

## **Australian Energy Market Commission**

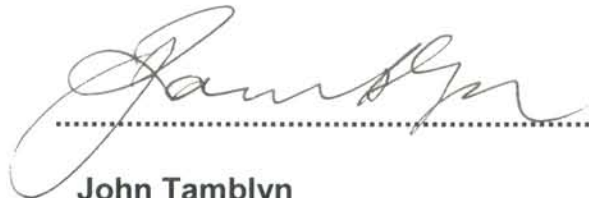
### **Draft Rule Determination**

**Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006**

**Proponent: Australian Energy Market Commission**

**Date: 26 July 2006**

**Signed:**



.....

**John Tamblyn  
Chairman**

**For and on behalf of:  
Australian Energy Market Commission**

**Commissioners: Tamblyn  
Carver  
Woodward**

## Preface

The National Electricity Law (NEL) requires the Australian Energy Market Commission (AEMC) to amend the National Electricity Rules (NER) governing the regulation of electricity transmission revenue and prices before January 2007.

Publication of this transmission revenue Rule (the Draft Rule<sup>1</sup>) represents the next step in the Commission's Rule change process in relation to the revenue regulation aspects of the Review.

The Commission is now seeking comments from all relevant stakeholders on this Draft Rule before preparing its Final Determination.

In conducting this Review of the Rules for the regulation of transmission regulation and pricing, the Commission has placed particular emphasis on the crucial role played by the transmission network in facilitating competition and efficient resource use in the electricity wholesale and retail markets. The significance of the interactions of the transmission network with the competitive sectors of the electricity system, together with the substantial market power that can be associated with the supply of the core transmission service are the principle reasons why submissions from market participants have been concerned to ensure that the regulatory arrangements for transmission are effective in promoting efficient behaviour and outcomes across the market.

This Review of the Rules for the economic regulation of electricity transmission is part of a broader program of reform of the arrangements governing investment in, and operation of the national electricity transmission grid and its contribution to the efficient performance of the National Electricity Market (NEM) as a whole.

The Commission is currently processing a number of related Rule change proposals submitted to it by the Ministerial Council on Energy (MCE) that are directed at facilitating timely and efficient transmission investments that are sufficient to meet future demand growth and reliability requirements<sup>2</sup>. The MCE has also directed the Commission to review and recommend options for improved management of congestion in the transmission network. Under the auspices of the Commission, the Reliability Panel is also conducting a review of the Reliability Standard and related arrangements which influence investment to underwrite the reliability and performance of the national electricity system.

The issues identified in stakeholder submissions during the initial consultation phase of the Review process have had a direct bearing on the development of the Draft Rule. A key theme raised in stakeholder submissions on the Scoping Paper and the Issues Paper<sup>3</sup> was the need for a better alignment between transmission investment and operation decisions and the requirements of network users and electricity

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<sup>1</sup> Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006, referred to throughout this Draft Determination as the Draft Rule.

<sup>2</sup> MCE, Regulatory Test Principles Rule change proposal, 12 October 2005, and MCE, Last Resort Planning Power Rule change proposal, 12 October 2005.

<sup>3</sup> Australian Energy Market Commission, Review of Transmission Economic Regulation: Revenue Issues Paper, 19 October 2005

customers. A second key theme was the desire for greater clarity, certainty and consistency in the regulatory framework and its implementation by the regulator.

These were prominent themes in the Rule Proposal published by the Commission in February 2006 and they continued to receive support from stakeholders in the submissions provided on the Rule Proposal.

However, in response to comments and suggestions in stakeholder submissions, the Commission has made significant changes to the Draft Rule compared to the Rule Proposal directed to improving the balance of the regulatory framework in relation to:

- the degree of codification of methods and processes relative to the areas of discretion left to the regulator; and
- the strength of, and interactions between, the incentive mechanisms incorporated in the revenue regulation model.

The Commission has also responded to comments in submissions that the Rule Proposal was unduly complex in its structure and language. The Commission has put a substantial effort into preparing a Draft Rule which is simpler and clearer than the Rule Proposal.

Having considered the views expressed in submissions and conducted its own further analysis, the Draft Rule, reflects the Commission's current assessment of the appropriate settings for the electricity transmission regulatory framework and the construction and form of the Rule required to give effect to it. This Draft Determination places particular emphasis on the changes that have been made in the Draft Rule compared to the Proposed Rule and the Commission's reasons for these changes. For this reason it does not provide a comprehensive analysis of all components of the Draft Rule.

The Commission is now seeking submissions on its Draft Rule from all interested stakeholders by 11 September 2006. The Commission is seeking views on the scope, construction and form of the Draft Rule and the reasons it has provided in support of that approach, as well as, the detailed wording of the Draft Rule itself.

The Commission will publish its final determination and Rule in November 2006 after assessing the views of stakeholders of the Draft Rule.

**Interested stakeholders are invited to make comment on the issues outline in this draft determination and Draft Rule.** Submissions should be received by 5pm on 11 September 2006.

Submissions can be sent electronically to [submissions@aemc.gov.au](mailto:submissions@aemc.gov.au) or by mail to:

Australian Energy Market Commission

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## Abbreviations

ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
ACG	Allen Consulting Group
ACT	Australian Competition Tribunal
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AGL	Australian Gas Light Company
APIA	Australian Pipeline Industry Association Ltd
capex	Capital Expenditure
CAPM	Capital Asset Pricing Model
COAG	The Council of Australian Governments
Code	National Electricity Code
Commission	See AEMC
CPI	Consumer Price Index
CUAC	Consumer Utilities Advocacy Centre
DJV	Directlink Joint Venture
DNSP	Distribution Network Service Provider
Draft SRP	Draft Statement of Principles for the Regulation of Electricity Transmission Revenues (August 2004)
EAG	Energy Action Group
ERA	Western Australian Economic Regulation Authority
ESC	Essential Services Commission (Victoria)

ESCOSA	Essential Services Commission of South Australia
ESIPC	Electricity Supply Industry Planning Council
ETNOF	Electricity Transmission Network Owners' Forum
ETSA	ETSA Utilities
EUAA	Energy Users' Association of Australia
Gas Code	National Third Party Access Code for Natural Gas Pipelines
Gas Access Regime	National Gas Access Regime
IPART	Independent Pricing and Regulatory Tribunal (NSW)
ICRC	Independent Competition and Regulatory Commission (ACT)
MAR	Maximum Allowed Revenue
MCE	Ministerial Council on Energy
MEU	Major Energy Users Inc
MNSP	Market Network Service Provider
MTC	Murraylink Transmission Company
NEL	National Electricity Law
NEM	National Electricity Market
NEMMCO	National Electricity Market Management Company
NER	National Electricity Rules
NGF	National Generators Forum
NPV	Net Present Value
OEPC	Tasmanian Office of Energy Planning and Conservation
OTTER	Office of the Tasmanian Energy Regulator

PC	Productivity Commission
PIAC	Public Interest Advocacy Centre
PTRM	Post Tax Revenue Model
QCA	Queensland Competition Authority
RAB	Regulatory Asset Base
Rules	National Electricity Rules
SRP	Statement of Principles for the Regulation of Electricity Transmission Revenues (December 2004). The SRP comprises a background paper and a consolidated version of the principles.
TFP	Total Factor Productivity
TNO	Transmission Network Owner
TNSP	Transmission Network Service Provider
URF	Utility Regulators' Forum
WACC	Weighted Average Cost of Capital

# 1 Overview of the Draft Rule

As indicated in the Rule Proposal Report<sup>4</sup>, the Commission sought to build Rules for electricity transmission regulation based upon the approach of the existing regulatory framework, including the ACCC's Statement of Regulatory Principles<sup>5</sup> (the SRP). The Commission's rationale was that this approach is consistent with the new governance arrangements in the NEM and also addresses many of the concerns that stakeholders raised in submissions. The Commission has decided to maintain much of the approach taken in the Proposed Rule for the Draft Rule. However, a number of changes have been made following stakeholder submissions and further analysis; in particular the Commission has revised its approach to the overall incentive package.

This chapter provides a summary of the Draft Rule and an assessment as to how the Draft Rule contributes to the NEM objective. It emphasises in particular those areas where the Commission has made amendments to the Proposed Rule based either on submissions or its own further analysis.

## 1.1 Contribution to the National Electricity Market Objective

In conducting this Review of the economic regulation of transmission services, the Commission has been guided by the NEM objective – to promote an efficient, reliable and safe electricity system. Its goal has been to design a regulatory regime that will facilitate efficient investment in and operation of transmission services, thereby promoting competition and efficiency in the electricity wholesale and retail markets and the long term interests of consumers of electricity.

The development of the Draft Rule was guided by the key themes that have emerged during the earlier consultation process for the Review. These key themes relate to:

- aligning the incentives for transmission network service providers (TNSPs) in relation to investment in and operation of transmission networks with those of network users so as to deliver efficient outcomes for the electricity market, market participants and consumers; and
- increasing the clarity, certainty and transparency of economic regulation so as to provide a more certain regulatory environment for efficient long term investment.

In preparing the Draft Rule, the Commission has considered carefully the views, comments and suggestions provided in submissions from stakeholders on the Proposed Rule released in February 2006. Market participants told the Commission in submissions that they were concerned about the lack of stability and predictability in the regulatory framework, the perception of regulatory risk for market participants, and the need for greater transparency and accountability in regulatory decision making. Other stakeholders identified the benefits of aligning the incentives of network owners with the needs of network users and electricity customers and the

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<sup>4</sup> Australian Energy Market Commission 2006, 'Review of the Transmission Revenue and Pricing Rules, Transmission Revenue: Rule Proposal Report, February 2006.

<sup>5</sup> ACCC 2004, 'Statement of principles for the regulation of electricity transmission revenues', 8 December 2004.

value of developing a regulatory approach that encourages efficient long term investment to occur.

Consistent with the approach adopted in the Proposed Rule and in line with the views expressed in many submissions, the Commission's Draft Rule builds upon existing practice and experience. The principal components of the SRP, developed by the Australian Competition and Consumer Commission (ACCC) and adopted by the Australian Energy Regulator (AER), have been reflected in the Draft Rule, including:

- the adoption of a revenue cap approach;
- a post-tax revenue model (PTRM) using the building blocks methodology; and
- incentive mechanisms to promote expenditure efficiency and service reliability.

However, the Commission has made a number of adjustments in the Draft Rule compared to the Proposed Rule in response to stakeholder submissions. In doing so, it has placed particular emphasis on developing a balanced regulatory framework which provides incentives for efficient network investment and operations, addresses the potential for network operators to exercise market power and provides for appropriate transparency and accountability on the part of the regulator.

The Commission's focus on achieving balance in the regulatory framework has been directed in particular to striking an appropriate balance in relation to:

- minimising inefficiencies that can occur through either market failure or regulatory failure;
- the interaction of the various incentive mechanisms embodied in the Draft Rule; and
- codification of regulatory methodology and process in rules with appropriate flexibility and discretion available to the regulator.

Achieving the appropriate balance in addressing the impact on energy market efficiency of market failure and regulatory failure, respectively, requires a careful assessment of the trade-offs that are involved.

Electricity transmission services are generally supplied under natural monopoly conditions. Due to the economies of scale and scope and network externalities involved in their supply, transmission services can be supplied more efficiently by a single service provider rather than two or more. However, the absence of competitive pressure from rivals under this market structure also introduces the potential for market failure as a result of the substantial market power it confers on transmission service providers.

In these circumstances, economic regulation can be an appropriate policy response as a means of providing network operators with incentives for efficient investment in and operation of their infrastructure while containing the costs and inefficiencies that can arise from the potential exercise of market power.

However, economic regulation is a poor substitute for effective competition as the means of promoting efficient investment and resource use. The potential for failures

in the regulatory process can also impose costs and inefficiencies; including the direct costs incurred by regulated businesses and the regulator and the costs to society as a whole through the potential for regulatory error and induced inefficiencies.

In developing the Draft Rule, the Commission has been conscious of the potential for both market failure and regulatory failure and has sought to design a balanced regulatory framework such that the inefficiencies from either are minimised.

The CPI-X revenue cap form of regulation is the principal means of providing incentives for efficient network investment and operation, while minimising the scope to exercise market power. It does this by remunerating network operators on the basis of periodic forecasts of the efficient costs of service provision, such that they retain a proportion of unanticipated cost reductions and absorb unanticipated cost increases.

However, the revenue cap regulatory model incorporates a suite of incentive mechanisms and it is essential to maintain an appropriate balance between them to avoid unintended inefficiencies. For example, incentives to achieve cost efficiencies must be balanced with appropriate incentives to maintain service quality and reliability. Similarly, incentives to achieve cost efficiencies should be designed to encourage efficient choices between capital and operating expenditure and between short term and long term investments.

With these considerations in mind and in response to suggestions in a number of submissions, the Commission has made a number of changes to the incentive arrangements adopted in the Rule Proposal. These changes are directed to creating a balanced and effective package of incentives to reduce costs to efficient levels while maintaining or improving service standards.

A further important consideration in balancing the tensions involved in economic regulation is the degree to which the framework provides certainty through specification in rules of both the methodology of, and process for, regulatory decisions while providing the regulator with the flexibility and discretion to perform the role effectively. Designing rules that give clear and transparent instructions allows for market participants to have increased certainty about how long term assets will be treated at a revenue reset.

Some matters in regulatory determinations, however, involve a degree of uncertainty such that the rules under which decisions are made should allow for the exercise of judgment and discretion. In order to ensure that the Rule provides the appropriate balance between codification and discretion the Commission has adopted a 'fit-for-purpose' approach to the Rules. This approach requires a consideration of the costs and benefits of providing certainty or flexibility in the context of the different elements of the regulatory framework specified in the Draft Rule. Where there is clearly increased benefit from providing certainty and transparency the Commission has codified methodologies and processes in the Draft Rule. However, where there is uncertainty, such as in the case of expenditure forecasts and the calibration of specific incentive mechanisms, the Commission has sought to ensure that there is sufficient flexibility in the rules to allow the regulator to make informed decisions.

The Commission is satisfied that the Draft Rule establishes a balanced and effective framework for economic regulation of electricity transmission services. The measures adopted in the Draft Rule provide for TNSPs to recover the efficient costs of providing transmission services, effective incentives for cost efficiency and service performance and greater clarity, transparency and predictability in the regulatory framework.

The Commission considers that the Draft Rule will improve the economic efficiency of investment in, and use of, transmission services, including in relation to reliability and security and will therefore contribute to the long term interests of electricity consumers. It is satisfied therefore that the Draft Rule meets the requirements of the NEM objective.

## 1.2 Summary of the Draft Rule

As previously noted the Commission has sought to develop Rules that align the interests of TNSPs with those of other market participants in order to promote efficient network investments that will enhance the reliability, safety and security of the national electricity system. Based on submissions and the Commission's own analysis the Draft Rule adopts measures to provide greater certainty and transparency in the regulatory environment while also allowing an appropriate degree of flexibility for the regulator to perform its role. Building on the existing regulatory practice and the approach of the SRP the Draft Rule provides for:

- a fit for purpose decision framework that varies the extent of codification and discretion assigned to different elements of the building block model;
- greater scope for market participants to engage in commercial negotiation for specified services;
- a balanced incentives package to encourage cost efficiency, service performance and greater reliability of the system at times when it is most valued;
- certainty in the treatment of the RAB by requiring a lock-in and roll-forward approach;
- clear guidance on the processes and procedures to be adopted by the regulator; and
- the development of guidelines by the regulator regarding the exercise of discretion in specified areas.

An overview of details of the Commission's overall approach to the revenue regulation of transmission networks is provided in Box 1.1 below.

### Box 1.1: Summary of the Draft Rule

#### **Scope and Form of Regulation**

##### *Prescribed Transmission Services*

CPI-X revenue cap approach using the building block methodology.

##### *Negotiated Transmission Services*

Commercial negotiation with arbitration of disputes.

#### **Building Block Revenue Requirement**

##### *PTRM*

AER to develop a Post Tax Revenue Model (PTRM) which forms the basis for the calculation of the Maximum Allowed Revenue (MAR). The regulatory control period for which the PTRM applies is five years.



#### *X-factor*

Nominated by the TNSP and accepted if the AER determines that the TNSP's proposal conforms with the requirements in the Rules.

#### *Regulated Asset Base (RAB)*

The initial RAB values are specified in the Rules and a roll-forward approach model to be developed by the AER to ensure that the RAB values are 'locked in'. Capital expenditure will not be subject to an *ex post* review before it is rolled into the RAB. The PTRM is to allow for the indexation of the RAB.

#### *WACC*

WACC methodology and parameters will be specified in the Rules for an initial period of five years. The AER is required to review the parameters and methodology each five years to allow for change to the methodology and parameters over time.

#### *Tax*

Tax should be estimated based on parameters for a benchmark business and not a TNSP's actual financial and tax arrangements. The value of imputation credits has been deemed to be 0.5.

#### *Depreciation*

Depreciation schedules are to be nominated by the TNSP and are to be accepted by the AER if they conform with principles set out in the Rules.

#### *Forecast Expenditure*

The AER is to approve forecast capital and operating expenditure if the AER determines that they are a reasonable estimate having regard to specified factors in the Rules.

### **Incentives Package**

#### *Efficiency Benefit Sharing Scheme*

The AER to develop an efficiency benefits sharing scheme providing for a revenue increment or decrement for each regulatory year where outturn costs are greater or less than forecast costs. The AER must approve the TNSP's proposed parameter values if it is satisfied they comply with the requirements of the scheme.

#### *Performance Standard Incentives*

Service incentive scheme to be designed by the AER with a restriction on the reward or penalty of +/- five per cent of regulated revenue.

#### *Capital Expenditure Incentives*

Higher powered incentives are provided for capital expenditure with a separate contingent projects regime for capital expenditure required for specific large projects.

### **Regulatory Procedures**

A 13 month regulatory determination period commencing from the submission of the Revenue Proposal to be specified in the Rules. Time requirements specified for major milestones such as the Draft and Final Determinations and any resubmitted Revenue Proposal.

### **Information Requirements**

AER required to develop information and submission guidelines. The Rules provide a clarification of the circumstances in which the AER can gather information. The Rules also provide for the manner in which the AER can consider information from a third party that is not deemed to be at arms length.

### **Guidelines**

The AER is required to develop the following guidelines, models or schemes:

- Information Guidelines;
- Cost Allocation Guidelines;
- Service Performance Target Incentive Scheme;
- Efficiency Benefit Sharing Scheme;
- Post Tax Revenue Model; and
- Roll-Forward of the Regulatory Asset Base Model.

The remainder of this chapter will discuss the key elements of the Commission's approach and provide the details of how the Commission has sought to achieve the appropriate balance in the Rules for the regulation of transmission revenues.

### **1.3 Scope and Form of Regulation**

In the Rule Proposal the Commission identified a lack of clarity regarding the delineation between the types of transmission services that should be subject to a revenue cap determination under the current form of Chapter 6 of the Rules and those that are appropriately subject to a less intrusive form of regulation. The result of this lack of clarity has been an over-inclusion of services into the revenue cap. This, in turn, leads to consumers of prescribed services paying for services that they do not necessarily benefit from as they are not part of the shared network. In addition, an over-inclusion of services in a revenue cap can distort market outcomes by crowding out the opportunities for the competitive supply of services and commercial negotiations between TNSPs and users. The Commission does not consider that this situation is consistent with the requirements of the NEM objective.

To address this issue the Commission proposed adopting two classifications for services, Prescribed Transmission Services and Negotiated Transmission Services. The Commission determined that Prescribed Transmission Services would be subject to a revenue cap and Negotiated Transmission Services subject to a commercial negotiation regime. Services that fall outside the definitions of Prescribed and Negotiated Transmission Services, such as consultancy services, will not be subject to any form of regulation under Chapter 6A of the Rules.

The Commission believes that this approach meets the NEM objective by encouraging efficient investment and meeting the long term interests of users with respect to price. The clear delineation of services will also ensure that customers only pay for the services they are benefiting from, as only the costs associated with Prescribed Transmission Services will form part of the revenue cap.

A majority of submissions agreed with the assessment of the benefits that can be obtained with this approach and, therefore, the Commission has maintained its approach to the scope and form of regulation of transmission services under Chapter 6A. However, submissions raised a number of issues where refinement could improve the working of the Rule, as a result the Commission has decided that amendments to the Draft Rule be made in the following areas:

- provide a clarification that the definition of Prescribed Transmission Services includes expenditure required as a consequence of obligations on TNSPs under the Rules in relation to system security and reliability;
- clarification that the Rules are not intended to regulate the price of services genuinely capable of competitive supply; and
- clarification in both the definition of Negotiated Transmission Services and Prescribed Transmission Services that Connection Services provided by one NSP to another NSP are Prescribed Services.

The Commission also maintains the view (generally supported across all stakeholder interests) that a revenue cap methodology using a building blocks approach is the most appropriate form of regulation for Prescribed Transmission Services at this stage of development of the NEM, given the extensive network externalities and substantial market power associated with the shared transmission network. No submissions objected to this approach being adopted in the rules. The Commission considers that maintaining the revenue cap approach provides consistency and certainty for TNSPs and their customers in the absence of a persuasive reason for making a change.

#### **1.4 Decision Framework for Revenue Determinations**

The economic regulation of infrastructure industries involves both the substantive rules (methodologies and decision making criteria), which govern the application of regulation to individual cases and the procedural rules, which govern the process by which decisions are made. Consequently, when considering the question of the extent to which legal rules seek to codify or specify the details of economic regulation it is useful to separately consider the case for or against codification of the substantive rules and the process or procedural rules.

In assessing the regulatory framework for transmission network regulated revenues, the Commission has separately considered the balance between codification in the Rules and the conferral of discretions on the AER in the context of:

- process and procedural matters;
- the level of specification of methodologies; and
- the extent to which the Rules provide decision making criteria in areas in which the AER has discretion.

Importantly, where legal rules confer discretions on regulators the rules should also specify the criteria for exercising those discretions. If regulators have unguided discretion in the context of making decisions about the economic regulation of a business, the decisions they make may adopt interpretations or deliver outcomes that are not reasonably within the scope of a balanced approach to regulation.

A balanced approach to economic regulation recognises that there is rarely a first best solution to the question of how the revenues and prices of a particular business or business activity should be regulated.

In relation to the degree of prescription or discretion that is appropriate for regulatory decision criteria, the Expert Panel on Access Pricing (the Expert Panel)<sup>6</sup> concluded that the extent to which prescription is included in the Rule should be determined in the Rule making process, having regard to the elements of the access arrangement or Revenue Proposal as well as the specific industry circumstances that are involved<sup>7</sup>.

The Commission agrees with the Expert Panel that the extent to which the Rules codify matters of process, methodology and decision making criteria should be determined through a Rule making process on the basis of a 'fit for purpose' approach. That is, there is no general principle that can determine the extent of codification of rules in all circumstances for all types of energy infrastructure. The Commission's general approach has been to improve the transparency and predictability of regulatory outcomes by codifying in the Rule those elements of methodology and process which are comparatively uncontroversial, unlikely to need to vary in application across different TNSP's in different circumstances or which are necessary to be determined on an *ex ante* basis for the efficient administration of the regulatory process.

The Commission also understands that there are significant areas of regulatory decision making that should involve the exercise of judgment and discretion by the regulator. This is because good economic regulation should be sufficiently flexible to adapt to the individual circumstances of regulated businesses across different periods of time. Areas of flexibility and discretion also allow the regulatory process to evolve with experience and learning.

However, the Commission agrees with the AER that its Draft Rule was unnecessarily constricting in specifying the timing of all steps associated with the determination of a revenue cap. Consequently, the Commission has now formulated procedural Rules which contain only the key aspects of the regulatory process giving the AER and regulated business the ability to vary the details of procedure and timing to suit the circumstances of individual cases, while at the same time providing increased certainty of process compared to existing practice

The Commission has also concluded that there is significant benefit in specifying in Rules the methodology for the determination of revenue caps. The Commission considers that the mechanics of the building block approach are well understood and have been adopted by economic regulators in Australia and overseas for over 10 years. In these circumstances the Commission sees few if any risks to good regulatory outcomes from codifying the building block methodology in the Rules.

However, the Commission has carefully considered a number of concerns expressed by the AER about components of the building blocks which it believed to have been detailed to an inflexible degree in the Proposed Rule. In a number of areas the Commission agrees with the AER and has reduced the level of codification of those elements in the Draft Rule. This is particularly the case in relation to the operation of the incentive mechanisms (as discussed further below).

Where significant areas of judgment are required, the Proposed Rule also specified criteria for making those decisions. For instance, the reasonable estimate basis for the

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<sup>6</sup> Expert Panel on Energy Access Pricing, 'Report to the Ministerial Council on Energy', April 2006

<sup>7</sup> Ibid, p.90.

determination of capital and operating expenditure forecasts is an example of the Rules providing appropriate decision making discretion to the regulator (given the inherent uncertainty of such forecasts) with specific guidance on how that discretion is to be exercised. This approach has been maintained in the Draft Rule.

## **1.5 Incentive Framework**

A key role of economic regulation is to supplement regulatory obligations with targeted incentives. Providing incentives to regulated businesses is intended to reproduce, to the extent possible, the behaviors and outcomes that would occur in a workably competitive market. Where competitive markets cannot develop and market failure is evident, it is important that regulatory incentives influence the regulated business to behave efficiently.

The Commission's approach to incentive arrangements has sought to reflect the need for economic regulation to provide:

- an appropriate degree of certainty about the regulatory framework and investment environment in order to encourage timely and efficient development of capacity;
- effective incentives to encourage TNSPs to build and operate their systems efficiently;
- incentives for TNSPs to effectively manage the risks that are reasonably within their control; and
- incentives for TNSPs to improve service quality where this is sufficiently valued (collectively) by customers and disincentives for TNSPs to increase profitability by inefficiently reducing service quality.

In the Rule Proposal the Commission adopted a package of incentives to facilitate a reduction in costs while improving, or at least maintaining, service standards. The package involved four components, which include mechanisms to encourage efficiency in capital and operating expenditure; improved reliability and availability of transmission services; and to provide incentives for better management of potential commercial stranding risk.

A number of the submissions the Commission received in response to the Proposed Rule expressed concern about whether the balance between the various incentive components of the package was appropriate. Some submissions suggested that the Proposed Rule did not provide the appropriate balance and was potentially a step back towards cost of service regulation. Other submissions expressed concern about the Commission's failure to adopt a contingent projects regime.

The Commission has considered the overall balance between the incentive properties of the Proposed Rule and has made a number of amendments. The Commission's revised package comprises the following changes:

- the power of the incentive for capital expenditure has been increased by including an allowance for depreciation and the cost of capital in the incentive calculation;

- a separate contingent projects regime will apply for the capital expenditure required for specific large projects triggered by particular events, with an associated incentive mechanism similar to that applicable to other capital expenditure;
- TNSPs will not be subject to *ex post* prudency reviews of capital expenditure before it is rolled into the RAB;
- the service performance incentive cap will increase from one per cent to five per cent of regulated revenue; and
- cost pass-through arrangements will remain unchanged except for a change to the treatment of variations from the forecast of grid support payments.

The Commission has maintained the following elements of the Proposed Rule:

- historic capital expenditure that has been incorporated into the TNSP's RAB and will not be removed from the RAB (i.e., 'optimised') except in very specific situations where the TNSP has failed to reasonably manage the risks of commercial stranding;
- scope will remain for reopening the revenue cap in genuine *force majeure*-type situations. There will also be allowance for appropriate pass-throughs to ensure TNSPs are not exposed to risks that are beyond their reasonable control;
- the allowed rate of return on assets will be based on a benchmark, which will encourage TNSPs to reduce their weighted average cost of capital (WACC) since they will be entitled to retain the difference within the regulatory period; and
- the incentives for operating expenditure with an efficiency sharing scheme.

The Commission considers that, together, these mechanisms provide a balanced package of incentives for TNSPs to behave efficiently while maintaining the quality and reliability of transmission services. While incentive properties of each element of the suite of incentive mechanisms are important, it is essential to maintain the overall balance of the suite of incentive measures. The Commission considers that the Draft Rule now achieves the appropriate balance.

## 1.6 Process for Revenue Cap Determinations

In practice the process adopted by the ACCC under the existing Rules for conducting revenue cap determinations reflected a propose-respond process but with no formal requirements on the parties involved. To provide some transparency the ACCC/AER published its intended process for making regulatory determinations in Chapter 3 of the SRP. The requirements include an application by the TNSP; public consultation and submissions; a draft decision followed by additional consultation; and a final decision. However, the non-binding nature of the SRP has created uncertainty and a lack of predictability in relation to the timing and actual practice of the revenue cap determination process.

The Commission considers that transparent and timely processes for regulatory determinations reduce regulatory risk. This is a key requirement for effective regulation which promotes investment in the long term interests of consumers.

Ensuring clarity around a number of procedural issues such as timeframes, information provision and revocation of a revenue cap provides greater certainty to market participants and reduces delays in regulatory decision making. Therefore, the Commission proposed to place requirements in the Rules on these elements so that there is a better balance towards certainty and transparency compared with the existing practice. The Commission's view is that providing certainty on the timeframes and the information required for the AER to make determinations will create an incentive for the TNSP to submit its best proposal knowing there is little scope for delay.

Submissions to the Rule Proposal Report generally supported the Commission's approach on the propose-respond process. However, a number of submissions were concerned that the Proposed Rule was overly prescriptive and did not provide an appropriate balance between certainty and flexibility. Submissions also supported the Commission's proposal to clarify the information requirements in Chapter 6 of the Rules through AER guidelines covering what information is to be provided by the TNSP in their Revenue Proposals. Issues were raised, however, in relation to when the AER can publish the information that it receives and also in relation to information that is received from a third party that is not dealt with at arm's length.

In the Rule Proposal Report the Commission also sought comment on the process for the revocation of a revenue cap decision and in particular the requirement for written consent from the TNSP. The Commission did not receive many submissions in response to this issue. However, there was general support in submissions for the option of revocation.

In response to submissions the Commission has decided to retain much of the Proposed Rule relating to process and information requirements. However, in a number of instances the Commission has been persuaded to make some amendments. The Commission, therefore, has made changes on the following components of the Draft Rule:

- the procedural timeframes have been amended so that only the major milestones such as the application, publication of decisions, and the revised proposal are codified;
- amendments have been made to clarify the purpose for which the AER may compel a regulated entity to provide information and the manner in which it can be disclosed;
- in relation to third party information, the AER can disregard or give lesser weight to reported costs where it has reason to believe that reported costs were not derived through competitive tendering and/or arm's length negotiation; and
- the requirement for written consent from a TNSP before revocation of a revenue determination, where there has been a material error, has been removed.

## 1.7 Savings and Transitional

The Commission understands that savings and transitional rules are necessary for a number of issues. Therefore, the Draft Rule includes<sup>8</sup> provisions which manage the transition from the existing Rules to the new regime.

The Explanatory Note at the beginning of the Draft Rule also explains the consequential amendments that have been made in order to support the implementation of the new Chapter 6A.

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<sup>8</sup> Draft Rule, Schedule 5.



## 2 Framework and Approach

### 2.1 The Commission's Decision on the Draft Rule to be Made

The Commission has determined, in accordance with section 99 of the National Electricity Law (the NEL), to make the Draft Rule. The Draft Rule incorporates amendments to the Proposed Rule previously put forward by the Commission in February 2006, as set out in this Draft Determination.

