

# Australian Energy Market Commission

## Rule Determination

### National Electricity Amendment (Pricing of Prescribed Transmission Services) Rule 2006 No. 22

**Date:** 21 December 2006

Signed:

A handwritten signature in blue ink, which appears to read 'John Tamblyn', is written over a horizontal dotted line.

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For and on behalf of:  
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## **Citation**

AEMC 2006, *National Electricity Amendment (Pricing of Prescribed Transmission Services) Rule 2006 No. 22*, Rule Determination, 21 December 2006, Sydney.

## **About the AEMC**

The Council of Australian Governments, through its Ministerial Council on Energy, established the Australian Energy Market Commission (AEMC) in July 2005 to be the Rule maker for national energy market. The AEMC is currently responsible for Rules and policy advice covering the National Electricity Market. It is a statutory authority. Our key responsibilities are to consider Rule change proposals, conduct energy market reviews and provide policy advice to the Ministerial Council as requested, or on AEMC initiative.

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## Preface

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

Publication of the National Electricity Amendment (Pricing of Prescribed Transmission Services) Rule 2006 (Final Pricing Rule) and this Rule Determination represents the final step in the Commission's Rule change process in relation to the pricing regulation aspects of the review of transmission revenue and pricing (the Review). In conducting the Review, the Commission has placed an emphasis on the role that the transmission network has in facilitating competition and efficient resource use in the electricity wholesale and retail markets. The interactions of the transmission network with the competitive sectors of the electricity system, together with the market power that can be associated with the supply of certain transmission services, are the principal reasons why the Commission has sought to ensure that the transmission regulatory arrangements 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. For instance the Commission is currently considering a number of MCE directed work pieces such as the Congestion Management Review (CMR) and the Last Resort Planning Power Rule Change Proposal. The Commission, under the auspices of the Reliability Panel, is also conducting a review of the reliability standards and related arrangements which influence investment and support reliability and performance of the national electricity system.

In developing the Final Pricing Rule, the Commission has had careful regard to the work in these related reviews, views expressed in submissions to the transmission pricing consultation papers and to its review of transmission revenue rules.

Taking all these matters into account, the Commission has developed a Final Pricing Rule that is based on three key propositions:

- subject to the outcomes of other reviews being undertaken, there is no need for substantive change to the general means by which Transmission Network Service Providers (TNSPs) set prices for prescribed transmission services under the current Rules;
- the existing pricing Rules specify excessively detailed requirements for the implementation and administration of pricing methodologies; and
- the procedural requirements for developing TNSPs' pricing methodologies should be clarified to reflect the degree of codification in the Rules.

In line with these propositions, the Commission has developed a Final Pricing Rule that largely confirms the continued operation of current pricing methodologies while also providing scope for innovation into the future. This has been achieved through a

recasted regulatory framework incorporating codification in the Rules of the key design features of the regime including:

- principles for prescribed transmission service pricing methodologies (arrangements for the pricing of negotiated services have been dealt with in the Revenue Rule);
- the option or requirement for the Australian Energy Regulator (AER) to make guidelines in specific areas of pricing implementation and administration with a focus towards consistency across the National Electricity Market (NEM); and
- clear procedural requirements for the development, implementation and administration of pricing methodologies.

The Commission considers that this approach is consistent with the Revenue Rule and will further the NEM Objective.

Copies of this Rule Determination and the Rule can be obtained electronically from the Commission's website [www.aemc.gov.au](http://www.aemc.gov.au) or in hard copy from its offices located at:

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## Abbreviations

AARR	Aggregate Annual Revenue Requirement
ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AGL	Australian Gas Light Company
ASRR	Annual Service Revenue Requirement
CMR	Congestion Management Review
COAG	The Council of Australian Governments
Commission	See AEMC
CPA	Competition Principles Agreement
CPI	Consumer Price Index
CRNP	Cost Reflective Network Pricing
DNSP	Distribution Network Service Provider
DORC	Depreciated Optimised Replacement Cost
DSM	Demand Side Management
EA	EnergyAustralia
EAG	Energy Action Group
ESCOSA	Essential Services Commission of South Australia
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
IRSR	Inter Regional Settlement Residue
kVA	kilo Volt-ampere
kW	kilowatt
KWh	kilowatt hour
LRMC	Long Run Marginal Cost
MAR	Maximum Allowed Revenue
MCE	Ministerial Council on Energy
MEU	Major Energy Users Inc
MNSP	Market Network Service Provider
mVA	mega Volt-ampere
MW	Megawatt
MWh	Megawatt hour
NCC	National Competition Council
NEL	National Electricity Law
NEM	National Electricity Market

NEMMCO	National Electricity Market Management Company
NER	National Electricity Rules
NGF	National Generators Forum
ORC	Optimised Replacement Cost
PC	Productivity Commission
PIAC	Public Interest Advocacy Centre
PTRM	Post Tax Revenue Model
RAB	Regulatory Asset Base
Rules	National Electricity Rules
SRA	Settlement Residue Auction
SRMC	Short Run Marginal Cost
TNO	Transmission Network Owner
TNSP	Transmission Network Service Provider
TPA	<i>Trade Practices Act 1974</i>
TUoS	Transmission Use of System

## Overview of the Final Rule

In the context of the current reforms to the regulation of the national energy market, the Australian Energy Market Commission (the Commission) has been required to conduct a review of the revenue and pricing rules to apply to the regulation of electricity transmission network services (the Review).<sup>1</sup> This Rule Determination presents the Commission's reasons for the making of the Final Pricing Rule, which is the final stage of the Review, following the recent release of the Revenue Rule.<sup>2</sup>

Transmission pricing methodology is fundamentally concerned with the question of 'who should pay how much' in order to recover the costs of providing Prescribed Transmission Services.<sup>3</sup> The determination of who pays and the amount they pay has implications for the achievement of the National Energy Market (NEM) Objective, particularly as it relates to promoting the efficient use of transmission services and investment by electricity consumers and producers.

In developing the Final Pricing Rule, the Commission has undertaken an extensive public consultation process that included the issuing of an Initial Scoping Paper, a Transmission Pricing Issues Paper, a Proposed Pricing Rule Report and a Draft Pricing Rule and Draft Rule Determination. The Commission has received and considered submissions from stakeholders in response to these papers.

Having considered submissions and conducted its own analysis, the Commission has maintained the view that there is not a need to alter the substance of the current approach to pricing for Prescribed Transmission Services to a large extent. However, as previously stated in the Draft Rule Determination this view is conditional on the outcomes of the other reviews currently being undertaken. In particular, the Congestion Management Review (CMR) may have implications for the appropriateness of the current broad allocation of Prescribed Transmission Services costs to electricity consumers.

Evidence from submissions largely supported the approach taken in the Draft Pricing Rules of shifting to a principles-based regulatory framework where the implementation elements of the regime are left to the guided discretion of TNSPs and the AER. This largely confirms the continuation of current pricing practices while providing scope for pricing innovations to be proposed by TNSPs and assessed by the AER in accordance with principles in the Rules. This rebalancing of the rules for pricing is consistent with the approach adopted by the Commission in the Revenue Rule.

A concern raised in submissions including by the MEU, however, was the potential for inconsistency across jurisdictions under a principles based approach. The Commission considers it important that customers operating in multiple regions face similar price

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<sup>1</sup> The requirement is specified in Section 35(1) of the National Electricity Law.

<sup>2</sup> National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006.

<sup>3</sup> See *prescribed transmission service*, Chapter 10, NER.

structures and outcomes in relation to price. Therefore, the Commission has sought to strengthen the guidance for the TNSPs in formulating their pricing methodologies by requiring the AER to develop guidelines in a number of areas. In developing these guidelines the AER is required to consider the desirability of consistency across the NEM in relation to pricing structure.

In addition to developing a principles-based regulatory framework the Commission has considered stakeholder submissions on other issues raised in the Draft Rule Determination such as the framework for providing prudent discounts, the treatment of TUoS rebates and inter-regional TUoS arrangements.

## Promotion of the NEM Objective

The Commission's Final Rule for the regulation of transmission pricing seeks to promote the NEM Objective. The NEM Objective is focused on the provision of efficient, reliable and safe electricity services for the long term interests of consumers. The Commission believes that the NEM Objective is founded on the concept of serving the long term interests of consumers through the promotion of economic efficiency in the provision, use of, and investment in, electricity services. Efficiency refers to the maximisation of the total value consumers and producers jointly obtain from the market. In the context of this Final Rule, the Commission considers that the rules for transmission pricing should also promote good regulatory practice by enhancing:

- Stability and predictability – that is, transmission prices should be stable and predictable enough to enable market participants to make long term decisions; and
- Transparency – the process for setting prices should be as transparent as practicable to give participants confidence that pricing outcomes will be consistent with the NEM Objective and the Rules.

