, various implied market value estimates, and the conceptual goalposts approach.

The representative investor and observed utilisation estimates

We consider the relationship between the representative investor in the market and the implied representative investor from estimation methods such as tax studies and dividend drop off studies). We consider this relationship is critical in assessing what we are estimating and which estimation methods are fit for purpose.

To answer the question of the appropriate representative investor, we considered afresh:

- the Sharpe–Lintner CAPM framework under imputation as derived in Officer, Monkhouse, Lally and Van Zijl, and Lally⁵⁶⁹
- analysis of this conceptual framework by academic experts
- the construction of the corporate tax building block in the rules and how this interacts with the Officer framework used within the rate of return.

Our analysis of these issues is set out in section 9.3.1, and further in appendix H. Having undertaken this analysis, we conclude that we did not fully adopt or address important aspects of this analysis during the 2009 WACC review. As a result, the Tribunal review focused only on the particular suitability of tax value studies and dividend drop off studies. This was with an incomplete conceptual framework. The Tribunal acknowledged this incomplete framework at several points in its reasons.⁵⁷⁰

We conclude that the representative investor:

- Is the weighted average of investors within the defined market, where the weightings reflect market participation (equity ownership value) and risk aversion.⁵⁷¹
 - In this context, the defined market is investors in Australian equity, either domestic or foreign.
- Is the representative investor at any hypothetical point during a trading year—that is, it does not disproportionately reflect an investor or set of investors at a particular point in time. This is because investors may invest at any point during the year. If a benchmark parameter is set using

⁵⁶⁸ SFG, *Dividend drop-off estimate of theta, Final report, Re: Application by Energex Limited (No 2) [2010] ACompT 7*, 21 March 2011.

⁵⁶⁹ R. Officer, 'The cost of capital of a company under an imputation tax system', *Accounting and finance*, May 1994, vol. 34(1), pp. 1–17; P. Monkhouse, 'The cost of equity under the Australian dividend imputation system', *Accounting and finance*, November 1993, vol. 33(2), pp. 1–18; M. Lally and T. van Zijl, 'Capital gains tax and the capital asset pricing model', *Accounting and finance*, July 2003, vol. 43(2), pp. 187–210; and M. Lally, 'The CAPM under dividend imputation', *Pacific accounting review*, December 1992, vol. 4(1), pp. 31–44.

⁵⁷⁰ We have summarised the Tribunal's commentary in appendix H.

⁵⁷¹ See, for example: P. Monkhouse, 'The cost of equity under the Australian dividend imputation system', *Accounting and finance*, November 1993, vol. 33(2), pp. 1–18; and M. Lally and T. van Zijl, 'Capital gains tax and the capital asset pricing model', *Accounting and finance*, July 2003, vol. 43(2), pp. 187–210.

data from a short period in systematically different trading circumstances to the rest of the year, it produces an estimate that is only relevant to those circumstances.

Having reached this view, we consider it has important implications for the practical task of estimating the value of imputation credits. The most important implication of this relationship is that the source of evidence the Tribunal adopted for the utilisation rate (a dividend drop off study) does not produce an estimate for the representative investor. This is because dividend drop-off studies give the value weighted investor's valuation of imputation credits:

- Based on the combined package of imputation credits, dividends, and other entitlements (unless adjusted for). That is, a value for imputation credits is not available via simple observation of the dividend drop off in these studies. The implied values for the franking credit and the cash component must be econometrically separated, which is difficult to do reliably. We discuss this further in appendix H.
- For trades around the time of dividend distribution—that is, these studies only reflect trading around the cum-dividend and ex-dividend dates.

This is explained further below.

Arriving at an estimate of the utilisation rate

Consistent with the draft guideline, we propose to estimate the utilisation rate using the body of relevant evidence with regards to its strengths and weaknesses, checked against a range of supporting evidence. That is, we will not seek to identify a definitive study or even a definitive approach. Rather, we propose to consider the range of expert estimates and opinions on the utilisation of imputation credits. This section addresses:

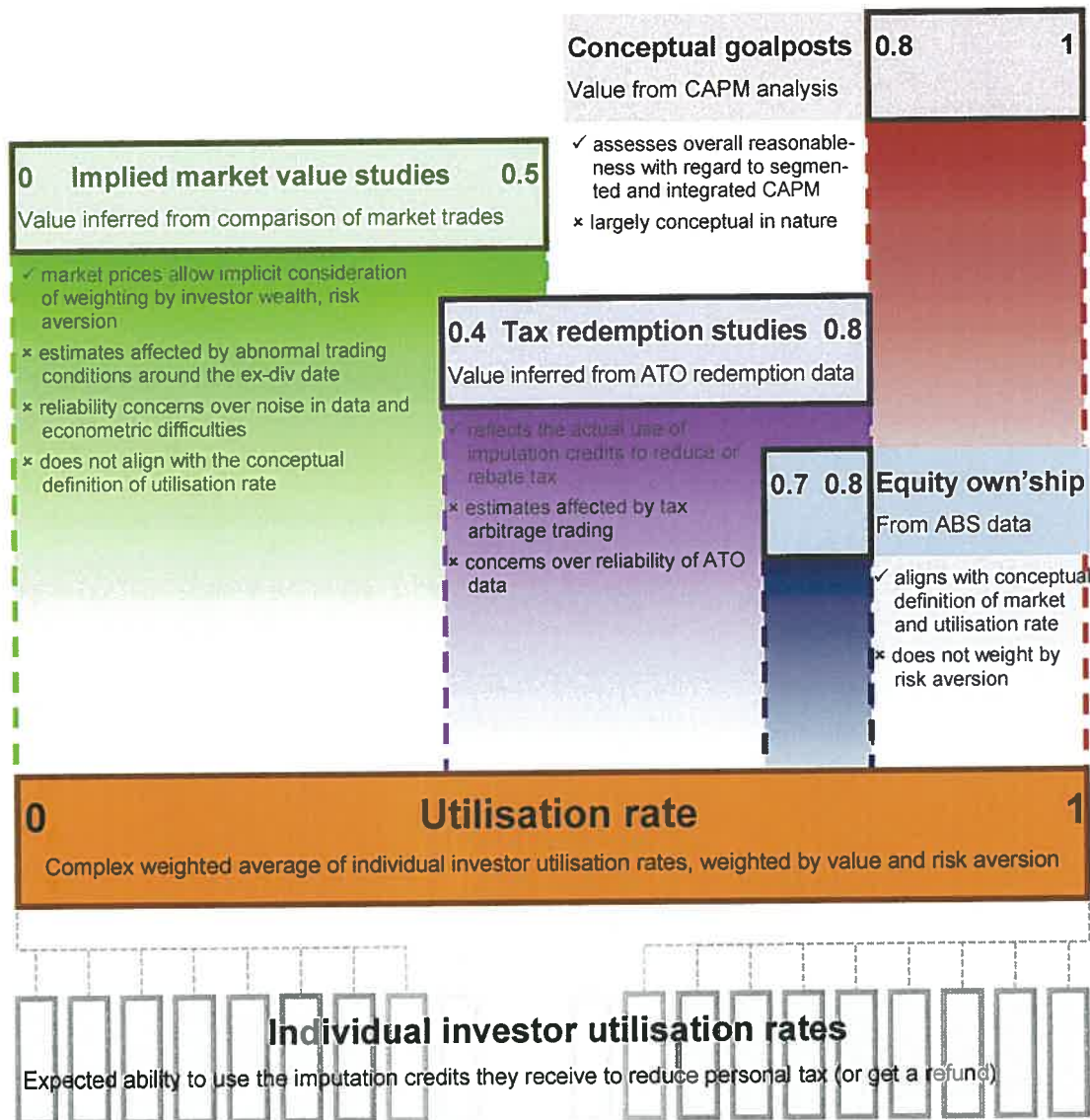
- the equity ownership approach—on current evidence, this suggests an estimate between 0.7 and 0.8
- tax statistic estimates—on current evidence, these suggest an estimate between 0.4 and 0.8
- implied market value studies—on current evidence, these suggest an estimate between 0 and 0.5
- conceptual goalposts approach—on current evidence, this suggests an estimate between 0.8 and 1.0
- other supporting evidence—including observations about market practice, government tax policy, imputation equity funds, which do not suggest a specific quantitative estimate.

Having considered all of these sources of evidence with regard to their strengths and weaknesses, we propose to apply a utilisation rate of 0.7. We consider this approach is consistent with McKenzie and Partington's recommendation to 'triangulate' different sources of evidence.⁵⁷² Further, we consider that having regard to a range of evidence, tempered by an understanding of the strengths and weaknesses of each source of evidence, is good regulatory practice and results in a reasonable estimate. Based on these reasons, we consider an estimate of the utilisation rate of 0.7 promotes the rate of return objective.

⁵⁷² M. McKenzie and G. Partington, *Report to the AER, Evidence and submissions on gamma*, 25 March 2010, p. 4.