This Draft Determination sets out the Commission's reasons for making the Draft Rule.

### 2.2 Obligations Under the NEL

The NEL<sup>9</sup> requires the AEMC to make Rules regarding the regulation of transmission revenue and pricing<sup>10</sup>. The NEL does not usually permit the AEMC to both initiate and assess substantive Rule change proposals<sup>11</sup>. However, the transmission revenue and pricing Rules are an exception, and the Commission commenced the Review process immediately after its inception in July 2005. In recognition of its dual role as Rule initiator and Rule maker, the Commission has consulted widely in the preparation of this Draft Rule<sup>12</sup> in order to be fully informed of stakeholder views.

The subject matter for the Commission initiated transmission Rules is listed in items 15-24 of Schedule 1 to the NEL, as listed in Appendix 1 of this Draft Determination. These items cover the regulation of both revenue and pricing for transmission services subject to a transmission determination and the incentives to make efficient operating and investment decisions. The AEMC is also required to make Rules on the principles and procedures to be followed by the AER in carrying out its economic regulatory functions.

The AEMC has an additional ongoing obligation to ensure that the Rules will continue to cover the required minimum matters as set out in the NEL into the future<sup>13</sup>.

The NEL<sup>14</sup> places obligations on the AEMC to ensure that the transmission revenue and pricing Rules:

- provide a reasonable opportunity for a regulated transmission system operator to recover the efficient costs of complying with a regulatory obligation;
- provide effective incentives to a regulated transmission system operator to promote economic efficiency in the provision by it of services that are the subject of a transmission determination, including:
  - the making of efficient investments in the transmission system owned, controlled or operated by it, and used to provide services that are the subject of a transmission determination; and

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<sup>9</sup> The NEL is contained in the Schedule to the *National Electricity (South Australia) Act 1996*.

<sup>10</sup> Section 35, NEL

<sup>11</sup> Section 91(2), NEL

<sup>12</sup> Throughout this Paper the Rules released by the Commission in February 2006 will be referred to as the 'Proposed Rule'. The Rule released by the Commission as accompanying this Paper will be referred to as the 'Draft Rule'.

<sup>13</sup> Section 36, NEL

<sup>14</sup> Section 35(3), NEL

- the efficient provision by it of services that are the subject of a transmission determination.
- require the AER, in making a transmission revenue cap determination, to make allowance for the value of assets forming part of a transmission system owned, controlled or operated by a regulated transmission system operator and the value of proposed new assets to form part of that transmission system that are, or are to be, used to provide services that are the subject of a transmission revenue cap determination; and
- require the AER to have regard to any valuation of assets forming part of a transmission system owned, controlled or operated by a regulated transmission system operator applied in any relevant determination or decision.

These NEL obligations mirror the duties imposed directly on the AER in the NEL as to how the AER must carry out its economic regulatory functions<sup>15</sup>.

### 2.3 The NEM Objective and Rule Making Test

The NEL sets out the overall objective for the National Electricity Market (the NEM objective):

*“The national electricity market objective is to promote efficient investment in, and efficient use of, electricity services for the long term interests of consumers of electricity with respect to price, quality, reliability and security of supply of electricity and the reliability, safety and security of the national electricity system.<sup>16</sup>”*

The NEL also sets out the Rule making test that must be applied by the AEMC in making the assessment of a proposed Rule, which states:

- “(1) The AEMC may only make a Rule if it is satisfied that the Rule will or is likely to contribute to the achievement of the national electricity market objective.*
- (2) For the purposes of subsection (1), the AEMC may give such weight to any aspect of the national electricity market objective as it considers appropriate in all the circumstances, having regard to any relevant MCE statement of policy principles.<sup>17</sup>”*

The NEL therefore, obliges the AEMC to have regard to the NEM objective in developing the Draft Rule. The Commission has focused on why it considers that the Draft Rule is likely to contribute to the NEM objective, and this Draft Determination addresses this in relation to specific issues and for the revised proposal as a whole.

For the reasons set out in this Draft Determination, the Commission considers that the Draft Rule is capable of satisfying the NEM objective and thus, the Rule making test.

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<sup>15</sup> Section 2 (definition of AER economic regulatory function or power) & ss.15 &16, NEL

<sup>16</sup> Section 7, NEL

<sup>17</sup> Section 88, NEL

## 2.4 Power to Make the Draft Rule Under the NEL

The Draft Rule proposed by the Commission must fall within the AEMC's Rule making power. The subject matters for the transmission revenue and pricing Rules are listed in items 15-24 of Schedule 1 to the NEL, these are set out in Appendix 1. These subject matters, along with section 34 of the NEL (the general head of power for Rule making), form the specific heads of power under which the transmission revenue and pricing Rules would be made.

The Commission is satisfied that the draft *National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006* is for, or with respect to, a matter that the Commission may make a Rule under the NEL.

## 2.5 Policy Context

The transmission revenue review is occurring at a time of intense public policy debate on economic regulation in the energy market and its impact on infrastructure investment. Work by the Productivity Commission on the national and gas access regimes and the Prime Minister's Taskforce on Exports and Infrastructure<sup>18</sup> has provided significant recommendations and comments on economic regulation in Australia. The MCE is continuing its national energy reform program and has initiated a number of projects that are relevant, and of interest, to the Commission in preparing this Draft Determination.

Since commencing the Review process the key reform projects of relevance to this Draft Determination include:

- consultation on the MCE Review of Decision Making in the Gas and Electricity Regulatory Frameworks;
- ministerial deliberations regarding the possibility of certification as the national model for energy access;
- agreement by the MCE to the transfer of non-economic distribution and retail functions to the AER and AEMC, with enabling legislation during 2006 and the transfer of economic (non-price) regulation of distribution networks to the AER and AEMC, with enabling legislation during 2007;
- release of the Expert Panel's Review of Revenue and Network Pricing Across the Energy Market, advising on a common approach to transmission and distribution revenue and network pricing across the electricity and gas markets;
- establishment of a Gas Market Leaders' Group to develop a gas market plan;
- commencement of an MCE-directed Review of Congestion Management by the AEMC;

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<sup>18</sup> Productivity Commission 2001, 'Review of the National Access Regime', Report no. 17, AusInfo, Canberra; Productivity Commission 2004, 'Review of the Gas Access Regime', Report no. 31, Canberra; Exports and Infrastructure Taskforce 2005, 'Australia's Export Infrastructure', Report to the Prime Minister, Canberra, May 2005

- review of the Reliability Standard and related mechanisms by the Reliability Panel under the auspices of the AEMC;
- the MCE's response to the Productivity Commission Review of the Gas Access Regime;
- MCE Rule change proposals regarding Regulatory Test Principles and Last Resort Planning Power; and
- establishment of the Energy Reform Implementation Group by the MCE.

## 2.6 Approach to the Review

The Commission has approached this Review of the Electricity Transmission Revenue and Pricing Rules in an open and consultative manner.

In light of the size of the Review to be undertaken, the Commission chose to conduct the Review in two phases. The Transmission Revenue Rules are to be completed in the third quarter of 2006, and the Rules for both revenue and pricing are due to commence by 1 January 2007<sup>19</sup>.

The formal Rule making process commenced with the Commission's release of its Revenue Proposed Rule in February 2006. In recognition of the Commission's desire for a comprehensive consultation process, it undertook a consultation process prior to the release of the Draft Rule in February. This consultation process encompassed:

- Scoping Paper (July 2005) sought comments from stakeholders on what should be considered as part of the Review and on the proposed two phase review process. Twenty-three submissions were received to the Scoping Paper;
- Issues Paper (October 2005) reflected matters identified in stakeholder submissions on the Scoping Paper and the Commission's preliminary research and analysis. Eighteen submissions were received; and
- Rule Proposal Report (February 2006) provided for the Commission's Proposed Rule stemming from the previous consultation and analysis conducted by the Commission. Twenty-seven submissions were received, and are listed in Appendix 2.

This Draft Determination is required as part of the formal Rule making process under the NEL, and provides for the Commission's response to submissions to the Rule Proposal Report and the Proposed Rule. The Commission has taken into account the many views and arguments presented by stakeholders. These have been expressed in response to the three rounds of consultation on the revenue component of the Rules, and the public Forum that the Commission held in Melbourne in March 2006. The Commission has also taken the opportunity to meet with many stakeholders.

The Commission appreciates the time and effort that stakeholders have taken in participating in the Review process. In developing this Draft Rule the Commission has taken into account the input from stakeholders. Many of these submissions have been

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<sup>19</sup> A Regulation under the NEL has revised the date to 1 January 2007 as the date by which new transmission pricing Rules will be required to be made.

referenced in this Draft Determination. While the Commission has not responded directly to each issue in every submission, the Commission has carefully considered all submissions in developing the Draft Rule.

## **2.7 Inter-relationship with the Transmission Pricing Review**

The Commission is conducting the Review in two phases in order to effectively manage consultation and consideration of a complex range of issues. As foreshadowed in the previous papers, there will be areas of interaction between the revenue and price phases of the Review. The Commission's revenue Draft Rule will directly impact on the transmission pricing Proposed Rule due to be released in September 2006. In general these interactions will be where the revenue-setting is governed by the way in which costs are allocated between services, and the Rules governing the quantity of revenue to be recovered each year over the regulatory control period.

Examples of where these interactions will be relevant include:

- cost allocation methodology to be developed by the AER;
- restrictions on the prices that can be charged in each year in order to comply with the revenue cap; and
- a mechanism for the resolution of disputes in relation to the pricing for Negotiated Transmission Services, but does not provide a comprehensive set of rules or principles by which those disputes are resolved. For example, this Draft Determination does not address the question of whether 'connection' charges for generators should reflect a 'shallow' or 'deep' connection approach to cost allocation. The broader issue of 'who pays' and how charges are structured will be dealt with in the Pricing phase of the Review.

In developing the pricing Rule the Commission will address the interface between the revenue provisions and the pricing provisions.

### 3 Scope and Form of Regulation

This chapter addresses the extent to which transmission services should be subject to economic regulation and the forms of regulation that should be applied to the services that are regulated.

A number of issues were raised in submissions in response to the Commission's Proposed Rule. In preparing the Draft Rule on these matters the Commission has varied the approach taken in the Proposed Rule after having regard to the views provided in submissions. This chapter describes the general approach being taken in the Draft Rule regarding the scope and form of regulation, focusing particularly on the areas where the approach has been changed compared to the Proposed Rule. Those areas are:

- the delineation of prescribed and negotiated transmission services;
- cost allocation between prescribed and negotiated transmission services;
- clarification that contestable services are outside of the scope of regulation; and
- the scope of the proposed dispute resolution scheme for negotiated transmission services.

#### 3.1 Proposed Rule

In its Rule Proposal Report, the Commission noted that while transmission services are generally supplied under conditions of natural monopoly or substantial market power (e.g., shared transmission network services) some transmission services (e.g., connection services or non-standard services) are supplied under conditions where the scope to exercise market power is considerably reduced, either as the result of countervailing power from the buyer side of the market or the potential for competition<sup>20</sup>.

Consistent with generally accepted policy and regulatory thinking<sup>21</sup>, the Commission concluded that more intrusive forms of economic regulation (such as revenue or price cap regulation) should be confined to those services that are supplied under monopoly (or near monopoly) conditions, with less intrusive forms of regulation or no regulation at all being applied to services supplied under conditions where there is limited market power or the potential for competitive supply.

This general approach to addressing the scope and form of regulation reflected the Commission's recognition of the need to ensure that the benefits of regulation (e.g., more efficient resource use) are greater than its direct and indirect costs (including the potential for regulatory error and induced inefficiencies). It also reflected the Commission's view that there has been an over-inclusion under the revenue cap form of regulation of services for which there is countervailing buyer power or the potential

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<sup>20</sup> Australian Energy Market Commission, 'Rule Proposal Report', February 2006 pp.25- 26

<sup>21</sup> Expert Panel on Energy Access Pricing, 'Report to the Ministerial Council on Energy', April 2006 Chapter 4, Productivity Commission 'Review of the Gas Access Regime', chapters 7 – 8

for contestable conditions of supply and which would more appropriately be subject to either less intrusive forms of regulation or no regulation at all.

The Commission's Proposed Rule therefore adopted a tiered approach to the regulation of transmission services which sought to ensure that the form of regulation applied to different classes of service was commensurate with the degree of market power involved in their supply.

The Commission concluded that the existing definitions of what services are regulated in the Rules are unclear and circular and need to be amended. It also concluded that the scope and form of regulation would be more appropriately determined on the basis of the functional and economic characteristics of services provided by the TNSPs, rather than on the basis of the assets involved in the delivery of services.

The Commission identified two categories of transmission service in its Rule Proposal Report:

- Prescribed Transmission Services were defined as use of system services supplied by the shared transmission network which meet (but do not exceed) the network performance requirements specified under any legislation of a participating jurisdiction and in Schedule 5.1 of the Rules; and
- Negotiated Transmission Services were defined as connection services (exit, entry and TNSP-to-TNSP connection services); use of system services supplied by a shared transmission network which exceed the network performance requirements specified under any legislation in a participating jurisdiction or under Schedule 5.1 of the Rules; and use of system services in respect of agreed transmission augmentations or extensions for loads, generators and Market Network Service Providers (MNSPs).

The Commission proposed that different forms of regulation should be applied to each of these types of transmission services, reflecting the Commission's assessment of differences in the degree of market power applying to each.

The classification of shared network use of system services provided to specified performance standards as prescribed transmission services reflected the Commission's assessment that they are natural monopoly services due to the presence of scale economies and network externalities and the absence of competitors and countervailing buyer power. The Commission proposed a continuation of revenue cap regulation for prescribed services, as defined, on the basis that the extent of market power justified a more intrusive form of regulation.

However, the Commission concluded that the services defined as negotiated transmission services are subject to lesser degrees of market power which did not warrant the application of direct revenue or price controls. The Commission therefore proposed that non-standard shared network services and services associated with the connection of network users to the network should be subject to a less intrusive form of regulation, namely commercial negotiation supported by dispute arbitration arrangements. The Commission proposed a refined commercial negotiation regime because it considered that the existing dispute resolution scheme in Chapter 8 of the Rules would not be effective for application to disputes over prices for transmission services.

## 3.2 Submissions – General

Most submissions agreed that clearer definitions are required for the services that are to be subject to the main revenue cap form of regulation and of the services that are to be subject to different forms of regulation<sup>22</sup>. However, not all agreed with the definitions proposed in the Proposed Rule, and in particular with the reference to the provisions of Schedule 5.1 of the Rules as a key element of the definition of prescribed transmission services.

For example, the AER commented in its submission<sup>23</sup> that the requirements of Schedule 5.1 were not intended to delineate different TNSP services. It also noted that in many cases these requirements apply to services provided to a connection point (which the Commission intends to exclude from the prescribed services definition) as well as to services provided by the shared network.

Several submissions<sup>24</sup> also emphasised the need to clearly delineate contestable services that would remain unregulated from services that are to be regulated in some form.

Regarding the appropriate form of regulation, most submissions supported the application of a revenue cap form of regulation (using a building blocks approach) to prescribed transmission services<sup>25</sup>. However, some submissions questioned whether any material benefit would be achieved from identifying a different form of regulation (i.e., commercial negotiation with dispute arbitration) for a relatively small proportion of the overall service provision of TNSPs<sup>26</sup>.

## 3.3 Working Group on Service Definitions

As foreshadowed in its Rule Proposal Report,<sup>27</sup> the Commission established a Working Group involving representative of TNSPs, NEMMCO, generators, DNSPs and directly connected end users<sup>28</sup> to review and develop the proposed definitions of prescribed transmission services and negotiated transmission services. The Working Group submitted its preliminary views to the AEMC on 10 March 2006.

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<sup>22</sup> Ergon Energy, 20 March 2006 p.2, Hydro Tasmania 20 March 2006, p.3, Electricity Transmission Network Owners' Forum, 20 March 2006, pp.6,27, Australian Energy Regulator, 7 July 2006 p.49, Integral Energy, 28 March 2006, pp.1-2, Economic Regulation Authority, Western Australia, 20 March 2006, p.3, Energy Users' Association of Australia, 4 April 2006 p.ii

<sup>23</sup> Australian Energy Regulator, 7 July 2006, p.49

<sup>24</sup> Ergon Energy, 20 March 2006, p.2, Hydro Tasmania, 20 March 2006, p.3, Electricity Transmission Network Owners' Forum, 20 March 2006 p.6, Major Energy Users Incorporated, 22 March 2006, p.31

<sup>25</sup> However many submissions have qualified their support for the revenue cap, noting that the same form of price control should not be automatically applied to other services such as distribution. See EnergyAustralia, 21 March 2006, p.4, Energy Networks Association, 20 March 2006, p.4, Ergon Energy, 20 March 2006 p.2

<sup>26</sup> Major Energy Users Incorporated, 22 March 2006 p.27, Australian Energy Regulator, 7 July 2006, p.47, Energy Users Association of Australia, 4 April 2006, p.15

<sup>27</sup> Australian Energy Market Commission, Revenue Rule Proposal Report, February 2006, p.32

<sup>28</sup> The Working Group consisted of Bob Davenport (EUAA), Con Hristodoulis (EUAA), Con Noutso (TRUenergy), David Headberry (MEU), Paul Dunn (AER), Garth Crawford (Energy Networks Association), John Morrissey (International Power Hazelwood), Simon Taylor (Powerlink), Stephen Clark (Transend), Stuart James (NEMMCO), Mark Riley (VENCORP), Louis Tirpcou (VENCORP), Rajat Sood (Frontier Economics on behalf of the AEMC) and Brendon Crown (AEMC)



The Working Group expressed the view that the definition of prescribed services should be broad enough to cover obligations other than building, owning and operating assets, as TNSPs have obligations under the Rules relating to system security and reliability (including planning).

The Working Group shared the concern expressed in a number of submissions that the requirements of Schedule 5.1 may not provide a sufficient basis for a clear definition of prescribed transmission services. The Working Group also commented that the Proposed Rule was not entirely clear as to the services that would be covered by the definition of negotiated transmission services (and so be subject to commercial negotiation) and those services that would be supplied competitively and remain unregulated.

The views of the Working Group have been taken into account by the Commission in developing this aspect of the Draft Rule.

### **3.4 Commission Assessment – General**

The Commission has taken into account the views presented in submissions, the advice of the Working Group and its own further analysis in developing the Draft Rule in relation to the scope and form of regulation. This section describes the general approach adopted in the Draft Rule and the Commission's reasons. The remainder of this chapter describes in more detail specific changes that have been made compared to the approach in the Proposed Rule.

#### **3.4.1 Classification and Definition of Transmission Services**

The Commission retains the view that there is a strong case for defining as clearly as possible the prescribed transmission services that are to be subject to direct revenue or price controls and for distinguishing them from services that are amenable to less intrusive forms of regulation (namely commercial negotiation) or no regulation at all.

It considers that such an approach reduces the overall burden of regulation. It also prevents the crowding out of potential efficiency benefits from increasing the opportunities for commercial negotiation of the prices and conditions of supply, for contestable third party provision of services and for the adoption of non-network solutions where feasible.

The current Rules provide for a multi-layered approach to the regulation of transmission services (e.g., by excluding certain negotiable services from the revenue cap and providing for lighter-handed regulation of contestable services).

There is evident circularity and ambiguity of the current definitions of prescribed services, excluded services and negotiable and contestable services. For example:

- prescribed transmission services are defined in Chapter 10 of the Rules to be those services subject to a revenue cap;
- excluded services are defined in Chapter 10 of the Rules as services, the costs and revenues for which are excluded from the revenue cap;
- negotiable services are defined in Chapter 10 of the Rules as excluded services, non-standard prescribed services, generator and MNSP connection services and

prudent discounts under clause 6.4.8 of the Rules (but excludes contestable services); and

- contestable services are defined as services which are determined by the AER (for the purposes of clause 6.2.4(f)) of the current Rules or determined by a jurisdiction to be contestable.

As a result of the ambiguity of these definitions in the Rules, the Commission understands that the current practices of different TNSPs in allocating assets (and therefore costs) to prescribed services differs markedly such that charges for essentially the same connection services may vary widely across the NEM, with no underlying rationale. The Commission also believes that the current ambiguity about the regulatory status of assets and services creates an environment in which TNSPs could engage in double dipping by recovering certain costs in both prescribed and connection service charges.

The ambiguity of the current definition and classification of transmission services results in the potential for over-inclusion of assets (and hence costs) in the RAB and revenue cap that applies to prescribed services. It also leads to a corresponding reduction in the extent of services that are subject to the discipline of commercial negotiation with dedicated service users. There is a coincidence of interest between TNSPs, generators and directly connected network users in perpetuating the ambiguity of the *status quo*. To the extent that the costs of dedicated services can be allocated to prescribed services and recovered from general shared network users, lower charges will be paid by dedicated service users for their connection and non-standard services. At the same time smearing these costs into prescribed service charges is attractive to TNSPs because it relieves them of the close project by project scrutiny of their incurred costs that would occur under a more extensively applied and enforced commercial negotiation regime.

The Commission believes that improvements in cost and performance efficiency can be obtained by requiring TNSPs to negotiate prices, terms and conditions for dedicated service and non-standard use of system services directly with generators and large users. Such bilateral negotiations outside of the revenue cap would subject the costs incurred by TNSPs to commercial testing by informed and self-interested users who, with the support of a right to independent dispute arbitration, would be in a position to apply considerable countervailing negotiation power.

This is in marked contrast to the higher level scrutiny of expenditure forecasts that is applied by the regulator in determining an *ex ante* revenue cap for the purpose of recovering the efficient costs of providing prescribed services. In that situation, project by project scrutiny of cost forecasts is neither feasible nor appropriate. Rather, the efficiency of expenditure forecasts is tested at a highly aggregated level based on historical trends, benchmarks and the like. There is good reason, therefore to restrict the services covered by revenue cap regulation to the standard use of system services that are supplied under monopoly conditions and to promote bilateral commercial negotiations of the price and conditions of supply of other transmission services wherever that is feasible.

The Commission therefore maintains the view that it is important for the Rules to establish clearer definitions and classifications of different services according to the degree of market power involved in their supply and to clearly specify the form of economic regulation to be applied to each class of service. This approach is consistent

with the findings of the Expert Panel<sup>29</sup>. The Commission has therefore decided to maintain the general approach set out in the Proposed Rule. In particular the Commission wishes to capture within the definition of prescribed transmission services those services provided by shared network infrastructure, which exhibit strong economies of scale and externalities, making competition unlikely to be feasible. Prescribed transmission services are also limited to those that have relatively uniform performance characteristics across the network.

For the reasons set out above, the Commission has also decided to maintain negotiated transmission services as a separate service classification.

However, in response to comments made in submissions and the advice of the Working Group, the Commission has made a number of refinements to the approach to service classification and definition adopted in the Proposed Rule.

It has clarified in the Draft Rule the delineation and definition of prescribed and negotiated services, respectively. The revised approach is described in more detail in section 3.6 of this Draft Determination.

Also, because of the two-tiered approach being adopted for the regulation of transmission services, the Draft Rule continues to specify the basis on which fixed and common costs are to be allocated between the two categories of transmission service. Refinements to the cost allocation approach which have been made in response to submissions are explained in section 3.7 of this Draft Determination.

### **3.4.2 The Form of Regulation**

The Commission has maintained the view that a revenue cap methodology using a building blocks approach is the appropriate form of regulation for prescribed transmission services at this stage of development of the NEM, given the extensive network externalities and potential market power associated with the shared transmission network. Maintaining the revenue cap approach provides consistency and certainty for TNSPs and their customers in the absence of a persuasive reason for making a change.

A CPI -X revenue cap approach allows for the recovery of efficient costs while providing incentives for future cost efficiency, consistent with the requirements of the NEL<sup>30</sup>. Such incentives are not present under a cost of service regulatory approach. The Commission has also concluded that the building block approach remains preferable to alternative regulatory approaches which utilise industry-wide benchmarks (such as total factor productivity (TFP) based approaches) in view of the lumpiness and uniqueness of shared network costs<sup>31</sup>. The Commission considers that a revenue cap is more appropriate for the regulation of prescribed transmission services than a tariff basket or price cap as the costs of shared network services are largely fixed

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<sup>29</sup> Expert Panel on Energy Access Pricing, 'Report to the Ministerial Council on Energy', April 2006, pp.41-42, 56-57

<sup>30</sup> Section 35(3)(a)&(b), NEL

<sup>31</sup> Australian Energy Market Commission, 'Rule Proposal Report', February 2006, p.35. See also Expert Panel on Energy Access Pricing, 'Report to the Ministerial Council on Energy', April 2006 p.105; In proposing that the development of TFP-based approaches for energy access regulation would be worthwhile, the Panel observed that "...the case for TFP appears less compelling in electricity transmission, where significant lumpiness of future capital expenditure demands is an important part of the industry landscape."

and do not vary significantly with the quantity of service provided. A revenue cap therefore minimises the largely unmanageable volume risk for the TNSPs.

For those services falling within the proposed definition of negotiated transmission services, the Commission believes that there are fewer market failure concerns, and that a less intrusive (and therefore less costly) form of regulation can be applied. In particular, the end-user for these services is likely to be larger and better resourced, acting as a counterweight to the market power possessed by the TNSP. Moreover, as noted in the previous section, requiring generators and large end-users to negotiate with TNSPs about the recovery of costs directly incurred by the TNSP as a consequence of their connection will ensure that that the efficiency of those costs is subject to scrutiny. The Commission has therefore continued to propose a commercial negotiation regime to be applied to these services supported by an effective dispute resolution regime.

A number of submissions identified the need for greater clarity between the definition of negotiated services that would be subject to the negotiation/arbitration regime and services that are supplied under contestable or competitive conditions by third parties and would therefore remain unregulated. The Commission has recognised the need for this distinction and has clarified in the Draft Rule that services that are capable of competitive supply will not be subject to the commercial negotiation/arbitration requirements. The approach to this issue is explained in more detail in section 3.4.1 of this Draft Determination.

A weakness of the existing Chapters 5 and 6 of the Rules is that they create a regime for 'excluded' and 'negotiated' services but do not provide an effective mechanism for the resolution of disputes about charges. Neither Chapters 5 nor 6 provide any criteria for the calculation of excluded and negotiated service charges.

Chapter 8 of the Rules provides for a dispute resolution regime in relation to disputes about payment of moneys, augmentation of a network and the failure of Registered Participants to reach connection and other agreements. However, the regime established by Chapter 8 of the Rules does not provide for the type of commercially focussed, expedited negotiation and arbitration regime, against clear decision making criteria, which would be most appropriate for these types of commercial disputes. In particular, the procedures under Chapter 8 interpose a level of bureaucracy in the resolution of commercial disputes which appears unwarranted.

These deficiencies in the current Rules have led the Commission to propose a more focused dispute resolution mechanism within the Rules in relation to the price for negotiated transmission services. In the absence of substantial concerns being raised during the submission period, the provisions in the Draft Rule remain largely unchanged from the Proposed Rule. The changes which have been made are intended to make clearer that services genuinely capable of competition are excluded from the scope of the commercial negotiation regime. These changes are discussed in more detail in section 3.6 of this Draft Determination.

### 3.5 Draft Rule

The Draft Rule differs from the Proposed Rule in the following areas.

#### Box 3.1: Changes from initial Proposed Rule in the revised Draft Rule

##### **For the definition of *Prescribed Transmission Service*...**

Definition amended to:

- i) include in para.(b) a reference to schedule 5.1a.
- ii) include connection services between a TNSP's and DNSP's.
- iii) to include services that are required by NEMMCO to be provided under the Rules, that are necessary to ensure the integrity of a transmission network.

##### **For the definition of *Negotiated Transmission Services*...**

The definition amended to:

- i) include reference in para.(a) to schedule 5.1a.
- ii) exclude connection services between a TNSP's and DNSP's.

**Old Clause 6.21** – is amended so that where assets, the costs of which have been recovered through negotiated service charges, become part of the 'shared network' in the future, those costs should be allocated to the RAB.

**[New Reference: Clause 6A.19.3]**

**Old Clause 6.10(5)** – is amended to reflect that in resolving disputes about the price of negotiated transmission services, an arbitrator can resolve the matter in such a way that it is or is to be, adjusted over time.

**[New Reference: Clause S6A.3.5(b)(2)]**

**New Clause 6A.9.7** – expressly states that nothing in Chapter 6A imposes an obligation on a TNSP to provide any service to persons applying under a negotiating framework.

**New Clause 6A.3.5(f)** – enables the arbitrator in a dispute relating to the price of negotiated transmission services, to terminate proceedings where he/she determines that the services are genuinely capable of competitive supply.

### 3.6 Delineation of Services

As noted above, a number of changes have been made to the Proposed Rule in the light of concerns raised in submissions and the advice of the Working Group to more clearly delineate between prescribed services and negotiated services.

#### 3.6.1 Submissions

Both the AER and the Working Group raised concerns that the reference to Schedule 5.1 of the Rules in the definition of prescribed services was insufficient to distinguish the shared network services the Commission intends to identify as prescribed transmission services from connection services (which are intended to fall under

negotiated transmission services). The Working Group proposed addressing this issue by explicitly excluding connection services from the definition of shared network services.

The Working Group noted further that it may be impossible to vary an aspect of quality for one particular user without compromising system security, calling into question the ability to provide a negotiated transmission service at a lower quality to one user.

The Working Group also expressed the view that the definition of prescribed services should be broad enough to cover obligations other than building, owning and operating assets, given that TNSPs have obligations under the Rules outside of asset maintenance, relating to system security and reliability (including planning).

The Working Group raised three additional issues:

- the proposed definitions are complex and would benefit from plain English drafting;
- clarification is needed that augmentations that were approved under the market benefits limb of the Regulatory Test would be able to be classified as Prescribed Transmission Services; and
- there should also be clarification that appropriate grandfathering provisions would be used. This particularly relates to the classification of existing costs (assets) which may be used to supply services that would be treated as negotiated services under the Rules, but had previously been included in the RAB.

Other submissions raised concerns that the inclusion of the term “*meets (but does not exceed)*” in the proposed definition of prescribed services could be interpreted to exclude shared network services that fall below a standard or that are marginally above the standard in the short term. Electricity Supply Industry Planning Council (ESIPC) commented that this will encourage a short term focus to the detriment of genuinely efficient, larger, long term projects<sup>32</sup>. The Electricity Transmission Network Owners’ Forum (ETNOF) wanted clarification that the new definitions do not have implications for the market in terms of firm access for generation<sup>33</sup>.

Several submissions did not support the application of the commercial negotiation regime to connections between TNSPs and DNSPs<sup>34</sup>. The Working Group considered that changing the classification of these connection services from prescribed to negotiated is unlikely to change the behaviour of the TNSP or the DNSP on such connections. It noted that most DNSP connections to meet new or increased load impose timeframes that do not lend themselves to commercial negotiation frameworks. In addition managing multiple ongoing negotiation processes relating to individual assets may over time become quite complex.

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<sup>32</sup> Electricity Supply Industry Planning Council, 21 March 2006, p.3

<sup>33</sup> Electricity Transmission Network Owners’ Forum, 20 March 2006, p.28

<sup>34</sup> EnergyAustralia, 21 March 2006, p.2, Integral Energy, 28 March 2006, p.1, Electricity Transmission Network Owners’ Forum, 20 March 2006, pp.6&27, Major Energy Users Incorporated, 22 March 2006, p.29

### 3.6.2 Commission Assessment

Table 1 below sets out the revised classification of transmission services under the Draft Rule.