To achieve these aims the Commission has sought to develop a robust regulatory framework for transmission pricing consistent with the approach taken for transmission revenue. Such a framework requires the Rules to provide appropriate signals to avoid either under or over investment, address the potential for network operators to exercise market power and enhance transparency and predictability of the regulatory arrangements and approach.

The Commission considers that these outcomes can be best achieved by:

- clarifying the link between the prices paid by electricity consumers and producers to transmission costs ;
- permitting the recovery of the efficient costs of transmission service provision, including 'sunk costs'<sup>4</sup>;

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<sup>4</sup> Sunk costs refer to those costs that would not be recovered if the decision that caused those costs to be incurred were reversed.

- encouraging transmission prices to provide efficient locational and investment signals to participants; and
- ensuring the pricing rules take account of other aspects of the NEM arrangements, such as transmission investment regulatory arrangements, in order to avoid inefficient ‘oversignalling’ of the value or cost of transmission.

The Commission has formed the view that the Final Pricing Rule achieves these objectives and in doing so promotes the NEM Objective. The remainder of this overview provides a summary of the key elements of the Final Pricing Rule.

## **Framework for regulation of transmission pricing for Prescribed Transmission Services**

The Final Pricing Rule substantially maintains the current approach to pricing in the Rules while also clarifying the approach in a number of areas. On this basis, the Commission has determined that:

- generators should pay the costs directly resulting from their connection decisions, that is, a ‘shallow connection’ approach has been maintained;
- it is not appropriate at this stage for generators to contribute towards the costs of the shared network through prescribed generator TUoS charges;
- Cost Reflective Network Pricing (CRNP)<sup>5</sup> and modified CRNP<sup>6</sup> are appropriate locational pricing methodologies, however, there should be scope for these to be developed further into the future; and
- to some extent price structures should be specified in the Rules with additional guidance provided by the AER.

As stated in previous reports, the Commission’s position on these issues is conditional on the outcomes of other reviews underway. In particular, the Commission notes that the outcomes of the CMR may affect its present position on these matters.

The Commission has developed a principles based approach for the Final Pricing Rule. The Commission considers that this approach ensures the key design features of the regulatory regime for pricing remain in the Rules while providing for implementation and administration issues to be left to the guided discretion of the AER and the TNSPs. The Commission considers that this approach provides transparency and certainty and is also consistent with the approach taken for transmission revenue.

The Commission also considers that the principles-based approach should be supported by clear procedural arrangements incorporating the assessment of pricing

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<sup>5</sup> CRNP is defined in the Rules as “A cost allocation method which reflects the value of assets used to provide *transmission* or *distribution* services to *Network Users*”. It is described in Schedule 6.4 of the existing Rules. Both CRNP and modified CRNP have also been given new definitions in the Proposed Rule.

<sup>6</sup> Modified CRNP is described in Schedule 6.4 of the existing Rules.

methodologies by the AER in accordance with principles in the Rules. While the Commission removed the scope for AER guidelines in the Draft Pricing Rule, submissions have expressed concern that without additional guidance there could be considerable inconsistency in approaches across the NEM. Therefore, the Commission has allowed the AER to develop guidelines on a number of issues with a focus towards the desirability of consistency across the NEM.

## **Pricing Principles for Prescribed Transmission Services**

At the stage of the Draft Pricing Rule the Commission sought to confirm the fundamental role of the causer pays principle in providing signals for efficient economic decision-making while allowing for assets providing entry services to be allocated to different services based on use over time.<sup>7</sup> On that basis the Commission adopted the concept of costs that are 'directly attributable (on a causation basis)' to capture this intent.

Submissions raised a number of important issues in relation to the Draft Pricing Rule, including:

- the approach of making 'up front' adjustments to the Maximum Allowed Revenue (MAR) to obtain the Aggregate Annual Revenue Requirement;
- the links between a causation-based cost allocation approach and Draft Rule clause 11.6.3;
- the priority ordering approach to allocating cost across the services/charges specified in the Rules; and
- the consistency of price structures across the NEM.

In finalising the Pricing Rule the Commission has sought to provide increased clarity as well as consistency in drafting with the Revenue Rule regarding its view of the appropriate approach to cost allocation. The Revenue Rule allows for the costs of assets that provide negotiated transmission services to be reallocated to prescribed services if they are directly attributable to different services over time. The Commission sought to deliver a similar outcome in the Draft Pricing Rule through clause 11.6.3. However, submissions indicated that the intent of this clause was not clear.

The Commission considers that the causer pays principle should be used as a guide to whether, in general, consumers or producers of electricity should contribute towards the recovery of particular costs. However, the Commission accepts that in practice it may not be possible to allocate transmission costs to individual network users solely on the basis of causation due to the shared and meshed nature of the transmission network.

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<sup>7</sup> Draft Rule clause 11.6.3.

On this basis the Commission has sought to simplify the application of the Rule and clarify the Commission's intent by requiring that assets be allocated on the basis that services are "directly attributable to the provision of that category of prescribed transmission service". This revised drafting clarifies that cost allocation can be shifted over time on to reflect changes in the use of services and assets.

The Commission has maintained a priority ordering approach for the allocation of expenses or costs which can be attributed to more than one type of service. The cascading principle adopted by the Commission is based on the premise that users are seen to be the 'cause' of transmission investment. Therefore, costs should be first allocated to prescribed transmission use of system services on a standalone basis and then to prescribed common services. Where a service/cost cannot justifiably be attributed to TUoS or common services it should be allocated to entry and exist services.

## **Prudent Discounts**

The Final Pricing Rule continues the operation of a prudent discount regime. In addition, the regime has been enhanced in the following ways:

- elevating the AER Guidelines to the Rules;
- allowing (but not obliging) a TNSP to seek 'up-front' approval of a discount from the AER and for such an approval to remain effective for the duration of the TNSP's agreement with the relevant Transmission Customer; and
- providing a process to be followed by the AER in dealing with the up-front application for a prudent discount.

Following comments from submissions, particularly those from end-users, the Commission has also strengthened the incentives on TNSPs to negotiate prudent discounts with customers. Therefore, the Final Pricing Rule has reduced the threshold for the threat of optimisation of redundant assets to \$10 million and required that negotiations with customers in such situations be conducted in 'good faith'.

## **TUoS rebates to embedded generators**

In the Pricing Proposed Rule the Commission sought stakeholder views on whether some conditions on the existing regime for Transmission Use of System (TUoS) rebates to embedded generators should be implemented. However, the Commission formed the view that a comprehensive change of this nature to the regime is not within the scope of the transmission pricing rules because embedded generators mainly interact with distribution businesses rather than transmission businesses. The Commission remains of the view that this is a matter that participants and policy makers should consider further. Therefore, the Commission reiterates its intention to bring these issues to the attention of the MCE in the context of its current review of the distribution network rules.

## Inter-regional TUoS arrangements

The Commission recognises that the limited effectiveness of the inter-regional TUoS arrangements may reduce the efficiency of the transmission prices applied in the NEM. However, submissions were of the view, which the Commission has accepted, that the inter-regional TUoS arrangements are a policy matter that requires input from the MCE. Therefore, recognising the inter-jurisdictional nature of the issue, as well as its complexity, the Commission has decided that it will write to the MCE expressing the view that a further review of the issues is needed.

## Consistency of the transmission rules with the Competition Principles Agreement

In finalising its review of the revenue and pricing for transmission services, the Commission has examined the consistency of the rules relating to transmission services with the Competition Principles Agreement requirements. This is in anticipation of applications from State and territory jurisdictions to the National Competition Council seeking certification of the national electricity regime, in accordance with the requirements of the *Trade Practices Act 1974* (TPA). Certification of the regime prevents access seekers from obtaining access to transmission services by other means otherwise provided for in the TPA. Certification therefore improves the certainty and transparency of the national electricity regime.

In examining whether the transmission rules satisfy the CPA requirements, the Commission has made a number of changes to the rules. The main amendments to the rules are as follows:

- inclusion of a specific enforceable right of access to prescribed and negotiated transmission services – clause 6A.1.3(1);
- prohibiting TNSPs and users from engaging in conduct that would hinder access – clause 6A.1.3(3); and
- applying the commercial arbitration framework to disputes in relation to both price and non-price aspects of service provision which are inextricably linked, and also to prescribed services. For disputes in relation to the price of prescribed services, the commercial arbitrator is bound by the same requirements as the TNSP to the pricing methodology approved by the AER in accordance with Part J of Chapter 6A of the rules – Part K, Chapter 6A.