The following diagram sets out the main sources of evidence and some of their key strengths and weaknesses. It does not include the supporting evidence which, though it might provide some qualitative information, does not produce a reasonable quantitative estimate.

Figure 9.1 Overview of different approaches to estimating the utilisation rate



Source: AER analysis.

Figure 9.1 shows that several of the different estimation approaches produce broad ranges of possible utilisation rates. As a set, the different approaches generate estimates that span the entire range of possible utilisation rates, from 0.0 to 1.0. There is relatively little overlap between them, and no common core of possible utilisation rates that is included in every approach. Every available approach has weaknesses that result in each approach providing a flawed picture of the true utilisation rate we seek to estimate.

We engaged Associate Professor Lally of the Victoria University of Wellington to undertake a critical review of the imputation credit related sections of the draft guideline. Associate Professor Lally assessed the strengths and weaknesses of each of the five approaches (see table 9.1), and

presented his expert opinion on the utilisation rate estimate arising from each of the first four approaches. He considered that the material underlying the fifth approach (other supporting evidence) could not be used to generate a reasonable estimate of the utilisation rate. He also included a reasonableness check that was closely aligned to his first approach (consistency with the conceptual definition).

Table 9.1 Summary of utilisation rate approaches in the Lally report

Method for estimating the utilisation rate	Lally estimate	Notes on Lally report
1. Conceptual definition	1.0	This is Lally's preferred approach. It is also linked to the reasonableness check below.
2. Equity ownership approach	0.7	This is Lally's second best option.
3. Tax statistics studies	0.40–0.80	The midpoint of the range (0.60) is referenced when deriving a point estimate.
4. Implied market value studies	0.39 (average)	Lally takes an average of the most relevant studies, after excluding implausible results.
5. Other evidence (including market practice)	NA	Lally notes some recent evidence indicates 0.75, but no robust estimate can be derived from this type of evidence.
Reasonableness check (conceptual goalposts)	1.0, or close to it.	New approach suggested by Lally, involves comparison of the return on equity between (full) segmentation and (full) integration.

Source: M. Lally, *The estimation of gamma*, 23 November 2013, pp. 3–4, 15–16, 46–47.

Table 9.1 shows that Lally's preferred option is to follow approach one (conceptual definition). His second preference is to follow approach two (equity ownership approach). Lally's third best option was to take an average of the first four approaches (1.0, 0.7, 0.6 and 0.39), but applying less weight to options three and four. Here is Lally's conclusion:⁵⁷³

Using the three criteria described above, my preferred estimate is 1 from the [conceptual definition] approach and my second preference is 0.70 from the [equity ownership] approach. If these three criteria were rejected, I would favour use of the results from the first four approaches, with values of 1, 0.70, 0.60 and 0.39; the problems associated with the [implied market value and tax statistics studies] warrant a lower weighting than on the other methods and therefore an estimate for U [the utilisation rate] of about 0.80.

To aid readability, in this quote we use our labels for each of the approaches (in the original quote Lally refers to the approaches only by number). Lally's overall conclusion is that the utilisation rate should be 0.7, 0.8 or 1.0.

Our evaluation of these approaches has changed since the draft guideline, in response to submissions and also as a result of Associate Professor Lally's critical review. In summary:

- Our assessment of the equity ownership approach has changed to reflect updated Australian Bureau of Statistics (ABS) data. It has also changed to recognise that there is unlikely to be a bias arising from the clientele effect. In the draft guideline, we considered that this approach supported an estimate of 0.7. This estimate has now increased slightly to the range 0.7–0.8.
- Our assessment of tax statistic estimates responds to submissions but does not include major changes. In the draft guideline, we considered this approach suggested an estimate of 0.45–0.8.

⁵⁷³ Lally, *The estimation of gamma*, November 2013, p. 4

This estimate has now altered slightly to the range 0.4–0.8. This primarily reflects an intention to avoid inappropriate specificity.

- Our assessment of implied market value studies has changed to more explicitly reflect the strengths and weaknesses of individual studies. Consistent with the draft guideline, we still consider it inappropriate to rely upon just one study (even if it were possible to resolve which study was the best available estimate). However, it would be incorrect to imply that all studies had equal strengths and weaknesses. In the draft guideline, we considered that this approach suggested an estimate of 0.0 to 1.0. This estimate has now altered considerably to the range 0.0–0.5.
- The conceptual goalposts approach has arisen from submissions and consultant reports in the period since the draft guideline. Therefore, we did not report this approach in the draft guideline. The primary basis for our conceptual goalposts approach is the reasonableness check presented by Lally. However, it is also linked to the 'conceptual definition' approach he advocates.
- Our assessment of the other supporting evidence continues to reflect the difficulty in establishing a quantitative estimate from this approach, which is largely qualitative or anecdotal in nature.

Table 9.2 sets out the differences between the AER's position in the draft guideline and our current approach.

Table 9.2 Comparison of utilisation rate approaches in the draft and final guideline

Method for estimating the utilisation rate	Draft guideline	Final guideline	Notes on change from draft to final
Equity ownership approach	0.7	0.7–0.8	Minor change reflects new data from ENA
Tax statistics studies	0.45–0.8	0.4–0.8	Minor change reflects level of precision in data, including consideration of ENA submissions
Implied market value studies	0.0–1.0	0.0–0.5	Major change reflects evaluation of strengths and weaknesses of individual studies, reflects comments made by ENA and Lally
Conceptual goalposts approach	NA	0.8–1.0	New approach suggested by Lally, responds to ENA submissions
Other evidence	NA	NA	Largely qualitative, so not used to derive a specific figure.

Source: AER, *Better regulation, Explanatory statement, Draft rate of return guidelines*, 30 August 2013, p. 119; AER analysis.

Based on the available evidence, including the strengths and weaknesses of each of the approaches set out above, we propose to adopt a utilisation rate of 0.7. The expert advice from Associate Professor Lally suggests that our determination of a utilisation rate of 0.7 is reasonable, based on the evidence currently available.

The rest of this section sets out the basis for each of the five approaches, and the result of applying each approach in current market conditions.

The equity ownership approach

Imputation credits are distributed from companies to investors. Eligible investors can then redeem these credits. Before personal tax, eligible investors claim back company tax by one dollar per dollar

of credit they receive. In contrast, ineligible investors reduce company tax by zero dollars per dollar of credit they receive.

Therefore, if we estimate the value weighted proportion of eligible investors out of all investors in the Australian market, we have a conceptually sound estimate of the representative investor's expected utilisation rate. As described above, most domestic investors are eligible investors whereas foreign investors are ineligible investors. So the proportion of equity held by domestic investors (instead of foreign investors) provides an estimate of the underlying utilisation rate. We refer to this approach as the 'equity ownership approach'.

In the explanatory statement accompanying the draft guideline, we relied upon an estimate that domestic investors held 71 per cent of Australian equity.⁵⁷⁴ This was based upon a 2007 feature article by the ABS.⁵⁷⁵ We also stated that we would seek to update this estimate for the final guideline.

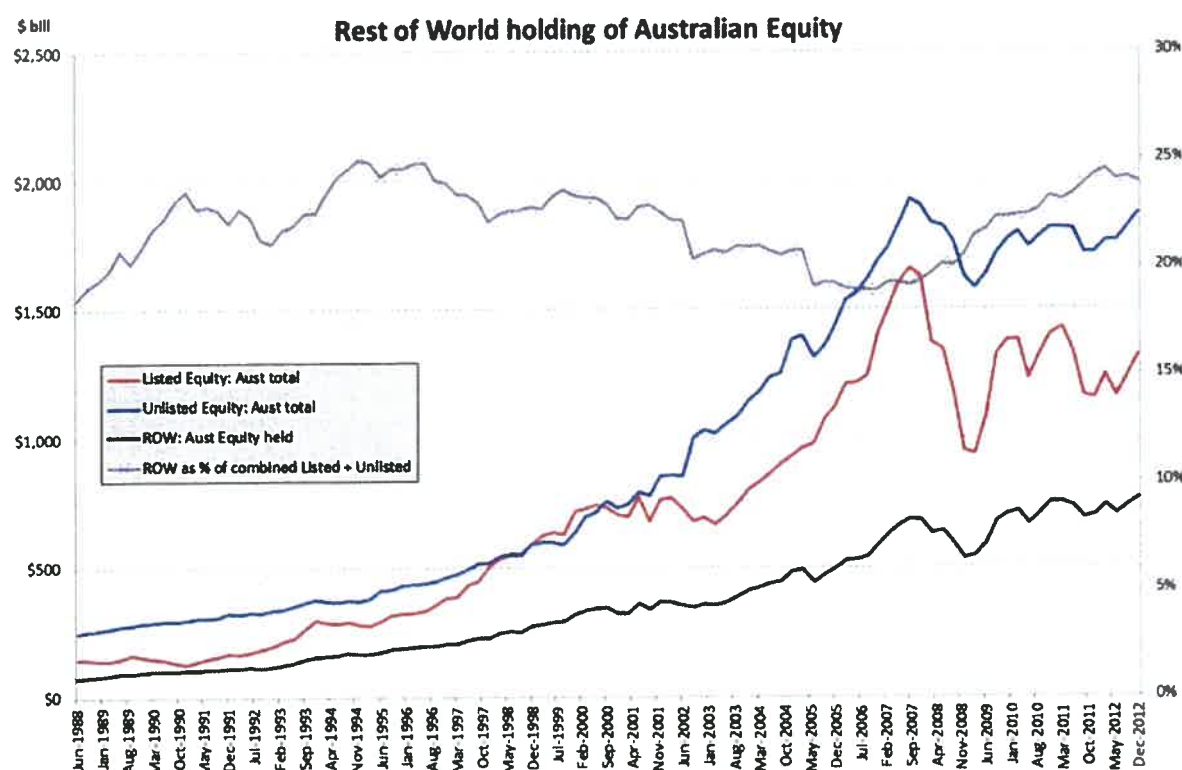
The September 2013 report by Hathaway provides updated domestic to foreign equity ownership percentages, on a year-by-year basis from 1988 to 2012.⁵⁷⁶ These percentages are drawn from the same underlying ABS statistical tables as the 2007 feature article we previously referenced. Hathaway calculates that across the last 24 years, the percentage of Australian equity held by domestic investors has moved between a relatively narrow band between 75 per cent and 81 per cent. This is shown in the following graph from Hathaway's report. We note that the right hand axis shows the percentage of *foreign* ownership of Australian equity. This is, between 25 per cent and 19 per cent.