**Table 3.1: Revised Classification of Services**

		Regulatory Classification of Services		
		Prescribed Services	Negotiated Services	Unregulated Services
Functional Classification of Services	Shared Network Services	Services that meet the network performance requirements under jurisdictional electricity legislation, Sch 5.1 or Sch 5.1a	Services which exceed network performance requirements under jurisdictional electricity legislation, Sch 5.1 and Sch 5.1a	
	Connection Services	DNSP – TNSP connections	Connection services other than DNSP connections that are not capable of competitive supply	Connection services that are capable of competitive supply
	For the avoidance of doubt	For the evidence of doubt, services which the TNSP undertakes to meet obligations under the Rules		Any other service not mentioned above

The Commission has sought to define prescribed transmission services in a manner which encapsulates a reasonably objective description of the ‘quality’ attributes of the service, including so that there can be a clear delineation of shared transmission services which exceed or do not meet the network performance requirements.

The Commission proposes to rely, in part, upon Schedule 5.1 of the Rules to delineate between: shared network services that should remain part of prescribed transmission services; and shared network services provided to a requirement that exceeds those of a standard service that should be subject to commercial negotiation. Following discussions with the Working Group, the Commission considers that Schedule 5.1a is also relevant in this regard, and has amended the proposed service definitions accordingly<sup>35</sup>.

The Commission notes the concern raised by the Working Group as to whether the references in the definition of prescribed services in Schedule 5.1 of the Rules are sufficient to distinguish between shared network services and connection services. The Commission considers that the specific exclusion of negotiated transmission

<sup>35</sup> See revised definitions in Draft Rule, Schedule 3, Chapter 10 Glossary.

services in the definition of prescribed transmission services is sufficient to ensure that the references to Schedule 5.1 are workable, given that negotiated services are explicitly defined to include connection services.

The Commission has explicitly considered the treatment of connection assets between TNSPs and Distribution Network Service Providers (DNSP). In its Proposed Rule, the Commission put forward the view that services associated with the connection of network users to the shared network have different economic characteristics to services associated with the use of the shared network. In principle, the Commission believes that connection services lend themselves better to commercial negotiation than to more intrusive forms of regulation, given the presence of countervailing buyer power. However, the Commission accepts that moving to a commercial negotiation arrangement is unlikely to change, in any material way, the behaviour of participants where costs are ultimately passed through and the timeframe to expedite the connection service is, in many cases, limited.

On balance, the Commission accepts that connection services between TNSPs and DNSPs exhibit different economic characteristics to other connection services and agrees with the majority of submissions that these services should be classified as a prescribed service.

Therefore the definition of negotiated services in the Rules has been amended to specifically exclude connection services between Network Service Providers. This change has the effect of including TNSP to DNSP connections within the scope of prescribed services.

The definition of prescribed service has also been amended to provide, for the avoidance of doubt, that services required by National Electricity Market Management Company (NEMMCO) to be provided under the Rules in relation to system security and reliability (including planning) are within the definition of prescribed transmission services.

While the Commission intends to provide for negotiated shared transmission services (as the existing Rules currently do) it understands that the ability of a user to obtain shared transmission services at a standard that is higher or lower than any standard described in Schedules 5.1 and 5.1a of the Rules must be limited. In particular, users should not have a right to obtain a level of service which compromises the security and reliability of the network or affects the ability of other Users to obtain services at the standard. However, the Commission believes these issues appear to be well dealt with in Chapter 5 (for example in clause 5.3.4A) and nothing the Commission proposes to do in relation to Chapter 6A will derogate from that.

The Commission notes that the proposed approach in the Draft Rule is reasonably consistent with current practice. For example TransGrid's Negotiating Framework for Negotiable Services defines "*above and below standard prescribed services*<sup>36</sup>" as services which are, "*provided to a standard that is higher or lower (respectively) than any standard: described in Schedule 5.1 of the Code; outlined in the standards published pursuant to clause 6.5.7(b) of the Code; or required by any regulatory regime administered by the ACCC.*"<sup>37</sup>

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<sup>36</sup> TransGrid, 'Negotiating Framework for Negotiable Services', p.4

<sup>37</sup> Ibid., p.1



In relation to the other issues included in submissions and noted above, the Commission noted in its Rule Proposal Report that the NEM design is not intended to provide 'firm' access to generators<sup>38</sup>. Nothing proposed in the Draft Rule changes this position.

The Commission agrees that any costs associated with investments which have satisfied the Regulatory Test should not be allocated to negotiated services (unless a user has elected to make a funded augmentation for commercial reasons). Investment associated with an approved application under the Regulatory Test contribute to shared transmission services and therefore should be included in the RAB and Revenue Cap. However, this issue is best resolved through appropriate cost allocation principles rather than through the definition of prescribed transmission services. The Draft Rule contains appropriate cost allocation principles dealing with this issue.

The Draft Rule contains provisions that grandfather assets already included in a TNSP's RAB as a prescribed service<sup>39</sup>. The Draft Rule also more expressly deals with savings and transitional provisions, as discussed in chapter 9 of this Draft Determination.

### **3.7 Cost Allocation**

One of the issues raised in submissions to the Proposed Rule was the allocation of costs between negotiated and prescribed services over time, as circumstances change. In particular, assets which were previously used to provide a negotiated service may become more widely used as part of the shared network. Clarification was also sought on the appropriate adjustment of prices for negotiated services where the assets used to provide those services also become used by others. This section discusses the changes which have been made to the Draft Rule in order to clearly address these issues.

#### **3.7.1 Submissions**

The Working Group raised the issue that any commercial negotiation should have regard to the future use of services to ensure that end-users are appropriately reimbursed for any change to the service provided (for example an asset which is part of a negotiated service being required to support the shared network).

#### **3.7.2 Commission Assessment**

The Commission agrees with submissions that the arrangements for negotiated services should take account of the fact that assets which may be largely used by one user at a point in time are used by more than one user in the future. In particular, where assets the costs of which have been recovered through negotiated transmission service charges become part of the 'shared network' in the future – because they are used in whole or in part to supply shared transmission services – those costs should be allocated to the RAB and the party to the agreement for negotiated services should be relieved in whole or in part of the obligation to pay. Similarly where new users come along and enter into agreements for negotiated services which are supplied using assets the costs of which are already being recovered from another user under an agreement for negotiated services, the original user should have the ability to

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<sup>38</sup> Australian Energy Market Commission, Rule Proposal Report, February 2006, p.33

<sup>39</sup> Draft Rule, Schedule 5, clause 11.5.11

negotiate for a reduction in charges or potentially repayment of part of the funds provided for a funded augmentation.

The first issue is a cost allocation issue as between the RAB and individual users. The Commission has provided expressly for that situation in the Draft Rule by adding a cost allocation principle directly addressing the re-allocation of assets from negotiated to prescribed services<sup>40</sup>. Specifically the Cost Allocation Principles set out in the Draft Rule allow costs which have been allocated to negotiated transmission services to be reallocated to prescribed transmission services, where over time, those costs either are directly attributable to the provision of prescribed services or are incurred in providing prescribed services.

The second issue is exactly the type of commercial arrangement that the Commission wishes to encourage through the proposed commercial negotiation regime. The Commission has decided to provide expressly for that situation in the Draft Rule<sup>41</sup>. In relation to the Pricing Principles for negotiated transmission services, the Draft Rule contains a new provision that the price for a negotiated transmission service should be subject to adjustment over time to the extent that the assets used to provide that service are subsequently used to provide services to another person. This adjustment should reflect the extent to which the cost of that asset is being recovered through charges to that other person.

The Commission understands that there is some confusion about the treatment of assets/costs which contribute both to the supply of prescribed transmission services and negotiated transmission services. The Draft Rule has been amended<sup>42</sup> so that the Cost Allocation Principles operate to allow reallocation of costs between both categories. This applies equally to services that are prescribed services by virtue of the 'legacy' arrangements in the savings and transitional Rule.

### **3.8 Form of Regulation: Treatment of Contestable Services**

A number of revisions have been made in the Draft Rule in order to clarify that contestable services fall outside of the scope of economic regulation.

#### **3.8.1 Submissions**

Several submissions highlighted the importance of clearly delineating contestable services from services that are regulated<sup>43</sup>. The Working Group also raised concerns that the Proposed Rule leaves some uncertainty as to what services would form part of a negotiated service (and subject to commercial negotiation under the Rules) and what services would be left unregulated. Ergon Energy submits that a threshold test to establish contestability should be established in the Rules. Hydro Tasmania prefers to give the AER the discretion to delineate services based on a 'competition' test.

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<sup>40</sup> Draft Rule 6A19.2 (a)(8)

<sup>41</sup> Draft Rule 6A.9.1(6)

<sup>42</sup> Draft Rule, clause 6A.19.2(a)(7) and (8)

<sup>43</sup> Ergon Energy, 21 March 2006, p.2, HydroTasmania 20 March 2006, p.3, Electricity Transmission Network Owners' Forum, 20 March 2006, p.6, Major Energy Users Incorporated, 22 March 2006, p.31

### 3.8.2 Commission Assessment

The Commission agrees that a services genuinely capable of competition should not be subject to any form of price regulation, including a compulsory commercial negotiation regime. The Proposed Rule did not include services capable of competition within the definition of negotiated transmission services. However, for the avoidance of doubt, the Draft Rule contains a provision that makes clear that transmission services provided by TNSPs which are neither prescribed services nor negotiated services are not subject to regulation under Chapter 6A.<sup>44</sup> As a result, nothing in the Draft Rule is intended to oblige a TNSP to provide a service which is genuinely capable of competitive supply nor regulate the price of supply when the TNSP elects to provide such services.

The Commission notes that even when a transmission service, such as services supplied by certain types of connection assets and radial transmission lines, is potentially competitive, the practical ability of a third party to construct and operate relevant assets will depend upon the co-operation of - and service provision by - the TNSP. In all cases the TNSP will be the sole provider of a connection service, the only issue is the physical point at which that service is provided (e.g., at the beginning or end of a radial transmission line).

Consequently, while genuinely contestable services should not be subject to economic regulation, the Draft Rule has been amended to make it clear that:

- nothing in Chapter 6A of the Rules imposes an obligation on a TNSP to supply Negotiated Transmission Services<sup>45</sup>. Neither does the commercial arbitrator have the power to require the TNSP to provide a Negotiated Service to a Service Applicant<sup>46</sup>; and
- Chapter 6A does not regulate the price of services which are genuinely capable of competitive supply<sup>47</sup>.

The Draft Rule also provides that the arbitrator must terminate an arbitration (and not make a determination) where the arbitrator concludes that the service in question is genuinely capable of competitive supply<sup>48</sup>.

There will not be a clear dividing line that defines the point of the competitive service in all circumstances. For a service to be genuinely capable of competition it must be capable of being supplied in a practical and economic sense by both the TNSP and third parties. This will be a question of fact which depends upon the individual circumstances. If there are disputes about whether a service is capable of competitive supply these disputes should be resolved, including through a dispute resolution procedure, on the facts of each case.

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<sup>44</sup> Draft Rule, 6A.1.1(c)

<sup>45</sup> Draft Rule, 6A.9.7

<sup>46</sup> Draft Rule S6A3.5(c)

<sup>47</sup> Draft Rule 6A.1.1(c)

<sup>48</sup> Draft Rule, S6A.3.5(f)

### **3.9 The Scope of the Dispute Resolution Process for Negotiated Transmission Services**

The Commission has continued to restrict the scope of the dispute resolution process for negotiated transmission services to the price of those services.

#### **3.9.1 Submissions**

The AER submission argued that the negotiated transmission service provision introduces significant complexity and possibility for misapplication and regulatory gaming<sup>49</sup>. The AER recommends that disputes involving negotiated transmission services and disputes currently covered by clause 8.2.1(a)(4) should be consolidated under the same dispute resolution framework<sup>50</sup>. The MEU would prefer the AER to continue to be involved in the dispute resolution process<sup>51</sup>.

#### **3.9.2 Commission Assessment**

The Commission has been mindful to restrict the provisions relating to dispute resolution mechanisms in clause 6.10.5 of the Draft Rule to issues surrounding price. Amendments to the Draft Rule include reference to price where there is dispute as to the delineation of the negotiated services and the unregulated (competitive) service. There may be benefit in adopting the AER's recommendation to extend the regime to all disputes regarding negotiated services.

The Commission believes that the current provisions allow for a streamlining of dispute resolution procedures which will lead to a more effective and timely process. It does not see additional benefit from AER oversight of dispute resolution beyond what is set out in the Draft Rule. The proposed process in the Draft Rule is one which requires the commercial arbitrator to determine the dispute as quickly as possible, and in any case within 30 days. As discussed above, the Commission considers that there are benefits in putting in place an expedited dispute resolution framework in relation to negotiated services. Adding oversight by an additional body to the commercial arbitrator's role would unnecessarily complicate the process, be less time and cost-effective and introduce additional uncertainty.

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<sup>49</sup> Australian Energy Regulator, 7 July 2006, p.47

<sup>50</sup> Ibid., p.51

<sup>51</sup> Major Energy Users Incorporated, 7 July 2006, p.67

## 4 Decision Making Framework

For the purposes of the current review, the AEMC is required by section 35 of the NEL to make Rules for the regulation of electricity transmission revenues and prices, having regard to the more detailed guidance provided by items 15-24 of Schedule 1 of the NEL. The matters referred to in Schedule 1 include:

- principles to be applied and procedures to be followed by the AER (items 17 and 24);
- the economic framework and methodologies to be applied by the AER for the derivation of maximum revenues and prices (items 19, and 20);
- determination by the AER of: asset values; depreciation allowances; rates of return on assets; and operating costs (items 21 and 22); and
- incentives to make efficient investment and operating decisions (item 23).

The Commission has interpreted this statutory guidance as requiring the development of Rules which establish clear processes for conducting regulatory reviews, a full methodology for making revenue cap determinations using a building blocks approach and appropriate criteria for decision making by the AER.

The Commission's objective in making Rules for this purpose has been to establish a framework for regulatory processes and decision making which provides appropriate certainty and predictability about the regulatory framework for transmission investors and users, while providing sufficient regulatory discretion and flexibility to the AER to enable it to perform its role effectively.

In seeking to strike this balance the Commission has been mindful of the widespread view expressed in stakeholder submissions (to both the September 2005 Issues Paper and the March 2006 Rule Proposal Report) that a more transparent and predictable regulatory framework and decision making process specified in the Rules would reduce the perception of regulatory uncertainty and risk. As a general rule limiting the degree of regulatory uncertainty and risk will provide a more certain environment for long term network investment. The Commission's approach has therefore involved a higher degree of direction in the Rules regarding the methodologies and procedures to be applied by the AER, than exists in the current Rules, while at the same time providing the regulator with appropriate areas of discretion where flexibility is necessary to perform the role effectively.

The Commission has also had regard to a number of recent reviews and reports which have addressed the issues of regulatory guidance, discretion and decision making criteria in economic regulation. These reviews and reports include the reports by the Productivity Commission on the National Access Regime<sup>52</sup> and the Gas Access Code<sup>53</sup>, the report of the

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<sup>52</sup> Productivity Commission 2001, 'Review of the National Access Regime', Report no. 17, AusInfo, Canberra

<sup>53</sup> Productivity Commission 2004, 'Review of the Gas Access Regime', Report no. 31, Ausinfo, Canberra

Export Infrastructure Taskforce<sup>54</sup> and the recent report to the MCE by the Expert Panel on Energy Access Pricing<sup>55</sup>.

The Commission's general approach to the balance between Rule-based guidance and regulatory discretion is addressed in this chapter, together with its approach to the specification in Rules of the regulatory decision criteria to be applied by the AER in relation to the certain elements of the building blocks revenue cap model.

The detailed aspects of the regulatory framework specified in the Draft Rule are described in subsequent chapters.

#### **4.1 Energy Market Governance and the Role of the Rules**

An important consideration for the development of Rules in this review is the introduction of the new institutional and governance arrangements for access price regulation in the NEM. The Council of Australian Governments (COAG) *Intergovernmental Agreement on an Australian Energy Market*<sup>56</sup> endorsed new energy market governance arrangements recommended by the MCE in its report to COAG of 11 December 2003. Those governance arrangements have now been fully implemented and comprise:

- the MCE – the national policy and governance body for the Australian energy market including for electricity and gas, with a power to direct the AEMC with respect to Rule making and market development;
- the AEMC – responsible for Rule-making and market development functions in respect of electricity and natural gas transmission and distribution networks and retail markets (other than retail pricing); and
- the AER – responsible for enforcement of the Rules for the NEM and economic regulation of electricity transmission and distribution networks and retail markets.

The MCE's December 2003 report and the subsequent legislation establishing the AEMC and the AER and specifying their powers and functions makes it clear that the AEMC will have no direct regulatory enforcement or decision making functions and will not be able to initiate Rule changes itself (other than in respect of the electricity transmission regulation Rules, in accordance with s.35 of the NEL and Schedule 1). In relation to the regulatory and enforcement role of the AER, s.16 of the NEL provides that those functions must be performed in a manner likely to contribute to achievement of the NEM objective and in accordance with the requirements of the Rules.

The new governance structure therefore provides relevant guidance regarding the role of the AEMC in making Rules and the role of the Rules in providing a framework for the performance of the AER's regulatory function. The central premise of these governance arrangements is the clear separation of the Rule making and Rule administration functions.

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<sup>54</sup> Exports and Infrastructure Taskforce 2005, 'Australia's Export Infrastructure', Report to the Prime Minister, Canberra, May 2005

<sup>55</sup> Expert Panel on Energy Access Pricing 2006, 'Report to the Ministerial Council on Energy', April 2006

<sup>56</sup> COAG, 'Intergovernmental Agreement on an Australian Energy Market', 30 June 2004

The framework adopted by the MCE has also introduced a further development in the governance of the NEM. The Rules are subordinate legal instruments that have the force of law. A general principle of law making and good regulatory practice is that parties who are required to comply with the law are entitled to know with clarity in advance what is expected of them. That is, the Rules can be defined as legal commands that provide specification in advance<sup>57</sup> of what is required to achieve compliance. Therefore, the role of Rules is to provide clear guidance in advance to regulators and market participants about the content of the regulatory framework and how the regulatory functions should be carried out.

A central question for this review, however, is the extent to which the Rules should specify in advance the criteria, methodologies and process to be applied by the AER and the extent to which the AER should have discretion over those matters in performing its regulatory functions. A further related matter for the review is the nature and extent of guidance provided in the Rules in relation to the criteria to be applied by the AER in exercising discretions conferred on it by the Rules.

These issues are examined in sections 4.3 and 4.4 of this chapter.

## **4.2 General Approach to economic regulation**

### **4.2.1 Regulatory frameworks**

The economic regulation of infrastructure industries involves both the substantive rules (methodologies and decision making criteria) which govern the application of regulation to individual cases and the procedural rules which govern the process by which decisions are made. Consequently, when considering the question of the extent to which legal rules seek to codify or specify the details of economic regulation it is useful to separately consider the case for or against codification of the substantive rules and the process or procedural rules.

In assessing the regulatory framework for transmission network regulated revenues, the Commission has separately considered the balance between codification in the Rules and the conferral of discretions on the AER in the context of:

- process and procedural matters;
- the level of specification of methodologies; and
- the extent to which the Rules provide decision making criteria in areas in which the AER has discretion.

Process and procedural guidance in Rules relates to the rights, obligations and procedures that are conferred on all parties during the process of a revenue determination. For instance, this includes the right of a regulated business to submit its proposed revenue requirement to the regulator, the obligation for the regulator to respond to the business proposal and the timeframes for these processes to occur. Currently there is very little

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<sup>57</sup> Kaplow, L., "General Characteristics of Rules", in Boudewijn Bouckaert & Gerritt De Geest (eds.), *Encyclopaedia of Law and Economics*, University of Ghent, p.502

guidance in Rules on process and procedures. The Commission has sought to determine where benefits can be achieved by providing additional guidance and clarity in Rules for processes and procedures.

The degree of specification of methodologies for the application of economic regulation can range from high level identification of generic approaches, the identification of a range of permitted approaches to the detailed specification of the methodology to be applied by the regulator. The current Rules provide for only the highest level of identification of permitted methodology – the use of a revenue cap derived through a CPI-X approach. The National Third Party Access Code for Natural Gas Pipelines (Gas Code) is an example of rules which provide for a range of permissible methodologies for determining the total permissible revenue requirement: cost of service approach; internal rate of return approach and net present value approach. However the Gas Code is relatively prescriptive in relation to valuation of the regulated asset base and how that value is adjusted over time.

#### **4.2.2 Principles for codification/discretion balance**

An important aspect in considering the appropriate balance of codification and discretion in the Rules is the extent to which changes to the Rules contribute to achieving best practice in the regulation and operation of the NEM. The Commission considers that good regulatory design and practice promotes confidence in markets, benefits consumers, and provides greater predictability in the operation of regulation for all stakeholders. Consequently the Commission considers that good regulatory design and practice in the regulation of transmission services will contribute to the NEM objective.

In the context of the process, methodology and decision criteria for revenue determinations, the relevant consideration for the Commission is where the balance between increased guidance or increased discretion will provide superior outcomes considering the concept of good regulatory design and practice principles.

The Utility Regulators' Forum (URF) released a discussion paper in July 1999 that considered the issue of best practice utility regulation<sup>58</sup>. The discussion paper provided nine principles of best practice regulation. These were:

- communication;
- consultation;
- consistency;
- predictability;
- flexibility;
- independence;
- effectiveness and efficiency;

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<sup>58</sup> Utility Regulators' Forum, 'Best practice utility regulation, discussion paper', July 1999



- accountability; and
- transparency

Some of these principles might conflict with others; for instance, where there is a high degree of flexibility there is less likely to be significant consistency and predictability. Therefore, the Commission has sought to ensure that the balance between these objectives is appropriate to the circumstance in which they are being applied.

### **4.3 The policy debate about codification and discretion in economic regulation**

#### **4.3.1 Process debate**

In recent years there has been a broad ranging debate about what constitutes best practice in the design and administration of rules dealing with the process of economic regulation (as distinct from the debate about the substantive rules of economic regulation). Much of the debate about process has focussed on the so-called 'propose-respond' paradigm.

However references to 'propose-respond' model encompass both a reference to 'propose-respond' processes and a reference to a 'propose-respond' model as a complete approach to economic regulation. Under the second approach the regulatory framework would provide wide discretion to a regulated business in relation to the form and scope of the economic methodology it applies in the formulation of its 'proposal' to the regulator as well as the process to be followed. Under a complete propose-respond model the regulator would be required to accept the firm's proposal (or a specified component of the proposal) provided it falls within some 'reasonable or plausible range' of values.

In the context of this Review the Commission has not used the concept of propose-respond as a complete regulatory approach including because the provisions of the NEL require the Commission to make Rules which contain a methodology for determining revenue and prices. Rather, the Commission has used the concept of 'propose-respond' in this Review in the context of Rules dealing with process and procedural matters.

The benefits of a propose-respond approach to the process of regulation have been supported by various reviews that have related to energy markets in recent time. For instance, the Expert Panel recommended that the NEL contain provisions that require the Commission to make Rules with respect to the procedures for making network pricing determinations. In this regard the Expert Panel stated that Rules should be made on the following:

- the entitlement of the regulated entity to make a proposal in accordance with Rules determined by the AEMC in relation to revenue/pricing;
- the time within which any such proposal must be made;
- publication of the proposal and related information;
- an opportunity for stakeholder submissions in relation to the proposal and related information;
- publication of a draft decision and the giving of reasons by the regulator;

- the entitlement of the regulated entity to make submissions in relation to that draft determination which may include a revised proposal;
- an opportunity for stakeholder submissions in relation to the draft determination and any revised proposal; and
- the holding of pre determination conferences<sup>59</sup>.

Support for Rules which codify a propose-respond process has also been motivated by concerns regarding timely decision making. The timeliness of regulatory decision making was an issue that received particular attention from the Taskforce and the Productivity Commission in their recent reviews.

The Taskforce stated that a significant number of submissions to its review commented that regulators are taking too long to make decisions and this is having a detrimental impact on commercial decision making<sup>60</sup>. In response the Taskforce recognised that it takes time for regulators to come to final decisions on complex issues involving high stakes for the parties and the community. However, it also recognised that delays have a real cost, and there comes a point where the search for ever greater accuracy results in steeply diminishing returns<sup>61</sup>.

In addition, many submissions to the Productivity Commission Review of the Gas Access Regime also commented on the impact of a lack of timely decision making on businesses activities. For instance, Origin Energy stated:

*“Origin [Energy] would note that few if any access arrangements have been developed or revised in a timely manner, in most cases the development (or review) process taking more than nine months. Such delays can multiply uncertainty into upstream and downstream markets; which clearly constitutes a cost of the [Gas] Code and the Gas Access Regime<sup>62</sup>.”*

A similar comment was made by Worsley Alumina who stated that the length of time required for the Epic access arrangement decision had an impact on Worsley’s planning of possible future expansions<sup>63</sup>. In response to submissions the Productivity Commission considered that the delays in access arrangement related decision making and approvals have imposed additional costs on both businesses and regulators<sup>64</sup>.

The Expert Panel also commented that it:

*“...supports steps to improve timeliness and notes that its significance underlines the importance of requiring full transparency of regulator performance in its reports to*

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<sup>59</sup> Expert Panel on Energy Access Pricing 2006, ‘Report to the Ministerial Council on Energy’, April 2006, p.89

<sup>60</sup> Exports and Infrastructure Taskforce 2005, ‘Australia’s Export Infrastructure’, Report to the Prime Minister, Canberra, May 2005, Industry Taskforce p.37

<sup>61</sup> Ibid., p.44

<sup>62</sup> Productivity Commission 2004, ‘Review of the Gas Access Regime’, Report no. 31, Canberra p.151

<sup>63</sup> Ibid. p.151

<sup>64</sup> Ibid., p.152

*Parliaments as well as the need to resource the AER at a level that enables it to achieve the desired performance standards. <sup>65</sup>*

#### **4.3.2 Codification of methodology debate**

There are three general approaches a legal framework for the economic regulation of infrastructure can adopt. The first is to specify in the legal rules the high level objectives that economic regulation is to achieve and allow the regulated business the discretion to propose a methodology which meets those requirements. The second is to specify high level objectives in the Rules and to then confer on the regulator the discretion as to the selection of the methodology intended to deliver those objectives. The third approach is for legal rules to specify the details of the methodology the regulated business and regulator must apply. Between these extremes is a spectrum of different options which adopt different levels of codification of methodology.

The ETNOF, in its submission to the Issues Paper, provided an extensive discussion on what it considered to be the appropriate role of the Rules in promoting greater certainty for long term transmission investment. It commented that:

*“The main concern to the TNOs is that the regime delivers an appropriate degree of certainty so that TNSPs can continue to attract the investment funds necessary to provide the standard of transmission services sought by users. As discussed in section 2.7, while the TNSPs’ reliability obligations ensure appropriate levels of investment (and service performance) in the short term, the TNSPs’ capacities to meet these obligations over the long term is dependent upon continued access to the necessary investment funds. A key component of this environment is that TNSPs expect to have the opportunity to earn a reasonable return on funds invested and to recover their capital over time – in particular, that ‘sunk’ investments are not expropriated after the capital has been sunk. As electricity transmission investments are typically recovered over a long period, stability in regulatory outcomes is particularly important. Rules that promote certainty in these factors are likely to provide substantial benefits.<sup>66</sup>”*

The ETNOF went on to say:

*“There are also important public policy considerations in favour of more prescription. Each element of the regulatory framework that is prescribed within the Rules represents a step towards ensuring proper separation of Rule making responsibilities (the AEMC) and Rule enforcement responsibilities (the AER), and a recognition of the more appropriate decision making framework available to the AEMC for determining Rules.<sup>67</sup>”*

The views of the ETNOF were also supported by a number of submissions to the Proposed Rule. For instance, TRUenergy stated the following in relation to the balance between certainty and flexibility:

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<sup>65</sup> Expert Panel on Energy Access Pricing 2006, ‘Report to the Ministerial Council on Energy’, April 2006, p.72

<sup>66</sup> Electricity Transmission Network Owners, November 2005, p.22

<sup>67</sup> Ibid., p.22

*“We support the AEMC Rule proposal on the basis it provides greater clarity, certainty and transparency in regulatory processes. More prescriptive Rules reduce the AER’s discretion when adjudicating on the Rules. Whilst discretion is an important component of any regulatory framework, it must be balanced with the need for certainty and clarity. Thus, we support the AEMC’s attempts to provide a clearer framework for the making of Revenue Cap determinations for the AER. 68”*

The Economic Regulation Authority (ERA) expressed the view that where standard methodologies and assumptions in regulatory determinations have emerged it supports the codification of these under the Rules as a means of promoting certainty in regulatory processes and reducing the cost of determinations<sup>69</sup>.

Alternatively, the Energy Action Group (EAG)/Energy Users Association of Australia (EUAA) submission was concerned with the prospect of limiting the AER’s discretion and stated:

*“Elevating many of the aspects of current regulatory practice into the Rules has the effect of formalising the ‘legal status’ of that practice, which is arguably transparent. But the fact that the Rules have the effect of law greatly increases the difficulties that end-users might face if they were aggrieved with the Rule change process or its outcome and sought to challenge the outcome – as this would require a costly challenge through the Courts. A better outcome may be derived by allowing the maximum amount of discretion to remain with the AER and define objectives in the Rules for guiding that discretion. 70”*

The AER was also critical of the Commission’s approach of elevating the methodology for determining regulatory revenues to the Rules, referring to a paper it commissioned from Firecone Ventures which stated:

*“(I)f there is a significant problem arising from uncertainty in the regulatory regime, then seeking a high level of codification is likely to be an ineffective and inefficient response. It is not possible to reduce the resolution of complex commercial processes to the successive application of binding Rules. The attempt to do so is likely to reduce rather than increase certainty and predictability. 71”*

The Expert Panel, in commenting on the findings of the Productivity Commission’s review and broader debate on codification and discretion considered the appropriate balance between providing sufficient regulatory certainty to facilitate efficient long run investment decision making and the need for appropriate regulatory discretion to address varying business and market conditions. The Expert Panel commented on the level of prescription that should be in the Rules in the following terms:

*“The Rules should address matters that have industry wide application or effects that are likely to change relatively infrequently over time and that do not rely on an assessment of individual market participant conditions or circumstances. These matters are more appropriately dealt with by regulatory discretion. In terms of the level of discretion given to the regulator through the Rules, this raises a number of*

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<sup>68</sup> TRUenergy, 21 March 2006, p.2

<sup>69</sup> Economic Regulation Authority of Western Australia, 20 March 2006, p.4

<sup>70</sup> Energy Action Group/Energy Users’ Association of Australia, April 2006, p.10

<sup>71</sup> Firecone Ventures, ‘Providing certainty through codification: comments on the AEMC Rule Proposal, March 2006, p.15

*conflicting objectives, particularly from the viewpoint of regulated entities. Prescription in the Rules promotes certainty and stability of regulatory outcomes. It also assists in promoting a transparent commercial and policy assessment of the regulatory approach, given the nature of the Rule making process that now applies under the NEL and that is to be included in the NGL. Conversely, a high level of prescription reduces the regulator's ability to accommodate the particular circumstances of individual market participants in regulatory decisions.<sup>72</sup>*

The Panel concluded that the appropriate forum for determining the level of specification or discretion is the Rule making process itself because it provides for a full and transparent consultation process, can be tailored to address industry-wide regulatory design and decision making requirements and retains the flexibility of the Rule change process to make necessary adjustments<sup>73</sup>. Having noted the absence of any guidance on regulatory procedures in the current electricity Rules, the Panel recommended that both the NEL and the NGL should specifically require the AEMC to make Rules with respect to the procedures to be followed by the AER in making network pricing determinations<sup>74</sup>.