The Commission acknowledges that these amendments and issues have not been raised in any of the preceding consultation documents in relation to this review. This is unfortunate and inconsistent with the Commission's commitment to consultation and transparency of decision making. However, the Commission believes that it is in the interests of all stakeholders that the rules provide certainty in relation to the regulation of electricity services and avoid the potential for electricity users seeking access through alternative means as provided in Part IIIA of the *Trade Practices Act*.

While the Commission has made every effort to ensure that the transmission rules are capable of certification, it will still be necessary at the time of an application for certification for the jurisdictions and the NCC to undertake a complete and

comprehensive independent review of the entire regime against the CPA requirements. This review may identify further matters that require the rules to be amended, which would then need to be referenced to the Commission for consideration via the usual rule change process.

# 1 Introduction to the Rule Determination

In the context of the current reforms to the regulation of the national energy market, the Australian Energy Market Commission (the Commission) has been required to conduct a review of the revenue and pricing Rules (the Review) to apply to the regulation of electricity transmission network services.<sup>8</sup> The matters required to be reviewed are specified in items 15 to 24 of Schedule 1 of the National Electricity Law (see Appendix 1) and include, amongst other matters:

- the regulation of transmission revenues (item 15); and
- the regulation of transmission prices (item 16).

Due to the complex nature of the review task, the Commission decided to undertake the Review in two stages:

- First, the Commission has reviewed the existing Rules applicable to the regulation of transmission revenue earned by TNSPs, and recently released the final Revenue Rule.
- Second, the Commission has been reviewing the existing Rules to apply to the pricing of Prescribed Transmission Services by TNSPs. This report presents the Commission's rationale for its Final Pricing Rule.

There are important and strong linkages between the rules relating to the regulation of transmission revenues and pricing. At a high level, revenue rules seek to provide, in the absence of direct competitive pressures on TNSPs:

- incentives for the efficient investment in, and provision of, transmission services; and
- constraints on the aggregate revenues TNSPs can earn from their customers from the provision of Prescribed Transmission Services.

Pricing rules seek to ensure prices provide incentives for the efficient use of the various transmission services. They do this by providing signals for efficient electricity consumption and production decisions, as well as efficient investment decisions by actual and potential network users.

In considering its pricing Rule, the Commission has been mindful of the interactions between the revenue and pricing rules, and has endeavoured to design an overall effective regulatory framework for electricity transmission regulation.

In addition, because this Rule finalises the Commission's review of the rules relating to revenue and pricing of transmission services, the Commission has also reviewed the transmission rules against the requirements of the Competition Principles Agreement (CPA). This review has been undertaken to ensure that the rules relating to the

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<sup>8</sup> The requirement is specified in Section 35(1) of the National Electricity Law.

regulation of transmission services are consistent with the CPA, and thereby capable of certification in accordance with the relevant sections of Part IIIA of the *Trade Practices Act 1974* (TPA). The Commission has made a number of changes to the rules in response to issues identified as part of this review, which are discussed in greater detail in this Determination.

## 1.1 The Commission's Approach

To develop its pricing Rule, the Commission has undertaken an extensive investigation and public consultation process. This involved the release of:

- an initial Scoping Paper in July 2005, which identified various issues that the Commission believed to be important to these reviews, and invited submissions from stakeholders on the issues raised;
- a Pricing Issues Paper in November 2005, which presented the Commission's further analysis of the pricing issues identified earlier and raised in submissions to the Scoping Paper, and invited further submissions;
- a Pricing Proposal Report and Proposed Pricing Rule, which presented the Commission's proposals for the Rules stemming from issues that were raised in the previous consultations; and
- a Draft Determination and Draft Pricing Rule which provided the Commission's draft decisions following the comments received in relation to the Proposed Pricing Rule.

The Commission has carefully considered stakeholder submissions made in response to these papers in developing the Final Pricing Rule (see listing in Appendix 2). The Commission has also taken into consideration the views and discussion raised during the development of the Revenue Rule, which was released on 16 November 2006.

Another relevant consideration for the Review has been the wider debate on regulation in the energy market as reflected in recent reports by the Productivity Commission<sup>9</sup> and the Ministerial Council on Energy's Expert Panel<sup>10</sup>.

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<sup>9</sup> Productivity Commission, *Review of the National Access Regime*, Report no. 17, 2001, AusInfo, Canberra

<sup>10</sup> Expert Panel on Energy Access Pricing, *Report to the Ministerial Council on Energy*, 2006.

In forming its views on the Final Pricing Rule, the Commission is also required to satisfy a number of legislative requirements including:

- meeting minimum content requirements for a Rule Proposal<sup>11</sup>;
- ensuring the Rule satisfies the NEM Objective<sup>12</sup> and Rule-making test<sup>13</sup>; and
- ensuring the Rule is within the AEMC's Rule making powers.

The Commission is satisfied that it has met these requirements and additional details on how these requirements have been met are provided in this Rule Determination.

The publication of the Final Pricing Rule is accompanied by this Rule Determination, which provides the Commission's reasons for its decisions and represents the final stage of the Rule making process for the Review.

## 1.2 The Role of the NEM Objective

The National Energy Market (NEM) Objective requires the Commission to consider the promotion of efficient investment in, and use of, electricity services, when considering or developing Rule Proposals. Economic efficiency is commonly defined as having three elements and in the context of considering transmission pricing rules, these are:

- productive efficiency – means the electricity system is operated on a 'least cost' basis given existing infrastructure and the status of the network. For example, generators should be dispatched in a manner that minimises the total system costs of meeting consumers' demands;
- allocative efficiency – means electricity production and consumption decisions are based on prices that reflect the opportunity cost of the available resources; and
- dynamic efficiency – means maximising ongoing productive and allocative efficiency over time, and is commonly linked to the promotion of efficient longer term investment decisions.

Further, the Commission has taken the view that the NEM Objective is not solely focussed on a technical approach to the promotion of efficiency. Rather, the NEM Objective has implications for the *means* by which regulatory arrangements operate as well as their intended *ends*. This means that the Rules for transmission pricing should also promote:

- stability and predictability – other things being equal, transmission prices should be sufficiently stable and predictable to enable participants to plan and make long term decisions without suffering price shocks; and

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<sup>11</sup> Clause 8, National Electricity Regulation

<sup>12</sup> Section 7, NEL

<sup>13</sup> Section 88, NEL

- transparency – the price-setting process should be as transparent as practicable so that participants retain confidence in the regulatory arrangements and are able to make locational and consumption decisions on an informed basis.

These requirements are founded in the good regulatory practice design principle, which the Commission believes is central to its task in furthering the NEM Objective.

Following comments from stakeholders to the Issues Paper and Proposed Pricing Rule the Commission considers that the NEM Objective is primarily concerned with efficiency and good regulatory practice. These qualities will help ensure that the arrangements will benefit consumers in the long run. Rather than seeing distributional outcomes as a distinct limb or component of the NEM Objective, the Commission has taken the view that distributional outcomes have relevance in so far as they may negatively influence the stability and integrity of the pricing arrangements. Therefore, the Commission proposes to maintain or adopt measures that limit the extent of price shocks for transmission network users. However, basing fundamental decisions such as who pays how much primarily on distributional criteria rather than efficiency and good regulatory practice is likely to be counter-productive to the interests of consumers in the long run.

### **1.3 Consistency of the rules with the Competition Principles Agreement**

The Ministerial Council on Energy has indicated that it intends for the National Electricity Market jurisdictions to apply to the NCC for certification of the national electricity regime as an ‘effective access regime’, in accordance with the requirements in the TPA. For the NCC to recommend that a regime be certified, it must be satisfied that the regime meets the requirements provided in clauses 6(2) to 6(4) of the CPA.

Certification of the regime prevents the NCC from declaring electricity facilities in response to an application from an access seeker. Declaration of electricity facilities would allow potential users of transmission services to bypass the requirements in the rules, and negotiate directly with TNSPs. The TPA provides a regime for negotiating and arbitrating disputes that arise following declaration of a facility.

The Commission believes that it is in the interests of all electricity market participants to create certainty in the rules that apply to the regulation of electricity services. Certification of the national electricity regime as provided by the National Electricity Law and the Rules will provide this certainty. To facilitate any future application for certification of the regime, the Commission has examined the transmission rules against the CPA requirements, and has made rules to address a number of issues identified.

The Commission view of its Rule making power for the economic regulation of transmission services is that the NEL empowers the making of rules that are necessary to ensure that the rules for the economic regulation of transmission services, are fully integrated into the broader framework for access to transmission services in the Rules. The rules for the economic regulation of transmission services form an integral part of the access regime for transmission services, and for electricity services more generally. As such, the rules for economic regulation must necessarily operate with close reference to and consistency with, the other existing terms and conditions of access for

both prescribed transmission services and negotiated transmission services under the Rules as whole.