⁵⁷⁴ AER, *Explanatory statement: Rate of return guideline*, August 2013, p. 130.

⁵⁷⁵ Australian Bureau of Statistics, *Feature article: Foreign ownership of equity*, Available at: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/Previousproducts/5302.0Feature%20Article10Sep%202007?opendocument&tabname=Summary&prodno=5302.0&issue=Sep%202007&num=&view>

⁵⁷⁶ Hathaway makes no explicit comment on the use of the 'equity ownership' approach to estimate the utilisation rate; these equity ownership percentages are presented in the context of describing the overall flow of imputation credits. See N. Hathaway, *Imputation Credit Redemption ATO data 1988-2011, Where have all the credits gone?*, September 2013, pp. 16–21.

Figure 9.2 Foreign ownership of Australian equity, calculated from ABS data by Hathaway



Source: N. Hathaway, *Imputation credit redemption: ATO data 1988-2011, Where have all the credits gone?*, September 2013, p. 19 (figure 5).

Even though they are both drawn from ABS data, Hathaway's estimates do not align with the reported ABS figures (in their 'feature article') for the period where they overlap. For example, the ABS reported the domestic ownership percentage as constant at 71 per cent from 2004 to 2007. This is when Hathaway has the equivalent figure moving around 80 per cent. Given they are the primary authors of this data, the ABS reported figures might be considered more reliable. However, the Hathaway data is more recent, and may reflect revisions (corrections) to the ABS data since 2007.

In view of this evidence, we consider that estimates of the utilisation rate based on the equity ownership approach lie in the range 0.7 to 0.8. This assessment has changed slightly since the draft guideline. In the draft guideline, we considered that the equity ownership approach indicated a point estimate of 0.7.

In his review, Lally considers that this estimation technique aligns with our conceptual framework.⁵⁷⁷

In respect of estimating U [the utilisation rate], the AER draws upon three principal methods. The first of these is the equity ownership approach, in which U is estimated as the proportion of Australian shares held by Australians (AER, 2013, section 8, pp. 120-131). Since U is a value-weighted average over investors, and the AER includes foreigners in this set, and foreigners can't use the credits (except through tax arbitrage, which is heavily constrained by legislation), and virtually all local investors can fully utilise them, it follows that U is the proportion of Australian shares held by Australians. Drawing upon data from the Australian Bureau of Statistics (2007), the estimate is 70%. With the inclusion of foreigners in the relevant set of investors, this methodology for estimating U follows directly from the AER's definition of U .

⁵⁷⁷ Lally, *The estimation of gamma*, November 2013, p. 16.

The Tribunal has not previously considered this approach because no party applied it during the 2009 WACC review or in subsequent decisions. We consider the equity ownership approach is a reasonable estimate for the following reasons:

- The proportion of domestic investment in Australian equity is a good proxy for the value weighted average investor's eligibility to utilise franking credits. This is because:
 - in general, domestic owners of equity (who expect to hold shares for a full CAPM period) can utilise franking credits
 - conversely, foreign owners of Australian equity cannot utilise franking credits
 - the proportion of domestic ownership of Australian equity is therefore an average of investors that expect to be eligible to redeem franking credits weighted by their market value ownership
 - where investors redeem credits, company tax is reduced by one dollar per dollar of imputation credit. This is because the redemption of credits transfers company tax from an expense to a return for investors.

However, under the Officer framework (or the alternative derivations in Lally and Van Zijl or Monkhouse), the weightings for the representative investor should account for both:

- the value weighting of each individual investor—that is, the proportion of equity in the market that they own
- the risk aversion of all investors—specifically, the expected return of each investor's portfolio divided by their expectations of variance in that portfolio.⁵⁷⁸

The equity ownership approach accounts for the first of these factors, but not for the risk aversion of all investors. We consider it is not practically possible to estimate this factor. This is because it would require specific calculations or assumptions relating to the portfolios and risk preferences of all individuals or classes of investors. Because risk aversion is complex to measure or observe outside of its effects on prices, these calculations are unfeasible.

In our explanatory statement to the draft guideline, we stated that the equity ownership approach might underestimate the true utilisation rate. This was because it assumed that imputation credits would be evenly distributed in proportion to the overall balance between domestic and foreign investors. There is an incentive for domestic investors who are eligible to redeem imputation credits to disproportionately hold shares that do pay imputation credits over those that do not. Foreign investors have the opposite incentive. Hence, there may be a divergence between the domestic proportion of total equity ownership and the domestic proportion of total imputation credits received.⁵⁷⁹

We no longer hold this view. In his critical review, Lally points out that even if this clientele effect existed, it would not alter the true underlying utilisation rate.⁵⁸⁰ This is because the utilisation rate is defined using value weights that reflect the overall proportion of equity held by each investor. It is not defined using the proportion of imputation credits that investors received. Hence, the equity ownership

⁵⁷⁸ Risk aversion is also in the weighting derivation in Monkhouse (1993) equation 4.8. P. Monkhouse, 'The cost of equity under the Australian dividend imputation system', *Accounting and finance*, November 1993, vol. 33(2), p. 10.

⁵⁷⁹ Interestingly, the Hathaway report indicates that foreign investors actually receive more than their expected proportion of imputation credits. Using data from 2004-2011, they hold 25 per cent of total equity and receive 29 per cent of all fully franked dividends and imputation credits. N. Hathaway, *Imputation credit redemption: ATO data 1988-2011, Where have all the credits gone?*, September 2013, p. 19.

⁵⁸⁰ Lally, *The estimation of gamma*, November 2013, p. 16.

approach correctly aligns with the conceptual definition of the utilisation rate. Also, any divergence arising from a clientele effect is not a source of bias (either as an overestimate or underestimate) for this approach. In contrast, estimates from implied market value studies or tax redemption studies may be influenced by this effect, as discussed below.

We accept that there are potential disadvantages with the equity ownership approach. Nonetheless, we consider the equity ownership approach is a reasonable estimate because:

- It is well aligned with our interpretation of the conceptual framework as set out in sections 9.3.1 and 9.3.2.
- It is the only measure of the representative utilisation rates that is representative of the entire trading year.
- It is simple and intuitive.
- It is based on reliable data and calculations.
- Both tax value studies and implied market value studies are sensitive to trading around the cum-dividend and ex-dividend days. For dividend drop off studies in particular, this issue can critically affect the resulting estimate. This limitation, that affects other approaches, does not affect the equity ownership approach.

Tax statistic estimates

Tax statistic estimates are based on ATO data for the amount of tax reduced (or refunded) through the use of imputation credits. Hence, tax statistics report the actual dollar benefit to Australian taxpayers from their imputation credits. While they are not identical, this estimation technique aligns closely with our interpretation of the conceptual definition of the utilisation rate. This conceptual definition is the expected ability of equity holders to use the imputation credits they receive to reduce their personal tax.⁵⁸¹ According to our conceptual definition, this true utilisation rate is value weighted by the total equity ownership of each investor. However, tax statistics reflect the final set of investors who redeem the credits. It is possible that some of these investors have traded specifically to receive the credits (tax arbitrage). Hence, tax statistics estimates are weighted by imputation credits received, not by equity ownership across the entire period.

The most relevant estimates are from the period post 2000, when taxation laws were changed to allow eligible investors to claim a refund for any excess or unused imputation credits.⁵⁸² Prior to this time, when investors received franking credits above their tax assessment, they were not entitled to any benefit from the unusable credits.⁵⁸³ The estimates from the period post 2000 are 0.81 (Handley and Maheswaran), 0.62 (Hathaway, using dividend data) and 0.44 (Hathaway, using dividend data and franking account balance data).⁵⁸⁴ We round this range to 0.4 to 0.8. Rounding avoids inappropriate specificity in our consideration of this class of evidence as a whole.