### **4.3.3 Decision criteria debate**

Good regulatory design dictates that, irrespective of the extent to which the Rules for economic regulation may codify the methodologies to be adopted by regulated businesses and regulators, the Rules should confer on the regulator areas of discretion. This is because good economic regulation cannot be reduced to an entirely mechanical exercise. Each exercise of regulation involves applying rules and principles to the particular circumstances of individual businesses operating in potentially different environments. Good economic regulation incorporates options and flexibility so that outcomes can be tailored to the individual case.

However, where legal rules confer discretions on regulated businesses and regulators the question arises whether the Rules should incorporate criteria to be applied when making decisions within those areas of discretion.

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

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

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

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<sup>72</sup> Expert Panel on Energy Access Pricing 2006, 'Report to the Ministerial Council on Energy', April 2006, p.26

<sup>73</sup> Ibid., p.26

<sup>74</sup> Ibid., p.89

A balanced approach to economic regulation recognises that there is rarely a first best solution to the question of how the revenues and prices of a particular business or business activity should be regulated.

The challenge for regulators in achieving a balanced approach to decisions which require the exercise of judgement was most recently highlighted by the Australian Competition Tribunal in the recent case involving the regulation of Telstra line rental services under Part XIC of the Trade Practices Act:

*“In this area of analysis there is no one correct or appropriate figure in determining reasonable costs or a reasonable charge. Matters and issues of judgment and degree are involved at various levels of the analysis. In considering whether Telstra’s estimates of its costs are reasonable we are not driven to considering whether the Commission’s or other parties’ views or assessment of those costs are more reasonable. Nor do we enquire whether Telstra’s method or approach in estimating its costs is the correct or appropriate approach. If Telstra’s method or approach in estimating its costs is reasonable having regard to the statutory matters set out in [ss 152AH](#) and [152AB](#) then the matter rests and a comparison with the \$9.00 monthly charge is then to be made: Application by GasNet Australia (Operations) Pty Ltd (2004) ATPR 41-978 at [29]. Put shortly, our inquiry is whether the method employed by Telstra at each level of determining the costs of its LSS is reasonable having regard to the statutory matters identified in [s 152AH](#) and the objectives set out in [s 152AB](#).*

*..... In a number of respects we are operating in areas where there is no one specific regulatory, economic, accounting or financial answer, and where there may be a number of approaches to the determination of relevant costs or their allocation which may be regarded as reasonable. Our inquiry is directed to whether Telstra’s \$9.00 monthly charge in its access undertaking is reasonable having regard to the statutory matters set out in of [ss 152AH](#) and [152AB](#) of [the Act](#).<sup>75</sup> “*

The Productivity Commission has considered various ways for addressing what it considered to be inherent and avoidable failures, uncertainties and biases in the regulatory process that conspired to undermine the confidence of investors to invest the required funds on infrastructure.

When assessing the performance of the National Gas Access Regime (Gas Access Regime), the PC considered in detail the issues and problems associated with determining, *ex ante*, a regulatory rate of return for service providers and particularly the difficulties in coming to any precise view about the derivation of the parameter values of the Capital Asset Pricing Model (CAPM) in estimating the regulatory cost of capital. The PC recommended the following:

*“to ensure regulators are given clear guidance about the uncertainty associated with calculating an ex ante regulatory rate of return, s.8.31 of the Gas Code should be changed to the following:*

*s.8.31 If a Rate of Return is used in determining a Reference Tariff then the method used to calculate the Rate of Return and the values used in applying that*

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<sup>75</sup> Telstra v ACCC [2006] ACompT 4

*method shall in the first instance be proposed by the Service Provider. In assessing the Service Provider's proposal the Relevant Regulator must take account of the fact that there is no single correct method to determine a Rate of Return and there is often a range of plausible estimates that could be used in applying a Rate of Return method.*

*The role of the Relevant Regulator is therefore to assess whether the Service Provider's:*

- (a) proposed method has a plausible conceptual basis; and*
- (b) values used in applying the method lie within the range of plausible estimates.*

*The Relevant Regulator must approve the proposed method if (a) is satisfied. The Relevant Regulator must approve the values in applying a method if (b) is satisfied<sup>76</sup>*

The Australian Competition Tribunal (ACT), in its judgement on GasNet's application for a review of the ACCC's determination of their tariffs also commented on the proper role of the regulator in making decisions. The ACT found that it is not for the regulator to seek what it considers to be the "best" outcome in instances where the regulated business has made a reasonable estimate within the guidance provided by the Code. Specifically, the ACT found that:

*"Contrary to the submission of the ACCC, it is not the task of the Relevant Regulator under s8.30 and s8.31 of the Code to determine a 'return which is commensurate with prevailing conditions in the market for funds and the risk involved in delivering the Reference Service'. The task of the ACCC is to determine whether the proposed AA in its treatment of Rate of Return is consistent with the provisions of s8.30 and s8.31 and the rate determined falls within a range of rates commensurate with the prevailing market conditions and the relevant risks.<sup>77</sup>"*

In March 2005 the Prime Minister established the Export and Infrastructure Taskforce that was charged with the task of identifying any "bottlenecks, of a physical or regulatory kind, in the operation of Australia's infrastructure that may impede the full realisation of Australia's export opportunities"<sup>78</sup>.

The Taskforce highlighted the risk of regulatory failure that is attached to conferring on regulators discretions that are unguided:

*"Even when attention is paid to carefully selecting the form of regulation, there is an inherent tension between regulation and efficient investment. In practice, regulators inevitably have a degree of discretion and that discretion creates risks that investors in infrastructure need to take into account. Even firms that are monopolists in the supply of a particular service must compete in the global market for infrastructure finance. As a result, if efficient capacity expansion is to proceed, investors must reasonably expect a return that is sufficient to recover the opportunity cost of capital. Asymmetries in regulation can undermine the confidence that this requires. In some regulatory contexts, regulation ends up capping the 'upside' investors in regulated*

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<sup>76</sup> Productivity Commission 2004, 'Review of the Gas Access Regime', Report no. 31, Canberra p.300

<sup>77</sup> Australian Competition Tribunal, Application by GasNet Australia (Operations) Pty Ltd [2003] ACompT 6, paragraph 42  
Exports and Infrastructure Taskforce 2005, 'Australia's Export Infrastructure', Report to the Prime Minister, Canberra, May 2005, p.1

*infrastructure can hope for, while not limiting the 'downside' to which they are exposed. This means that even what seems like a 'fair' rate of return is insufficient to induce investment that society values at more than its cost.<sup>79</sup>*

To address the risks that regulatory discretion places on investment for regulated business the Taskforce recommended simplifying the relevant test applied by the regulators, although the Taskforce did not provide much in the way of supporting detail on how this would operate in practice. The Taskforce recommended the following test to replace the current decision criteria of regulators:

*"simplifying the relevant test applied by regulators by basing it on whether what has been proposed by the infrastructure owner is reasonable in the commercial circumstances and in light of the statutory objectives. This test – under which a regulator could not reject a proposed access arrangement that fell within a reasonable range, merely because it preferred another point in that range – should be applied universally and uniformly, as envisaged under the national competition policy reforms. Simplifying the regulatory test to one that merely considers whether the infrastructure provider's proposal is reasonable in the commercial circumstances and falls within a reasonable range should reduce the complexity of the regulator's task and result in a more timely process.<sup>80</sup>*

The Expert Panel, in commenting on the proposal by the Productivity Commission and the Export Infrastructure Taskforce that a "reasonable or plausible range" criterion be applied by regulators in making decisions on the regulation of infrastructure services, concluded that the approach was not an appropriate response to concerns about forecasting uncertainty and perceptions of regulatory risk. The Expert Panel concluded that:

*"There is little doubt that a propose-respond model (particularly in the form proposed by the Productivity Commission) would over time lead to a systemic increase in the returns to regulated entities relative to the receive-determine model. This is because it seems improbable that, given the choice of proposing an estimate within a range, the regulated entity will opt for other than its estimate of the upper end of the range. By contrast, it might be argued that under a consider-decide model the regulator will be inclined to aim at an estimate of the central point of the range. Indeed it is the likelihood of this systemic upward bias in returns arising from a propose-respond approach that is one reason it is advanced as a remedy to the risks of truncated returns and asymmetric risk from regulatory error noted above. However, it is not clear that an upward bias in all regulatory rate of return outcomes (as could be particularly be expected under the Productivity Commission formulation) is the best means of dealing with these concerns.<sup>81</sup>*

In considering what is an appropriate response to concerns regarding the potential for truncated regulatory returns, asymmetric knowledge and systemic regulatory bias, the Panel reached the following conclusions:

*"The Panel considers a more complete response to the potential for regulatory error (and the possibility of asymmetric consequences) is to ensure that the objective for the*

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<sup>79</sup> Ibid., p.20

<sup>80</sup> Ibid., p.53

<sup>81</sup> Expert Panel on Energy Access Pricing 2006, 'Report to the Ministerial Council on Energy', April 2006, p.78



regulator is appropriate, the guidance is clear and that the mechanisms in place for review of the regulator's decisions are appropriate. In addition, the Panel considers that the guidance to the regulator would be improved by requiring the AEMC – in making the Rules that are applied by the AER – to:

- provide a reasonable opportunity for a network operator to recover at least the efficient cost of providing services that are the subject of a network pricing determination and complying with a regulatory obligation;
- have regard to the risks and costs of:
  - potential for under- and over-investment in assets by the regulated distribution or transmission system operator; and
  - potential for under- and over-utilisation of the capacity of assets forming part of a distribution or transmission system, and the capacity of proposed new assets.<sup>82</sup>

In relation to the degree of prescription or discretion that is appropriate for regulatory decision criteria, the Expert Panel concluded that the extent to which prescription is included in the Rules should be determined in the Rule making process, having regard to the elements of the access arrangement or revenue proposal and the specific industry circumstances that are involved. It commented that:

*“The complexity and differing characteristics of each element of the service provider’s proposal are such that the Law cannot itself prescribe a single overriding test to be applied by the AER in assessing service provider proposals. These must be determined by the AEMC in the Rules developed for each of the alternative available forms of regulation. In some instances, this may involve relatively little discretion on the part of the AER, such as when parameters in the rate of return are prescribed in Rules or an objective methodology (by reference to observable market data, such as interest rates) for determining them is contained in the Rules. In other cases, such as the estimate of forecast operating or capital expenditure, it may call for more discretion.”<sup>83</sup>*

## **4.4 Commission Assessment**

### **4.4.1 Commission Approach: General Response**

The Commission agrees with the Expert Panel that the extent to which the Rules codify matters of process, methodology and decision making criteria should be determined through a Rule making process on the basis of a ‘fit for purpose’ approach. That is, there is no general principle that can determine the extent of codification of Rules in all circumstances. In some areas a high level of codification may be appropriate, for example in relation to the mechanics of the building block approach, and in others, such as the formulation of incentive mechanisms, a higher level of discretion for the AER may be appropriate.

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<sup>82</sup> Ibid., p.81

<sup>83</sup> Expert Panel on Energy Access Pricing 2006, ‘Report to the Ministerial Council on Energy’, April 2006, p.90

The Commission's general approach has been to improve the transparency and predictability of regulatory outcomes by codifying in the Rules those elements of methodology and process which are comparatively uncontroversial, unlikely to need to vary in application across different TNSP's in different circumstances or which are necessary to be determined on an *ex ante* basis for the efficient administration of the regulatory process.

The last consideration is particularly significant. The Commission has reflected in the Rules the 'propose-respond' process largely adopted by the ACCC under the existing Rules. Where a propose-respond process is adopted in economic regulation it will operate more efficiently and will be less subject to conflict between regulator and regulated business if the business can identify, *ex ante*, the precise case or proposal it needs to develop for submission to the regulator.

The Commission also understands that there are significant areas of regulatory decision making that should involve the exercise of judgement and discretion by the regulator. This is because good economic regulation should be sufficiently flexible to adapt to the individual circumstances of regulated businesses in different periods of time. Areas of flexibility and discretion also allow the regulatory process to evolve with experience and learning.

#### **4.4.2 Commission Approach: Codification of Process**

The Commission considers that well designed procedural requirements assist in ensuring the regulator administers the regulatory regime in an appropriate manner. In this instance, an appropriate manner includes providing opportunities for the regulated businesses and interested stakeholders to make submissions to the regulator and the opportunity for full and thorough analysis of the submissions and the regulators decision. Transparent decision making in this way is conducive to reducing regulatory risk, reducing the probability of error and decreasing the administrative costs of regulation. Appropriate time constraints within this process also ensure that decisions are made efficiently without undue waste.

In this regard the Commission has proposed to formalise the procedural requirements for making regulatory determinations by codifying a propose-respond process.

However, the Commission agrees with the AER that its Proposed Rule was unnecessarily detailed in the steps and timing associated with the determination of a revenue cap. Consequently, the Commission has now formulated procedural rules which contain only the key aspects of the regulatory process giving the AER and regulated business the ability to vary the details of procedure and timing to suit the circumstances of individual cases. There is one significant aspect of process that the Commission has retained in its Draft Rule and that is the fixed timeframe within which a final determination must be made (13 months). The Commission agrees with the concerns expressed in various reviews of economic regulation, including those by the Productivity Commission and Export Taskforce, that significant delays in decision making about the economic regulation of significant infrastructure not only adversely affects the regulated business but also the economy as a whole.

The details of the Commission Draft Rule dealing with process and procedural matters are considered in further detail in Chapter 9 of this Draft Determination.

#### 4.4.3 Commission approach: Codification of methodology

The regulatory framework for electricity transmission regulation, under the National Electricity Code, provided limited guidance to the regulator in relation to methodology, leaving considerable regulatory discretion on those matters.

The ACCC clarified the methodologies it would adopt in regulating electricity transmission revenue under the Code by developing the SRP<sup>84</sup> after consultation with market participants. However, the SRP is an administrative guideline which does not have the statutory force of Rules and, while it represents the procedural and methodological intention of the AER, the regulator reserves the right to depart from the SRP where it considers that to be warranted by various circumstances. The informality of the SRP and the discretion of the AER to vary its methodology or processes has given rise to a perception on the part of a majority of market participants of remaining regulatory risk that could be reduced by specifying the essential elements of the SRP in the Rules.

While the majority of submissions to this review process supported a continuation of the general approach to revenue cap regulation embodied in the SRP (with variations on matters of detail) there was widespread support amongst market participants for elevating to the Rules the key elements of the SRP in order to increase the transparency, clarity and predictability of the regulatory decision making<sup>85</sup>.

The Commission recognises that the concepts of transparency, clarity and predictability are all elements of good regulatory practice. However, it also recognises that there are consequences from conferring on regulators either insufficient or excessive discretion in decision making. Insufficient specification in Rules can lead to uncertainty and inconsistency which can impact adversely on long term investment, while insufficient discretion can limit the ability of the regulator to respond flexibly to the different market and commercial circumstances of individual regulated businesses.

The Commission has concluded that there is significant benefit in specifying in Rules the methodology for the determination of revenue caps. The Proposed Rule therefore specified a full methodology (based on the SRP) for making revenue cap determinations for prescribed transmission services using a building blocks approach. The Commission considers that the mechanics of the building block approach are well understood and have been adopted by economic regulators in Australia and overseas for over 10 years. In these circumstances the Commission sees few if any risks to good regulatory outcomes from codifying the building block methodology in the Rules. The advantages of codifying the methodology in the Rules are many including the more efficient operation of the regulatory process and the greater transparency and predictability of the operation of regulation of TNSP revenues.

However, the Commission has carefully considered a number of concerns expressed by the AER about components of the building blocks which it believed to have been detailed to an unreasonable degree in the Proposed Rule. In a number of areas the Commission agrees with the AER and has reduced the level of codification of those elements in the

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<sup>84</sup> ACCC 2004, 'Statement of principles for the regulation of electricity transmission revenues', 8 December 2004

<sup>85</sup> EnergyAustralia, 20 March 2006, pp.5-6 and Electricity Transmission Network Owners' Forum, March 2006, p.21

Draft Rule. This is particularly the case in relation to the operation of the incentive mechanisms.

The Draft Rule provides for the exercise of judgement and discretion by the AER in relation to the following elements of the building blocks revenue determination methodology:

- determination of forecast capital and operating expenditure<sup>86</sup>;
- determination of asset valuations and approval of depreciation schedules<sup>87</sup>;
- review and determination of WACC parameters and methodology every five years<sup>88</sup>;
- cost allocation principles and criteria<sup>89</sup>;
- pricing criteria for negotiated transmission services<sup>90</sup>; and
- development of incentive regimes for efficient expenditure and service performance<sup>91</sup>.

In relation to a number of areas of regulatory discretion, consistent with the approach in the Proposed Rule, the Draft Rule provides guidance on how certain discretions are to be exercised and requires the AER to publish models or guidelines (to be developed using the consultation process in the Rules) to clarify how these discretions would be exercised. This is discussed further in section 8.5.

#### **4.4.4 Commission Approach: Discretion and decision criteria**

As noted above, there is very little guidance or restriction on the decision making discretion of the AER in the current National Electricity Rules. The regulator is essentially free to decide what it considers to be the best revenue requirement with regard to the very high level principles set out in the Rules. In contrast, under the current Gas Code, the regulator is required to assess the pipeline operator's proposal against extensively specified principles, criteria and requirements in relation to methodology and process.

The Commission's Proposed Rule adopted what the Expert Panel has termed a fit for purpose approach to regulatory decision making criteria. That is, different decision criteria were specified for the assessment of different components of the TNSP's revenue proposal. Where the Rules provided for the exercise of judgement or discretion by the AER, the Proposed Rule contained decision making criteria.

That approach is consistent with the Commission's view that where legal rules confer discretion on regulators those legal rules should also specify the criteria to be applied in exercising the discretion. That is, the Rules should specify the basis for determining various components of the building block methodology and where the assessment of a

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<sup>86</sup> Draft Rule, clauses 6A.6.6 and 6A.6.7

<sup>87</sup> Draft Rule clauses 6A.6.1 and 6A.6.3

<sup>88</sup> Draft Rule, clause 6A.6.2(f)-(j)

<sup>89</sup> Draft Rule, clause 6A.19

<sup>90</sup> Draft Rule, 6A.9

<sup>91</sup> Draft Rule, clauses 6A.6.5 & 6A.7.4

component requires the exercise of judgement the Rules should specify criteria for exercising that judgement.

Unless decision making criteria are determined *ex ante* and are transparent there is a risk that the exercise of discretion by a regulator is perceived to be arbitrary, increasing the degree of regulatory risk for investment and undermining confidence in the regulatory regime.

This fit for purpose approach to regulatory discretion and decision criteria has been maintained in making this Draft Determination. The following discretions and decision criteria for various elements of the building blocks revenue cap determination model are specified in the Draft Rule:

- Initial regulatory asset values to be specified in the Rules and rolled forward using a model to be determined by the AER<sup>92</sup>.
- Initial WACC methodology and parameters to be specified in the Rules (based on the current requirements of the SRP) and to be reviewed and determined by the AER every five years<sup>93</sup>.
- Depreciation schedules to be nominated by the TNSP, accepted by the AER if they conform with Rules requirements or otherwise as determined by the AER<sup>94</sup>.
- Forecast capital and operating expenditure to be approved by the AER if it determines that they are reasonable estimates, having been assessed against a list of factors specified in the Rules<sup>95</sup>.
- Cost efficiency and service performance incentive schemes to be developed by the AER and the AER to approve parameter values proposed by the TNSP if they comply with the requirements of the scheme<sup>96</sup>.

Where significant areas of discretion are provided for AER decision making, the Draft Rule also specify criteria for making those decisions. For instance, the reasonable estimate basis for the determination of capital and operating expenditure forecasts is an example of the Rules providing appropriate decision making discretion to the regulator (given the inherent uncertainty of such forecasts) with specific guidance on how that discretion is to be exercised.

Further details of the building block methodology provided for in the Rules are discussed in Chapter 8. However, two particular components of the building block methodology adopted in the Draft Rule are discussed in the next chapter: the assessment of forecast operational and capital expenditure and the treatment and review of the WACC.

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<sup>92</sup> Draft Rule, clauses 6A.6.1 & 6A.6.2

<sup>93</sup> Draft Rule, clause 6A.6.2

<sup>94</sup> Draft Rule, clause 6A.6.3

<sup>95</sup> Draft Rule, clauses 6A.6.6 & 6A.6.7

<sup>96</sup> Draft Rule, clauses 6A.6.5 & 6A.6.7

## 5 Expenditure Forecasts and Cost of Capital

As discussed in the previous chapter, the Commission's Draft Rule has adopted a fit for purpose approach to regulatory design and decision making criteria where different decision criteria are specified for the assessment of various components of the Revenue Proposal. Where elements of the regime have proven to be uncontroversial or have been established and accepted over time, the Commission has sought to specify in the Rules the methodology or parameters. Where decisions require discretion from the regulator due to the need to make forecasts or consider individual business characteristics the Commission has provided guidance in the Rules regarding how discretions are to be exercised.

Two elements of the Commission's approach that have attracted particular comment are the treatment of expenditure forecasts and the cost of capital. These components of the regulatory regime represent particular examples of the fit for purpose approach the Commission has adopted in developing the Draft Rule. For example, the decision criteria for expenditure forecasts provide specific guidance for both the regulated business and the regulator in relation to the development of reasonable estimates of the business's expenditure requirements. However, the Commission has applied a different decision rule for the cost of capital considering the benefits that can be achieved by codifying the WACC methodology and parameters in the short term but providing the AER with discretion to review and vary them periodically.

This chapter describes the Commission's treatment of these components of the revenue cap determination model in the Draft Rule and its responses to the submissions which commented on the approach in the Proposed Rule. First, the chapter considers the codification of expenditure forecasts, and in particular:

- the reasonable estimate test; and
- the criteria for assessing reasonableness.

Secondly, the chapter considers the Commission's approach to the cost of capital. Specifically, it discusses the Commission's response to submissions on the following issues:

- the potential for Rule change risk in regard to the codified parameters; and
- the proposed parameter values.

### 5.1 Codification of Expenditure Forecasts

#### 5.1.1 Reasonable Estimate Test

In its Proposed Rule the Commission adopted the reasonable estimate decision rule for capital and operating expenditure forecasts in recognition of the inherent uncertainty of expenditure forecasting in the context of economic regulation. That approach expressly provides discretion for the AER to make the determination regarding the reasonableness of the forecasts and gives specific guidance in the Rules regarding the criteria and evidentiary matters the AER must have regard to in making that determination. That is, in recognition of the need for judgement on the part of the regulator in determining whether the proposed forecasts are reasonable estimates, the Proposed Rule provided the AER with discretion in making that decision and specific guidance on how that discretion is to be exercised.

### 5.1.1.1 Submissions

The AER was of the view that a move to a reasonable estimate approach would lead to debate, and possibly litigation, about the meaning and effect of these words. As a result, the AER supported removing the term 'reasonable estimate' from the Proposed Rule<sup>97</sup>.

EnergyAustralia did not support the use of a reasonable estimate approach to regulation on the basis that it represented only a marginal improvement on the submit/determine model that currently exists<sup>98</sup>.

United Energy Distribution and APIA stated that they had a preference for the Gas Code model for assessing the reasonableness of capital and operating expenditure forecasts<sup>99</sup>.

The ETNOF and AGL support the requirement in the Proposed Rule for the AER to accept the forecasts of expenditure if those forecasts are considered reasonable<sup>100</sup>.

The Expert Panel identified some potential concerns with the Commission's reasonable estimate approach, including that:

- the term 'reasonable' may involve some uncertainty of interpretation for the AER and any merit appeal body; and
- the presumption of acceptance of estimates that are reasonable at both draft and final determination stages may provide an incentive and opportunity for strategic behaviour at both decision making stages.

In terms of potential uncertainty of interpretation, the Panel commented that:

*"The concept of reasonable estimate is clearly preferable to a "range of plausible estimates" but is still uncertain as to how this decision making standard will be interpreted over time by the AER and (any) merits review, or judicial review. While settled interpretation will emerge over time, it is unclear whether this will embrace a broader or tighter interpretation of 'reasonable estimate'.<sup>101</sup>"*

The Expert Panel's strategic behaviour concern was based on the view that TNSPs have an incentive to make ambit claims at the commencement of the review process in order to oblige the regulator to reveal in the draft decision what it considered to be a reasonable estimate<sup>102</sup>. The opportunity to then make a revised proposal in the light of the regulator's draft decision which would also have the presumption of being accepted if determined to be reasonable was seen by the Panel as encouraging exaggerated or ambit proposals at the initial stage with no bargaining cost or consequence for the TNSP.

### 5.1.1.2 Commission Assessment

The Commission agrees with the comments of the Australian Competition Tribunal in a number of recent cases, including the GasNet decision and the recent Telstra decision, that in areas of economic regulation where the subject matter is such that there is no 'correct' answer

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<sup>97</sup> Australian Energy Regulator, March 2006, p.30

<sup>98</sup> EnergyAustralia, 20 March 2006, p.13

<sup>99</sup> United Energy Distribution, 23 March 2006, p.5; Australian Pipeline Industry Association, 21 March 2006, p.2

<sup>100</sup> Electricity Transmission Network Owners' Forum, March 2006, p.17; AGL, 21 March 2006, p. 6

<sup>101</sup> Expert Panel on Energy Access Pricing 2006, 'Report to the Ministerial Council on Energy', April, p.83

<sup>102</sup> Ibid., pp.86-87

and in respect of which reasonably qualified experts would vary in opinion, the task of the regulator is to make a 'reasonable' decision, not the 'best' decision.

That approach is of particular relevance when the subject matter of a regulatory decision is the allowable forecast operating and capital expenditure for a large and complex business such as a TNSP over a five year period. The resolution of such forecasts requires the exercise of judgement about the level of future demand, both in general and specific terms, about the likely scale and timing of various market developments and about the likely variation of costs of inputs in that period.

In these circumstances the Commission has concluded that the TNSP and AER should strive for determination of a 'reasonable estimate' of future expenditure, subject to guidance in the Rules as to the criteria and evidentiary factors that should be considered in reaching that judgement. Any attempt to identify the 'best' estimate in these circumstances is unachievable and involves the risk of regulatory error. The Commission reiterates, however, that the reasonable estimate decision rule confers on the AER the responsibility for making the determination of whether the forecasts represent reasonable estimates, having regard to the guidance provided by the relevant decision criteria.

Regarding the Expert Panel's concern about the potential for uncertainty regarding the interpretation of the reasonable estimate decision test, the Commission notes that some uncertainty is necessarily associated with the interpretation of any decision criterion, including the 'best estimate arrived at on a reasonable basis' that is preferred by the Panel. However, the Commission considers that any uncertainty of interpretation of the reasonable estimate criterion will be reduced substantially by the requirement for the AER to have regard to the criteria and evidentiary material specified in the Rules. It notes in this regard that the AER has commented that the list of factors to be considered provides an appropriate basis for the assessment of expenditure forecasts and its concern is with the decision rule itself<sup>103</sup>.

Turning to the Expert Panel's concern about incentives for strategic behaviour, such incentives are a reality in a regulatory process the purpose of which is to determine the future revenue and prices of regulated businesses and thus their future profitability and shareholder value. In this situation, regulated businesses will have an incentive to 'talk up' the forecasts of expenditure required to provide the service under any decision criterion.

However, the Commission considers that the decision making process and criteria specified in the Proposed Rule and maintained in the Draft Rule for assessing expenditure forecasts provide the regulator with sufficient powers and safeguards to be able to achieve regulatory outcomes that are not overly distorted by strategic behaviour on the part of TNSPs.

In particular, the AER's capacity to deal with exaggerated proposals will be strengthened by the requirement for the TNSPs to make a complete proposal (in conformity with AER guidelines) including information and evidence consistent with the assessment criteria in support of their expenditure forecasts. The Commission also considers that the decision making process to be followed by the AER in assessing the expenditure forecasts is more likely to provide an incentive to submit well documented and supported expenditure forecasts rather than to submit forecasts that are grossly exaggerated. That is, TNSPs are likely to see the benefits of seeking AER acceptance of well supported forecasts of expenditure as outweighing those resulting from ambit claim forecasts with the associated

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<sup>103</sup> Australian Energy Regulator, March 2006,p.32



risk of the AER rejecting excessive and poorly supported expenditure forecasts and replacing them with its own forecast.

The opportunity for the TNSP to submit a revised proposal following the draft determination, which would be subject to the same reasonable estimate assessment by the regulator, simply provides for due process on a consistent basis in the draft and final decision making processes and would be subject to the same regulatory checks and balances as those applying to the initial proposal.

The Commission has not been persuaded therefore that the reasonable estimate decision criterion and process provided for in the Proposed Rule provides stronger incentives and opportunities for regulatory gaming than would be the case under alternative decision criteria. The approach has therefore been maintained in the Draft Rule.

### **5.1.2 Criteria for Assessing Reasonableness**

In line with the Commission's approach to the framework for decision making in the Rules, the criteria provided for the assessment of capital and operating expenditure forecasts is intended to guide the AER in making a determination as to whether the TNSP's proposal is a reasonable estimate. The following criteria have been specified in the Draft Rule<sup>104</sup> as matters to be taken into account by the regulator in coming to a decision:

- the information included in the Revenue Proposal;
- the need to comply with regulatory obligations;
- submissions from interested parties;
- information published by the AER prior to decisions regarding the Revenue Proposal;
- the actual and expected operating and capital expenditure;
- the extent that forecasts are referable to arrangements with a person other than the provider that might not be on arm's length terms;
- reasonable estimates of an efficient benchmark TNSP;
- the reasonableness of the demand forecasts;
- the relative prices of operating and capital inputs that prevail at the time for that particular TNSP;
- the efficiency of substitution possibilities between operating and capital expenditure that may exist for that particular TNSP;
- whether the total labour costs are consistent with the incentives provided by the service performance incentives scheme; and
- whether the forecast expenditure includes amounts relating to a project that should more appropriately be included as a contingent project.

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<sup>104</sup> Draft Rule, clause 6A.6.6(b)(2) & clause 6A.6.7(b)(3)

### 5.1.2.1 Submissions

The views expressed in submissions varied in regard to the appropriateness of the criteria set out in the Proposed Rule.

CitiPower & Powercor suggested that the criteria in the Proposed Rule should be augmented to include the impact of growth and productivity.

The AER was supportive both of the inclusion of criteria for assessing the reasonableness of capital expenditure in the Rules and of the specific criteria proposed, which it considered to be a 'well-considered' list of factors<sup>105</sup>.

Some submissions suggested that weightings should be applied to the criteria to reflect their relative importance<sup>106</sup>.

A number of submissions commented that the guidance provided in the Rules was excessive and would not improve the ability of the AER to make an informed determination<sup>107</sup>. These submissions called for the Rules to focus on the basic requirement that the estimate be 'reasonable' and not to prescribe such a range of detailed factors to be assessed.