The Commission has therefore made amendments that are designed to provide an integrated framework which includes a single, comprehensive and effective commercial arbitration regime for disputes about the provision of both prescribed transmission services and negotiated transmission services. This dispute resolution regime allows the commercial arbitrator to hear both price and non-price aspects of a dispute.

Another key element in creating an explicit link between the rules for the economic regulation of transmission services and the other terms and conditions of access (upon which revenues and prices are based), is the inclusion of an obligation to provide access in accordance with the Rules to prescribed transmission services and negotiated transmission services.

A detailed discussion of the Commission's conclusions in relation to the consistency of the transmission rules with the CPA requirements is provided in chapter 8 of this Determination.

#### **1.4 Structure of the Report**

The remainder of this Rule Determination is structured as follows:

- chapter 2 outlines the Commission's framework and approach in developing the pricing rules, providing an overview of the Commission's rationale;
- chapter 3 provides details of the Commission's principles based approach in the Final Pricing Rule;
- chapter 4 specifies the Commission's approach to the process by which the Final Pricing Rule is implemented, including the role of the AER in approving pricing methodologies proposed by TNSPs;
- chapter 5 discusses prudent discounts;
- chapter 6 discusses TUoS rebates to embedded generators;
- chapter 7 discusses inter-regional TUoS arrangements;
- chapter 8 discusses the consistency of the transmission rules with the Competition Principles Agreement;
- In addition:
  - Appendix 1 reproduces Schedule 1, items 15-24, of the NEL;
  - Appendix 2 provides a list of stakeholders who made submissions to the Draft Pricing Rule;
  - Appendix 3 provides clauses 6(2) to 6(4) of the Competition Principles Agreement.

## 2 Framework and approach for the Final Pricing Rule

In the Revenue Rule, the Commission specified a full revenue cap methodology that enables the recovery of efficient costs while managing TNSPs' potential for exercising market power. Matters of implementation detail were left to the guided discretion of the AER and TNSPs. In light of the proposed revenue regime, the Commission considers that a principles-based approach to pricing, supported by procedural requirements in the Rules, is appropriate. This means that TNSPs would be responsible for the implementation and administration of pricing methodologies in accordance with the Rules. The role of the regulator would be to assess the pricing methodology against the principles and to monitor pricing outcomes.

The aim of this chapter is to outline the rationale of the Commission for the approach it has taken and its response to submissions to the Draft Pricing Rule.

This chapter is structured as follows:

- section 2.1 discusses the importance of transmission pricing and the need for it to be regulated;
- section 2.2 provides an overview of the recent debate on pricing issues in the context of infrastructure regulation, particularly the views of the Productivity Commission in its review of the National Access Regime<sup>14</sup> and the recent report by the Ministerial Council on Energy's Expert Panel on Energy Access Pricing<sup>15</sup>;
- section 2.3 outlines the approach to transmission pricing contained in the existing Rules as the basis for considering the rationale underpinning the Commission's decisions regarding its proposed approach to transmission pricing; and
- section 2.4 discusses a number of key issues relevant to the setting of transmission pricing; and
- section 2.5 provides the general framework and approach that the Commission has adopted for the Final Pricing Rule, including:
  - that the existing pricing practices are broadly appropriate and should continue to be permitted;
  - a principles-based regulatory framework; and
  - the introduction of a procedural framework for approving TNSPs' proposed pricing methodologies.

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<sup>14</sup> Productivity Commission, *Review of the National Access Regime*, Report no. 17, 2001, AusInfo, Canberra.

<sup>15</sup> Expert Panel on Energy Access Pricing, *Report to the Ministerial Council on Energy*, 2006.

## **2.1 Role of regulation for transmission prices**

This section examines the role and significance of transmission pricing in promoting efficiency in the provision and use of electricity services. It also considers some of the key implications that transmission pricing has for the efficiency of the overall market.

### **2.1.1 The importance of transmission pricing**

The Commission is required to ensure that the Rules are consistent with the NEM Objective, which is to promote the efficient investment in, and use of, electricity services for the long-term interests of consumers. The approach to regulating transmission prices and the resultant transmission prices can have a significant impact on the promotion of the NEM Objective in two fundamental ways.

First, because transmission prices determine how TNSPs' regulated revenues are recovered, they impact on the incentives faced by TNSPs to invest in transmission infrastructure.<sup>16</sup> If a TNSP is unable to recover the efficient cost of service provision through prices charged, there is little incentive to invest in maintenance or the expansion of operations, even when it is in the long term interests of consumers to do so.

Second, transmission prices provide signals to the electricity market, which influence the decisions of actual and/or potential electricity consumers and producers. On the demand side, because transmission prices directly affect the delivered electricity price paid by end users at a particular location, they may impact consumption decisions as well as locational investment decisions. Excessively high transmission charges could, for example, result in inefficient by-pass of the transmission network by new or existing consumers. On the supply side, transmission prices can influence both the timing and quantity of electricity production decisions as well as locational investment decisions by electricity generators. This includes investment by embedded generators, inset networks and alternative energy sources.

### **2.1.2 Need for regulation**

The Commission's regulatory framework as outlined in the Revenue Rule explicitly implements a CPI-X revenue cap form of control for Prescribed Transmission Services, through the application of a building blocks methodology. This regulatory approach has been adopted in recognition of the natural monopoly characteristics of transmission service provision and the resulting need to manage the potential for TNSPs to exercise market power. The revenue cap form of regulation enables TNSPs to recover the efficient costs of providing network services and also embodies incentives for efficient expenditure and service provision on the part of TNSPs.

Given the constraints provided by the regulatory framework for revenue, the Commission examined the need for specific regulatory guidance on pricing and found

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<sup>16</sup> This means that the regulatory approach to transmission pricing should ensure that all efficient costs are recovered. The lack of a reasonable expectation that a TNSP will recover its efficient costs will significantly affect the incentives faced by TNSPs to invest in its infrastructure.

that TNSPs are unlikely to have incentives to set prices in a manner that closely aligns with the NEM Objective. Therefore, some form of regulation of pricing for prescribed transmission services remains desirable

The two key *form of control* options for implementing a revenue cap *form of regulation* are:

- price cap – in which prices are capped but not revenues; and
- revenue cap – in which revenues are directly capped.

In general, a *price cap* form of control provides TNSPs with some incentive to set prices in a way that promotes the efficient use of the *existing* network. This is because under a price cap form of control, increasing the utilisation of a TNSP's network may result in larger gross revenues than a lower level of utilisation. Assuming TNSPs' costs of service are largely fixed, TNSPs would generally find it profitable to set prices in a way that encouraged network utilisation. Further, given that at least the physical infrastructure costs of the existing network are fixed and sunk, such prices are likely to enhance productive and allocative efficiency. However, while price caps create this incentive to promote efficient use of the network in the short run, they do not necessarily promote efficiency in the longer run. This is because prices set in this manner may not take into account the cost of future network investment to meet higher levels of consumption and production at different locations in the grid.

By contrast, a *revenue cap* form of price control provides less incentive for a TNSP to maximise network utilisation in the short run. This is because a revenue cap allows for any under-recovery of allowable revenue by a TNSP in one year to be recovered in subsequent years. This provides benefits through greater revenue certainty for transmission businesses, which is important considering they incur costs that are largely fixed and have little capacity to influence final demand. If a revenue cap is accompanied with low risk of regulatory stranding of redundant assets, TNSPs will have relatively weak incentives to set prices to promote high network utilisation as a means of reducing the risk of redundancy.<sup>17</sup> If anything, under a revenue cap form of control, TNSPs have an incentive to formulate prices in a manner that is as mechanical and non-controversial as possible, in order to avoid payment disputes with their customers.

This discussion highlights that in the absence of pricing rules, regardless of the form of control adopted, a revenue cap form of regulation provides weak incentives for TNSPs to price services in a way that promotes the NEM Objective. In view of the importance of transmission prices for efficient utilisation and investment in both the network and electricity markets, and the weak commercial incentives of TNSPs to price efficiently, the NEM Objective is likely to be best served by some form of regulatory oversight of transmission pricing.

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<sup>17</sup> On balance, as discussed in the Draft Determination on revenue, the Commission still believes that the relative advantages of a revenue cap form of control means that it is preferable to a price cap form of control.