⁵⁸¹ Further, equity holders can also use imputation credits to receive a refund, where they have imputation credits in excess of their total tax assessment.

⁵⁸² We have not excluded the earlier estimates entirely; they have been interpreted with regard to their strengths and weaknesses, including that the effect of this tax change might cause them to underestimate the (current) utilisation rate. See appendix H for a more detailed discussion.

⁵⁸³ For clarity, this tax law change did not allow foreign investors to redeem imputation credits that would otherwise have been ineligible for redemption.

⁵⁸⁴ J. Handley and K. Maheswaran, 'A measure of the efficacy of the Australian imputation tax system', *The economic record*, March 2008, vol. 84(264), pp. 82–94; and N. Hathaway, *Imputation credit redemption ATO data 1988–2011, Where have all the credits gone?*, September 2013, p. 7.

The potential advantages of tax statistic estimates are that:

- They are consistent with our interpretation of the conceptual framework, as set out earlier in this chapter. This is because tax statistics produce an estimate of the extent that investors are eligible to use their imputation credits to reduce their personal tax.
- They are an estimate from the only event where imputation credits are 'traded' separately. That is, it is only in tax returns that we can observe anything about franking credits unattached from dividend payments. This avoids the 'allocation problem', which is discussed below in the section on implied market value studies.
- Effects of market movements that are not associated with the value of imputation credits do not confound measurements of imputation credit redemption. However, market value studies are sensitive to this problem. We consider that more critical data and method issues affect the implied market value approaches. We describe this below and in appendix H.
- They use a comparatively simple and replicable method. They also pose fewer econometric challenges than market value studies.

However, when having regard to this class of evidence, we give due consideration to the data quality concerns raised in some of these studies. In particular, Hathaway urges caution in using tax statistics on account of a large and unexplained discrepancy between the data series on dividends and the data series on franking account balances.⁵⁸⁵ This notwithstanding, we continue to have some regard to tax statistics in proposing a value for the utilisation rate because:⁵⁸⁶

- We do not propose to rely entirely on this class of evidence.
- We have strengthened confidence in this class of evidence because it produces a range of estimates that covers the range of estimates under the equity ownership approach.
- There is an apparent consensus regarding the efficacy of using data from the franking account balance to estimate the payout ratio.
- We give appropriately higher regard to the estimate that is internally consistent. We do this considering the two estimates produced by Hathaway, whilst acknowledging the potential problems with each individual series.. This is 0.62, arrived at by using dividend data only.

We note that estimates of the utilisation rate from tax statistics are weighted by imputation credits received and not by equity ownership across the entire period. However, we cannot determine the direction of any bias this creates in such estimates relative to the true utilisation rate. In examining this question, we have considered conceptual arguments around investors' incentives to obtain (or avoid) franked dividend packages. We have also considered empirical observations of the proportion of franking credits paid out to different classes of investors. See appendix H for further discussion.

Implied market value estimates

Implied market value studies are another class of evidence that can be used to estimate the utilisation rate. In general, implied market value studies seek to infer a value for imputation credits using a price differential for a security. This differential includes a security with a imputation credit entitlement, and

⁵⁸⁵ N. Hathaway, *Imputation credit redemption ATO data 1988–2011, Where have all the credits gone?*, September 2013, p. 5.

⁵⁸⁶ See appendix H for a more detailed response to Hathaway.

the same security without the imputation credit entitlement. The most prominent type of implied market value estimates are dividend drop off studies, which compare the price of a share before and after a dividend is distributed. Econometric techniques (regressions) are then used to infer the value of the imputation credit attached to the dividend. The estimate of the utilisation rate (0.35) from the 2011 Tribunal decision was established using a dividend drop off study.⁵⁸⁷

We have reviewed the available implied market value studies, with due regard to the relative strengths and weaknesses of the individual studies. For instance, studies that use data from the current tax regime (after 2000) are more relevant. Studies that use more rigorous econometric techniques are also more relevant. Even after accounting for these attributes, there is considerable disparity in the results. Overall, we consider that they support an estimate of 0.0–0.5 for the utilisation rate. This broad range reflects the uncertainty around the disparate results.

However, consistent with our position in the explanatory statement accompanying the draft guideline, we consider a number of shortcomings affect implied market value studies. There are a number of conceptual reasons why the market value of imputation credits does not align with the relevant utilisation rate. Secondly, there are implementation difficulties in establishing the 'true' market value of imputation credits using these implied market value studies. We have regard to these weaknesses when we include the estimate from implied market value studies (0.0–0.5) in broadly considering different evidence on the utilisation rate.

The implied market value studies do not align with the conceptual definition of the utilisation rate because:⁵⁸⁸

- The utilisation rate is a complex average of investors' utilisation rates, weighted by the value of equity they provide across the relevant period—a year or longer.⁵⁸⁹ Implied market value studies reflect only those investors holding the shares around the time the dividend is distributed. This is just two days; with cum-dividend and ex-dividend dates used in most studies. In other words, the sample of investors holding imputation credits around the ex-dividend date differs systematically from the relevant population. That is, the population of those investing in the Australian share market across the entire year.
- The defined utilisation rate in the Officer framework assumes a segmented domestic market and an absence of a tax differential between capital gains and dividends.⁵⁹⁰ The implied market value studies reflect the presence of foreign investors and differential tax rates, both of which are conceptually incompatible with the Officer framework.⁵⁹¹
- The utilisation rate is defined with regard to the representative investor's utilisation rate—that is, the ability to use each imputation credit received to reduce personal tax (or get a refund). Price behaviour around the dividend date, however, may reflect a number of incentives separate from the taxation incentive. Hence, equating the implied market value studies with the utilisation rate inappropriately assumes away these other factors.

⁵⁸⁷ Australian Competition Tribunal, *Application by Energex Limited (Gamma) (No 5) [2011] ACompT 9*, May 2011; SFG, *Dividend drop-off estimate of theta, Final report, Re: Application by Energex Limited (No 2) [2010] ACompT 7*, 21 March 2011.

⁵⁸⁸ We discuss these issues in greater depth in appendix H.

⁵⁸⁹ Lally, *The estimation of gamma*, November 2013, p. 14.

⁵⁹⁰ Lally, *The estimation of gamma*, November 2013, p. 20.

⁵⁹¹ The conceptual goalposts approach directly addresses this question. It assesses whether a reasonable estimate of the return on equity will arise from the inconsistent combination of the Officer framework (which assumes full segmentation) and input parameters (which reflect partial integration). This unreasonable overall outcome might arise even if each component is justified in isolation—that is, the Officer model is the best available option, and the input parameters reflect empirical reality.

The implied market studies themselves are difficult to interpret because.⁵⁹²

- The value of franking credits is not independently observable, since they are only traded together with a cash dividend.⁵⁹³ In dividend drop off studies, an estimate of the implied value of imputation credits requires econometric separation of the value of dividends from the value of franking credits. While there are econometric techniques available to do this, the nature of the imputation credit data means applying these techniques to imputation credits is particularly problematic. This is often labelled the allocation problem.
- The form of the regression equation has a material effect on the overall estimate, and there is no consensus on the appropriate equation.⁵⁹⁴ Similarly, the implied market value estimates are sensitive to input choices, with reasonable alternative treatments to data generating materially different outcomes.⁵⁹⁵ For dividend drop off studies in particular, there is considerable noise in the data. Further, there is no consensus on whether it is better to resolve this issue through data filtering or outlier treatment.
- Even where implied market value studies purport to use the same data period and the same econometric techniques, different estimates of the utilisation rate are produced.⁵⁹⁶ Similarly, studies comparing the utilisation rate across time periods (and different underlying tax regimes) produce results that move in different directions.⁵⁹⁷ This variability undermines the credibility of all implied market value studies.

Therefore, we consider that implied market value studies are of limited use in estimating the utilisation rate. This is because they do not produce an estimate for the representative investor in accordance with the conceptual definition of the utilisation rate. Further, even if implied market value estimates were conceptually appropriate, there are significant limitations with the accuracy and robustness of such studies.

To this effect, McKenzie and Partington (2010) observe that:⁵⁹⁸

It is clear that a precise and unambiguous valuation of theta is unlikely to be derived from traditional ex-dividend studies. It would be unwise, therefore, to rely on one ex-dividend study to determine theta (the utilisation rate). Equally, it would be unwise to just rely on combining results across several ex-dividend studies; triangulation with other evidence is desirable.

In contrast, in reaching its decision on the utilisation rate, the Tribunal relied on a single study from this single class of evidence.⁵⁹⁹ We consider this leads to an outcome that does not promote the long term interests of users of electricity or natural gas. This is a significant factor in our proposal to depart from the Tribunal's estimate.