In terms of the specific criteria set out in the Proposed Rule, ETNOF made the following comments:<sup>108</sup>

- the requirements for the AER to consider information included in the TNSP's Revenue Proposal and in submissions received are unnecessary, since the AER should be under a general obligation to consider information presented by all parties;
- the reference to analysis 'published prior to or as part of' the AER's draft or final decision implies that the AER need not have disclosed this information to the TNSP prior to making the final decision, which would be inconsistent with due process;
- benchmarking analysis should only be taken into account where it meets reasonable standards of robustness and reliability;
- the references to efficient substitution possibilities and the relative price of operating and capital inputs are duplicative and inappropriate in the context of five yearly expenditure assessments; and
- it was not clear what the reference to total labour costs being consistent with the service target performance incentive scheme was intended to achieve.

The ETNOF also put forward its own set of proposed criteria to guide the assessment of expenditure by the AER.

### 5.1.2.2 Commission's Assessment

#### Prescription of Criteria

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<sup>105</sup> Australian Energy Regulator, March 2006, p.32

<sup>106</sup> CitiPower & Powercor, 20 March 2006, p.5; Integral Energy, 27 March 2006, p.3; Energy Networks Association, 20 March 2006, p.5

<sup>107</sup> Electricity Transmission Network Owners' Forum, November 2005, pp.17-19; Energy Networks Association, 20 March 2006, p.5; United Energy Distribution, 23 March 2006, p.5

<sup>108</sup> Electricity Transmission Network Owners' Forum, November 2005, pp.18-19

The Commission has considered the comments made in submissions in relation to the criteria to be considered by the AER in assessing the reasonableness of capital and operating expenditure forecasts.

The Commission continues to be of the view that the criteria listed in the Proposed Rule are relevant and appropriate. The Commission notes that the criteria largely reflect current practice, and are supported by the AER. Codifying the criteria in the Rules, rather than specifying only that the AER should consider the 'reasonableness' of forecasts, provides a greater degree of certainty about how the AER will interpret 'reasonableness' in assessing expenditure forecasts. The Commission has therefore decided to substantially maintain the list of criteria in the Draft Rule.

The Commission does not support the proposal in some submissions to assign 'weights' to the various criteria in the Rules. The Commission considers that the relevance of each of the criteria (and therefore the weight that should be attached to it) will vary depending on the particular circumstances of a regulatory determination. As such, the AER should retain discretion to consider each of the factors and make its decision on the basis of the relevance of each factor in each particular case. Including specific weightings for each of the criteria in Rules risks imposing an inappropriate degree of rigidity in the regulatory approach.

In relation to the comments on the specific criteria set out in the Proposed Rule, the Commission does not concur with the view that explicitly requiring the AER to consider the information contained in the Revenue Proposal and in submissions is unnecessary. Both the Revenue Proposal and submissions are key inputs into the regulator's assessment, and so should be referenced directly in the list of assessment criteria. The Commission also notes that the reference to 'published' analysis is intended to ensure that analysis conducted by, or on behalf of, the regulator is made available for public scrutiny, improving the transparency of the overall regime. The proposed criterion does not imply any limitation of due process in dealings between the AER and the TNSPs.

The Commission further notes that the discretion provided in the Draft Rule for the AER to consider each of the criteria as far as relevant in a given case, means that the weight placed on any benchmarking information can be expected to reflect the perceived robustness and applicability of the particular analysis presented. Similarly, the consideration of substitution possibilities between capital and operating expenditure would be considered by the AER in the context of the five yearly review. The Commission considers that such substitution possibilities do exist and should be properly acknowledged as part of the review process.

One of the criteria contained in the Proposed Rule (and retained in the Draft Rule) is whether the labour costs contained in the expenditure forecasts are consistent with the incentives provided under the service target performance incentive scheme. One of the proposed principles for the incentive scheme is that TNSPs should be given an incentive to provide greater reliability at times when users place the greatest value on the network<sup>109</sup>. As a result, TNSPs may well have an incentive under the scheme to undertake network maintenance at night and other off-peak times. Labour costs at these times can be expected to be higher. The criterion has therefore been included to ensure that in assessing expenditure forecasts the regulator does not come to a view on labour costs being too high as a result of increased payments for working at off-peak times, when this is an outcome which the service target performance incentive scheme is seeking to achieve.

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<sup>109</sup> Draft Rule, clause 6A.7.4(b)(1)

Finally, CitiPower & Powercor proposed that growth and productivity should also be included in the criteria for assessment. The Commission is of the view that these elements are already addressed via the existing set of criteria. In particular, 'growth' would be inherent in the derivation of the demand forecasts, and so would be picked up through the assessment of the reasonableness of the demand forecasts. Similarly, expected productivity gains would be taken into account via the reference to the benchmark capital expenditure that would be incurred by an efficient TNSP.

The Commission has added two new criteria in the Draft Rule. The first relates to the extent to which forecast expenditure is referable to arrangements with a person other than the provider which may not be at arm's length.<sup>110</sup> This criterion has been added in response to concerns in relation to the regulator's ability to obtain accurate information on costs incurred by third parties, and provides the AER with the ability to place less weight on this information, where it has not been adequately substantiated (see discussion in chapter 8). The second additional criterion relates to contingent projects, and has been added as a consequence of the contingent project regime set out in the Draft Rule (see discussion in chapter 6).

## **5.2 Codification of the WACC & Review Criteria**

In its Proposed Rule the Commission elevated the methodology and parameters used by the AER for the determination of the weighted average cost of capital (WACC) from the SRP into the Draft Rule. The Proposed Rule also provided for the AER to undertake a review of the components of the CAPM every five years thereafter.

This approach is consistent with the approach to the WACC adopted by the AER in the SRP. However, as noted above, the SRP is an administrative guideline and the AER reserves the right to depart from the SRP where it considers that to be warranted.

### **5.2.1 General Approach**

#### **5.2.1.1 Submissions: General Approach**

The Commission's proposal to elevate the WACC methodology and parameters from the SRP into the Rules (with provision for periodic review and variations) is consistent with the views expressed in many submissions seeking increased certainty and predictability in the short term in relation to the calculation of the cost of capital<sup>111</sup>. For example, EnergyAustralia expressed the following view in its submission to the Issues Paper:

*"In terms of certainty for investment and in minimising the costs of regulation, there is some attraction in having the Rules specify how the WACC is to be calculated, rather than relying on the AER to set the WACC at each regulatory reset. EnergyAustralia considers that the SRP as finalised by the ACCC in December 2004 likely represents the regulatory "middle ground" on where the debate on WACC parameters in Australia has landed. While network businesses clearly believe the resultant level is considerably low, customer groups would no doubt argue that the level is too high.*

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<sup>110</sup> Draft Rule, 6A.6.6 (b)(2)(vi) & 6A.6.7(b)(3)(vi)

<sup>111</sup> Electricity Transmission Network Owners' Forum, November 2005, pp.39-40 and EnergyAustralia, 1 December 2005, p.28

*EnergyAustralia is concerned that the SRP, however, is not binding and can be altered by the AER at any time. Therefore, EnergyAustralia believes that it is appropriate for the WACC aspects of the SRP to be incorporated in the Rules.<sup>112</sup>*

A majority of submissions were supportive of the methodology and treatment of the cost of capital provided for in the Proposed Rule. For example, ENA stated that energy network businesses support the provision of greater certainty on cost of capital issues<sup>113</sup>. ETSA Utilities, EnergyAustralia, ETNOF, CitiPower and Integral Energy also supported the Commission's proposal on this issue<sup>114</sup>.

Submissions from APIA and Ergon Energy considered that the treatment of WACC in the Rules should reflect the Gas Code treatment where cost of capital parameters are accepted as long as they lie within a reasonable range.

Three submissions did not support providing additional specification of the approach for calculating the cost of capital in the Rules. The AER considered that greater certainty could be provided in relation to the WACC values if they are set out in binding guidelines which lock in values for five year periods, rather than being prescribed in Rules.

In response to the Commission's proposal that the WACC parameters be subject to a review by the AER after five years, and every five years thereafter, a number of submissions commented that criteria should be provided in the Draft Rule to guide the AER's exercise of discretion in this area<sup>115</sup>. Energy Australia has also suggested that any decisions to change the WACC parameters arising out of the five year review be subject to merits review<sup>116</sup>.

#### **5.2.1.2 Commission's Assessment: General Approach**

Based on its own further consideration of the issue and views expressed in submissions, the Commission has decided to maintain the approach to the cost of capital that was adopted in the Proposed Rule. The Commission notes that a majority of submissions supported that approach to the cost of capital in terms of the administrative cost savings and improved certainty and predictability it would create.

There has been widespread acceptance of the CAPM as the analytical basis for estimating the regulatory cost of capital. Although there has been ongoing debate about the parameter values used by the regulator to estimate the WACC at each revenue reset, the Commission notes that there has been a high degree of stability in the parameter values adopted by the regulator in recent years. In these circumstances the Commission continues to believe that the cost and uncertainty associated with reopening consideration of both methodology and parameters at each revenue cap review is unwarranted in terms of any potential benefits.

The provision of stability in the short term regarding the determination of the WACC reduces an important source of potential variability in regulatory decision making providing a more certain and predictable environment for investment and financing decision-making. This is consistent with the approach adopted by the AER under the SRP and the initial position

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<sup>112</sup> EnergyAustralia, 'Submission to the Australian Energy Market Commission's Consultation Paper on the Review of the Electricity Transmission Revenue and Pricing Rules', December 2005, p.39

<sup>113</sup> Energy Networks Association, 24 March, p.6

<sup>114</sup> ETSA Utilities, 20 March 2006, p.2; EnergyAustralia, 20 March 2006, pp.5-6; Electricity Transmission Network Owners' Forum, March 2006, p.11; CitiPower & Powercor, 20 March 2006, p.2; and Integral Energy, 27 March 2006, p.2

<sup>115</sup> Electricity Transmission Network Owners' Forum, March 2006, p.21; Major Energy Users Incorporated, 22 March 2006, p.51; Energy Networks Association, 24 March, p.6, EnergyAustralia, 20 March 2006, pp.5-6

<sup>116</sup> EnergyAustralia, 20 March 2006, pp.6-7

which the Commission proposes to codify in the Rules largely represents the current practice of the AER as reflected in the SRP. However, the Commission considers that the methodology and parameters for the cost of capital is a matter on which the regulator must be able to review periodically and to exercise discretion and judgement as to whether there is a case for change.

Enabling the AER to review the methodology and parameters periodically and make appropriate changes provides appropriate flexibility and discretion for the regulator to take account of changes in financial market conditions and developments in finance theory and practice. For this reason the Draft Rule gives the AER the discretion to vary the WACC methodology or parameters at subsequent five yearly reviews, having followed the consultation process in their Rules in conducting the review.

However, consistent with its view that regulatory discretion should be exercised in accordance with appropriate guidance in the Rules, the Commission has included in the Draft Rule principles and criteria that the AER must have regard to in making a determination to vary either the methodology or the parameters at subsequent reviews. A number of submissions suggested that such guidance would be appropriate and the Commission agrees with this view.

The following criteria have therefore been included in the Draft Rule:

- the review should promote an outcome of a forward looking rate of return required by investors, commensurate with prevailing conditions in the market for funds and the risk involved in providing prescribed transmission services<sup>117</sup>;
- the Rules make clear which values and methodologies are to be reviewed by the AER<sup>118</sup>;
- the parameters resulting from the AER's review should remain consistent with the Rules, including that:
  - the return is calculated as a weighted average of the costs of equity and debt, as per the formula set out in the Rules<sup>119</sup>;
  - the cost of debt should reflect the current cost of borrowings for comparable debt<sup>120</sup>;
  - the need for specified parameter values to be based on a benchmark efficient TNSP (as opposed to reflecting actual decisions or costs)<sup>121</sup>; and
- for parameters which cannot be determined with certainty, the AER should be required to:
  - have regard to the need to achieve an outcome which is consistent with the market objective; and
  - satisfy itself that current evidence on the value of the parameter is sufficient to justify a change from the value adopted in the last review<sup>122</sup>.

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<sup>117</sup> Draft Rule, clause 6A.6.2(j)(1)

<sup>118</sup> Draft Rule, clause 6A.6.2(i)

<sup>119</sup> Draft Rule, clause 6A.6.2

<sup>120</sup> Draft Rule, clause 6A.6.2(j)(2)

<sup>121</sup> Draft Rule, clause 6A.6.2(j)(3)

## 5.2.2 Proposed Parameter Values

### 5.2.2.1 Submissions

#### Rule Change Risk

The AER, in its submission, noted that prescribing the WACC parameters in the Rules raised the possibility of a Rule change proposal requesting new parameter estimates or methodologies<sup>123</sup>.

#### Equity Beta

CitiPower & Powercor supported the proposed equity beta of one and observed that it reflected standard regulatory practice for transmission regulation<sup>124</sup>. AGL considered the equity beta value to be within a reasonable range but proposed that an alternative numeric approach be adopted rather than locking in a precise value<sup>125</sup>. The MEU noted that the returns on the ASX Utilities Index imply an equity beta of 0.31, while PIAC expressed a concern that the value of the equity beta proposed by the Commission was too conservative and that this remains an area where more robust assessment is needed<sup>126</sup>.

#### Nominal Risk Free Rate

AGL raised concerns that there is insufficient flexibility in the Proposed Rule to move the sampling period for the risk free rate, should there be a market anomaly during the nominated sampling period. AGL recommended that the Commission include a mechanism or guided AER discretion to mitigate against such anomalies<sup>127</sup>.

#### Debt Risk Premium – Credit Rating

The Commission received a number of submissions commenting on the proposed BBB credit rating to be used to calculate the debt risk premium, as set out in the Proposed Rule.

ETNOF and ETSA Utilities supported the Commission's proposal<sup>128</sup>. ETNOF supported the recognition by the Commission that the WACC should be neutral in relation to ownership and that the use of an A credit rating for the debt margin was unduly influenced by the public ownership of some TNSPs.

Other submissions did not support the proposal for a BBB credit rating<sup>129</sup>. The AER considered that the credit rating should be A, consistent with the SRP<sup>130</sup>. The AER stated that the median credit rating used by Standard & Poors for public and private electricity transmission and distribution businesses is between A- and A. It presented analysis by Associate Professor Martin Lally which concluded that the most appropriate credit rating for

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<sup>122</sup> Draft Rule, clause 6A.6.2(j)(4)

<sup>123</sup> Australian Energy Regulator, March 2006, p.25

<sup>124</sup> CitiPower & Powercor Australia, 20 March 2006, p.2

<sup>125</sup> AGL, 21 March 2006, p.5

<sup>126</sup> Public Interest Advocacy Centre (Second Submission), 7 April 2006, pp.2-3; Major Energy Users' Incorporated, 22 March 2006, p.13

<sup>127</sup> AGL, 21 March 2006, p.5

<sup>128</sup> Electricity Transmission Network Owners' Forum, March 2006, p.11; ETSA Utilities, 20 March 2006, p.2

<sup>129</sup> Australian Energy Regulator, March 2006, p.15; Economic Regulation Authority, WA, 20 March 2006, p.5; Consumer Utilities Advocacy Centre, 7 April, pp.4-5; The Hon Patrick Conlon MP, SA Minister for Energy, 4 April 2006, p.2; Public Interest Advocacy Centre, 22 March 2006, pp.2-3

<sup>130</sup> Australian Energy Regulator, March 2006, p.26

a privately owned electricity transmission business is A-<sup>131</sup>. The AER noted that whilst Associate Professor Lally concedes this estimate is subject to statistical uncertainty, the 95 per cent confidence interval (which ranges from the A+/A boundary to the BBB+/BBB boundary) clearly excludes the BBB credit rating.

The Allen Consulting Group report submitted on behalf of the ETNOF addressed the analysis provided by Associate Professor Lally and concluded that the available empirical evidence implies that an Australian regulated electricity transmission business would be expected to have the capacity to maintain a credit rating of BBB+<sup>132</sup>.

The ERA submission noted that the BBB rating proposed by the Commission conflicted with "*the vast majority of recent regulatory determinations for regulated energy infrastructure*" which have applied a credit rating of BBB+<sup>133</sup>. The ERA was of the view that the Commission should reconsider its approach and that a BBB rating would constrain the AER's ability to deliver a balanced outcome<sup>134</sup>. PIAC and CUAC both supported the AER approach to the debt margin and the use of an A credit rating<sup>135</sup>.

### **5.2.2.2 Commission's Assessment**

#### **Rule change risk**

In relation to the AER's concern that prescribing WACC parameters in Rules invites Rule change proposals to vary them, the Commission notes that there is a universal possibility that the Rules at any point in time will be subject to applications for a Rule change. This possibility arises whether or not the Rules include the WACC parameters. The Commission does not believe that it should make decisions about current Rules based on the prospect that Participants may exercise their legal rights in the future to seek a Rule change. If and when such applications are made they will be dealt with on their merits, including by having regard to the objective and effectiveness of the existing Rules at that time and whether the proposed change would advance to the NEM objective.

As previously stated, the Commission considers there is merit in providing short term certainty by codifying the WACC parameters in Rules. However, the Commission also recognises that there may be a need for the methodology and parameters to evolve over time. Therefore, the Commission has built in to the Rules a review and change mechanism. While this does not limit the ability for a person to lodge a rule change proposal on this issue, the Commission considers that the review mechanism achieves the right balance between certainty and flexibility and therefore contributes to the NEM Objective

The Commission does not therefore consider that the concern regarding future Rule changes expressed by the AER warrants a departure from the approach to the codification of the WACC parameters set out in the Proposed Rule. The Commission has maintained its overall approach to the codification of the WACC parameters in the Rules.

#### **WACC Parameters**

##### *Equity Beta*

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<sup>131</sup> Lally, M., 'The Appropriate Credit Rating for Australian Electricity Transmission Businesses', March 2006, in Australian Energy Regulator submission, March 2006

<sup>132</sup> The Allen Consulting Group, Credit Rating for a Benchmark Electricity Transmission Business, May 2006, Report to the Electricity Transmission Owners Forum, p.iv

<sup>133</sup> Economic Regulation Authority, WA, 20 March 2006, p.5

<sup>134</sup> Economic Regulation Authority, WA, 20 March 2006, p.5

<sup>135</sup> Public Interest Advocacy Centre, 22 March 2006, pp.2-3, CUAC, pp.3-4



The Commission notes the various comments which have been received in relation to the proposed value of the equity beta set out in the Proposed Rule.

The equity beta is the most difficult parameter to estimate, as it cannot be measured accurately from empirical data that is available. The Commission understands that the value of 'one' that was adopted in the SRP represents a compromise between the difficulties of estimation and the consequent need to err on the side of caution. Regulators have applied equity betas above and below 'one', but 'one' has come to represent the most widely accepted practice.

In the interests of certainty and predictability the Commission has sought to codify elements of the SRP where there is general acceptance. Should compelling evidence arise to warrant a change in the assumed equity beta, this can be dealt with, as appropriate, at the time of the AER's five year review of the WACC parameters.

The Draft Rule therefore continues to propose an equity beta of one.

#### *Nominal Risk-free Rate*

AGL recommended that the Commission include a mechanism, or guided AER discretion, to address "temporary" anomalies in interest rates in calculating the risk-free rate.

The Commission recognises that financial market outcomes can be subject to temporary distortions. Under the proposed Draft Rule the TNSP can elect to use a five to 40 day average of inflation-linked bonds, which expires seven days before the Final Decision. TNSPs are able to use the choice of a range to facilitate interest rate exposure hedging. The approach provides sufficient flexibility to cope with any potential anomalies that may occur.

On this basis, the Commission has decided to maintain the same approach in the Draft Rule.

#### *Debt Margin - Credit Rating*

In the Proposed Rule, the Commission proposed a change to the credit rating assumption used in calculating the debt margin to the Standard and Poors<sup>136</sup> long term credit rating of BBB, rather than the credit rating of A set out in the SRP.

In light of the submissions received on this matter, the Commission has reviewed this proposal. The Commission has considered analysis contained or referred to in various submissions, previous regulatory decisions, credit rating agency methodologies, model assumptions, and observed credit ratings.

The table below shows that the ACCC has consistently adopted credit ratings of 'A' in estimating the debt margin for electricity transmission preserves, while state and territory regulators have generally adopted BBB+ for electricity distributors. In all cases the assumed gearing ratio is 60%.

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<sup>136</sup> Fitch ratings agency contacted the Commission to request that the credit rating assumption acknowledge the ratings of Fitch and Moodys in addition to Standard and Poors. However, after further consultation the Commission has determined that the ratings used by the different agencies are not equivalent and therefore, that the Rules cannot refer to the same rating regardless of agency.

**Table 5.1: Electricity Transmission and Distribution Regulatory Decisions**

Regulator	Business/State	Year	Type	Rating
QCA	Qld	2005	DNSP	BBB+
ESC	Victoria	2005	DNSP	BBB+
ESCOSA	South Australia	2005	DNSP	BBB+
IPART	NSW	2004	DNSP	BBB+ to BBB
ICRC	ACT	2004	DNSP	BBB+
OTTER	Tasmania	2003	DNSP	A
ACCC	ElectraNet	2002	TNSP	A
ACCC	SPI	2002	TNSP	A
ACCC	TransGrid	2004	TNSP	A
ACCC	Transend	2004	TNSP	A

To ascertain what the TNSPs themselves considered an appropriate credit rating for a 60% geared TNSP the Commission reviewed their applications for the current revenue cap determinations. The TNSPs submitted ratings are set out in the table below.

**Table 5.2: TNSP Applications for Current Revenue Cap Determinations**

Name	Credit Rating	Gearing	Date	Business
Powerlink <sup>137</sup>	BBB+ to A-	60%	2001	TNSP
ElectraNet (NECG) <sup>138</sup>	BBB+	60%	2002	TNSP (consultant)
Transend <sup>139</sup>	BBB+	60%	2003	TNSP
DJV <sup>140</sup>	BBB+	60%	2004	TNSP
MTC <sup>141</sup>	A	60%	2002	TNSP
TransGrid <sup>142</sup>	A-	60%	2003	TNSP
SPI PowerNet <sup>143</sup>	BBB+	60%	2002	TNSP

From Table 5.2 above it is apparent that many of the TNSPs have viewed a BBB+ credit rating as appropriate for their business.

In general, ratings agencies have given higher credit ratings to electricity transmission businesses compared to electricity distribution businesses.

When assessing the credit worthiness of a TNSP, ratings agencies consider the business and financial profile of the company. The business profile includes the general industry specific and operational risks faced by the TNSP. The financial profile involves specific financial measures (of performance and solvency), strategy and financial policies and performance.

Ratings agencies recognise differences in risk profiles between the transmission and distribution sectors, including those due to the application of revenue cap regulation to transmission and price cap regulation to distribution. It can be argued that TNSPs are not subject to volume risk under a revenue cap, and may therefore attract a higher credit rating than a distribution business<sup>144</sup>. However, the relevant factor in determining credit ratings is

<sup>137</sup> Powerlink, 'Revenue Cap Application', February 2001, p.41

<sup>138</sup> NECG, 'Analysis of the weighted average cost of capital for ElectraNet SA', April 11 2002, p.33

<sup>139</sup> ACCC, 'Tasmanian Transmission Network Revenue Cap 2004-2008/09', Final Decision, 10 December 2003, p.84

<sup>140</sup> AER, 'Directlink Joint Venture Application for Conversion and Revenue Cap', Draft Decision, 8 November 2005, p. 210

<sup>141</sup> Murray Link Transmission Partners, 'Application for Conversion to a Prescribed Service and a Maximum Allowable Revenue for 2003-12', 18 October 2002, p.34

<sup>142</sup> ACCC, 'NSW and ACT Transmission Network Revenue Cap TransGrid 2004/5 to 2008/9', Final Decision, 27 April 2005, p.140

<sup>143</sup> SPI PowerNet, 'Revenue Cap Application', 11 April 2002, p.68 and Appendix F, pp.41-43

<sup>144</sup> Fitch Ratings, 'Australian Electricity Sector, 24 March 2004', p.47, "Distribution operations typically involve a low business risk. However, they have more exposure to volume risk than transmission companies" and on p.40

profitability risk which may increase when outturn volume differs from forecast volume (volume risk) or when cost changes are out of line with average prices (price risk).

**Table 5.3: Standard & Poors (2006) Electricity TNSP & DNSP Ratings**

Firm	Rating	Owner	Business	Leverage
Ergon Energy	AA+	Govt	Dist	46%
Country Energy	AA	Govt	Dist	68%
EnergyAustralia	AA	Govt	Trans/Dist	52%
Integral Energy	AA	Govt	Dist	55%
SPI PowerNet	A+	Private/Govt	Trans	77%
SPI Australia	A+	Private/Govt	Dist	64%
Citipower Trust	A-	Private	Dist	54%
ETSA Utilities	A-	Private	Dist	64%
Powercor Australia	A-	Private	Dist	38%
ElectraNet	BBB+	Private/Govt	Trans	72%
United Energy	BBB	Private	Dist	80%

Source: Lally, M., 'The Appropriate Credit Rating for Australian Electricity Transmission Businesses', March 2006, in Australian Energy Regulator submission, March 2006

The Commission has reviewed the empirical analysis of credit ratings conducted by Associate Professor Martin Lally for the AER and the assessment of this analysis conducted by the Allen Consulting Group (ACG) on behalf of the TNOF. Associate Professor Lally's analysis indicated that the most appropriate credit rating for a privately owned electricity transmission business is A-<sup>145</sup>. The ACG report concluded that Lally's assessment had inappropriately excluded ElectraNet from the analysis, and that reinstating ElectraNet resulted in the appropriate credit rating moving to a value on the cusp of A-/BBB+<sup>146</sup>. Further, ACG argued that no distinction should be made between electricity transmission and distribution businesses, which further reduced the results of the implied credit rating within the A-/BBB+ cusp. The ACG conclusion was that 'the available empirical evidence implies that an Australian regulated transmission business would be expected to have the capacity to maintain a credit rating of BBB+.

ACG also noted that Lally's credit rating of A- was the unbiased estimate, and that Lally considered it appropriate to adopt a conservative margin in favour of the businesses, by

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*"Subject to its financial structure, the transmission company should enjoy stronger credit ratings than other players in the electricity chain, because of the strong regulatory environment and low operating risks currently evident in Australia."* Standard & Poors in its 'Project and Infrastructure Finance Review', October 2002, pp.57-59, observe that the "business risk" of electricity transmission businesses is generally lower than that for distribution businesses.

<sup>145</sup> Lally, M., 'The Appropriate Credit Rating for Australian Electricity Transmission Businesses', March 2006, in Australian Energy Regulator submission, March 2006.

<sup>146</sup> The Allen Consulting Group, Credit Rating for a Benchmark Electricity Transmission Business, May 2006, Report to the Electricity Transmission Owners' Forum, p.v

adding a single margin to the unbiased estimate of the WACC<sup>147</sup>. ACG noted that there is no scope within the Proposed Rule for a conservatism margin to be added at the end of the process of calculating the WACC and that therefore a plausible interpretation of Lally's results in light of the Proposed Rule is that a credit rating of somewhere below A- would follow (i.e., conservatism would be reflected in the choice of the credit rating).

In the absence of conclusive empirical evidence and submissions on this issue, the Commission views the 2011 review by the AER of the WACC parameters (provided for in the Draft Rule) as the appropriate forum for this issue to be considered further.

### *Decision*

After considering the information and analysis cited above, the Commission has concluded that the proposed move from the A rating adopted in the SRP is supported by the available evidence. It retains the view that the A rating adopted in the SRP is too high and is unduly influenced by the public ownership of some of the TNSPs<sup>148</sup>.

However, after considering the submissions received, further analysis undertaken and the available evidence, the Commission has adopted a credit rating of BBB+ in the Draft Rule<sup>149</sup> for the purpose of estimating the debt risk premium rather than the BBB level initially proposed. In the Commission's view the BBB+ rating is a better reflection of the long term credit rating that a 60% geared, privately owned TNSP would attract. It is also consistent with the credit ratings which many of the TNSPs have themselves proposed as part of their revenue cap applications and with the credit ratings adopted for electricity distribution businesses by state and territory regulators. The Commission has also been persuaded by the analysis conducted by the ACG for the ETNOF that there is insufficient evidence of a distinction between the ratings of transmission and distribution businesses to support exclusion of distribution businesses from the analysis.

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<sup>147</sup> Ibid.

<sup>148</sup> Australian Energy Market Commission, Transmission Revenue: Rule Proposal Report, February 2006, p.64

<sup>149</sup> Draft Rule, clause 6A.6.2(e)

## 6 Incentive Framework

In this chapter the role of incentives in the Commission's proposed framework for the economic regulation of transmission revenues is described. Given the multi-dimensional nature of the services provided by TNSP's and the range of inputs used to provide these services, the Commission takes the view that the most appropriate method for regulating TNSP is to use a range of incentive mechanisms that work harmoniously together. While the incentive properties of each element of the suite of incentive mechanisms are important, the more important consideration is the overall effect of the package of measures.

This chapter commences with a brief review of the role of incentives in the economic regulation of natural monopoly infrastructure services. Next, it presents a summary of the incentive arrangements included in the Proposed Rule and the comments on those arrangements provided in submissions, followed by a description of the revised incentive arrangements the Commission has included in its Draft Rule. The remainder of the chapter then describes in further detail the specific changes that have been made in the Draft Rule compared to the Proposed Rule, including:

- Capital Expenditure incentives, which include:
  - Treatment of RAB<sup>150</sup>;
  - *Ex ante* cap<sup>151</sup>;
  - *Ex post* review<sup>152</sup>;
  - Contingent Projects<sup>153</sup>;
  - Determination reopening<sup>154</sup>;
- Operating Expenditure Incentives<sup>155</sup>;
- Service Performance Incentives<sup>156</sup>; and
- Cost pass-through<sup>157</sup>.

In its consideration of the incentive mechanisms the Commission has sought to address a number of key issues which have arisen from a number of sources including:

- the requirements of the NEM objective and the Commission's obligations under the NEL;
- stakeholders' views, particularly submissions to the Proposed Rule; and
- the Commission's further analysis.

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<sup>150</sup> Proposed Rule, clause 6.2.3; Draft Rule 6A.6.1 and Schedule 6A.2

<sup>151</sup> Proposed Rule, clause 6.2.6; Draft Rule, clause 6A.6.7

<sup>152</sup> Proposed Rule, clause 6.2.3(d); Draft Rule, clause 6A.6.1 and Schedule 6A.2

<sup>153</sup> Draft Rule, clause 6A.6.7(d)-(h) and Rule 6A.8

<sup>154</sup> Draft Rule, clause 6A.7.1

<sup>155</sup> Draft Rule, clause 6A.6.6

<sup>156</sup> Draft Rule, clause 6A.7.4

<sup>157</sup> Proposed Rule, clause 6.2.14; Draft Rule, clause 6A.7.3, 6A.7.2 (network support pass-throughs)

In particular the Commission's approach to incentive arrangements has sought to reflect the need for economic regulation to provide:

- an appropriate degree of certainty about the regulatory framework and investment environment in order to encourage timely and efficient development of capacity;
- effective incentives to encourage TNSPs to build and operate their systems efficiently;
- incentives for TNSPs to effectively manage the risks that are reasonably within their control; and
- incentives for TNSPs to improve service quality where this is sufficiently valued (collectively) by customers and disincentives for TNSPs to increase profitability by inefficiently reducing service quality.

