



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

Inquiries

Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

E: aemc@aemc.gov.au

T: (02) 8296 7800

F: (02) 8296 7899

Reference: ERC0134/ERC0135/GRC0011

Citation

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.

This work is copyright. The Copyright Act 1968 permits fair dealing for study, research, news reporting, criticism and review. Selected passages, tables or diagrams may be reproduced for such purposes provided acknowledgement of the source is included.

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.

Contents

1	Network regulation rule change requests	1
1.1	Rule change requests	1
1.2	Rationale for the rule change requests	1
1.3	Solutions proposed in the rule change requests	2
1.4	Consultants	3
1.5	Commencement of rule making process and extensions of time	4
1.6	Consultation on rule change requests	4
1.7	Consultation on draft rule determination.....	5
1.8	Next steps.....	5
2	Draft Rule determination - electricity	7
2.1	Commission's draft determination.....	7
2.2	Commission's considerations	7
2.3	Commission's power to make the rule	8
2.4	Rule making test.....	8
2.5	More preferable rule	11
2.6	Other requirements under the NEL	11
3	Draft Rule determination - gas	15
3.1	Commission's draft determination.....	15
3.2	Commission's considerations	15
3.3	Commission's power to make the rule	16
3.4	Rule making test.....	16
3.5	More preferable rule	17
3.6	Other requirements under the NGL.....	18
4	Commission's reasons	20
4.1	Introduction	20
4.2	Summary of assessment of issues	20
4.3	Drivers for effective network regulation	28

4.4	Merits review	29
5	Overall approach to the draft rule determination.....	30
6	Rate of return framework	32
6.1	Introduction	33
6.2	Submissions	34
6.3	Analysis.....	39
6.4	Draft rule.....	56
7	Return on debt.....	62
7.1	Introduction	64
7.2	A trailing average approach to estimating the return on debt	65
7.3	Benchmark for estimating the return on debt and whether the allowed cost of debt is higher than service providers' actual debt costs	74
7.4	Whether the return on debt should be estimated differently based on the service provider's ownership.....	78
7.5	Draft rule	90
8	Capex and opex allowances and factors	94
8.1	Do the NER inappropriately constrain the AER regarding capex and opex allowances?	95
8.2	Clarifying the rules regarding capex and opex allowances	101
8.3	Other issues.....	108
8.4	Capex and opex factors	112
9	Capex incentives.....	116
9.1	Introduction	117
9.2	Submissions	119
9.3	Further consideration of the problems raised in respect of capex incentives.....	121
9.4	Overall approach.....	125
9.5	Capex sharing schemes	128
9.6	Reviews of efficiency of past capex	133
9.7	Actual or forecast depreciation	142
9.8	Related party margins and capitalisation policy changes	148
10	Regulatory determination process	153

10.1	Introduction	154
10.2	Submissions	157
10.3	General principles.....	159
10.4	Late or out-of-scope submissions	162
10.5	Confidentiality claims in the regulatory proposal.....	166
10.6	Mandatory issues paper and overview paper	171
10.7	Cross-submissions stage	177
10.8	Timing of the regulatory determination process	178
10.9	Framework and approach paper	183
11	Diverse issues	189
11.1	Uncertainty regime	190
11.2	Material errors	202
11.3	Shared assets.....	205
11.4	Small scale incentive schemes	215
12	Proposed transitional arrangements.....	218
12.1	Introduction.....	218
12.2	Commission's general approach to transitional arrangements	218
	Abbreviations.....	219
A	Detailed examples of potential capex sharing schemes	223
B	Example of a formulaic expression of a control mechanism	226

(

(

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

⁸ Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

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 NER and the NGR 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.

³² Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

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.

³⁶ Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

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*

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

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.

⁴⁴ Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

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.

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

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].

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

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 γ factor. The current prescription of the γ 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.

⁶² Economic Regulation of Network Service Providers, and Price and Revenue Regulation of Gas Services

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; APIA, 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. ENERGEX 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