⁵⁹² We discuss these issues in greater depth in appendix H.

⁵⁹³ M. McKenzie and G. Partington, *Report to the AER, Evidence and submissions on gamma*, 25 March 2010, p. 12.

⁵⁹⁴ Lally, *The estimation of gamma*, November 2013, p. 26.

⁵⁹⁵ Lally, *The estimation of gamma*, November 2013, pp. 24–25.

⁵⁹⁶ Lally, *The estimation of gamma*, November 2013, pp. 22–23.

⁵⁹⁷ Lally, *The estimation of gamma*, November 2013, pp. 22–23.

⁵⁹⁸ M. McKenzie and G. Partington, *Report to the AER, Evidence and submissions on gamma*, 25 March 2010, p. 11.

⁵⁹⁹ Australian Competition Tribunal, *Application by Energex Limited (Gamma) (No 5) [2011] ACompT 9*, May 2011, para 29.

Conceptual goalposts

The Officer framework we use assumes segmented capital markets.⁶⁰⁰ That is, domestic (Australian) investors make all domestic (Australian) investments. Further, these domestic investors cannot make foreign investments, just as foreign investors cannot make investments in Australia.

If capital markets were fully segmented as per this assumption, all investors would be eligible to fully redeem their imputation credits (either as reduction in personal tax or as a tax rebate). Therefore, the utilisation rate would be 1.0 (or very close to it).⁶⁰¹

In his critical review of the explanatory statement accompanying the draft guideline, Associate Professor Lally considers it paramount to estimate the utilisation rate consistently with the underlying theoretical framework:⁶⁰²

In my view, the most important requirements in selecting a methodology for estimating *U* [the utilisation rate] are that the estimate be consistent with the definition of *U*, as a value-weighted average over the utilisation rates of all investors who are relevant to the Officer CAPM, that the parameter estimate is likely to give rise to an estimated cost of equity from the Officer model that lies within the bounds arising from either complete segmentation or complete integration of equity markets, and that the estimate is reasonably precise.

The importance of theoretical consistency leads Lally to recommend that the optimal estimate of the utilisation rate is 1.0, on these conceptual grounds:⁶⁰³

In respect of *U* [the utilisation rate], there are five possible approaches to estimating it. The first of these arises from the definition of the parameter as a weighted average across all investors; coupled with ignoring foreigners (consistent with the Officer CAPM), this yields an estimate of 1 (the utilisation rate of local investors).

...

Using the three criteria described above, my preferred estimate is 1 from the first approach...

The empirical reality does not accord with the segmentation assumption. Domestic (Australian) investors are able to invest overseas, and foreigners make significant investments in Australia. As set out above when discussing the equity ownership approach, around 20–30 per cent of Australian equity (listed and unlisted) is supplied by overseas investors. However, data does not support the opposing assumption—that capital markets are fully integrated.⁶⁰⁴ Rather, the reality lies between these two theoretical ideals.

We are not aware of any pricing models that assume partial integration. There are pricing models that assume fully integrated capital markets (such as the international CAPM), but they were not proposed by any party during the guideline development process (including ourselves). Instead, we attempt to recognise the messy empirical reality of 'partial integration' by adopting the Officer framework, while acknowledging that it is predicated on a segmented domestic market. We then adopt a market definition which does reflect the empirical reality. That is, we define the market as an Australian domestic market that recognises the presence of foreign investors to the extent they invest in the Australian market. In practice, where we select proxies for input parameters to the Officer framework,

⁶⁰⁰ Note that the standard Sharpe–Lintner CAPM also assumes segmented capital markets - in effect, the Officer framework is the standard Sharpe–Lintner CAPM adjusted to incorporate imputation credits.

⁶⁰¹ The ENA considers that the utilisation rate would be at most just less than 1 because there is a time delay before investors receive benefit from their imputation credits. ENA, *Response to the draft guideline*, October 2013, p. 102.

⁶⁰² Lally, *The estimation of gamma*, November 2013, pp. 3–4, emphasis added by the AER.

⁶⁰³ Lally, *The estimation of gamma*, November 2013, pp. 3–4.

⁶⁰⁴ For example, domestic investors hold too much domestic equity (and therefore too little foreign equity) relative to that predicted by an international CAPM. This issue is often called the 'home bias' problem and is the subject of much academic research and debate.

these proxies reflect that market definition. Such a proxy could include using an index on the Australian Stock Exchange (ASX) to calculate the return on the market.

In response to the draft guideline, the ENA made a number of points. These related to the market definition, capital market segmentation/integration, the Officer framework derivation, and the appropriate basis for the estimation of the utilisation rate. The ENA considers that:

- Every CAPM, by definition, requires a 'closed system' where investors and investment opportunities inside the system are entirely isolated (segmented) from any external investors/investment opportunities outside the system.⁶⁰⁵
- The AER market definition does not provide this closed system, since it includes some foreign investors in a domestic market.⁶⁰⁶
- Under the AER market definition, the requirements for the CAPM are not met, so there is no market clearing price, no equilibrium, no representative investor, and the CAPM cannot be used to estimate the return on equity.⁶⁰⁷
- Notwithstanding each of the above points, if the AER populates the Officer framework with a 'market price' estimate for all input parameters (including the utilisation rate); it will produce a reliable estimate of the return on equity.⁶⁰⁸

The core of the ENA criticism is that we have been inconsistent between choosing the model and when populating the inputs to the model. There are two primary ways to resolve the inconsistency. First, it would be consistent to adopt an entirely segmented domestic model. This would use the (domestic) Officer framework with domestic inputs, including a utilisation rate of 1.0 (or close to it).⁶⁰⁹ The ENA has not proposed this. Second, it would be consistent to adopt an entirely integrated global model. This would use an international CAPM with international inputs, including a utilisation rate of 0.0 (or close to it). The ENA has not proposed this approach either. It is not apparent how the ENA's proposal to use 'market prices' that reflect foreign investors in the Officer (domestic only) CAPM resolves the internal inconsistency they criticise.

However, these two extreme positions—a fully segmented and a fully integrated approach—provide a means to assess whether our approach is reasonable. Associate Professor Lally presented this approach in his critical review. This has been labelled by us as the 'conceptual goalposts' approach. To begin, Lally notes the inconsistency we are grappling with (and which the ENA has identified):⁶¹⁰

The AER (2013, section 8.3.1, page 120) also includes foreign investors to the extent that they invest in the Australian market, to reflect the empirical reality of their existence. However this involves use of a model (the Officer CAPM) that assumes that national markets for risky assets are segmented along with the definition for a parameter (U) [*the utilisation rate*] that is inconsistent with this model.

Lally considers the overarching concern is whether the inconsistency between input parameters and model definitions might produce an unreasonable outcome. That is, even if the individual components

⁶⁰⁵ ENA, *Response to the draft guideline*, October 2013, pp. 104–106.

⁶⁰⁶ That is, the market is defined as an Australian domestic market that recognises the presence of foreign investors to the extent they invest in the Australian market. ENA, *Response to the draft guideline*, October 2013, p. 102.

⁶⁰⁷ ENA, *Response to the draft guideline*, October 2013, p. 106.

⁶⁰⁸ ENA, *Response to the draft guideline*, October 2013, p. 104, 107.

⁶⁰⁹ The domestic MRP would have to recognise only domestic investors, without foreign investors investing in Australia, but also without the domestic investors being able to invest overseas.

⁶¹⁰ Lally, *The estimation of gamma*, November 2013, p. 14.

are each justified in isolation, the combination might produce an overall result that is no longer reasonable.⁶¹¹

The Officer (1994) CAPM implicitly assumes that national markets for risky assets are completely segmented, in the sense that investors are precluded from purchasing foreign risky assets. However, most estimates of [the utilisation rate] U reflect the presence of foreign investors. Consequently the potential for economically unreasonable estimates of the cost of equity arises, i.e., values that lie outside range of those arising under complete segmentation and complete integration of national markets for risky assets. In this event the partial recognition of foreign investors would effectively constitute cherry-picking that maximises the revenue or price cap, i.e., ignoring foreign investors when it is favourable to regulated firms (choosing the CAPM) and also estimating U by a methodology that reflects the presence of these investors when it is also favourable to regulated firms. We therefore assess whether various estimates of U lead to this outcome.

To do so it is necessary to consider the implications for the cost of equity of complete integration and complete segmentation of national markets for risky assets.

Lally points out that, while there is some uncertainty about the return on equity in a partial integration scenario, it must lie within two boundaries. At one end, there is the return on equity that would be required if the domestic market was entirely segmented. At the other extreme is the return on equity if the capital market was completely integrated (that is, global). These are the goalposts that the true return on equity must lie between. To assess whether our approach passes this test, Lally estimates for the average Australian firm.⁶¹²

- The return on equity under segmentation, using a domestic-only (segmented) CAPM populated with domestic parameters. That is, a market risk premium for a segmented Australian market, an equity beta relative to the Australian market, and a utilisation rate of 1.0.
- The return on equity under integration, using an international CAPM (based on Solnik, 1974) populated with global parameters. That is, using a market risk premium for an integrated (global) market, an equity beta relative to the global market and a utilisation rate of 0.0.
- The return on equity under the AER's approach, using a segmented (Officer) CAPM, populated with parameters that accord with the AER's partially integrated market definition. That is, a market risk premium and an equity beta that reflect the domestic market, but recognising foreign investors to the extent that they invest there.