## 6.1 Role of incentives in economic regulation

The role of incentives in regulation can be traced to the fundamental objective of regulation: that is, to reproduce, to the extent possible, the production and pricing outcomes that would occur in a workably competitive market in circumstances where the development of a competitive market is not economically feasible.

The Productivity Commission's Review of the National Access Regime pointed out that, notwithstanding the scope for market forces to exert some pressures on incumbent monopolists:

*"Clearly, there will be cases where providers of essential infrastructure services have both the incentive and capacity to behave in ways inimical to achieving efficient market outcomes.<sup>158</sup>"*

As discussed in the Commission's Issues Paper, one way to regulate TNSPs is cost-of-service regulation, under which TNSPs are allowed to recover their costs of providing prescribed network services. However, this approach has the drawback that TNSPs may seek to (inefficiently) increase their costs in order to increase their revenues and profits. As noted in the Productivity Commission Review, an important principle for access regulation is that it should provide incentives to reduce costs or otherwise improve productivity<sup>159</sup>.

An alternative to cost-of-service regulation is incentive regulation. While cost-of-service regulation is based on remunerating TNSPs in respect of their *actual* costs, incentive regulation is based on remunerating TNSPs in respect of their *forecast* costs over the regulatory control period (which is typically three to five years). Because TNSPs are able to capture a proportion of the benefits of any unanticipated cost reductions (and must absorb unanticipated cost increases) that occur during a regulatory control period, they are encouraged to make cost savings. At the end of the period, the actual costs in this period may be used as a *basis* for establishing the reasonableness of the cost estimates provided by the TNSP in the subsequent regulatory period. In this way consumers share the benefits of the efficiency gains secured by the TNSP, just as in a competitive market costs savings are ultimately passed customers as lower prices.

The means of implementing incentive regulation are often controversial. In particular there has been debate over the effectiveness of the incentive arrangements and the presence and

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<sup>158</sup> Productivity Commission, Review of Energy Access Regimes, p.58

<sup>159</sup> Ibid, Recommendation 12.1, p.xxxix

effects of unintended consequences of the arrangements. For example, several submissions to the Productivity Commission Review argued that current approaches to access regulation in Australia tended to deter innovation and other efficiency-producing measures<sup>160</sup>. On the other hand, as the MCE's Expert Panel on Energy Access Pricing pointed out, strong efficiency incentives for regulated businesses can mean a potential sacrifice of allocative efficiency gains caused by allowing prices to exceed costs. On this issue the Expert Panel observed that:

*"The optimal balancing of [productive, allocative and dynamic] efficiency inevitably depends on a judgment about the efficacy of high powered incentives to achieve productive and dynamic efficiency objectives, against the extent of monopoly rents that are considered acceptable. <sup>161</sup>"*

The alternative to creating incentives to maintain service standards is to simply mandate the required level of service. However, this ignores the willingness of customers to make trade-offs to some extent between TNSPs' costs (and implicitly transmission charges) and service or reliability levels.

A key consideration in designing an incentive regime is the strength of the individual and suite of incentive mechanisms. As noted in the Expert Panel Review:

*"The strength of the incentives under any price control setting method depend on the extent to which the arrangements allows a firm to earn more than the target rate of return applied at the time the price control was determined, and the extent to which those returns are able to be retained by the firm in subsequent regulatory periods. <sup>162</sup>"*

The extent to which TNSPs are allowed to benefit from the efficiency gains (and bear the risk of efficiency losses) that occur during a regulatory control period determines the strength or 'power' of the relevant incentive regime: a high-powered regime allows TNSPs to retain a relatively large share of the benefits, while a low-powered regime allows them to retain a smaller share.

In developing incentive arrangements it is important to consider the relative power of the different mechanisms on say, operating expenditure and capital expenditure, to ensure that interactions between them do not create distortions which result in inefficiencies. For example, this could occur if TNSPs were encouraged (by the scheme) to inefficiently substitute away from operating inputs in favour of more capital inputs. Thus, the power of the package of incentive mechanisms needs to be balanced. In this context 'balanced' means that the scheme does not cause inefficient substitution between inputs, or between outputs.

## **6.2 Proposed Rule**

This section outlines the key aspects of the package of incentives in the Commission's Proposed Rule released in February 2006. Sections 6.6 to 6.12 discuss the incentive package in more detail, including the comments made in submissions and the changes the Commission has made to the incentive arrangement in response.

The incentive package also included the general incentive properties of the CPI-X revenue cap form of regulation and the incentives for efficiency in capital financing arrangements

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<sup>160</sup> Productivity Commission, Review of Energy Access Regimes, p.67

<sup>161</sup> Expert Panel on Energy Access Pricing, 'Report to the Ministerial Council on Energy', April 2006 Chapter 4, Productivity Commission 'Review of the Gas Access Regime', p.111

<sup>162</sup> Ibid., p.102



provided by the benchmark business assumptions that would continue to apply in relation to forecasts of capital financing costs. These arrangements are not considered further in this chapter and are dealt with in detail in subsequent chapters of the report.

The Proposed Rule included the following specific incentive mechanisms and incentive-related measures that are the main focus of this chapter:

- incentives for minimising capital expenditure and, in the process, promoting investment certainty;
- incentives for minimising inefficient operating expenditure;
- incentives for providing appropriate levels of service performance; and
- incentives for TNSPs to negotiate with large users to manage the risks of assets being stranded.

Whilst not strictly an incentive mechanism, the Proposed Rule also contained provisions for the pass-through of certain categories of unexpected costs. This provision aimed to relieve some of the unmanageable risks associated with investing in the transmission system.

The remainder of this section summarises the essential features of the incentive measures included in the Proposed Rule.

### **6.2.1 Efficient capital expenditure**

The Commission believes a reliable and secure transmission system is an important element in the NEM. The effective operation of the transmission grid is central to the operation of a competitive wholesale market. A principal focus of the Proposed Rule<sup>163</sup> was to provide incentives for efficient, adequate and timely investment in new and replacement network capacity. The Commission has sought to do this by reducing the regulatory risk faced by TNSPs when investing in transmission capacity. At the same time the Commission is concerned to ensure that consumers do not have to pay more than necessary for transmission services. The challenge has been to design an incentive package that finds an adequate balance between encouraging investment in new capacity and ensuring TNSP's do so efficiently.

A key mechanism for managing the investment risk for TNSPs was to 'lock-in' and roll forward the RAB from one regulatory period to the next. This aimed to give greater security to investors in the transmission system that their investments would be treated in an appropriate way over time. More specifically, the RAB would not be subject to optimisation at regulatory resets to reflect the economic value of the assets to users, which would otherwise present a significant risk to investors.

The Proposed Rule also incorporated mechanisms to reduce TNSPs risks related to the costs of unforeseen outcomes or difficult-to-predict events. The Commission's Proposed Rule did not adopt the AER's "contingent project" regime for large capital projects that are planned but uncertain as to timing. Instead the Commission considered that this risk could be managed by providing for a reopening of the determination if the TNSP was obliged to invest in a major project (at least five per cent of the value of the RAB) and that investment would cause the TNSP to exceed its capital expenditure allowance for the entire regulatory period.

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<sup>163</sup> Proposed Rule, clause 6.2.6

This was intended to avoid the arrangements encouraging TNSPs to defer necessary major investment where it would cause them to exceed their capital expenditure allowance for the period.

In terms of the arrangements to encourage TNSPs to develop, operate and price their networks efficiently the Commission's proposed a range of mechanisms. Firstly, the arrangements provided for the TNSPs to retain the benefit of any underspend, or incur the cost of any overspend, compared to the capital expenditure forecast for the remainder of the relevant five year regulatory control period (with the benefit or cost being determined by applying the return on capital to the amount of under or overspend). The proposal provided for the exclusion of depreciation from this incentive mechanism, so that any return of capital benefit earned by a TNSP during a regulatory period would effectively be recouped over the subsequent regulatory period(s). This approach was intended to address the concern that including depreciation in the capital expenditure incentive mechanism could encourage TNSPs to inefficiently reallocate expenditure from short-lived assets to long-lived assets<sup>164</sup>.

To ensure that TNSPs had sufficient incentive to minimise the costs of undertaking their network development projects the Proposed Rule provided scope for an *ex post* prudency review of capital expenditure by the AER before rolling the expenditure into the RAB. This review would consider the prudency of the investment based on the information available to the TNSP at the time it made its decision to invest.

Finally, the Commission is keen to encourage TNSPs to negotiate with large customers whose ongoing operations are critical to the commercial viability of the network. In particular the Commission provided an incentive for TNSPs to seek to protect their assets against commercial stranding risks by entering into commercial agreements to avoid these situations or to recover losses from these critical customers should their disconnection cause stranding of assets primarily built to serve their needs. Specifically, the Commission provided for TNSPs to incur the costs of the asset stranding if they had failed to take reasonable steps to manage the risk of commercial stranding of transmission assets. The Commission's requirements for managing this risk varied according to whether the asset was new or existing. For existing assets TNSPs would be shielded from the risk of regulatory asset stranding provided they had made a genuine attempt to negotiate with certain (generally large) customers to ensure the ongoing commercial use of existing assets by these customers. For new assets, the Commission's Proposed Rule only required that TNSPs take reasonable steps to protect against the risks of stranding<sup>165</sup>.

### **6.2.2 Efficient operating expenditure**

The Proposed Rule provided for TNSPs to receive a regulated revenue that includes an allowance for forecast operating expenditure over a regulatory period. This would be based on what the AER determined to be a reasonable estimate of the efficient expenditure<sup>166</sup> to be incurred in providing the regulated services.

TNSPs would be entitled to retain the benefits of savings in operating costs for the remainder of the regulatory control period but they would absorb the costs of any operating expenditure in excess to the forecasted amount.

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<sup>164</sup> Australian Energy Market Commission, Rule Proposal Report, February 2006, p.87

<sup>165</sup> Proposed Rule, clause 6.2.3(e)

<sup>166</sup> Proposed Rule, clause 6.2.7

The revelation of efficient operating expenditure levels during the period would then provide the basis for assessing a reasonable estimate for the subsequent regulatory period. Over time this would be expected to result in price reductions for consumers and allow them to share in the efficiency savings of the TNSP.

However, without some modification, this efficiency benefit sharing arrangement might provide TNSPs with a weaker incentive to secure operating expenditure savings later in the regulatory period (efficiency gains would be retained for a short period only and may establish a low reference point for the subsequent period). To overcome this potential effect, the Proposed Rule required the AER to develop an efficiency benefit-sharing mechanism that provides an equal incentive to make savings throughout a regulatory period<sup>167</sup>. One such approach could be the efficiency carryover mechanism outlined by the AER in the SRP. The Commission sought industry views on the appropriateness of this mechanism described in the SRP.

### **6.2.3 Protecting standards of service**

A key objective for the Commission is the maintenance of service standards provided by TNSPs. It is important that greater efficiencies are not achieved at the expense of service standards. Therefore, a key element of the performance incentive package is the arrangements to protect service standards.

The Proposed Rule provided for TNSPs' regulated revenue to be subject to a service target incentive regime developed by the AER, up to a maximum of plus or minus one per cent of regulated revenue<sup>168</sup>. The Proposed Rule proposed the service target incentive regime to promote enhanced reliability and availability of the network at times when it is most highly valued by network users.

### **6.2.4 Management of miscellaneous cost uncertainties**

The Commission recognises that TNSPs operate in an uncertain environment where the quantity, nature and timing of the services they are required to deliver can vary due to a range of often unexpected and uncontrollable reasons. The Commission made provision to manage many of these uncertainties, particularly in relation to capital expenditure<sup>169</sup>.

In addition to the risk management provision already described above, the Proposed Rule also provided an allowance for the pass-through of significant increases (or decreases) in a TNSP's costs resulting from certain categories of unexpected events that may occur during the regulatory period.

The objective of cost pass-through arrangements was to provide a degree of protection for the TNSP from the impact of genuinely unexpected changes in costs that are outside of the control of the TNSPs. The Commission considered that such a mechanism would provide a reasonable reflection of the operation of a competitive market where efficient costs are eventually passed through to customers, whether they are expected or not.

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<sup>167</sup> Proposed Rule, clause 6.2.8

<sup>168</sup> Proposed Rule, clause 6.2.10

<sup>169</sup> Proposed Rule, clause 6.2.14

## 6.3 Submissions – General Approach

### 6.3.1 General comments

Many of the submissions that the Commission received relating to the proposed incentives regime did not support the Proposed Rule. In its submission the AER expressed the view that the package was a significant step back towards a cost of service regulatory approach, which it considered could result in a move towards the previous inefficiencies in the market<sup>170</sup>. The MEU commented that the Commission has not provided evidence of a need for more incentives for investment and suggested that sufficient incentives exist under the SRP<sup>171</sup>. ETSA expressed disappointment with the Commission's proposed low powered incentives and said it did not believe it provided the balance required<sup>172</sup>. TRUenergy was concerned that the regime would distort the incentive properties that applied to capital expenditure<sup>173</sup>.

In contrast to these views EnergyAustralia<sup>174</sup> and the ETNOF<sup>175</sup> expressed strong support for the proposed incentives scheme with EnergyAustralia highlighting the benefits to investors of the proposed arrangements over the SRP. The ETNOF, however, expressed a preference for including both a contingent project regime and a capacity to reopen the revenue cap.

### 6.3.2 Comments on the balance of the incentives package

The AER submission and supporting papers<sup>176</sup>, considered the interaction between the different regulatory incentive mechanisms<sup>177</sup>. Darryl Biggar commented that the incentives package would provide constant, but weak incentives for efficiency improvements in capital expenditure, although the incentive power would be supplemented to some extent by the proposed *ex post* prudency review of capital expenditure before being rolled into the RAB<sup>178</sup>. In Biggar's view there is a need to retain a balance between the power of the incentives applying to capital and operating expenditure and service performance.

In particular, Biggar expressed the concern that the relatively low powered incentive for capital expenditure efficiency (which appears to stem from the arrangements that the Commission has proposed to encourage efficient investment in transmission assets) places an upper limit on the power of the incentives that could be applied to operating expenditure and service performance. Biggar also expressed the view that applying high powered incentives to operating expenditure combined with a low powered incentive on capital expenditure will induce TNSPs to capitalise operating expenditure and shift to inefficient capital intensive production technologies.

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<sup>170</sup> Australian Energy Regulator, March 2006, p.10

<sup>171</sup> Major Energy Users Incorporated, 22 March 2006, p.11

<sup>172</sup> ETSA Utilities, 20 March 2006, p.4

<sup>173</sup> TRUenergy, 21 March 2006, p.5

<sup>174</sup> EnergyAustralia, 20 March 2006, p.20

<sup>175</sup> Electricity Transmission Network Owners' Forum, March 2006, p.26

<sup>176</sup> Including Biggar, D., "The Incentive Implications of the Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006"

<sup>177</sup> Biggar, D., "The Incentive Implications of the Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006", pp.1-2 in submission by Australian Energy Regulator, March 2006

<sup>178</sup> Biggar, D., "The Incentive Implications of the Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006", p.19 in submission by Australian Energy Regulator, March 2006

## 6.4 Commission Assessment – General Approach

The Draft Rule contains a number of amendments to the incentive arrangements proposed in the Proposed Rule. The focus of the Commission's revised incentive arrangements has been on creating effective and balanced incentives to reduce costs to efficient levels while maintaining or improving service standards. At the same time the Commission recognises that the rewards of higher powered incentives are usually associated with higher risks. It is important that these risks are ameliorated where it is economic to do so, and the Draft Rule has attempted to manage these risks where it is sensible and appropriate.

The Commission's approach in developing the incentive arrangements has been guided by the principles of good regulatory design. These principles have been discussed in more detail in Chapter 5, but briefly they emphasise the importance of consistency, transparency and certainty in the development of rules and processes that govern the regulation of the revenues of transmission businesses.

The Commission has also carefully considered the many recommendations put to it in submissions by market participants, the AER and other interested parties. In many instances the arguments made in submissions have persuaded the Commission to alter certain aspects the Proposed Rule. These changes, and the reasons for making them are discussed below in this chapter.

### 6.4.1 Key incentive package changes

The key changes to the incentive package are briefly described in this section. The reasons for the changes and how the amended arrangements work will be described in subsequent sections (sections 6.6 to 6.12).

While the Commission has retained the Proposed Rule arrangements for rolling forward the RAB value rather than permitting periodic optimisation of the RAB value, it has decided to remove the option of an *ex post* review by the AER of the prudence of capital expenditure before it is rolled into the RAB.

Clarity about the basis on which the RAB will be revalued and removal of the risk of optimisation of the RAB value will provide a more certain basis for long term investment and are being retained for that reason. As there was no support in submissions for retaining an *ex post* prudence review and such reviews can undermine the incentives provided by the *ex ante* cap, the Commission has concluded that the incentive package would be more balanced and effective in the absence of that measure.

The Commission has also decided to increase the power of the incentive to achieve efficiencies in capital expenditure relative to the *ex ante* cap or capital expenditure forecast included in the revenue cap. The power of the incentive associated with under and over expenditure will be increased by including depreciation as well as the cost of capital in the calculation of the benefits and penalties involved.

Contrary to the approach in the Proposed Rule, the Draft Rule includes a contingent project regime for large planned capital projects that TNSPs are not certain will proceed or of their timing if they do. A consequence of this addition to the arrangements is that the Commission has amended the opportunities for revenue determination re-openings, which was the proposed alternative to the contingent project regime. The revenue cap reopening provisions will now only apply to substantial, unforeseen expenditure obligations of a *force majeure* or 'shipwreck' nature.

The Commission has decided to incorporate the contingent project regime as an alternative to the reopening provisions contained in the Proposed Rule. This change has been made because the Commission is concerned that the re-opening provisions may not be capable of being sufficiently well specified to effectively deal with planned projects critical to the efficient operation of the grid which are likely to proceed but where their timing and cost is uncertain. For example, given the costs and risks associated with re-opening a revenue cap to deal with a contingent project, the TNSP may choose to instead postpone undertaking the project until the recovery of its costs could be assured as part of the next regulatory reset. This could potentially undermine the most efficient development and standard of service of the network.

The specification of the contingent project arrangements in the Draft Rule introduces a number of differences in the incentive arrangements that will apply to such projects compared to the approach in the AER's SRP. The proposed approach is discussed in more detail in section 6.7 below.

The incentives for operating expenditure efficiency proposed in the Proposed Rule have been retained without change in the Draft Rule. The service performance incentives have been retained with only one significant change. That change involves increasing the cap on the rewards and penalties under the scheme from plus or minus one per cent of regulated revenues to plus or minus five per cent.

The Commission has also decided to retain the cost pass-through arrangements proposed in the Proposed Rule, with the exception of a modified approach to the pass-through of variations from forecast of grid support payments. This is explained further in section 6.11 of this Draft Determination below.

## 6.5 Draft Rule

The Draft Rule differs from the Proposed Rule in the following areas.

### Box 6.1: Changes from initial Proposed Rule in the revised Draft Rule

**Old Clause 6.2.3(e)(1)(i)** – amended so that DNSP's do not fall within definition of “one Transmission Network User...”

**[New Reference: clause S6A.2.3((a)(1))]**

**Old Clause 6.2.12(a)** - a more limited “reopening” regime has been substituted that permits a TNSP to apply, during a regulatory control period, to the AER to amend a revenue cap determination where certain pre-requisites are satisfied.

**[New Reference: clause 6A.7.1]**

**Old Clause 6.2.10(a)(3)** – amended the service target performance incentive scheme to reflect setting the target to a maximum of 5%.

**[New Reference: Clause 6A.7.4]**

**Old Clause 6.2.10 (d)** - amended to reflect that the AER develop the service target performance incentive scheme no later than 31 December 2006.

**[New Reference: Clause 6A.7.4(e)]**

**Old Clause 6.2.3** – amended to include depreciation as part of the *ex ante* incentive, and to remove the *ex post* assessment of prudence and efficiency.

**[New Reference: clause 6A.6.1 and schedule 6A.2]**

**Old Clause 6.2.3(c)(1) and Clause 6.2.3.(c)(4)(ii)(iv) or (ix)** - amended so that actual capital expenditure is no longer subject to an AER determination of prudence or efficiency under 6.2.3(d).

**[New References: Clauses 6A.2.1 and s.6A.2.2]**

## 6.6 Capital Expenditure Incentives

### 6.6.1 Submissions

As indicated above submissions were divided on whether the proposals put forward in the Proposed Rule represented an improvement on current arrangements. EnergyAustralia and TRUenergy both supported the removal from the incentive mechanism of the within period return of capital and the replacement of the contingent project regime with reopening provisions<sup>179</sup>. The South Australian Government and the MEU supported the proposed *ex post* reviews<sup>180</sup>.

Many submissions, however, expressed disappointment in the reduction of the incentive power of the *ex ante* regime stemming from the removal of depreciation from the incentive mechanism and/or the inclusion of an efficiency and prudence review of within period capital expenditure<sup>181</sup>.

### 6.6.2 Commission's Assessment

Section 6.2.1 noted that the capital expenditure incentives package has been carefully designed to find a balance between encouraging TNSPs to invest in their networks (which is important for the competitiveness of the market) but doing so efficiently. Section 6.4.1 summarises the key aspects of the incentive arrangements in the Draft Rule that seek to achieve these twin goals. This section provides more detail about the operation and rationale for the Draft Rule arrangements, focusing on the reasons for the amendments to the Proposed Rule published in February 2006.

#### 6.6.2.1 Treatment of the RAB and scope for optimisation

As noted in the Proposed Rule report, the Commission intends to adopt a lock-in and roll forward approach to the determination of the RAB. The ACCC's initial approach to the RAB in its 1999 Draft Statement of Regulatory Principles provided for periodic optimisation of TNSPs' assets. The rationale for periodic optimisation is that it can provide incentives for TNSPs to utilise their information advantage over the regulator to only invest in those assets that are likely to remain 'used and useful' in the longer term. However, the strength of incentives for efficient investment depend on the extent of clarity around when and if assets will be optimised.

The Commission has taken the view that providing clear and consistent signals surrounding the likelihood of optimisation is unlikely to be feasible and hence that a roll forward approach to the RAB is preferable. The periodic optimisation approach is very information intensive and likely to remain highly subjective. It confers a great deal of discretion on the regulator and thereby creates a high degree of uncertainty for TNSPs considering investment. Such uncertainty is ultimately paid for by transmission customers through higher prices than would otherwise be the case. The roll forward approach avoids these problems by placing the emphasis of regulatory attention on ensuring transparent decision making processes for future investments, supported by prescribed requirements for public consultation.

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<sup>179</sup> EnergyAustralia, 20 March 2006, p.20; TRUenergy, 21 March 2006, p.5

<sup>180</sup> The Hon Patrick Conlon MP, SA Minister for Energy, 4 April 2006, p.2; Major Energy Users Incorporated, 22 March 2006, p.62

<sup>181</sup> ETSA Utilities, 20 March 2006, p.4; Electricity Transmission Network Owners' Forum, March 2006, pp.15-16; CitiPower & Powercor Australia, 20 March 2006, p.2; ENA, p.7; Australian Energy Regulator, March 2006

The Commission has also decided against requiring *ex post* reviews of the costs of capital projects before including them into the RAB (see section 6.4.1 of this Draft Determination). This requirement was aimed at balancing the relief of investment risk provided by the Commission with a mechanism to ensure TNSP managed their capital expenditure projects efficiently.

In general the criticism of the proposed *ex post* prudency review was that it undermined the incentives of the *ex ante* cap and contributed to the investment uncertainty the remainder of the package sought to overcome. Submissions also raised the legitimate concern that *ex post* prudency reviews are, by their very nature, an intrusive form of regulation. An *ex post* review effectively requires the regulator to put itself in the position of a TNSP at the time that they were undertaking a particular project to determine if the project was undertaken efficiently. Previously, this process has been the subject of controversy when it has been applied to network businesses.

For these reasons, the Commission is sympathetic to submissions for the elimination of *ex post* reviews and has instead focused more on improving *ex ante* incentives. For example, to the extent overspending occurs, this can be taken into account in the setting of the capital expenditure allowance for the following regulatory period. The Commission considers that the inclusion of depreciation into the capital expenditure incentive mechanism will partly offset the loss of regulatory discipline inherent in the removal of *ex post* reviews.

#### **6.6.2.2 *Ex ante* cap**

In the Proposed Rule, the Commission proposed a form of low powered incentive mechanism to apply to all capital expenditure. The expression 'low powered' in this context refers to the relatively limited extent to which TNSPs would share the risks or gain the rewards of over or under spending compared to forecast capital expenditure.

Under the Proposed Rule capital expenditure underspend or overspend compared to the forecast amounts was, respectively, rewarded or penalised only during the regulatory control period in which the expenditure was made. At the end of that period, the TNSP's actual capital expenditure would be rolled into its RAB and no further reward or penalty would apply.

This contrasted with the relatively 'higher powered' approach considered by the AER (then the ACCC) in its draft SRP. Under that approach, any capital expenditure in excess of that forecast (whether prudent or not) would be *permanently* excluded from the RAB, even after the regulatory period in which the expenditure was made. The AER ultimately adopted a lower powered capital expenditure incentive in its final SRP, largely to avoid excessively penalising capital expenditure overspend that was found to be necessary and efficient.

Under the final SRP approach, TNSPs would gain the return *on* and *of* capital expenditure underspend during the period and would lose the return *on* and *of* capital expenditure overspend during the period.

The Commission's approach to the capital expenditure incentive mechanism in the Rule Proposal represented a modified version of the AER's low powered approach in the SRP. Specifically, the Commission proposed to exclude depreciation allowances from the capital expenditure incentive mechanism, such that the reward or penalty only involved the return *on* capital instead of also including the return *of* capital. The Commission proposed this modification because it was concerned that the SRP approach could inefficiently skew capital expenditure away from short-lived projects to long-lived projects. The Commission was concerned that this incentive could distort efficient capital expenditure.



In light of the strong views expressed in many submissions, and particularly by the AER, that this modification unduly weakened the power of the incentives mechanism, the Commission has reviewed its approach on this issue.

The AER's comment stems from concern about the balance of the incentive mechanisms, particularly in relation to the relative power of the incentives to pursue efficiencies in operating and capital expenditure (see section 6.3.2). The AER considered that the Commission's proposed lower powered incentive mechanisms may have the effect of unbalancing the suite of incentive mechanisms for an uncertain gain from avoiding skewing TNSP investment decisions. In particular, the AER was concerned that in the presence of a relatively low powered capital incentive and a relatively higher powered operating expenditure mechanism this may distort TNSP use of inputs, thereby creating productive inefficiencies.

The Commission remains concerned that the inclusion of depreciation in the capital expenditure incentive mechanism has the potential to create some distortions in favour of spending on short-lived versus long-lived assets. However, it has considered further the extent to which TNSP's are easily able to substitute short lived for long lived projects and whether they would be inclined to do this even if it were possible simply to avoid the penalty of not being able to recover the lost return of capital in a regulatory period. The Commission has therefore decided in favor of including depreciation and the cost of capital in the reward and penalty element of the capital expenditure incentive mechanism. The Commission considers that this change will also address concerns that have been raised about the perception of an imbalance in the power of the incentive mechanisms between capital and operating expenses.

This rebalancing and, arguably, strengthening of the capital expenditure regime is all the more important when the changes to the Proposed Rule arrangements for the service performance incentive mechanism are considered. This issue is discussed in more detail in section 6.10. In short the Commission has raised the potential cost on TNSPs for failing to achieve appropriate service standards. With this higher powered service performance incentive TNSPs will be encouraged to manage this risk by spending more on their grids. To ensure that customers are not charged prices that reflect inefficient costs of managing the risk of not meeting more stringent service performance incentive, countervailing incentives for efficient capital expenditure are necessary

Although the Commission has agreed to the inclusion of depreciation in the incentive mechanism the Commission remains concerned that this could distort incentives as between short and long term investment. An option for managing this risk may be for the AER to provide guidance to TNSPs about their proposed depreciation profiles for different asset types. The AER could require TNSPs to provide detail about expected depreciation on assets of different lifespans. While this would somewhat increase the degree of intrusiveness of the capital expenditure regulatory process, it would represent a relatively simple way of minimising the potential distortions noted above.

Other options are also available to increase the power of the capital expenditure incentive scheme while avoiding the potential distortion of including depreciation in the incentives mechanism. For example, a five year (or longer) efficiency carryover mechanism could be applied to capital expenditure to ensure that TNSPs faced equivalent strong incentives to reduce capital expenditure regardless of the year in the regulatory period the expenditure decision was being made. The Expert Panel noted that along with extending the term of a regulatory review, allowing efficiency gains to be carried over into the next regulatory period

is one way to strengthen the incentives for efficiency under a building block regulatory approach<sup>182</sup>.

On balance, the Commission has concluded that more intrusive or complex mechanisms are not warranted at this time in view of the likelihood that the potential economic distortions from the inclusion of depreciation in the mechanism are likely to be small. However, the Commission would welcome stakeholder comments on this issue.

## 6.7 Contingent Projects

The Commission considers the contingent project provisions as part of the capital expenditure incentive arrangements, although it recognises that this feature also has operating cost aspects. However, the inclusion of contingent projects in the Draft Rule is a material departure from the Proposed Rule and the Commission considers this change warrants a discussion of the arrangements in a separate section.

### 6.7.1 Submissions

Submissions centred on the issue of whether a contingent projects regime or a revenue cap re-opening regime should be provided for in the new Rules. Most submissions supported the contingent project regime over the re-opening regime while one favoured the re-opening regime<sup>183</sup>.

One submission proposed a modified version of the current contingent projects regime with a re-opening provision for difficult to forecast or unforeseen capital projects<sup>184</sup>. Another supported the contingent project over the re-opening regime however its preference was for an incentive regime that is similar to that found in the electricity distribution sector<sup>185</sup>.

### 6.7.2 Commission Assessment

TNSPs, like most businesses, operate in an uncertain environment. Uncontrollable, external events as diverse as changes in economic growth, climate and regulatory obligations can alter the quantity and nature of the services required to be provided by TNSPs. In a normal competitive market, production and pricing behavior adjusts in response to these changes. In these markets, efficient producers are able to recover their costs and should generally earn at least a normal return on their investments. As highlighted above, the regulatory arrangements need to mimic the operation of a competitive market as closely as possible. That is, if TNSPs are required to respond to market demand by altering their production behavior and this requires unexpected investment in new network capacity, the arrangements need to provide for this.

Several regulatory mechanisms are available to manage the costs of meeting uncertain production/investment obligations. The mechanism included in the Proposed Rule to assist TNSPs manage these uncertainties was a provision for reopening the Determination. This was designed to allow TNSPs to recover planned but uncertain costs and unexpected and

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<sup>182</sup> Expert Panel on Energy Access Pricing, 'Report to the Ministerial Council on Energy', April 2006 Chapter 4, Productivity Commission 'Review of the Gas Access Regime', p.102

<sup>183</sup> EnergyAustralia, 20 March 2006, p.22, Australian Energy Regulator, March 2006, p.40, Electricity Transmission Network Owners' Forum, March 2006, p.12, Energy Users Association of Australia, April 2006, p.27

<sup>184</sup> Electricity Transmission Network Owners' Forum, March 2006, p.12

<sup>185</sup> Energy Users Association of Australia, April 2006, pp.27, 34

unforeseen costs incurred to efficiently meet demand while maintaining the required standard of service.