## 2.2 Recent debate on pricing regulation

During the course of the Commission's review of transmission pricing rules, there has been ongoing public policy debate on a range of issues relating to the regulation of infrastructure in Australia. This has led to the publication of a number of reports relevant to the Commission's review including, amongst others:

- the Productivity Commission's Review of the National Access Regime;<sup>18</sup>
- the Productivity Commission's Review of the Gas Code.<sup>19</sup>
- the Ministerial Council on Energy's Expert Panel Review of Energy Access Pricing; and<sup>20</sup>
- the Energy Reform Implementation Group (ERIG) Discussion Papers.<sup>21</sup>

The Productivity Commission's (PC) Review of the National Access Regime considered the relevant pricing principles to apply to Part IIIA of the *Trade Practices Act 1974*. Regarding the level of prices, the PC recommended that prices for all services provided by an access provider should generate revenues that are at least sufficient to meet the efficient long-run costs of providing access, and include a return commensurate with the commercial and regulatory risks involved. In addition, the PC indicated that prices should at least cover the incremental cost of infrastructure service provision<sup>22</sup>. The PC, in its Review of the Gas Access Regime, considered there would be benefits in making the reference tariff principles in the Gas Code consistent with the pricing principles that were agreed for the national access regime<sup>23</sup>.

Regarding the structure of prices, the PC expressed a view in favour of allowing multi-part pricing and price discrimination where it aids efficiency. The PC also recommended that vertically integrated service providers should not discriminate in favour of its downstream operations unless this can be justified on the basis of cost.

The Expert Panel delivered its report on energy access pricing to the MCE in April 2006. The Expert Panel's report made a number of observations on the appropriate principles for price-setting. The report noted that network prices ought to consider allocative efficiency as well as productive and dynamic efficiency<sup>24</sup>. Importantly, the

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<sup>18</sup> Productivity Commission, *Review of the National Access Regime*, Report no. 17, 2001, AusInfo, Canberra.

<sup>19</sup> Productivity Commission, *Review of the Gas Access Regime*, Report no. 31, 2004, Canberra.

<sup>20</sup> Expert Panel on Energy Access Pricing, *Report to the Ministerial Council on Energy*, 2006.

<sup>21</sup> Energy Reform Implementation Group, *Discussion papers*, November 2006.

<sup>22</sup> Productivity Commission, *Review of the National Access Regime*, Report no. 17, 2001, AusInfo, Canberra, pp.338-339.

<sup>23</sup> Productivity Commission, *Review of the Gas Access Regime*, Report no. 31, 2004, Canberra, p.262.

<sup>24</sup> Expert Panel on Energy Access Pricing, *Report to the Ministerial Council on Energy*, 2006, p.111.

report recognised that there may be trade-offs in using prices to promote different dimensions of efficiency and that it is necessary to consider the optimal balance of incentives for the achievement of the various aspects of efficiency. For example, prices that promote operational cost efficiencies (productive efficiency) may not maximise allocative efficiency (because under traditional incentive regulation, prices are allowed to exceed actual costs).

To give effect to these views, the Expert Panel recommended that the NEL and NGL include common network pricing principles based on section 35 of the NEL. The Expert Panel recommended that the AEMC be required to make Rules that<sup>25</sup>:

- provide a reasonable opportunity for the recovery of efficient costs of providing services that are the subject of the network pricing determination and complying with a regulatory obligation;
- provide effective incentives to promote economic efficiency in the provision of network services, including for efficient investments and efficient provision of services;
- make allowance for the value of assets and the value of proposed new assets that form part of the network owned, controlled or operated by a network operator used to provide services that are the subject of a network pricing determination;
- have regard to any valuation of assets forming part of a transmission or distribution system, owned, controlled or operated by a network operator applied in any relevant determination or decision; and
- have regard to the economic costs and risks of potential under and over investment in assets and under and over utilisation of the capacity of assets.

The ERIG commented on the Commission's transmission pricing rules noting that the intent has been to not to substantially change the arrangements to shallow connection charging for generators or the broader pricing arrangements. However, the ERIG noted that these issues are directly linked with the Congestion Management Review and elements of the transmission pricing regime may change as a result of that review.<sup>26</sup>

The Commission has considered these reports and notes that they generally deal with the *level* of revenues or prices infrastructure providers are able to earn or charge, rather than the *methodologies* for determining prices. However, to the extent that these reports specifically considered pricing methodology, in particular the pricing principles in the Expert Panel report, the Commission believes that the approach adopted in the Final Pricing Rule is consistent with the observations and recommendations made in those reports.

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<sup>25</sup> Expert Panel on Energy Access Pricing 2006, 'Report to the Ministerial Council on Energy', pp.116-117.

<sup>26</sup> Energy Reform Implementation Group, *Discussion Papers*, November 2006, p.144.

## 2.3 The approach in the existing Rules

Part C of Chapter 6 of the existing Rules for transmission pricing provides a highly detailed framework for the determination and implementation of prices for Prescribed Transmission Services.

In summary the existing transmission pricing approach involves the following steps:

- assets are categorised according to the services they deliver (for example, entry service asset, transmission use of system asset, etc);
- the AARR is allocated to categories of Prescribed Transmission Services as follows:
  - First, by subtracting non-asset related Common Service costs and allocating these to the Common Service category;
  - Second, by allocating the remainder of the AARR to Prescribed Transmission Service categories based on the optimised replacement cost (ORC) of the assets that provide that service as a share of the ORC of all the assets in the TNSP's regulated asset base;
- the AARR for each Prescribed Transmission Service is allocated to each asset based on its ORC as a share of the ORC of all the assets that provide that service. The amounts allocated to each asset in this manner are referred to as the 'annual cost' of those assets;
- the AARR for each Prescribed Transmission Service is allocated to connection points based on the annual costs of the network assets deemed to be used to provide the service to that connection point. For example, for Entry Services,<sup>27</sup> the cost allocated to the connected generator is the annual cost of the relevant entry assets; and
- the prices for using a particular Prescribed Transmission Service at a connection point are set in order to recover the relevant shares of the annual costs of assets allocated to that connection point.<sup>28</sup>

The Rules refer to this process as 'cost allocation' even though in practice there may be no direct relationship between the incurring of economic costs (such as expenditure on new assets) to provide a particular category of Prescribed Transmission Service, and the quantum of revenue recovered through charges for that service or at a particular connection point.

The existing Rules also employ a confusing mix of user pays, beneficiary pays and causer pays approaches to implement the cost allocation exercise. The primary means of allocation appears to be based on the *usage* of the relevant assets and operating

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<sup>27</sup> A service provided to serve a *Generator* or group of *Generators* at a single *connection point*.

<sup>28</sup> See existing clauses 6.3 and 6.4 and Schedule 6.2.

expenditures incurred in providing the service.<sup>29</sup> In some cases, this appears in turn to be based on the identity of the *presumed beneficiary/ies* of the service.<sup>30</sup>

An additional requirement under the existing Rules is that the AARR cannot exceed the TNSP's MAR from the provision of Prescribed Transmission Services for a given year.<sup>31</sup> Transmission prices for Prescribed Transmission Services are intended to recover TNSPs' AARRs as well as to provide appropriate signals for electricity consumption, production and investment decisions at various locations in the grid.

One of the more complicated aspects of this process is the allocation of allowable revenues relating to Prescribed TUoS Services to Transmission Customer connection points on a locational basis (part of the third step above). The CRNP or 'modified' CRNP methodologies are presently used for this purpose. Both of these methodologies seek to allocate the annual costs of particular network assets to Transmission Customer (load) connection points based on an engineering assessment of the transmission assets 'used' to convey electricity to those points.

The existing Rules also provide for ancillary matters such as the publication dates for transmission prices, requirements for the publication of negotiating framework by each TNSP, prudential requirements, billing and settlements process, pricing software and data and information requirements.

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<sup>29</sup> The body of Part C of Chapter 6 appears to base the allocation of TNSPs' AARR to categories of prescribed service on the *use* of particular assets in the provision of the relevant prescribed service. For example, clause 6.4 states:

This clause sets out the procedure to be used for allocation of the (AARR) amongst all the assets of the (TNSP) utilised in the provision of transmission services which will then provide a figure estimating the cost of providing those transmission services. This process is called 'cost allocation'.

The focus on use of infrastructure is supported by the National Grid Management Council's (NGMC's) document entitled "National Electricity Code, Outline and Rationale V1.0, 1 March 1996", which says:

Agreements reached by COAG required that network pricing be carried out in a cost reflective manner. The cost allocation process results in cost sharing between network services and locations in a manner which as far as possible reflects the actual costs involved in providing network services to each participant.

<sup>30</sup> For example, section 2 of Schedule 6.2 of the existing Rules describes 'entry and exit costs' as being recovered from the users "who benefit from them". This suggests that the allocation of these costs to connection points is currently based on presumed benefit.

<sup>31</sup> See existing clause 6.3.