Lally estimates the input parameters in a manner that is consistent with the available data (and regulatory practice where relevant). He also implements a sensitivity analysis with different plausible permutations of these parameters.

The aim is to ascertain what utilisation rates under the third scenario will result in a return on equity that lies between the return on equity from the first two scenarios (full segmentation and full integration). This is how Lally presents the results of this assessment.⁶¹³

In summary, in the face of an inconsistency between the use of the Officer model (which assumes that national equity markets are segmented) and an estimate of the utilisation rate on imputation credits that is less than 1 (which reflects the presence of foreign investors), a minimum requirement is that the results from this approach should lie within the bounds arising from complete segmentation of national equity markets and complete integration (to ensure that the cost of capital results are consistent with some scenario regarding segmentation or integration). However, estimates of [the utilisation rate] U that are significantly less than 1 fail this test in virtually every case examined, and are therefore deficient. In effect, combining Officer's CAPM with a utilisation rate that is significantly less than 1 constitutes a defacto form of

⁶¹¹ Lally, *The estimation of gamma*, November 2013, p. 38.

⁶¹² Lally, *The estimation of gamma*, November 2013, pp. 38–47.

⁶¹³ Lally, *The estimation of gamma*, November 2013, pp. 46–47.

cherry-picking of parameter values and models that maximises the price or revenue cap for regulated businesses. By contrast, if the Officer model were combined with a utilisation rate on imputation credits of 1, or close to it, the test described here would be satisfied in most cases. All of this suggests that, if the Officer model is used, the only sensible estimate of the utilisation rate is at or close to 1.

Associate Professor Lally recommends, based on this approach, the utilisation rate should be set at 1 or close to it. To refine this estimate, we have undertaken further analysis using the approach set out by Lally. This indicates that utilisation rates between 0.8 and 1.0 will generate a reasonable return on equity (that is, one that lies between the goalposts) in the majority of permutation scenarios.⁶¹⁴ Further, when interpreting this sensitivity analysis, it is also relevant whether each particular scenario has arisen from an extreme permutation—that is, if the individual parameters are all at their highest (or lowest) possible values. Such a scenario is much less likely than a permutation where most of the parameters are at their expected (average values). A utilisation rate of 0.6 or below generates very few return on equity results that are reasonable (between the goalposts), and these all arise at extreme permutations.

It appears that the ENA's key concern with the AER's approach is that it does not sufficiently account for the investment opportunities overseas:⁶¹⁵

Moreover, the conceptual framework that the AER proposes to use to derive a value for theta assumes that the returns that are available on investments outside Australia have no impact whatsoever on the returns that investors require from their Australian investments.

We consider the use of these conceptual goalposts is the best available approach to respond to this concern. It considers not just the value of imputation credits, but the overall return on equity encompassing these imputation credits in the context of domestic and global returns.

Finally, the ENA's submission refers to a NERA report which describes an econometric exercise that relates tangentially to this issue.⁶¹⁶ They use a general-equilibrium model to postulate that, if one assumes fully integrated capital markets, the introduction of imputation credits makes relatively little difference to the observed market risk premium, even when those imputation credits are fully redeemed. As Lally notes, this relates to the use of an international CAPM—but this is not what the ENA is proposing.⁶¹⁷

We consider the conceptual goalposts approach supports an estimate of the utilisation rate in the range 0.8 to 1.0. It also suggests that a utilisation rate of 0.6 or below is unreasonable.

Other supporting evidence

Aside from the empirical estimates detailed above, we have considered whether observed policy decisions and market behaviours suggest investors obtain significant, little or no value from imputation credits. This includes consideration of:

- Surveys that reveal the value ascribed to imputation credits, in several different forms:

⁶¹⁴ That is, utilisation rates in this range generate a return on equity between the 'full integration' and 'full segmentation' return on equity in at least 50 per cent of all permutations.

⁶¹⁵ ENA, *Response to the draft guideline*, October 2013, p. 103.

⁶¹⁶ NERA Economic Consulting, *Imputation credits and equity prices and returns: A report for the Energy Networks Association*, 11 October 2013.

⁶¹⁷ Lally, *The estimation of gamma*, November 2013, pp. 19–20.

- Surveys of senior management of ASX listed companies (chief financial officers, managers, accountants)⁶¹⁸
- Surveys of key institutions (investment banks, professional services firms, infrastructure funds)⁶¹⁹
- Examination of independent expert reports lodged with the ASX (themselves prepared by a number of different consulting firms)⁶²⁰
- Other evidence on imputation credits:
 - The ongoing participation of equity imputation funds⁶²¹
 - Government tax policy to 'close the loophole' for dividend washing⁶²²

Consistent with the explanatory statement accompanying the draft guideline, we interpret this class of evidence with regard to its particular characteristics. The primary strength of this material is that it relates to real-world behaviour.⁶²³ The primary weakness is that it does not report the utilisation rate relevant to our definition. For example, the relevant utilisation rate is for all investors in the market, but the supporting evidence might include anecdotal evidence that relates to one particular category of investors. Hence, it may only be useful in a restricted qualitative sense. This type of information is not precise enough to imply a specific quantitative estimate, but may be able to inform broad observations about the apparent value.

Discussion of the available supporting evidence is included in appendix H. This discussion builds upon the material in the explanatory statement accompanying the draft guideline. On balance, we consider this evidence suggests it is reasonable to conclude that imputation credits have significant value to investors. We have not relied on this information to determine a specific value, but this information is consistent with the significant and positive estimate for gamma we have proposed.

⁶¹⁸ For example, Truong, Partington and Peat, 'Cost-of-capital estimation and capital-budgeting practice in Australia', *Australian Journal of Management*, June 2008, vol. 33(1), pp. 95–121.

⁶¹⁹ For example, KPMG, *Corporate finance: Valuation practices survey*, April 2013.

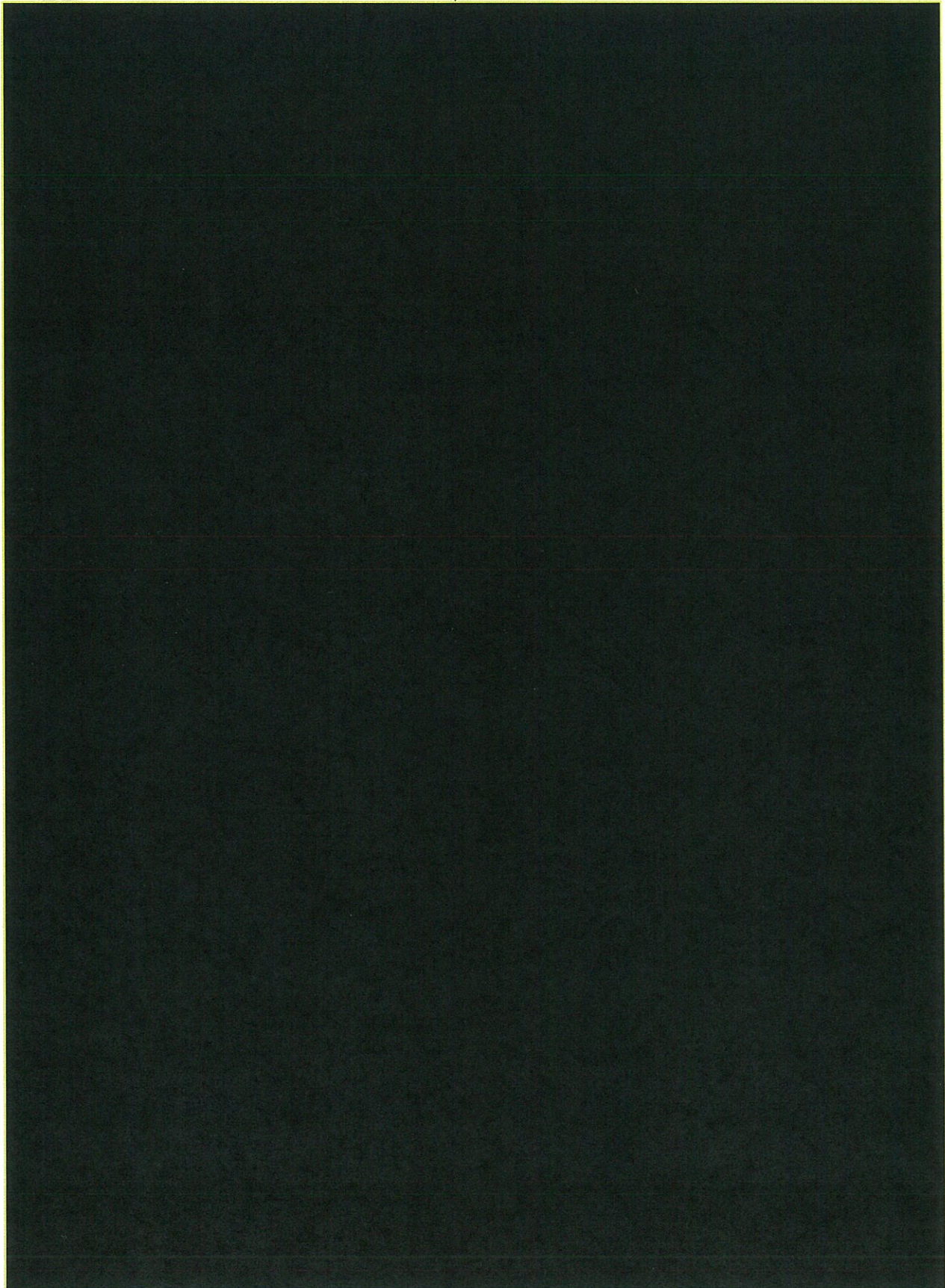
⁶²⁰ For example, SFG, *Evidence on the required return on equity from independent expert reports: Report for the Energy Networks Association*, 24 June 2013.