The Commission recognised that reopening a Determination was a major step for a TNSP but considered that the relatively high threshold would create strong incentives for the TNSP to forecast its revenue requirements as accurately as possible. This is an important objective of any network regulatory arrangement.

An alternative to the Commission's approach is the AER's provision for *contingent* or *excluded* projects, as set out in the SRP. Contingent projects are relatively large (i.e., costly) projects that address foreseen events but where the TNSP is uncertain as to whether the project will proceed, its costs and/or its timing.

Under the SRP approach, the regulator would effectively set a project-specific five year revenue cap in respect of each contingent project, commencing when the project was committed. After the end of the five year period, the actual depreciated expenditure would be rolled in to the RAB. This would provide the TNSP with an incentive to minimise expenditure on the contingent project, even if the project was commissioned late in a regulatory control period.

In light of the comments made in many submissions, the Commission has reviewed the relative merits of its proposed arrangements compared to the SRP's contingent project mechanism.

The Commission has been persuaded that the contingent projects concept has advantages over the revenue cap reopening mechanism as the means of addressing large planned but uncertain projects. The key reason for this change of view is that the Commission is concerned that the hurdle of having to reopen the Determination may be too high for TNSPs. As a result, this may cause the TNSPs to:

- Argue for the inclusion of the costs of uncertain projects in the revenue cap, which may cause customers to pay for costs that are never incurred or for projects that are not efficient. Subsequently, this may result in more intrusive forms of regulation once the cost of this behavior becomes evident; and/or
- Avoid spending money on unexpected projects until the next regulatory period. In turn this may either deter or delay the projects that place additional unexpected demands on TNSP spending.

However, the Commission has developed some modifications to the incentive mechanism for contingent projects compared to the approach adopted by the AER as set out in the SRP.

The Commission proposes that TNSPs be required to identify contingent projects (together with triggers) at each regulatory reset. If and when the need for a contingent project is triggered, the TNSP can propose the forecast total cost and timing of the project as well as a profile of expenditure for inclusion in the MAR during that regulatory period. The AER must accept the project cost, profile of expenditure and timing if it determines that these proposed features are reasonable, having assessed them against specified criteria.

The treatment of expenditure on the contingent project varies according to whether all the expenditure is expected to be incurred in the original (i.e., the first) regulatory period, or whether the expenditure is expected to spill over into the next (i.e., the second) regulatory period.

Take the case first of where the contingent project is expected to be completed within the first regulatory period. In this case, the TNSP would be allowed to recover a return on and of the forecast capital expenditure during that period. This means that if the TNSP underspends on the project, it receives a reward equal to the return on and of the underspend for the remainder of the first period. Conversely, if the TNSP overspends on the project, it faces a penalty equal to the return on and of the overspend for the remainder of the first period. In either case, the actual expenditure is rolled into the TNSP's RAB at the end of the first period. This means that the reward for underspending or the penalty for overspending ceases at the end of the first regulatory period.

The alternative situation is where development of the contingent project is expected to commence in the first regulatory period but be completed in the second regulatory period. If the TNSP underspends on the contingent project during the first regulatory period compared to the allowed expenditure profile for that period, the actual expenditure is rolled into the RAB at the end of the first period and the underspent value is added to the forecast capital expenditure for that project for the second regulatory period. At the same time, the underspend is not permitted to be taken into account in either:

- setting (i.e., reducing) the TNSP's forecast capital expenditure allowance for that contingent project in the second regulatory period; or
- setting (i.e., reducing) the TNSP's remaining (i.e., non-contingent) capital expenditure allowance for the second regulatory period.

Overall, this provides a strong incentive for TNSPs to underspend their contingent project allowances.

For example, assume that a contingent project is triggered in the fourth year of a regulatory period. The total expected cost of the project is \$150 million. The project is expected to commence development in the fifth year of the first regulatory period and be completed sometime in the second regulatory period. Further assume that the TNSP has proposed an expenditure profile of \$50 million for the fifth year of the first regulatory period, with the remaining \$100 million to be spent in the second regulatory period. If the TNSP actually spends only \$40 million in the final year of the first regulatory period, the \$40 million would be rolled into the RAB at the end of that first period and its capital expenditure allowance for that project in the second regulatory period would be the remaining \$100 million plus the \$10 million underspent amount (\$110 million in total). This allows the TNSP to earn a reward on that underspend (assuming it is permanent) until the end of the second regulatory period, at which time its actual expenditure would be rolled into its RAB and the reward would cease.

If, instead, the TNSP overspends on the contingent project during the first regulatory period, the actual expenditure would be rolled into the RAB at the end of the period and the overspent value is subtracted from the contingent project expenditure allowance for the second regulatory period. Further, the overspend is not permitted to be taken into account in setting the remaining (i.e., non-contingent) capital expenditure allowance for the second regulatory period. This provides a strong incentive for TNSPs not to overspend their contingent project allowances.

This can be illustrated by drawing on the above example. If the TNSP actually spent \$60 million in the final year of the first regulatory period (instead of the forecast \$50 million), \$60 million would be rolled into the RAB at the end of the first period. The capital expenditure allowance for that project for the second regulatory period would then be reduced by \$10 million. Therefore, the contingent project would have an allowance for the second regulatory period of only \$90 million. This means that the penalty for overspending would continue

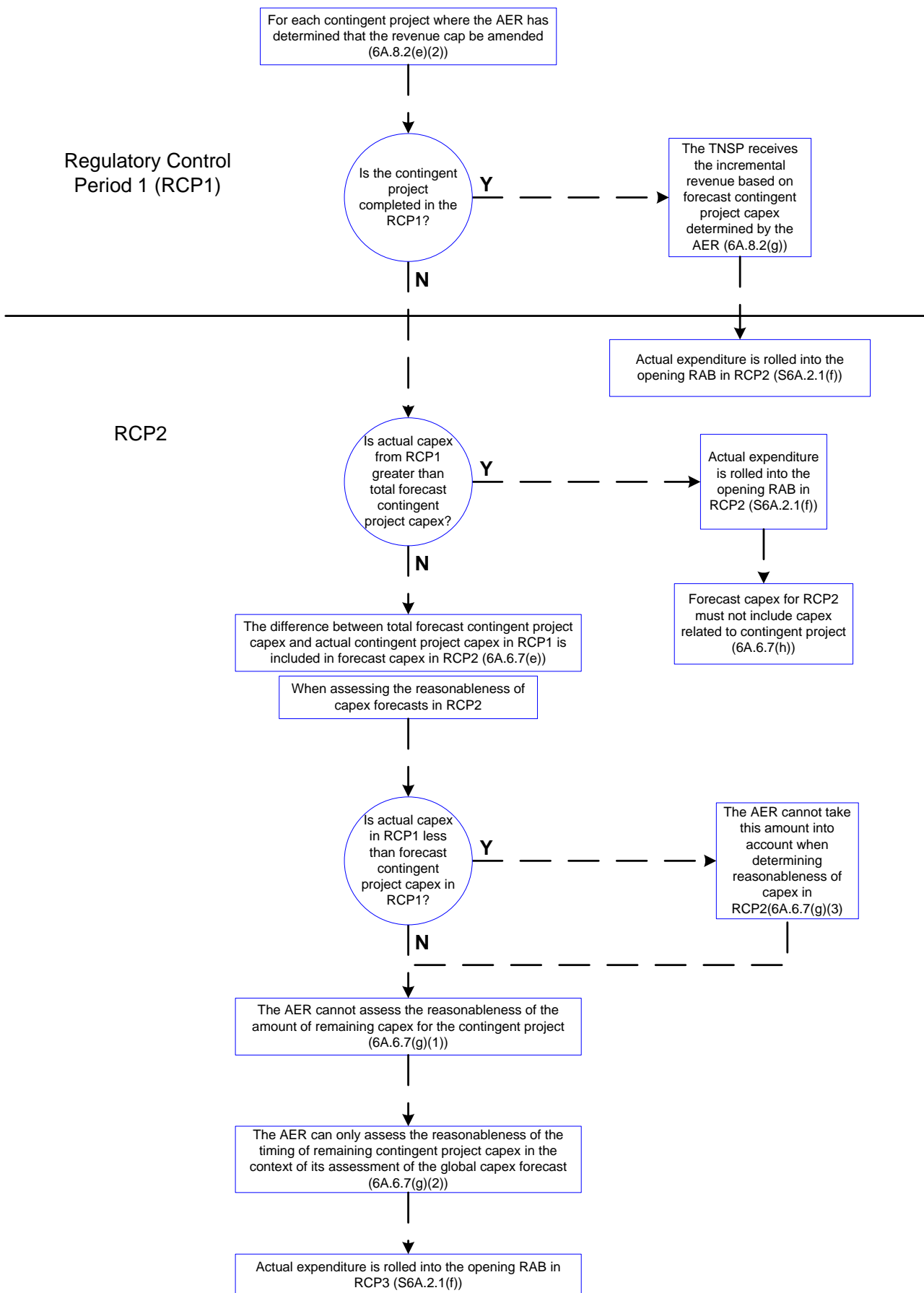
(assuming the overspend was permanent) until the end of the second regulatory period, at which time the actual expenditure would be rolled into the RAB.

If the TNSP overspends on the *entire* project in the first regulatory period, it would not be entitled to any forecast expenditure in the second period. Therefore, if the TNSP spent \$160 million in the first period (compared to a total forecast project cost of \$150 million, the \$160 million would be rolled into the RAB at the end of the first period and the forecast allowance for the second period would be nil.

In all cases, the incentives to underspend as well as avoiding overspending are relatively powerful.

The operation of the Commission's modified contingent project scheme, as set out in the Draft Rule, is summarised in Figure 6.1 below.

**Figure 6.1: AEMC's modified contingent project mechanism**



## 6.8 Reopener provisions

### 6.8.1 Submissions

The majority of the submissions were supportive of the reopener provisions. CUAC supported the provision if it contained incentives for ensuring robust and rigorous capital expenditure forecasts<sup>186</sup>. The NGF considered that it would be better to approve projects as they arise rather than at the time of the *ex ante* revenue cap determination<sup>187</sup>. EPSIC believed that the reopener provisions should also exist for projects that are no longer required to ensure that consumers are not paying for capital projects that have not been built<sup>188</sup>. The MEU stated that reopening should only be allowed when the TNSP has utilised all existing capital expenditure<sup>189</sup>.

Two submissions (the AER and PIAC), did not support the reopener provisions. PIAC was concerned that reopening determinations would have a negative impact on prices, while the AER believed that the Proposed Rule did not provide sufficient incentives for TNSP's to efficiently undertake projects included in the *ex ante* cap<sup>190</sup>.

Many of the submissions that commented on the reopener provisions had concerns with the five per cent of RAB threshold limit. Most submissions considered that the threshold was too high<sup>191</sup>, with only TRUenergy supportive of the five per cent threshold<sup>192</sup>. ETNOF and ETSA considered that two per cent was more appropriate<sup>193</sup>, while EnergyAustralia was supportive of a one per cent threshold<sup>194</sup>. EnergyAustralia also believed that the threshold should relate the aggregate of projects that are required to address a trigger rather than being applied to an individual project. Ergon Energy, the ETNOF and AGL were also supportive of a dollar value threshold ranging from \$10 million to \$100 million<sup>195</sup>.

ETNOF commented that a contingent projects scheme should operate in tandem with the reopener provisions on the basis that such an approach would provide better incentives to TNSPs when considering uncertain projects<sup>196</sup>.

### 6.8.2 Commission Assessment

The Expert Panel commented on the value of allowing a revenue cap to be 'reopened' in certain circumstances:

*"... the incentives and risks inherent in the building block approach to price caps can be ameliorated by incorporating pass through or re-opener clauses, thereby allowing the*

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<sup>186</sup> Consumer Utilities Advisory Centre, 7 April 2006, p.6

<sup>187</sup> National Generators' Forum, 20 March 2006, p.2

<sup>188</sup> Electricity Supply Planning Council, 20 March 2006, p.4

<sup>189</sup> Major Energy Users Incorporated, 22 March 2006, p.56

<sup>190</sup> Public Interest Advocacy Centre, 22 March 2006, p.3; Australian Energy Regulator, March 2006, p.39

<sup>191</sup> CitiPower & Powercor Australia, 20 March 2006, p.5

<sup>192</sup> TRUenergy, 21 March 2006, p.1

<sup>193</sup> Electricity Transmission Network Owners' Forum, March 2006, p.14; ETSA Utilities, 20 March 2006, p.3

<sup>194</sup> EnergyAustralia, 20 March 2006, pp.22-24

<sup>195</sup> Ergon Energy, 20 March 2006, p.6; Electricity Transmission Network Owners' Forum, March 2006, p.14; AGL, 21 March 2006, p.6

<sup>196</sup> Electricity Transmission Network Owners' Forum, March 2006, p.12

*price control parameters to be adjusted before the end of the designated period if certain trigger events take place.*<sup>197</sup>

As noted above, the Proposed Rule provided for a TNSP to apply for the re-opening of its revenue cap in the event it was obliged to invest in a major project (at least five per cent of the value of its RAB) and that investment would cause the TNSP to exceed its capital expenditure allowance for that entire period.

This proposal was aimed at providing a strong incentive for TNSPs to ensure their forecasts are as accurate as possible as explained above. At the same time the proposed arrangement was intended to overcome the incentive for a TNSP to defer major vital investment where it would result in the TNSP exceeding its capital expenditure allowance for the period.

However, in light of its decision to incorporate contingent projects into the capital expenditure regime (combined with the retention of pass-throughs - see below), the Commission believes it is inappropriate to provide for re-opening of the revenue cap in anything other than extreme circumstances. Therefore, the Commission proposes not to allow the re-opening of a TNSP's revenue cap unless:

- an event that could not have been foreseen by the TNSP has occurred;
- in response to that event, the TNSP must invest in a project without which network reliability or system security would be compromised;
- the project requires capital expenditure exceeding five per cent of the TNSP's RAB in the year of the event;
- the project requires capital expenditure that the TNSP cannot otherwise reasonably fund within the period; and
- there is no existing allowance (including in the contingent projects allowance) for that project.

This approach should ensure that the incentive properties of the ex ante cap and the contingent projects regime are maintained while at the same time limiting the exposure of TNSPs to the full risks and costs of addressing major disruptions to their networks in the process of meeting their regulatory obligations.

## **6.9 Operating expenditure incentives**

### **6.9.1 Submissions**

Less substantive issues were raised in submissions regarding the operating expenditure incentive mechanism compared to the capital expenditure incentive mechanism. The AER noted<sup>198</sup> that the Proposed Rule did not specify precisely what power of the incentive to reduce operating expenditure should be chosen<sup>199</sup>. The MEU supported the incentive mechanism, but was concerned that the scheme would be utilised strategically by TNSPs to

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<sup>197</sup> Expert Panel on Energy Access Pricing, 'Report to the Ministerial Council on Energy', April 2006, Chapter 4, Productivity Commission 'Review of the Gas Access Regime', p.102

<sup>198</sup> Biggar, "The Incentive Implications of the Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006", pp.17-18 in submission by Australian Energy Regulator, March 2006

<sup>199</sup> Ibid., p.2



maximise retained benefits for the businesses<sup>200</sup>. AGL raised concerns that the efficiency benefit scheme may result in intrusive and costly information gathering requirements<sup>201</sup>.

## 6.9.2 Commission Assessment

The Proposed Rule provided for TNSPs to receive regulated revenues that included allowances for reasonable forecast operating expenditures. The benefit-sharing mechanism for operational expenditure was required to provide for a continuous incentive (equal in each year of the regulatory period) for the TNSP to make operating expenditure savings throughout a regulatory period. This was to ensure that TNSPs had the same incentive to make operating expenditure savings towards the end of a regulatory period as they did at the start of the period.

The Commission believes the Proposed Rule arrangements are appropriate. It will be a matter for the AER as to how it develops and implements this mechanism in accordance with the Rules. In particular, the power of the operating expenditure incentive mechanism is a matter for the regulator to determine, in accordance with the need to balance the powers of the respective incentive mechanisms.

## 6.10 Performance standards incentives

### 6.10.1 Submissions

There was a view among respondents (including Biggar) that the one per cent cap on the financial reward or penalty under the service standards incentive is too low<sup>202</sup>. Biggar considered that the one per cent threshold gives rise to unbalanced incentives to cut expenditure, since the benefit from a cost reduction may exceed the financial penalty from a drop in service standards<sup>203</sup>.

In its submission, the AER argued that the one per cent limit on the service target incentive mechanism was too low. The AER highlighted the risk that the relatively small revenues at stake for poor service would not be sufficient to balance the much larger gains available to TNSPs from cutting back necessary capital expenditure and operating expenditure, compromising service levels in the process. The AER noted that although the current service target incentive schemes applicable to TNSPs were generally worth around plus or minus one per cent of regulated revenues, the AER intended to increase the shares at risk over time as it gained more information about the impacts of the schemes. The AER contended that, ideally, no limit should be placed in the Rules on the share of regulated revenue at risk from the service incentive regime. However, the AER indicated that if a limit were to be included in the Rules, a figure of plus or minus ten per cent would be more appropriate.

Supplementary submissions queried Biggar's analysis and conclusions. Powerlink suggests that there is a logical disconnect between the events addressed by service standard targets, the proposed target revenue to which such an incentive scheme applies (Biggar suggests ten per cent) and the capital expenditure program undertaken within period by a TNSP<sup>204</sup>. The

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<sup>200</sup> Major Energy Users Incorporated, 22 March 2006, p.63

<sup>201</sup> AGL, 21 March 2006, p.6

<sup>202</sup> Australian Energy Regulator, March 2006, p.36; Biggar, p.19; Major Energy Users Incorporated, 22 March 2006, p.59; Energy Users Association of Australia, April 2006, p.(v); National Generators' Forum, 20 March 2006, p.2

<sup>203</sup> Biggar, "The Incentive Implications of the Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006", p.1 in submission by Australian Energy Regulator, March 2006

<sup>204</sup> Powerlink supplementary submission, 7 April 2006, p.2

ETNOF and EnergyAustralia noted that service performance targets are complementary to mandated licence or legislative requirements that drive most investment decisions<sup>205</sup>.

TNOs welcomed the scheme, recommending only small refinement to reflect market outcomes and proposed that individual TNSPs be able to propose a higher risk exposure (threshold) if they desire<sup>206</sup>. CitiPower sought a five year lead time for the AER to make changes to the incentive scheme – so as to maintain the certainty and thus power of the incentives<sup>207</sup>.

### **6.10.2 Commission Assessment**

The Proposed Rule allowed the AER considerable flexibility to design the service target incentive regime. However, the maximum share of regulated revenue at risk was limited to plus or minus one per cent.

The Commission accepts the need for the various incentive schemes applicable to TNSPs to be balanced in order to ensure TNSPs' decisions are not inappropriately skewed. Moreover, the Commission understands that the joint application of multiple incentive mechanisms for TNSPs will require a degree of flexibility and experimentation to produce optimal outcomes over time. The AER should have the discretion, with appropriate guidance, to engage in this process. However, the Commission remains concerned that an open ended service incentive creates too much uncertainty, particularly given the relative novelty of the mechanism compared to the more well-known incentive arrangements for capital and operating expenditure. Further, in the Commission's view, placing ten per cent of the TNSP's regulated revenue at risk for service performance represents too large a share of the income of a regulated business of this time. Therefore, at this stage, the Commission intends to restrict the service incentive rewards and penalties to +/- five per cent of regulated revenue. This provides a great deal of scope for the AER to continue to develop and refine the service incentive mechanism, while limiting the exposure of TNSPs to potentially extreme risks they may be only partially able to manage.

If, at a later stage, when the scheme develops, a higher share of revenue-at-risk becomes appropriate, the Commission will be able to respond to a proposed Rule change accordingly.

## **6.11 Pass Through**

### **6.11.1 Submissions**

The majority of submissions that commented on the pass-through mechanism were supportive. However, a number of submissions raised concerns with the list of included events. For instance, the AER commented that it was not appropriate to lock in provisions at this early stage and the Rules should provide for the AER to prescribe guidelines of pass-through events after there has been more experience in this area<sup>208</sup>. AGL supported the AER's view on extending the discretion allowed to the AER on pass-through events<sup>209</sup>. The CitiPower & Powercor submission stated that a safety and technical standards event and a legislative or regulation event should be included in the list of allowed pass-through

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<sup>205</sup> Electricity Transmission Network Owners' Forum, March 2006, p.5; EnergyAustralia, 20 March 2006, pp.26-27

<sup>206</sup> Electricity Transmission Network Owners' Forum, March 2006, p.33

<sup>207</sup> CitiPower & Powercor Australia, 20 March 2006, p.4

<sup>208</sup> Australian Energy Regulator, March 2006, p.46

<sup>209</sup> AGL, 21 March 2006, p.6

events<sup>210</sup>. Alternatively, the MEU believed that pass-through events should be limited to times when there is a change to the law or taxes which impact the TNSP exclusively. In addition, the MEU considered that un-used revenue should be used before a pass-through mechanism is instigated.

Another issue raised in submissions related to the materiality threshold. EnergyAustralia stated that the definition should be amended to say that the threshold applies to the change in capital or operating expenditures<sup>211</sup>. Ergon Energy supported the threshold claiming that it will help in limiting the use of the pass-through mechanism<sup>212</sup>. The ETNOF considered that the one per cent threshold was excessive and recommend that the definition be amended to 'material' amounts<sup>213</sup>.

EnergyAustralia considered that the timeframe applied to the application of a pass-through of 60 days was insufficient to make an application in some instances and that 90 days was more appropriate. In addition, EnergyAustralia believe that the commencement of the 90 day time frame should be when the business becomes aware that an event is having an impact<sup>214</sup>.

The CitiPower & Powercor submission raised a concern about the possibility of a negative pass-through. They consider that this provision increases regulatory risk. They also considered a retrospective review of the TNSP's actions to provide no benefit. They believe that because the actions will involve sunk costs by the time a positive pass-through event is identified, denying the recovery would not change a TNSP's behaviour<sup>215</sup>.

### **6.11.2 Commission Assessment**

The Proposed Rule provided for the pass-through of significant increases (or decreases) in a TNSP's costs resulting from certain defined events during a regulatory period. The objective of a cost pass-through is to provide a degree of protection for the TNSP from the impact of unexpected changes in costs outside of its control. Such a mechanism lowers the risks faced by the TNSP, which would otherwise have to be compensated for in the calculation of regulated revenues. For these reasons, the Commission intends to retain the approach to pass-throughs, contained in the Draft Rule.

The Commission also considers that the pass-through arrangements are a significant component of the complete regulatory framework and should be codified in the Rules rather than left to the discretion of the AER. The Commission notes that the pass-through events it has adopted are broadly consistent with those proposed by the AER in its 'Statement of Principles for the Regulation of Electricity Transmission Revenues, Position Paper, Pass Throughs and Revenue Cap Reopeners'<sup>216</sup>. In addition there appeared to be a broad consensus among interested parties in relation to the general categories of events that should be subject to pass-through arrangements.

There is, however, one aspect of the pass-through Rules that the Commission now proposes to change. The Commission has been persuaded that network support payment should constitute a pass-through event. The Commission's reasoning for this change is set out section 9.3.5.

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<sup>210</sup> CitiPower & Powercor Australia, 20 March 2006, p.5

<sup>211</sup> EnergyAustralia, 20 March 2006, p.19

<sup>212</sup> Ergon Energy, 20 March 2006, p.9

<sup>213</sup> Electricity Transmission Network Owners' Forum, March 2006, p.32

<sup>214</sup> EnergyAustralia, 20 March 2006, p.19

<sup>215</sup> CitiPower & Powercor, Australia, 20 March 2006, p.5

<sup>216</sup> December 2005, pp.23

## 6.12 Commercial Negotiation Incentives

As explained in section 6.2.1 the Commission has adopted a 'lock-in, roll forward' approach to treatment of RAB. That is, there is no periodic adjustment of the economic value of a TNSP's assets to customers. This was designed to increase investor certainty.

The only exception to these arrangements is where specific assets are subject to commercial stranding due to the (potentially avoidable) disconnection or by-pass by certain large customers. In these cases, a TNSP's assets could be subject to an adjustment to its value if the TNSP had not taken reasonable steps to manage these risks. For example, in the case of existing loads, the Commission would expect that TNSP make a genuine and concerted effort to do what is reasonably within their control and commercial interest to prevent the relevant customer from disconnecting from or by-passing the TNSP's network. In the case of future loads the Commission would expect the TNSP to take reasonable steps to negotiate arrangements to manage the risks of a large customer disconnecting from or by-passing the TNSP's network.

### 6.12.1 Submissions

There was no significant opposition to the Commission's proposal to introduce commercial negotiation incentives in these circumstances. However, the MEU did state that it does not believe there is sufficient justification to warrant a separate incentives scheme<sup>217</sup>. The AER commented that the arrangement may not be workable due to a lack of clarity and the nature of the requirements to be met before compensation can be allowed<sup>218</sup>.

The ETNOF noted that the stranding can only apply to assets that are part of the shared network. It commented that if the Rules are to require such a risk reallocation, the precise arrangements contemplated need to be spelled out more clearly and to take into consideration the TNSPs existing reliability obligations<sup>219</sup>.

Three submissions (CitiPower & Powercor, AGL and Ergon Energy) considered that if the Commission includes a risk of stranding that there should be an allowance for this in the determination of the revenue cap<sup>220</sup>. AGL commented that there should not be an opportunity to write down the value of previously approved investments. ETSA considered that the use of the term 'user' may not be appropriate when, as a DNSP, ETSA Utilities is deemed to be a transmission network user<sup>221</sup>. EnergyAustralia argued that assets that have previously been the subject of commercial stranding should be allowed to be re-submitted into the RAB where they subsequently provide benefits to the shared network.

EnergyAustralia also suggested that increased clarity is needed about the responsibilities of the TNSP in relation to offering discounts<sup>222</sup>.

### 6.12.2 Commission Assessment

In its Proposed Rule<sup>223</sup> the Commission noted that its intention was to reduce the likelihood of stranding of assets by ensuring that those that were able to manage the risk, bore the risk,

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<sup>217</sup> Major Energy Users Incorporated, 22 March 2006, pp.64-65

<sup>218</sup> Australian Energy Regulator, March 2006, p.24

<sup>219</sup> Electricity Transmission Network Owners' Forum, March 2006, p.33

<sup>220</sup> CitiPower & Powercor Australia, 20 March 2006, p.2; AGL, 21 March 2006, p.3; Ergon Energy, 20 March 2006, p.10

<sup>221</sup> ETSA Utilities, 20 March 2006, p.3

<sup>222</sup> EnergyAustralia, 20 March 2006, pp.24-25

<sup>223</sup> Australian Energy Market Commission, Revenue Rule Proposal Report, February 2006, p.90

rather than all users. That is, it is incumbent on the TNSP to enter into commercial negotiations regarding the management of the risk of by-pass or disconnection by large network users.

The Commission recognised that it is possible under the current Rules for the TNSP to offer a prudent discount, however it was concerned that there may be insufficient incentive for a TNSP to engage in effective negotiations with large customers in relation to such discounts. The Proposed Rule was aimed at providing TNSPs with a meaningful incentive to negotiate with the relevant users instead of relying on all other customers to underwrite commercial risks that the Commission considers are amenable to management through normal commercial arrangements.

The Commission sees no reason to move away from the incentive arrangement for managing commercial stranding as set out in the Proposed Rule. In the Commission's view, this should support other aspects of the Draft Rule – such as the removal of *ex post* reviews, as outlined above – in promoting greater investment certainty.

In proposing this arrangement in the Proposed Rule the Commission specifically sought comment from stakeholders regarding the threshold for the size of the assets<sup>224</sup> to be covered. The Draft Rule proposed a \$20m, threshold in 2006 dollars. As there was no disagreement in submissions on this level, the Commission has maintained this level in the Draft Rule<sup>225</sup>.

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<sup>224</sup> Ibid, p.93

<sup>225</sup> Draft Rule, clause 6A.6.3(c)

## 7 Components of the Building Blocks

The previous chapters have discussed the scope and form of regulation, what is the appropriate level of rules based guidance for the regulator on process, methodology and decision criteria, the details of two key components of the building blocks methodology, expenditure forecasts and the WACC, and the role that incentives play in ensuring that the regulatory regime delivers efficient outcomes over time. The purpose of this chapter will be to consolidate these elements of the regulatory regime and consider the detail of the remaining components of the building blocks methodology.

It presents the revenue cap methodology specified in the Draft Rule as a complete package. The chapter commences with an overview of all the elements of the Commission's approach to the Proposed Rule. It then describes the Commission's responses to stakeholder submissions on the following elements of the Draft Rule:

- the adoption of a generic post-tax revenue model (PTRM);
- the Regulated Asset Base and the Commission's roll-forward approach;
- the extent of discretion provided in calculating the return of capital; and
- estimated cost of corporate income tax.

### 7.1 Proposed Rule

The Proposed Rule set out a complete method for determining a revenue cap for Prescribed Transmission Services. Specifically it required the adoption of a building block model for determining the TNSPs revenue requirement, and included principles in relation to the calculation of each of the building block elements. These principles were largely based on the existing SRP developed by the ACCC. Where the SRP does not set out a complete methodology for determining a revenue cap, the Proposed Rule sought to supplement it with principles in the Rules which would guide the regulator's discretion.

Codification of the SRP principles was intended to enhance the degree of consistency and predictability associated with the operation of the regulatory framework. This would in turn create a more stable and certain investment environment, sustaining security and reliability for all consumers.

The remainder of this section summarises the principles contained in the Proposed Rule in relation both to the general requirement on the AER to develop and publish a PTRM, and in relation to the calculation of each of the building block elements. The following sections then discuss specific issues which have been raised in relation to the Proposed Rule, and the Commission's approach in the Draft Rules to address these issues. Where submissions did not raise issues with the Proposed Rule, the Draft Rule continues to reflect the principles and positions set out in the Proposed Rule.

#### 7.1.1 Post-tax Revenue Model

The Proposed Rule requires the AER to develop and publish a PTRM, which then forms the basis of the calculation of the maximum allowed revenue (MAR) in both the TNSP's revenue application and the AER's revenue determination. The PTRM relates the building block

elements to the MAR determined for the TNSP for each year of the regulatory period<sup>226</sup>. The publication of a generic PTRM, which must be applied in determining the revenue cap of a TNSP, is consistent with the Commission's aims of achieving transparency and consistency. The Proposed Rule set out guidance on what the PTRM should cover. The Commission decided that a continuation of the post-tax approach to financial modelling should be codified in the Rules.

### 7.1.2 Regulatory Asset Base

The Proposed Rule requires the AER to adopt a roll-forward approach in determining the opening RAB, and to publish a roll-forward model. The Commission's view was that the current allowance for periodic optimisation under the Rules raised uncertainty and that a 'lock-in' approach would provide a more certain environment for investment<sup>227</sup>. The incentive properties of the 'lock-in' approach versus periodic optimisation are discussed further in chapter 6.