## 2.4 Issues in the setting of transmission prices

In addition to the broader issues arising in recent debate on transmission pricing, there are a number of specific issues regarding transmission pricing methodologies that may impact on the promotion of the NEM Objective. These include:

- the basis for charging;
- the approach to sunk cost recovery;
- the need to provide efficient longer term locational and investment signals; and
- the need to take account of other aspects of transmission regulation.

These issues are discussed below.

### 2.4.1 Basis for charging

Transmission pricing fundamentally involves consideration of 'who should pay how much' for transmission services. This requires an understanding of the drivers of costs and their links to services provided to network users and classes of users.

In general, in the existing Rules the basis or rationale for the allocation of costs for the purposes of charging appears to be a mixture of the following:

- how the assets are used (eg. entry and exit assets)
- who benefits from the asset (eg. common service costs, entry and exit assets and transmission network assets for generators); and
- whose behaviour causes an expense to be incurred (eg. common service reactive plant).

In order to promote allocative efficiency<sup>32</sup>, transmission prices should generally be set on a 'causer pays' basis where possible. This means that where transmission costs are incurred following a direct request by (or agreement with) a particular network user or users, those user(s) should be required to pay the relevant costs. This is effectively a restatement of the marginal cost pricing principle – where prices equal the marginal or incremental costs of a network user's decision, network users will tend to make efficient decisions. This is because they will have incentives to use transmission services up to the point where their incremental benefits from use equal the incremental costs of provision.

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<sup>32</sup> Allocative efficiency is a dimension element of economic efficiency and describes the benefits associated with linking costs to prices such that appropriate provision and use of services occurs. For example, if the price of a particular service is higher than the cost of providing the service, then, all other things being equal, there is likely to be higher than efficient provision and lower than efficient use of that particular service. Allocative efficiency benefits can therefore accrue by linking prices to incremental costs.

In practice, however, it may not be possible to allocate transmission costs to individual network users solely on the basis of causation. This is especially the case for costs associated with the shared meshed network, which exhibits strong externalities (both positive and negative) associated with transmission use and relatively high transactions costs for internalising these externalities. In these circumstances, the causal link between *individual* network users' decisions and the incurring of transmission costs may not be clear.

However, the causer pays principle may at least guide whether, in general, consumers or producers of electricity should contribute towards the recovery of particular costs. This is because the majority of transmission investment in the shared meshed network is undertaken to meet the reliability obligations imposed to satisfy the requirements of consumers rather than to meet the requirements of generators to evacuate power. In other words, most transmission investment is 'caused by' load rather than generation.

An alternative to the causer pays or user pays approaches is the 'beneficiary pays' approach. This approach generally seeks to require those users that are seen to 'benefit' from the use of the network pay for it. As transmission networks facilitate the transportation of power from producers (generators) to consumers (loads), it could be argued that generators benefit from the network as much as do loads and hence that generators ought to make a contribution to the recovery of the costs of the shared network. However, there is likely to be little efficiency benefit in requiring generators to either:

- pay 'deep connection' charges, which reflect the cost of downstream augmentations as well as the 'shallow connection' costs of satisfying access standards; and/or
- contribute towards the cost of the shared network through ongoing 'generator TUoS' charges.

With respect to deep connection charges, the Commission considers that the regulatory and market arrangements already provide significant signals to generators to locate in areas that are efficient from the point of view of the market as a whole. For instance, a generator that locates in a remote region takes the risk that it will not be able to transport (hence sell) its power to consumers, that is, it will be 'constrained-off'.<sup>33</sup> It is only if the generator is sufficiently low-cost that a regulated transmission augmentation to accommodate the evacuation of that generator's output is likely to satisfy the Regulatory Test by being the least-cost (or otherwise most net beneficial) way to serve load or meet reliability requirements.<sup>34</sup> In addition, the Commission

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<sup>33</sup> This is not to say that the generator, when dispatched, receives the efficient price for its location. This issue is currently considered by the Commission's Congestion Management Review.

<sup>34</sup> In this case, it could actually be *efficient for the market as a whole and hence in the long term interests of consumers* for the generator to locate in its chosen (remote) location. If no regulated augmentation is likely to occur – because the combined cost of remote generation and the augmentation is relatively high – this is likely to discourage the generator proponent from locating in that (remote) area. Alternatively, the generator

agreed with submissions that deep connection charges may create additional regulatory complexity and deter new generation investment, thereby harming competition and the long-term interests of end-use consumers. Therefore, in keeping with the high-level 'causer pays' principle, a move to deep connection charges for generators is not justified.

The Commission also did not believe there is a case for requiring generators to pay ongoing charges in respect of Prescribed TUoS Services. As noted above, shared transmission investment is primarily undertaken to serve the needs of reliable supply to loads. Further, such a move would represent a profound shift from the existing arrangements and that it is far from clear whether it would be worthwhile. Generator TUoS charges would most likely be ultimately passed on to loads, potentially distorting bidding and dispatch in the process. While the British electricity market and several others do apply generator locational use of system charges, as noted in the Pricing Issues Paper, these markets generally have fewer (or one) pricing regions and different regulatory arrangements governing transmission investment. Finally, the framework for Negotiated Transmission Services allows for Generators to agree to pay TNSPs for services that fall outside the definition of Prescribed Transmission Services adds additional emphasis to this approach.

For these reasons, the Commission does not consider that prescribed Generator TUoS charges are appropriate at the present time.

While noting the merits of a causer pays principle, the Commission also recognises that it may not be appropriate to apply a strict causer pays principle when costs are incurred to serve multiple purposes; in other words, where there are several cost drivers. Such costs typically arise where economies of scale and scope exist: that is, situations where it is cheaper in an overall sense to provide services jointly rather than separately. In these cases, it is important to ensure that prices for each of the relevant services lie between the incremental and the standalone costs of providing each service. These requirements are known as the Baumol-Willig conditions.

In recognition of the problems associated with applying the causer pays principle in a shared network with economies of scale and scope the Commission considers that where assets are being used for multiple purposes that it is appropriate to allocate costs on the basis of use. This principle acknowledges that it is often more efficient to utilise existing sunk assets rather than duplicating assets when they are required.

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proponent is free to fund an augmentation at its own expense, which in itself provides a signal against remote location.

## 2.4.2 Submissions on the Draft Pricing Rule

The MEU provided substantial comment in their submission on the issue of causer pays. In particular the MEU considers that:

- there is inconsistency between the treatment of existing generation and new generation;<sup>35</sup>
- the current form of the Regulatory Test means that much of locational signals discussed by the Commission in the Draft Rule Determination don't materialise;<sup>36</sup>
- the approach of causer pays can be readily manipulated in the interests of generators should they seek to avoid connection and entry costs;<sup>37</sup> and
- the Rules should use a causer pays principle for allocation *between* consumers.<sup>38</sup>

The Energy Users Association of Australia and Energy Action Group were of the view that the Rules should reflect a 'user-causer-beneficiary pays' principle to transmission pricing.<sup>39</sup>

## 2.4.3 Commission Determination

The Commission does not agree with the MEU view that there is inconsistent treatment between existing generation and new generation. Both new and existing generators are required to pay only for the costs which are directly attributable to the services they use. The Commission has expressed that generators are to only pay for shallow connection as it is consumers that cause the need for network assets. In that regard, the Commission also does not agree with the MEU that the approach taken in the Pricing Rule can be manipulated so that generators avoid connection costs which can be directly attributed to them.

As noted in its previous statements on pricing, the Commission believes that the transmission network is primarily built to serve the needs of load, a point recognised by the MEU, and additional generator charges may inefficiently deter new investment.

The Commission's view is that to the extent additional signals for generation location are required to promote the NEM Objective, these ought to be considered as part of the CMR and other reviews. This is because while new generation may not 'cause' transmission investment in the shared network, generators can and do create

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<sup>35</sup> Major Energy Users, November 2006, pp.25-26.

<sup>36</sup> Ibid, pp.26-27.

<sup>37</sup> Ibid, p.29.

<sup>38</sup> Major Energy Users, *Supplementary Submission*, p.9.

<sup>39</sup> Energy Users Association of Australia & Energy Action Group, 6 December 2006, p.2.

congestion. Therefore, while also being outside the scope of this review, the concerns of the MEU in relation to the Regulatory Test are not suitable to be dealt with here and should be dealt with in other processes. In particular, the ERIG is currently considering these issues in further detail.