⁶²¹ Our non-comprehensive survey indicates that fund managers such as ANZ, BT Wholesale Investment Funds, Colonial First State all offer wholesale imputation investment funds. See AER, *Explanatory statement: Draft rate of return guideline*, August 2013, p. 136.

⁶²² Parliamentary library, *Measures to minimise exploitation of franking credits by 'dividend washing'*, May 2013, Available at: http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/pubs/rp/BudgetReview2013/14/FrankingCredits. See AER, *Explanatory statement: Draft rate of return guideline*, August 2013, p. 136.

⁶²³ This statement does not imply that the market value of imputation credits defines the utilisation rate, for the reasons set out previously. We also consider whether the empirically observed 'real-world' parameters are consistent with our overall framework such that the overall return on equity is reasonable—the conceptual goalposts approach attempts exactly this task.

Board Policy



**Government Guarantee Fee Policy
for Government Businesses**

Policy & Guidelines Paper

1. Preface

The *Government Guarantee Fee Policy* is a component of the NSW Government's Commercial Policy Framework.

The Framework aims to replicate within Government businesses the disciplines and incentives that lead private sector businesses towards efficient commercial practices.

The purpose of the *Government Guarantee Fee Policy for Government Businesses* is to ensure competitive neutrality between Government businesses and their private sector counterparts with respect to the cost of debt. This working paper outlines the methodology to determine the amount of the guarantee fee.

This policy supersedes the previous NSW Treasury policy document, *Government Guarantee Fee Policy for Government Businesses* (TPP 10-4, September 2010). This revised policy applies from 1 July 2014.

Philip Gaetjens
Secretary
NSW Treasury
May 2014

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Note

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2. Purpose of the policy

When Government businesses borrow funds through NSW Treasury Corporation (TCorp) at interest rates based on the credit rating of the State of New South Wales, they obtain a financial advantage over private sector businesses.

The *Government Guarantee Fee Policy* is specifically designed to improve the competitive neutrality between Government businesses and their private sector counterparts. Treasury seeks to replicate private sector debt practices by:

- establishing stand-alone credit ratings from private sector credit rating agencies.
- matching guarantee fee charges to the business' credit rating.
- referencing the prevailing credit spread for each rating from an independent and credible data source.
- maintaining credit charges for every line of debt.

Treasury also recognises that the *Government Guarantee Fee Policy* can create perverse incentives from a whole-of-state perspective. For that reason, it limits the private sector debt practise by:

- applying the guarantee fee rate to a fixed credit spread tenor. For regulated businesses, the credit spread tenor will match the Regulator's debt allowance benchmark. For all other businesses, it will be set at five years.

3. Application

3.1. Criteria

A guarantee fee applies to Government businesses that satisfy all of the following criteria:

- undertake commercial operations.
- have borrowings greater than \$1 million.
- are authorities, as defined in the PAFA Act or scheduled under any other Act that refers to the Treasurer's role in providing a guarantee.

The generic term 'Government business' includes:

- Public Trading Enterprises (or Public Non-financial Corporations under ABS classifications). This includes State Owned Corporations that are distinguished by their corporatised status.
- Public Financial Enterprises (or Public Financial Corporations under ABS classifications).
- General Government businesses (or General Government agencies under ABS classifications), which are also non-Budget dependent and operate under the Commercial Policy Framework.

3.2. Exemptions

The guarantee fee does not apply to authorities that receive a significant subsidy from the Consolidated Fund for day-to-day operating revenue, including non-commercial public trading enterprises (PTEs).

The premise is that Government businesses that require significant Government assistance to supplement their operating revenues are not sufficiently commercial to warrant inclusion in the guarantee fee scheme. The Treasurer, however, has the discretion to levy a guarantee fee on any authority with respect to a guarantee given for specific borrowings.

TCorp is not subject to guarantee fees since it acts as an intermediary and is not a primary borrower.

Special exemptions from the guarantee fee or reductions in the guarantee fee may be granted from time to time in exceptional circumstances to suit the specific situation of a Government business. Such exemptions or reductions should be applied for through NSW Treasury for consideration by the Treasurer. Any special exemption or reduction given will be for a fixed term.

4. Method to determine Guarantee Fees

The guarantee fee is calculated with reference to:

- the business' stand-alone credit rating.
- the credit spread on corporate debt with similar credit ratings.
- the notional term of the debt (for regulated businesses, will depend on the Regulator's notional debt allowance tenor).
- the amount of debt held by the business.

4.1. Credit ratings

All Government businesses subject to the guarantee fee must obtain a credit rating annually on a stand-alone basis. The stand-alone credit rating measures a business' financial standing independent of explicit or implicit financial support from the Government. This information is required to assess a business' level of competitive advantage from access to guaranteed borrowings.

Government businesses pay for their individual rating assessments. NSW Treasury selects the credit rating agency on the basis of a competitive tender. This requirement ensures that there is a consistent and unbiased approach to the assessment and allocation of credit ratings. The use of an independent credit rating agency also ensures that the NSW Government is separate from the rating process. This separation is necessary given that the NSW Government holds the dual role of owner and provider of debt finance.

Government businesses with a total guaranteed debt level exceeding \$10 million must obtain a rating from the agency nominated by NSW Treasury. Those businesses with a total guaranteed debt between \$1 million and \$10 million have the option of obtaining an estimate of their stand-alone credit rating from the rating agency or NSW Treasury. This threshold is set because the cost of the rating assessment would be relatively high for Government businesses with low debt levels.

Credit rating agencies undertake assessments that are forward looking and therefore a credit rating of a Government business is an assessment of its ability to meet its current and forecast debt obligations.

Where a business' credit rating changes, no change will be made to the guarantee fee on historic borrowings. The changed credit rating will be applicable from the start of the month following the date of the official downgrade or upgrade.

4.2. Guarantee Fee rate

The guarantee fee will apply a single rate to all debt whether short- or long-term debt.

The guarantee fee rate is the difference between a market interest rate for a business of similar risk and the cost of debt obtained from TCorp (exclusive of debt management fees), which borrows using the State's credit rating.

Guarantee fee rates for all credit ratings are based on the difference between Non-Financial Corporation (NFC) and TCorp yields obtained from the Reserve Bank of Australia tables F.2 and F.3. The RBA publish NFC yields for A/A2 and BBB/Baa2 credit ratings. For other credit ratings, rates will be imputed using a straight line projection from observed rates. Rates for each credit rating are calculated and distributed to businesses by TCorp on a monthly basis.

Guarantee fee rates that apply in any month are based on observations from the previous month. This allows the fee to be estimated and accrued by businesses during each year.

For regulated utilities, the guarantee fee rate will be determined using the debt tenor adopted by Regulator's debt allowance benchmark tenor.

For non-regulated utilities, the market rate will be based on long-term lending rates (five year).

4.3. Short and long-term debt

Guarantee fees are based on the current capital value of debt over the life of the borrowing for guaranteed debt held by Government businesses in a financial year.

Short-term debt is debt of less than 12 months' maturity at the time of the borrowing. For short-term debt, the Government Guarantee Fee rate for that month will be applied to the average value of short-term debt over the month.

For long-term debt, new loans entered into or loans repaid will only attract the guarantee fee for the portion of the month the loan is entered into.

When a new loan is arranged the guarantee fee will be charged at the prevailing guarantee fee rate for that month. This guarantee fee rate will apply to the loan until its maturity or a reset date elected by businesses at the time of establishment of each loan. Where a rate reset is agreed, the prevailing guarantee fee at the time of the reset will be that applicable for the credit rating of the business.

If a loan is repaid early (prior to the agreed maturity date), the weighted average rate for that particular debt security on the date of repayment will be applied to the amount repaid. This rate applied to the amount repaid is matched to the debt security until maturity. This will ensure that when a loan is fully or partially repaid there are no ongoing fees applied to the repaid portion of the loan.