The value of the RAB for each TNSP as at the opening of the most recent regulatory period is to be locked-in, with no scope for revaluation<sup>228</sup>. The Proposed Rule also set out the principles the AER is to apply in determining the opening RAB for an MNSP that converts to regulated status. The Proposed Rule allowed for the RAB to be adjusted only in limited circumstances, relating to commercial stranding.<sup>229</sup>

The Proposed Rule required that actual expenditure which is assessed by the AER to be prudent and efficient must be rolled into the RAB. The Proposed Rule set out the principles which the AER must consider in determining the prudency and efficiency of actual expenditure. In undertaking the roll-forward of the RAB, the Proposed Rule also required the AER to include the depreciation that had been allowed for in the previous regulatory determination, rather than recalculating depreciation on the basis of actual outturn expenditure. The provisions for prudency review and the requirement to adopt regulatory depreciation in the roll-forward were both aspects of the proposed incentive regime applying to capital expenditure, which is discussed in detail in chapter 6 of this Draft Determination.

### 7.1.3 Expenditure forecasts - capital and operating expenditure

The Proposed Rule required a TNSP's Revenue Proposal to include a forecast of both capital expenditure and operating expenditure for each year of the regulatory period. The AER must accept the forecasts, if it determines that they are reasonable estimates, having taken into account specified criteria, and the AER is also satisfied that the estimates comply with

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<sup>226</sup> Note that the MAR does not in fact represent the *maximum* revenue that a TNSP may earn in each year of the regulatory period. The service incentive scheme which is required to be developed under the Draft Rule will result in additions (or reductions) in the revenue that a TNSP may earn in any year, on top of the MAR. In addition, there are currently provisions in the Rules for an 'overs- and-unders mechanism' to adjust a TNSP's allowed revenue where it has over- or under- recovered allowed revenue in an earlier year. The issue of the maximum revenue which a TNSP can earn as a result of charges for prescribed services will be considered as part of the Commission's review of the rules relating to pricing.

<sup>227</sup> Australian Energy Market Commission, Review of the Electricity Transmission Revenue and Pricing Rules, Transmission Revenue: Rule Proposal Report, February 2006, p.57

<sup>228</sup> Except to adjust for differences between estimated and actual expenditure at the time of the last regulatory determination.

<sup>229</sup> The incentive arrangements set out in the Rule Proposal in relation to assets at risk of commercial stranding are discussed in detail in chapter 7 of this Draft Determination.

both the Cost Allocation Methodology<sup>230</sup> and AER submission guidelines relating to information to be included in Revenue Proposals.

The Proposed Rule set out a range of issues the AER is to consider in determining whether the forecasts constitute a reasonable estimate, including consideration of the benchmark expenditure that would be incurred by an efficient TNSP. The reasonable estimate criterion and the weighting the AER should give to each of the factors listed in the Rules are discussed further in chapter 5 of this Draft Determination.

#### **7.1.4 Cost of capital financing**

##### **7.1.4.1 Return on capital**

The Proposed Rule codified key elements in relation to the calculation of the appropriate return on capital (WACC). With only a few exceptions, the Proposed Rule reflected the existing SRP provisions, and so represent a continuation of current practice. In choosing to codify these provisions in the Rules the Commission was again seeking to provide increased certainty and an appropriate environment to encourage future investment.

In particular the Proposed Rule specified the formula that the AER must use in determining the cost of capital, required the AER to measure the required return on equity using the CAPM and set out the initial methodology/values of specified parameters that are to be adopted. The Proposed Rule required these methodologies/values to be applied for five years, and to then be subject to a review every five years by the AER. The approach to the cost of capital adopted in the Proposed Rule and the Commission's responses to comment in submissions are discussed further in chapter 5 of this Draft Determination.

##### **7.1.4.2 Depreciation**

The Proposed Rule required the TNSPs to propose depreciation schedules. These schedules were required to comply with principles set out in the Rules, namely:

- each asset (or group of assets) is to be depreciated over its economic life; and
- each asset is to be depreciated only once, and the total sum of the allowed depreciation over the asset's life is to equal the initial value at which the asset entered the RAB.<sup>231</sup>

Provided the TNSP's proposed depreciation schedules comply with these principles, the AER is to use these principles in calculating depreciation. If they do not the AER is able to determine schedules that do comply in calculating depreciations allowances.

The approach set out in the Proposed Rule again codifies current practice. The Commission considered that too great a degree of prescription in the Rules in relation to depreciation would reduce the flexibility of the TNSPs and the AER to alter the level of depreciation, where such change may be warranted. However, the Commission considered that the discretion to propose depreciation schedules appropriately lies with TNSPs rather than with

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<sup>230</sup> The Cost Allocation Methodology is the basis on which costs for prescribed services are identified separately from those for negotiated services, and are discussed in chapter 4 of this Draft Determination.

<sup>231</sup> In addition, assets which fall within the scope of the proposed commercial stranding regime are required to be depreciated on a straight-line basis over their economic life.



the regulator, as it is the TNSPs that have the best knowledge of the condition and likely future utilisation of their assets<sup>232</sup>.

### 7.1.5 Tax

The Proposed Rule contained high level guidance on how the cost of tax should be estimated, including that it should be based on benchmark parameters and not a TNSP's actual tax costs. The Proposed Rule also codified the value of imputation credits ( $\gamma$ ), deeming that value to be equal to 0.5, consistent with the SRP. The Proposed Rule required this value to be reviewed at five yearly intervals by the AER, with the resulting value applied to all regulatory determinations between these reviews.

The Commission considered that more prescriptive guidance on the calculation of tax was not likely to be warranted in the Rules, and that guidance on the calculation of tax should be a matter left to the discretion of the AER. The AER is required to set out the approach for calculating the cost of tax as part of its PTRM.

### 7.1.6 Revenue impact of efficiency benefit sharing scheme

The final element of the building block approach set out in the Proposed Rule related to the principles in relation to the development of the efficiency benefit scheme applied to operating expenditure.

The efficiency benefit scheme results in a revenue increment or decrement for each regulatory year of the next regulatory period, which would be included in determining the annual building block revenue requirement for each year in that regulatory period<sup>233</sup>.

The Proposed Rule in relation to the efficiency benefit sharing scheme is discussed in detail in section 6.9 of this Draft Determination.

## 7.2 Draft Rule

The Draft Rule differs from the Proposed Rule in the following areas.

### Box 7.1: Changes from initial Proposed Rule in the revised Draft Rule

**Old Clause 6.2.1(c)(1)** - is amended so that the model specifies the methodology for calculating expected inflation which the AER determines is likely to result in the best estimate.  
**[New Reference: clause 6A.5.3(b)(1)]**

**Old Clause 6.2.3(b)(3)** - is amended to link the methodology used to index the RAB in conducting the roll-forward from one regulatory period to the next to that used to index the MAR in the same period.  
**[New Reference: clause 6A.6.1(e)(3)]**

**Old Clause 6.2.9(a)(ii)** - is amended so that the estimated cost of corporate income tax must take into account the estimated depreciation for tax purposes for a benchmark efficient TNSP for the regulatory year, of assets etc.  
**[New Reference: clause 6A.6.4(a)(2)]**

**Old Clause 6.2.3(c)(4)(vi)** –is amended to require the roll forward of the asset base to allow for depreciation based on actual outturn expenditure. Consequential amendments have also been made to 6.2.3(c)(1), 6.2.3(c)(4)(iv), 6.2.3(h))

<sup>232</sup> Australian Energy Market Commission, Review of the Electricity Transmission Revenue and Pricing Rules, Transmission Revenue: Rule Proposal Report, February 2006, p.66

<sup>233</sup> This interaction is set out in Proposed Rule, clause 6.2.2 (a)(6) and Draft Rule, clause 6A.5.4(a)(5).

**[New References: S6A.2.1(f)(5) and consequential changes to S6A.2.1(c)(2), S6A.2.1(f)(3); S6A.2.5]**

**Old Clause 6.2.3(c)(4)(ii)** – has been deleted in order to remove the previous scope for the AER to assess the prudence and efficiency of actual investment before rolling it into the RAB.

**Old Clause 6.2.4(d)** – is amended so that the credit rating from Standard & Poors is changed from BBB to BBB+.

**[New Reference: clause [6A.6.2(e)]**

**New Clause** – inserted to provide additional guidance to AER in conducting the five yearly reviews of the WACC parameters.

**[New Reference: clause 6A.6.2(j)]**

## 7.3 Post-tax Revenue Model

The Commission received a number of submissions in relation to the codification in the Proposed Rule<sup>234</sup> of provisions relating to the development by the AER of a PTRM. This section considers the specific issues raised and the Commission's assessment in relation to each.

### 7.3.1 Submissions

Most submissions supported the view that there should be increased guidance in the Rules regarding the contents of the PTRM model. However specific issues were raised relating to the proposed generic nature of the model, the guidance provided in relation to inflation forecasts and the TNSP's discretion to choose X-factors within the model.

AGL stated that a generic PTRM model would not be suitable for the wide range of regulatory reviews that the AER is required to undertake, particularly in relation to distribution networks<sup>235</sup>. It also believed that a post-tax modelling methodology conflicted with the Government's intention for the treatment of accelerated tax depreciation.

The AER and the ETNOF were concerned with the lack of guidance in the Proposed Rule on the methodology the AER should adopt to forecast inflation over the regulatory period, within the PTRM<sup>236</sup>. The ETNOF proposed that the Rules should require that the inflation forecast should reflect a 'best' estimate, which in turn would imply that it uses the latest information available, adopts the best techniques and considers reliable evidence. The ETNOF commented that it would be inappropriate for the Rules to prescribe the use of observed inflation-linked bonds (unadjusted) to obtain a forecast of inflation, despite this being the dominant method used by Australian regulators. The ETNOF viewed this approach as inappropriate given the small size of the market for inflation linked bonds and also because the difference between nominal and real bonds will reflect an inflation risk premium, which would overstate expected future inflation.

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<sup>234</sup> Draft Rule, rule 6A.5

<sup>235</sup> AGL, 21 March 2006, pp.3-4

<sup>236</sup> Electricity Transmission Network Owners' Forum, March 2006, pp.24-25; Australian Energy Regulator, March 2006, p.39

The AER considered that the X-factor should be set by the regulator rather than the TNSP because it was unlikely that TNSPs would have an incentive to smooth prices for customers<sup>237</sup>.

### **7.3.2 Commission's assessment**

#### **7.3.2.1 Adoption of a generic PTRM**

In the Rule Proposal Report the Commission considered that the publication of the existing PTRM by the AER had improved the certainty and transparency of the calculation of revenue determinations<sup>238</sup>. It was the Commission's view that these benefits could be extended by codifying in the Rules the requirement for the AER to publish its PTRM and to adhere to this model when making a revenue cap determination.

The Commission considers that moving away from a generic model, as proposed by AGL, would remove the benefits of having a published PTRM. Firm-specific issues are likely to be better dealt with as part of the revenue determination rather than through the mechanics of the PTRM. In addition, if the Rules are to adopt a propose-respond process for the determination of revenue caps a PTRM must be published prior to a TNSP preparing its proposal. Therefore, the Commission has decided to retain the generic PTRM approach in the Draft Rule.

The Commission notes that the Draft Rule relates to the AER's development of a PTRM for transmission only, and does not also cover distribution.

In relation to AGL's concern about the suitability of a post-tax model given accelerated depreciation provisions, the Commission considered arguments for and against a post-tax model when developing the Proposed Rule<sup>239</sup>. On balance it saw no need to move away from the approach adopted by the AER in its SRP. A pre-tax approach has the potential to overcompensate for tax to the extent that accelerated depreciation continues to apply to some TNSP assets.

#### **7.3.2.2 Guidance on calculation of inflation estimates**

The Commission notes the concerns raised by the AER and the ETNOF on the lack of guidance in the Proposed Rule as to the methodology the AER should adopt to forecast inflation over the regulatory period, and the concern expressed by the ETNOF that the use of inflation-linked bonds (unadjusted) to obtain a forecast of inflation would be inappropriate.

As a result the Commission has decided that the Rules should require the AER to specify as part of the PTRM the methodology that the AER determines is likely to result in 'the best estimates of expected inflation'<sup>240</sup>. The Commission considers that this approach provides the AER with some discretion but requires that the inflation forecast be the best available.

#### **7.3.2.3 TNSP to propose X-factors**

One of the outputs of the PTRM model is the X-factor which is to be applied to the MAR in each regulatory year (after the first year) in the CPI-X revenue cap formula. The Proposed

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<sup>237</sup> Australian Energy Regulator, March 2006, p.39

<sup>238</sup> Australian Energy Market Commission, 'Review of the Electricity Transmission Revenue and Pricing Rules, Transmission Revenue: Rule Proposal Report', February 2006 p.72

<sup>239</sup> Ibid., p.63

<sup>240</sup> Draft Rule, clause 6A.5.3(b)(1)

Rule allowed for the TNSPs to nominate the X-factors, subject to certain restrictions (discussed below)<sup>241</sup>.

The concern raised by the AER is that the TNSPs are unlikely to have an incentive to smooth prices for customers, and so providing the TNSPs with the flexibility to determine the X-factors may result in inappropriate price changes between years.

The Commission has not been presented with any evidence to suggest that the proposed approach in the Proposed Rule would lead to inappropriate prices for users. The Commission considers that the flexibility provided to the TNSP is limited by a number of current and proposed Rule provisions:

- The revenue path for a TNSP is ‘double anchored’: the MAR is established in year one as a dollar amount and the TNSP is obliged to set a MAR in the last period that is as close as reasonably possible to the annual building block revenue requirement for that year<sup>242</sup>;
- The TNSP is limited to setting X-factors such that the Net Present Value (NPV) of the MAR for each year is equivalent to the NPV of the ABBRR for each year<sup>243</sup>; and
- The current provisions in the existing Part C of Chapter 6 of the Rules place additional constraints on the amount that prices can move between years<sup>244</sup>.

The Commission stated in the Rule Proposal Report that, given these provisions, additional restrictions on the X-factors do not appear necessary and that the TNSP should have the flexibility to propose the revenue profile over the period that it considers best reflects the needs of its users<sup>245</sup>. The Commission continues to hold this view, and considers that the NPV requirement and the ‘double-anchoring’ reduce the opportunity and incentive for a TNSP to behave opportunistically to the detriment of the long term interests of consumers.

However, as noted in the Rule Proposal Report, the conclusion on whether to include restrictions in relation to the X-factors will be reconsidered once the Commission has reviewed the pricing provisions in the existing Part C of Chapter 6 of the Rules<sup>246</sup>.

## 7.4 Regulated Asset Base

The RAB is a key component in determining the TNSP’s overall revenue requirement. The Proposed Rule<sup>247</sup> proposed to codify important elements in relation to how the RAB should be calculated and rolled-forward from one regulatory period to the next. Submissions have focused on the arrangements for establishing the initial asset base (both for regulated TNSPs and for MNSPs converting to regulated status) and the methodology for rolling-forward the RAB, including:

- whether there should be a prudency review of actual investment before it is included in the RAB;

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<sup>241</sup> Proposed Rule, clause 6.2.11 & Draft Rule, clause 6A.6.8

<sup>242</sup> Draft Rule, clause 6A.5.3(c)(3) & clause 6A.6.8(c)(2)

<sup>243</sup> Draft Rule, clause 6A.5.3(c)(1)

<sup>244</sup> Existing Clause 6.5.5(a) of the Rules

<sup>245</sup> Australian Energy Market Commission, ‘Review of the Electricity Transmission Revenue and Pricing Rules, Transmission Revenue: Rule Proposal Report’, February 2006, p.73

<sup>246</sup> Existing clause 6.5.5 of the Rules

<sup>247</sup> Draft Rule, clause 6A.6.1 and schedule 6A.2

- the use of actual versus regulatory depreciation; and
- the inflation estimates which should be used in rolling-forward the RAB.

These issues, and the Commission's response, are discussed in this section.

#### **7.4.1 Submissions**

The majority of submissions supported the Commission's Proposed Rule in relation to codification of provisions in governing the calculation of the RAB, and in particular establishment of an initial RAB and the provisions for rolling-forward that initial value for each new regulatory period. The MEU supported the principle of no future optimisation if capital expenditure has been accepted previously as being prudent and efficient.<sup>248</sup> However, PIAC believed that the roll-forward of the RAB would have implications for the rate of consumer price increases<sup>249</sup>.

In relation to the initial RABs, Integral Energy was concerned that a consistent approach to asset valuation be adopted across jurisdictions (including the approach to any prudency assessment) and supported the jurisdictions choosing an initial RAB, in place of the RABs which have been determined in the previous ACCC determinations<sup>250</sup>. The AER considered that the opening RAB values as set out in the Rule may need to be altered to allow for the change in definition of prescribed and negotiated services<sup>251</sup>.

The AER and the Tasmanian Office of Energy Planning and Conservation (OEPC) made submissions in relation to the proposed Rules for establishing the opening RAB for a MNSP which converts to regulated status. OEPC was concerned that the Proposed Rule would limit the market benefits allowable in the calculation of the value of the regulated asset base when an MNSP is converted to a prescribed service compared to the ACCC/AER precedent. OEPC claimed that this limitation dilutes the effectiveness of the 'safe harbour' provisions that were originally envisaged for the NEM. The AER submission raised concerns about the practical implementation of the proposals. The AER considered that forecasting the wholesale market, contract prices and utilisation of the interconnector over its life would be very difficult. AER also noted that the Proposed Rule did not address the issue that unregulated links can bypass the Chapter 5 process and provisions.

The Commission also received comments in relation to the appropriateness of allowing the AER to undertake a prudency review of capital expenditure before rolling it into the RAB, and basing the roll-forward on actual depreciation, rather than the depreciation allowed in the previous regulatory determination.

The AER raised a concern that because the Australian Bureau of Statistics (ABS) publishes its CPI data almost a month after the end of the relevant quarter, the AER would be unable to deliver a revenue cap decision until after the start of the regulatory period.

#### **7.4.2 Commission's assessment**

##### **7.4.2.1 Roll-forward approach and initial RAB values**

The MEU and Integral Energy raised the issue of the prudency of investments that are rolled forward with the RAB.

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<sup>248</sup> Major Energy Users, 22 March 2006, p.46

<sup>249</sup> Public Interest Advocacy Centre, 22 March 2006, p.2

<sup>250</sup> Integral Energy, 27 March 2006, p.2

<sup>251</sup> Australian Energy Regulator, March 2006, p.18

As noted in the Rule Proposal Report, the Commission recognises that the current open-ended provisions in the Rules, which specifically allow for optimisation of assets which have previously been included in the RAB, increase the uncertainty in the regulatory regime, and may in turn act as a disincentive for investment. Therefore, a decision to reinvestigate the prudence of previously approved capital expenditure would be contrary to the aims of the Commission's objective of providing a more predictable regulatory environment for long term investment.

For this reason, the Commission does not support seeking a ruling from the relevant jurisdictions on the value of the RAB as proposed by Integral Energy. In addition, the Commission understands that because all TNSPs have been the subject of an ACCC revenue cap determination under the existing Rules, relevant jurisdictional values have already been considered in arriving at the existing values of the RABs.<sup>252</sup>

The AER raised a concern that the proposed opening RAB values as set out in the Proposed Rule may need to be revisited, due to the Commission's position on Prescribed Services and Negotiated Services in the Proposed Rule.

The Commission noted in its Rule Proposal Report that the initial asset base should only contain costs which are recovered through Prescribed Services, and not costs associated with Negotiated Services. The only exception would be where costs associated with certain services before a certain date (e.g., pre-NEM connection costs) are to be grandfathered as Prescribed Services. The Commission considers that in this instance the opportunity for parties to behave in ways contrary to the intent of the Rules has past and therefore believes that grandfathering is an appropriate outcome. The Commission understood that the opening RABs as set out in the current regulatory determinations are not intended to recover costs which are recovered through charges for Negotiated Services<sup>253</sup>. However, the Commission specifically asked for submissions on whether there are costs currently included in the TNSPs' RABs which should be allocated to Negotiated Transmission Services.<sup>254</sup>

The Commission did not receive any specific submissions on this matter, other than the general comment made by the AER.

As set out in the Rule Proposal Report, the Commission's understanding is that the RAB established for each TNSP does not reflect the value of assets associated with negotiated or unregulated services. Where assets are used to provide contestable services or non-contestable services under a negotiated contractual arrangement, the existing Rules do not allow revenue in relation to those assets to be recovered via the annual average revenue requirement (AARR), and they are not included in the RAB.<sup>255</sup> This is also reflected in the current practice of TNSPs<sup>256</sup>.

Given the Commission's understanding of current practice, locking in the current RAB values for the TNSPs is consistent with the approach proposed in the Rules to only include the value of assets associated with prescribed transmission services in the RAB<sup>257</sup>, since these initial values should not include assets associated with negotiated or unregulated services.

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<sup>252</sup> In line with existing clause 6.2.3(d)(4)(iii) of the Rules.

<sup>253</sup> Australian Energy Market Commission, 'Review of the Electricity Transmission Revenue and Pricing Rules, Transmission Revenue: Rule Proposal Report', February 2006 p.61

<sup>254</sup> Ibid., p.58

<sup>255</sup> See clause 6.3 and Schedule 6.2; clause 6.5.3(b) & clause 6.2.4(f) of the existing Rules

<sup>256</sup> See for example Transend *Transmission Pricing Policy, Issue V3.0*, October 2005, p.6

<sup>257</sup> Plus assets which are to be grandfathered.

#### 7.4.2.2 Initial RAB for MNSPs that convert to regulated status

When undertaking the conversion of the Murraylink and Directlink interconnectors the ACCC used the Regulatory Test as the basis for valuing the assets<sup>258</sup>. If a conversion application satisfied the Regulatory Test the revenue cap was based on the value of the converted asset attributed to it for the purposes of the Regulatory Test. However, if there was an alternative that maximised the market benefits under the Test then the revenue cap was based on the value of the alternative option. Therefore, the ACCC method creates the possibility that the asset can be valued on the basis of the costs of an alternative option rather than the asset itself.

The AEMC's approach in the Rule Proposal was for the opening RAB for an MNSP to be determined as the lower of:

- the efficient capital costs of the investment; or
- the NPV of the incremental net benefit derived by the market from the MNSP converting to regulated status plus the NPV of the expected revenue the MNSP would earn if it did not convert, minus the NPV of the expected operating costs over the life of the asset.

The former condition ensures that the regulated return which an MNSP receives from converting does not exceed its actual prudent capital expenditure cost. This is the return which a regulated interconnector would expect to receive, if it passed the Regulatory Test. The Commission considers that this provision is required to ensure that there is a level playing field between regulated and unregulated TNSPs, and that a TNSP cannot get a higher RAB through bypassing the Regulatory Test process set out in Chapter 5 of the Rules.

The latter condition ensures that the amount paid to the MNSP does not exceed what market participants are currently willing to pay the MNSP (i.e., expected revenue if it does not convert) plus the additional benefit to the market from the conversion. Provided that the total regulated cost (RAB plus lifetime operating expenditure) is set somewhere between the expected revenue to the MNSP of continuing to act as an MNSP and the maximum value established under the second condition, then both market participants and the MNSP would benefit from the MNSP's change in status. This provision results in all parties being better off after the conversion.

Unlike the ACCC approach, the Commission's proposal ensures that the RAB relates specifically to the MNSP seeking conversion. This is preferable as it directly relates to the original investment made under the safe harbour provisions for MNSPs and ensures that converted MNSPs receives a return based on either their efficient costs or the benefits they provide to the market. The Commission notes the point raised by OEPC that the Proposed Rule limits the market benefits allowable in the calculation of the RAB. However, it considers such a limitation to be appropriate, given the incentives which may otherwise exist for a MNSP to seek to bypass the Chapter 5 provisions.

The AER has expressed a concern regarding the practicality of projecting wholesale or contract prices and utilisation of the interconnector over the life of the asset, in order to calculate the difference in net market benefit between the MNSP acting as a regulated and unregulated interconnector.

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<sup>258</sup> It is important to note that there was no guidance in the NEC at the time that the ACCC should use the Regulatory Test to determine the asset values.

The Commission notes that such projections are common within the energy industry, particularly in circumstances where an investment is first being considered or where a current asset is being sold. While forecasts for these purposes do not necessarily require a specific figure to be determined (such as is proposed in the Draft Rule for an MNSP conversion) and are uncertain, much of a regulator's business is about making assessments and determining specific values in the face of uncertainty. Therefore, it should not be considered outside the normal scope of a regulator's role to make a determination on this matter.

The Commission has therefore decided to retain in the Draft Rule the provisions set out in the Proposed Rule in relation to establishing the RAB for an MNSP which converts to regulated status.

#### **7.4.2.3 Prudency Review**

The Proposed Rule allowed the AER to undertake a review of actual capital prior to rolling it into the RAB, to ensure that it was prudent and efficient. The Rules provided guidance to the AER on the matters to consider in assessing prudency.

The Commission received a number of submissions in relation to the appropriateness of the provisions allowing for an *ex post* prudency review. This issue is discussed in detail in chapter 6 of this Draft Determination. The Draft Rule has been amended to require the AER to roll all actual capital expenditure into the RAB and to remove the ability for the AER to conduct a prudency review.

#### **7.4.2.4 Depreciation**

The Proposed Rule required the AER to roll-forward the RAB on the basis of the depreciation that had been allowed in the previous regulatory determination.

In response to submissions received on the appropriate incentive framework to be applied to capital expenditure, the Commission has decided to strengthen the incentives in relation to capital expenditure by including depreciation as part of the incentive approach. The Draft Rule has therefore been changed to require the AER to undertake the roll-forward of the RAB on the basis of depreciation of actual capital expenditure, rather than the allowance in the previous regulatory determination. This issue is discussed in more detail in this chapter.

#### **7.4.2.5 Use of Latest Inflation Data**

The Proposed Rule included a requirement for the AER to develop and publish a roll-forward model relating to the RAB<sup>259</sup>. The Rules require the roll-forward model to adjust for outturn inflation in rolling-forward the RAB from the previous regulatory period to the start of the new regulatory period.

The AER raised a concern that outturn inflation data will not be available for the final year at the time at which the roll-forward is being calculated, and proposed that the Rule should refer to the 'latest available' inflation data rather than 'outturn inflation'.

The Commission notes that in relation to the roll-forward of the RAB, what is important is that the methodology for determining outturn inflation in rolling forward the RAB over the previous regulatory control period is consistent with the methodology that was used to index

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<sup>259</sup> Proposed Rule, clause 6.2.3(b). These provisions have been retained in the Draft Rule, clause 6A.6.1.



the MAR over that same period. The Commission has amended the Draft Rule<sup>260</sup> to make this requirement explicit.

The effect of this change is as follows. If the regulatory year starts on the 1 July and ends on the 30 June, then the MAR in the previous control period would be calculated using the change in March to March CPI. The revised Draft Rule would then require the AER to use a *consistent* CPI when rolling forward the RAB over that period, i.e., to use the March to March CPI data to roll forward the RAB in a given year. The use of March CPI data would allow the AER to issue its revenue cap decision two months before the start of the regulatory period. Furthermore, if the CPI lag is consistently maintained from one regulatory control period to the next there is no reason to presume that this would result in a biased outcome.

The Commission considers that the proposed revision in the Draft Rule puts beyond doubt the AER's ability to use the latest available actual data on inflation, in conducting the roll-forward of the RAB.

## **7.5 Return of Capital**

The Proposed Rule<sup>261</sup> adopted a propose-respond approach to depreciation profiles and the resulting calculation of the appropriate return of capital (depreciation). The Proposed Rule allowed the TNSPs to propose depreciation profiles for different asset categories, subject only to such profiles being consistent with the depreciation of the asset over its economic life and resulting in a total amount of depreciation equal to the value at which the asset has been included in the RAB. Submissions in relation to depreciation and the Commission's response are discussed in this section.

### **7.5.1 Submissions**

Two submissions supported the Commission's approach to depreciation<sup>262</sup>.

A number of other submissions provided the Commission with proposed alterations to the proposed Rule. Two submissions proposed that the Rule should allow the AER flexibility to alter depreciation schedules to better serve the long term interests of consumers<sup>263</sup>. The South Australian Government also agreed that the AER should retain some discretion in relation to depreciation and stated that guidelines should be developed on what is an 'economic life' to remove the incentive for the TNSP to rapidly depreciate assets. Alternatively the MEU considered that the flexibility of using the economic life of an asset was beneficial as it allowed for faster depreciation if the economic life is shorter than the technical life.

### **7.5.2 Commission's assessment**

In the light of submissions received, the Commission has considered again whether the AER should be given more flexibility or have more discretion in determining appropriate depreciation schedules, or whether this should be left to the TNSP.

The effect of the Proposed Rule is to limit the period over which the TNSP is able to depreciate assets (i.e., to the economic life of the asset) but not limit the profile that the TNSP

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<sup>260</sup> Draft Rule, clause 6A.6.1(e)(3)

<sup>261</sup> Draft Rule, clause 6A.6.3

<sup>262</sup> Ergon Energy, 20 March 2006, p.7 and Electricity Transmission Network Owners' Forum, March 2006, p.12

<sup>263</sup> Australian Energy Regulator, March 2006, p.29; Economic Regulation Authority, Western Australia, 20 March 2006, p.6

adopts for depreciation during this period. The TNSP has the flexibility to increase or decrease the level of depreciation in a given year, conditional on the asset being fully depreciated by the end of its economic life. However, adjusting the depreciation profile would not provide any benefit to the TNSP in NPV terms.

The Commission acknowledges that adjusting the depreciation profile may have an impact on price volatility. However, this would be restricted by the current limitations on price movements contained in Part C of the Rules<sup>264</sup>. With these price controls in place the Commission does not consider that there is merit in requiring greater control over depreciation profiles by the AER. This decision will be subject to review when the Commission considers the appropriate Rules in relation to pricing, and in particular whether the current controls on price movements should be retained.

## 7.6 Estimated Cost of Corporate Income Tax

The final issue raised in submissions was in relation to the Proposed Rule<sup>265</sup> on the estimated cost of corporate income tax and, in particular, the treatment of tax depreciation and the value of imputation credits.

### 7.6.1 Submissions

AGL and the ETNOF raised issues regarding the calculation of tax depreciation in estimating the cost of corporate income tax<sup>266</sup>. ETNOF stated that the use of actual tax depreciation would create unwanted or perverse results. It argues that the Proposed Rule is inconsistent with the current practice of the AER as well as other regulators, such as the ESC in Victoria. AGL were concerned that regulatory modelling based on effective post-tax cash flows negates the intent of a government allowance for accelerated tax depreciation.

The CitiPower & Powercor submission proposed that gamma should be set to zero while the AGL submission claimed the gamma should be between zero and 0.35<sup>267</sup>.

### 7.6.2 Commission's assessment

#### 7.6.2.1 Tax depreciation

The current practice of the AER is to calculate tax depreciation by:

- setting the initial tax asset value equal to the regulatory asset value; and
- applying the rates of depreciation that are available for tax purposes to be used in taxation calculations.

The Rules Proposal required the use of 'estimated depreciation for tax purposes.' This potentially deviates from the AER approach by requiring the TNSP to calculate tax depreciation on the basis of actual initial tax asset values rather than *benchmark* initial tax asset values<sup>268</sup>.

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<sup>264</sup> In particular clause 6.5.5 of the Rules.

<sup>265</sup> Draft Rule, clause 6A.6.4

<sup>266</sup> Electricity Transmission Network Owners' Forum, March 2006, pp.24-25 and AGL, 21 March 2006, pp.3-4

<sup>267</sup> CitiPower & Powercor, 20 March 2006, p.4.; AGL, 21 March 2006, p.5

<sup>268</sup> Note that both approaches would require the TNSP to use the applicable rates of depreciation allowed by the Australian Tax Office.





































