#### **2.4.4 Sunk cost recovery**

Economic theory and competitive market experience demonstrate that economic efficiency, particularly allocative efficiency, is enhanced when prices are equal to the marginal (or incremental) cost of providing the relevant good or service. A key feature of services provided by infrastructure such as transmission networks is that if prices are set equal to marginal or incremental cost, a TNSP may be unable to recover its fixed capital investments.<sup>40</sup> A relevant issue in designing the transmission pricing regulatory framework is therefore how best to recover these historical expenditures while minimising disincentives to the use of existing infrastructure. In other words, the regime needs to balance allocative efficiency considerations with the need to enable recovery of efficient costs and provide enduring incentives for capital investment.

As has been previously noted by the Commission,<sup>41</sup> one approach to the recovery of sunk costs that seeks to minimise disincentives to the use of existing infrastructure is a two-part tariff. A two-part tariff refers to a tariff structure where fixed capital costs are recovered through a fixed charge component, while any immediate (short run) marginal costs of service provision are recovered through a variable charge component. This approach can serve to minimise potential distortions in the use of the transmission network because once the fixed fee is paid, decisions on service use relate entirely to the variable cost component. As this component is based on the marginal cost of service, consumption and production decisions should be consistent with efficient outcomes.

An alternative approach to using a two-part tariff is to set charges on the basis of Ramsay pricing principles. Ramsay pricing principles allocate sunk costs on the basis of relative willingness to pay between users of the particular services. While Ramsay pricing, in theory, provides correct signals to maximise efficiency in the use of infrastructure, it is rarely applied in practice because of the enormous informational requirements necessary to estimate individual customers' willingness to pay.

#### **2.4.5 Transmission prices should provide efficient locational and investment signals to participants**

A further consideration is the locational and investment signals provided to participants through transmission prices. The difficulty is that transmission prices can be orientated to maximise the use of the existing network, but this may conflict with minimising the cost of providing transmission services in the longer term.

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<sup>40</sup> Unless the reliability of service provision is allowed to degrade to levels below current requirements.

<sup>41</sup> AEMC, Review of Transmission Revenue and Pricing Rules, Transmission Pricing: Issues Paper, November 2005, p.60.

For example, if the price for transmission use is based on the short run marginal cost (SRMC) of transmission, this may encourage consumers to locate far from generation sources so long as spare transmission capacity exists. This scenario may particularly arise if transmission capacity is augmented according to non-market criteria (such as deterministic reliability standards) and through centralised processes (such as the Regulatory Test). Given these other arrangements, it might be more appropriate for transmission prices to seek to approximate the long run marginal cost (LRMC) of providing transmission services. Such prices should reflect the need for, and cost of, transmission augmentation at a particular location in the future. This should work to deter potential consumers (loads) from locating in areas that will require costly augmentation later.

However, the use of LRMC-based prices instead of SRMC-based prices may cause inefficient under-utilisation of spare transmission capacity in some cases. For example, a smelter located adjacent to a generator may have incentives to physically by-pass the regulated transmission network if it is charged a price that exceeds the immediate incremental cost of its network usage. Therefore, in cases where prices based on some estimate of LRMC are likely to lead to inefficient by-pass of the existing network, flexibility in the pricing regime to allow discounting or negotiation should be available to avoid such outcomes.

#### **2.4.6 Transmission prices should take account of other aspects of the NEM arrangements**

When considering the regulatory framework for transmission pricing, it is also necessary to be aware of any interactions with other aspects of the NEM regulatory arrangements, particularly how they impact on the achievement of the NEM Objective.

The elements of the regulatory framework that the Commission has taken into consideration when developing the pricing rules include:

- regional treatment of transmission losses and congestion;
- non-firm generator access to the market; and
- transmission investment regulatory arrangements (including in the Revenue Rule and the Regulatory Test).

Some of these interactions were referred to above in the discussion of efficient locational signals to transmission network uses and potential users.

While these elements of the regulatory framework are not the subject of the current Review, the Commission is examining these through separate processes (for example, the CMR is dealing with transmission congestion). The Commission has taken care to ensure that the Final Pricing Rule does not result in inefficient 'oversignalling' of the value or cost of transmission, given the signals resulting from other aspects of the NEM regulatory arrangements. However, this issue would need to be revisited if substantial changes to the other arrangements emerged from the CMR or other reviews.

## 2.5 Approach in the Final Pricing Rule

The fundamental consideration underlying the Commission's Final Pricing Rule is a view that the NEM Objective, particularly efficiency in the use of, and investment in, electricity services, is best promoted by transmission prices being based, wherever feasible, on the costs of providing the services to those users who 'cause' the costs to be incurred. However, as previously stated, the Commission has also recognised that where assets are providing multiple uses in a shared network it is appropriate for those parties that use the assets to contribute towards their costs.

The Commission's Final Pricing Rule is based on three key propositions:

- confirming the broad acceptability of the approach to pricing in the existing Rules;
- recasting the pricing rules to a principles-based form by removing unnecessary detail on implementation and administration matters, while confirming that existing arrangements may largely continue to apply and providing certainty regarding pricing outcomes. The pricing principles have also been designed to allow innovation for alternative pricing methodologies to emerge over time subject to constraints in the Rules; and
- making the procedural approach to pricing consistent with the approach taken by the Commission in its Revenue Rule (chapter 4 provides greater detail on the Commission's reasons for its approach to the procedural requirements in the Final Pricing Rule).

The remainder of this chapter provides a brief overview of each of these propositions.

### 2.5.1 Confirming the broad approach to pricing

Having considered submissions, the Commission has reached the view that the arrangements in the existing Rules for determining how TNSPs' allowable revenues are recovered are broadly appropriate. That is, given the NEM Objective and the high-level economic efficiency considerations that flow from it, the Commission believes that the current Rules broadly ensure that the appropriate parties are paying the appropriate amount for transmission services.

### 2.5.2 Recasting the pricing rules to a principles-based form

The Commission has considered whether the existing Rules provided an unnecessarily detailed framework for the development, implementation and administration of prices for Prescribed Transmission Services, taking account of the views of stakeholders and the Commission's own analysis.

The Commission believes that the regulatory framework for pricing should reflect the Commission's approach to the framework for revenue regulation. In the Revenue Rule, the Commission codified the key elements of a revenue-cap methodology. However, the Revenue Rule delegated a number of more detailed *implementation elements* of the regime to the AER, including the form of the post-tax revenue model (PTRM) and the precise design and implementation of the incentive mechanisms to encourage efficiency in expenditure and service delivery.

This approach recognises the distinction between the key design features of the regulatory regime – such as methodologies and processes – that should be codified in Rules and the implementation elements that should not be codified in any level of detail. The codification of key design features is intended to provide a greater degree of certainty regarding the recovery of the efficient costs of service provision and the management of the potential for TNSPs to exercise market power. However, the provision of guided discretion on implementation elements of the regime to TNSPs and the AER has the benefit of enabling current practices to largely continue while allowing innovation to occur where appropriate.

In light of the approach to revenue regulation and the views in submissions, the Commission believed that the current approach to the implementation and administration of pricing methodologies is inappropriately detailed. Therefore, the Draft Pricing Rule embodied a shift to a principles-based regulatory framework. This means that the Rules should be confined to setting out pricing principles and requiring the implementation of the principles through pricing methodologies proposed by TNSPs for the approval of the AER in accordance with the Rules. This approach seeks to ensure consistency between the regulatory frameworks for transmission pricing and revenue.

In response to the Draft Pricing Rule the MEU expressed concern that the principles based approach will lead to inconsistency across the NEM and reduce the certainty for consumers.<sup>42</sup> In particular it was concerned that the approach provided excessive discretion to the TNSPs in developing their pricing methodology.

The Commission continues to believe that a shift to a more principles-based approach to pricing is appropriate. In the context of the comments made in submissions on the Draft Pricing Rule, the Commission accepts that it is not necessarily appropriate for users that operate in different regions to face different pricing structures. However, the Commission understands that some differences already do exist in the way TNSPs interpret the existing Rules. Therefore, the Commission has decided that the AER should develop guidelines in order to provide increased certainty for consumers under a principles based regime. In addition, the Commission considers that such guidelines should consider the desirability of achieving consistency across the NEM in relation to price structure and cost allocation.

The Commission's detailed discussion regarding the principles adopted and its response to submissions on the principles are described in further detail in chapter 3.

### **2.5.3 Development of the procedural framework for the Final Pricing Rule**

The procedural approach adopted for the Final Pricing Rule involves:

- the TNSP proposing a pricing methodology prior to each regulatory control period;

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<sup>42</sup> Major Energy Users, November 2006, pp.41-42.

- the AER is being required by the Rules to approve the proposed methodology so long as it conforms to the principles in the Rules and the AER's guidelines (if applicable);
- the AER being able to substitute its own methodology where the proposed methodology does not conform to the Rules and the guidelines;
- the AER monitoring the TNSP's prices to ensure they are consistent with the approved pricing methodology.