If a loan is repaid early and refinanced to a longer date, the guarantee fee rate set at the time of the new loan will also be the weighted average rate over the residual life of the repaid loan. The prevailing guarantee fee on the new loan will also only apply from the maturity of the repaid loan.

Loans will be classified according to the term of the funding not the term of the interest rate reset period. Accordingly, term floating rate loans will qualify as long-term debt rather than short-term debt.

The guarantee fee is applied to the current capital value of the business' loan portfolio, but is not applied to other outstanding liabilities (including derivatives).

For fixed forward contracts the guarantee fee rate will be set at the time the contract is entered into, using the government guarantee fee rate for that month. The tenor selected at the time the contract is entered into will be applicable from the date the physical debt is drawn down. This replicates only charging a fee once financial accommodation has been received and provides for simplicity of administration.

The guarantee fee will not include borrowing costs in relation to:

- financial accommodation other than borrowings.
- establishment fees.
- undrawn facility fees.

While this could be considered a departure from private sector lending practices, this approach reduces complexity and administrative costs while providing incentives for businesses to manage the cost of funds.

Where a Government business has guaranteed 'own-name debt' (debt arranged externally to TCorp) they are required to supply NSW Treasury annually with the details.

4.4. Calculation

TCorp will calculate and provide Government businesses with a monthly report of the guarantee fee amount.

4.5. Projections for Budget Estimates and SCI/SBIs

Businesses are required to provide estimates of future Government Guarantee Fee expenses and liabilities for the State Budget and Statements of Corporate Intent (SCI) or Statements of Business Intent (SBI).

TCorp will provide the government guarantee fee rates for each credit rating to be used in budget estimates, which will ultimately be endorsed by NSW Treasury as the official forecasting rates.

Debt will be as per forward estimates provided by businesses to Treasury in the Budget and SCI/SBI context.

5. Administration

5.1. Payment terms

The guarantee fee is to be paid in arrears, with the fee payable upon invoice from TCorp (on behalf of NSW Treasury).

5.2. Roles and responsibilities

NSW Treasury is responsible for the development of the *Government Guarantee Fee Policy* and aspects of its administration which involves:

- developing, promulgating and promoting the policy.
- updating and revising the policy where necessary.
- selecting the credit rating agency to conduct the stand-alone credit rating of Government businesses, and

- processing the receipt of the guarantee fee payments.

NSW Treasury Corporation (TCorp) is responsible for:

- providing funds for the borrowing program of Government businesses.
- advising Treasury and businesses of applicable government guarantee fee rates.
- providing Treasury with information on businesses' borrowings with TCorp and any guarantee fee rate resets for long-term loans upon request.
- providing technical advice to Treasury where required.
- collecting the necessary information to calculate the guarantee fee payable.
- advising Government businesses of their accrued guarantee fee amounts, and
- issuing invoices to business on behalf of NSW Treasury.

Boards and management of Government businesses are responsible for:

- providing balances of TCorp and non-TCorp debt levels to Treasury at Budget and Half Year Review, and at other times upon request.
- estimating current year and forecast guarantee fees payable at Budget, Half Year Review, in Statements of Corporate Intent / Statements of Business Intent, and at other times upon request.
- obtaining a credit rating from the agency nominated by NSW Treasury.
- confirming invoiced amounts, and
- ensuring payment of the guarantee fee within the designated timeframe.

5.3. Transitional arrangements

The new policy will apply to new borrowings and short-term debt from 1 July 2014.

Government guarantee fees calculated or paid prior to 1 July 2014 will not be amended. However, the new policy will apply retrospectively to calculate the weighted average effective rate applicable on existing borrowings. That is, all historical borrowings will use debt current capital values rather than debt face values to calculate the guarantee fee liability.

Debt drawn down before 30 June 2010 will be levied a Government Guarantee Fee using the bank panel rates that prevailed at the time each loan was drawn down. This rate will continue to apply for the term of that debt.

As individual debt tranches mature or are repaid, refinanced debt will attract the prevailing guarantee fee rates.

6. Legislative Framework

The *Public Authorities (Financial Arrangements) Act, 1987* ('PAFA Act') provides the legislative basis for administering guarantee fees.

6.1. Borrowing requirements

Sections 7 and 8 of the PAFA Act provide that Government businesses, which are declared to be authorities for the purposes of the Act, can obtain financial accommodation subject to approval from the Treasurer and the Governor.¹

Under section 10 of the PAFA Act, Government businesses are required to obtain all financial accommodation from NSW Treasury Corporation (TCorp), unless the Treasurer grants an exemption.

6.2. Guaranteed debt and guarantee fees - application to government businesses

In accordance with section 22D of the PAFA Act, the Treasurer may charge Government businesses a fee in respect of debt guaranteed by the NSW Government. The Treasurer determines the amount and the timing of the fee.

The ordinary debt of Government businesses is automatically guaranteed under the PAFA Act, provided that it has been obtained from TCorp.² Debt obtained from other lenders is not guaranteed, unless a specific debt has been explicitly guaranteed in writing by the Treasurer.

State Owned Corporation (SOCs) to which the *Government Guarantee Fee Policy* applies have in place agreements that TCorp debt is guaranteed. A statutory guarantee explicitly applies only when the board of the SOC and voting shareholders agree in writing, in accordance with section 22A(2) of the PAFA Act and sections 16 or 20U of the *State Owned Corporations (SOC) Act 1989*.

The same sections of the *SOC Act* provide that guarantee fees for SOCs may be separately fixed by the voting shareholders, in consultation with the board, at times determined by the Treasurer.

¹ Financial accommodation as defined in the PAFA Act typically includes debt instruments such as loans, promissory notes, debentures, bonds and discounted securities. For a full definition, refer to section 4 of the PAFA Act.

² See section 22A PAFA Act and clause 54, *Public Authorities (Financial Arrangements) Regulation 2013*.

Appendix

Government Guarantee Fee Calculation – An Example

In this example, a business has a credit rating of BBB+ (S&P scale) /Baa1 (Moody's scale) in the 2012-13 year and an improved rating of A (A2) in the 2013-14 year.

The Government Guarantee Fee rate (GGF rate) that applies for borrowings in 2012-13 is 2.80%, based on bank panel rates for that year under the former Government Guarantee Fee policy (TPP 04-2). For new borrowings in 2013-14, the monthly rate varies with market rates. For July borrowings, the rate is 1.81% and for August borrowings it is 1.62%. In the example, this rate is held constant for the remainder of the year, whereas in practice, it will vary each month.

The business has chosen not to reset its Government Guarantee Fee rate before each loan matures. Each month, the Government Guarantee Fee charge is $[(\text{Short-term debt average monthly balance}) \times (\text{GGF rate applying that month}/12)] + \text{sum of } [(\text{Long-Term loans}) \times (\text{GGF rate that applied when each loan contract was arranged}/12)]$.

Total Government Guarantee Fee payable in 2013-14 is \$9,106,5475 = \$697,442 (July charge) + 11 x \$764,467 (August to June charge, same each month).

Government Guarantee Fee rate: example				Jun-13	Jul-13	Aug-13			FY 2013-14
Credit rating			RBA differential to TCorp rate	BBB+	A	A			
Monthly GGF Rate			No/Yes (months)	2.80%	1.81%	1.62%			
Reset within maturity?				No	No	No			
Total Debt (has GGF applied)				\$203,000,000	\$353,000,000	\$403,000,000	\$0	\$0	\$403,000,000
Total GGF for month (Sum of 1,2,3,4)				\$473,667	\$697,442	\$764,467			\$9,106,575
Short-term debt (average monthly balance)				\$3,000,000	\$3,000,000	\$3,000,000			\$3,000,000
1 GGF on short term debt				\$7,000	\$4,525	\$4,050			\$49,075
Long term debt									
Borrowing date	Maturity date	Original Face Value	GGF fee monthly charge, LT debt	\$466,667	\$692,917	\$760,417			\$9,057,500
1/6/2013	1/8/2012	\$200,000,000	Debt outstanding has GGF applied	\$200,000,000	\$200,000,000	\$200,000,000			
			Nominal No. months until rate reset	N/A	N/A	N/A			
			GGF rate	2.80%	2.80%	2.80%			
			GGF fee monthly charge	\$466,667	\$466,667	\$466,667			\$5,600,000
2									
1/7/2013	1/8/2020	\$150,000,000	Debt outstanding has GGF applied	\$150,000,000	\$150,000,000	\$150,000,000			
			Nominal No. months until rate reset		N/A	N/A			
			GGF rate		1.81%	1.81%			
			GGF fee monthly charge		\$226,250	\$226,250			\$2,715,000
3									
1/8/2013	1/9/2025	\$50,000,000	Debt outstanding has GGF applied			\$50,000,000			
			Nominal No. months until rate reset			N/A			
			GGF rate			1.62%			
			GGF fee monthly charge			\$67,500			\$742,500
4									