The aim of this approach is to harness TNSPs' superior information about their physical networks and business operations in promoting the development of methodologies that satisfy the pricing principles in the Rules while minimising their implementation costs.

Overall, the Commission considers that the approach embodied in the Final Pricing Rule advances the NEM Objective by providing for a principles-based approach that facilitates efficiency in pricing, removing unnecessary prescription in Rules and allowing flexibility for innovative pricing methodologies to develop over time. In addition, it allows consumers to have an increased focus and input into the development of pricing methodologies. A further and more detailed discussion of submissions to the Draft Pricing Rule is contained in chapter 4.

### 3 Principles for cost allocation and price structure

The previous chapter dealt with the Commission's approach to the overarching question of *who should pay how much* for the costs of providing Prescribed Transmission Services. This chapter focuses on the Commission's proposed specific pricing principles for the annual setting of maximum prices for Prescribed Transmission Services.

The existing Rules require TNSPs to allocate (and ultimately recover) their AARRs to prices by undertaking the following three steps. The first two steps of this process is commonly known as 'cost allocation':

- Step 1: Cost allocation *between* Prescribed Transmission Services – this involves principles for allocating TNSPs' AARRs between different types of Prescribed Transmission Services;
- Step 2: Cost allocation *within* Prescribed Transmission Service categories – this involves principles for allocating the AARR for each Prescribed Transmission Service to individual network user connection points; and
- Step 3: Determination of prices to recover the costs of providing Prescribed Transmission Services – this involves principles for developing pricing structures that are applied to recover the allowable revenues allocated to each connection point.

A more detailed description of the existing methodology is contained in the Rule Proposal Report.<sup>43</sup>

The approach the Commission has taken has been to develop a transmission pricing regulatory framework that supports the three-step allocation methodology as currently contained in the Rules. This approach has been continued for the Final Pricing Rule.

Therefore, for each step in the existing three-step allocation methodology, this chapter:

- briefly describes the Commission's in the Proposed and Draft Pricing Rules;
- summarises submissions on the Draft Pricing Rule; and
- discusses the reasoning for the Revenue Rule approach.

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<sup>43</sup> Available at [www.aemc.gov.au](http://www.aemc.gov.au).

### 3.1 Principles for Allocation of the AARR to Prescribed Transmission Service categories

#### 3.1.1 Commission Approach

There were two key elements of the Commission's draft step 1 principles being:

- allocating the AARR to Prescribed Transmission Services on the basis of *attributable cost share*, with this share being based on the cost of assets directly attributable (on a causation basis) to the provision of those services; and
- providing guidance on the priority of the AARRs allocation where assets were directly attributable (on a causation basis) to more than one pricing category of Prescribed Transmission Services.

Both of these concepts were explained in the Rule Proposal Report.

Meanwhile, the AARR was based on the TNSP's MAR and was adjusted for a number of variables including rewards and penalties from the TNSP's service target incentive scheme, previous over- and under-recovery of allowable revenue, expected settlement residues and a range of cost pass-through items.

In response to submissions the Commission provided some additional clarification and adjustment to the following components of this pricing principle for the Draft Pricing Rule. These were:

- *when* the assessment of directly attributable on a causation basis is made; and
- the ordering of the priority approach for allocating the AARR where a portion could be allocated to more than one category of Prescribed Transmission Service.

On the issue of causation-based cost allocation, submissions raised concerns about the difficulties in making a historical assessment of the services that 'caused' assets being built. Accepting the potential for these difficulties, the Commission determined that the TNSP could make an assessment of which assets were directly attributable on a causation basis to particular services as at the date the Proposed Pricing Rule was published (24 August 2006). The Commission considered that this approach would avoid the need for TNSPs to undertake historical audit exercises in an attempt to discern the original rationale for the development of a particular asset, while ensuring that appropriate costs were allocated to each category of prescribed services.

At the same time, the Draft Rule allowed for the pricing of prescribed entry services to be adjusted over time, if the assets providing these services were also used to provide TUoS services. This approach represented a move away from strict causation principles, in that costs could migrate from prescribed entry services to prescribed TUoS over time. Nevertheless, the Commission believed that permitting this migration was warranted to promote consistency between the approach towards the pricing of new connection services in the Revenue Rule and the pricing of existing connection services, which are dealt with in the Pricing Rule. In particular, under the Revenue Rule, assets that provide negotiated services can be reallocated to prescribed transmission services – and their costs recovered through prescribed service charges – if they begin to provide prescribed services (see clause 6A19.2(8)).

In regards to the priority ordering approach, the Commission sought to ensure that it was consistent with the Revenue Rule by allocating costs as follows:

- first to prescribed transmission use of system services, to the extent that the asset cost (on a standalone basis) is directly attributable to the provision of use of system services;
- second to (prescribed) common services to the extent that the asset cost (on a standalone basis) is directly attributable to the provision of common services; and
- third, to prescribed entry/exit services.

The remainder of this section details comments in submissions on the Draft Rule and the Commission's response to these comments in the Final Rule.

### **3.1.2 'Up front' adjustments to derive AARR**

#### **Submissions on the Draft Pricing Rule**

The Electricity Transmission Network Owners Forum (ETNOF) reiterated its comment from its submission on the Rule Proposal that deducting settlement residues from the AARR 'up front' would lead to major impacts on charges to generators and customers. ETNOF noted that some loads would see their transmission charges increase by 10%, while generators would see their prescribed entry charges fall substantially.<sup>44</sup>

EnergyAustralia also raised concerns about the rebalancing of charges that would occur from up front adjustment. However, the figures provided by EnergyAustralia with respect of TransGrid's network suggested that the average impacts on loads would be relatively small - around 1% of their total transmission bill. At the same time, EnergyAustralia highlighted that the benefit of up front adjustment to generators would only apply to existing generators with connection agreements that did not specify pricing arrangements. New generators who negotiated pricing in their connection agreements would not get the benefit of settlement residues being used to offset their entry charges.<sup>45</sup>

The MEU similarly opposed the Draft Pricing Rule's introduction of an up front adjustment to the AARR in relation to settlement residues.<sup>46</sup>

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<sup>44</sup> ETNOF, 30 November 2006, p.2.

<sup>45</sup> EnergyAustralia, November 2006, p.4.

<sup>46</sup> Major Energy Users Supplementary Submission, November 2006, p.7.

## Commission Determination

The Commission acknowledged in its Rule Proposal Report and Draft Rule decision document that defining the AARR as adjusted for expected settlement residue proceeds and previous years' under/over-recovery would imply a rebalancing of prescribed transmission service charges compared with the current approach. The Commission also said at the time that it was interested in stakeholders' views on the likely materiality and consequences of this rebalancing.

The Commission has been persuaded by submissions that there is likely to be little benefit in making adjustments for expected settlement residues and previous over- and under-recovery and network support payments to the AARR up front. While up front adjustment may have simplified the drafting and interpretation of the Rule, it is unlikely that this would have been of material value to the vast majority of transmission users. At the same time, the rebalancing of charges would have been substantial for some loads and existing generators. Given that this proposal was finely balanced from the outset, the Commission has decided to retain the existing approach of making the above adjustments to the amount to be recovered through the TUoS non-locational (formerly General) charge.

### 3.1.3 Causation-based cost allocation approach

#### Submissions on the Draft Pricing Rule

It appeared from comments in submissions that a number of stakeholders did not interpret the intended approach to the allocation of the AARR to categories of prescribed service correctly. As noted above, the Commission intended to apply a causation-based approach to the attribution of asset costs to pricing categories of prescribed transmission services. While this attribution was notionally a once-off process, it was subject to the caveat that assets that were directly attributable to the provision of prescribed entry services could effectively be reattributed to the provision of prescribed TUoS services if the function of those assets changed over time. This migration of assets (and hence costs) was intended to operate through Draft Rule clause 11.6.3. However, stakeholders that commented on clause 11.6.3 found its purpose and meaning confusing.<sup>47</sup>

Flinders Power expressed concern about how the relationship between the grandfathering draft clause 11.6.2 and reconfigured or replaced assets. Flinders Power were also uncertain about how the allocation of costs occurs under the Rules between shared and prescribed entry services.<sup>48</sup>

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<sup>47</sup> ETNOF, 30 November 2006, pp.5-6; Flinders Power, 30 November 2006, p.2; EnergyAustralia, November 2006, p.6. Hydro Tasmania, 4 December 2006, pp.9-12.

<sup>48</sup> Flinders Power, 30 November 2006, p.3.

A particular concern raised by Hydro Tasmania was that they would experience a large price shock due to the 'unique nature' of Hydro Tasmania's generation portfolio.<sup>49</sup>

ETNOF also made the point that Draft Rule clause 11.6.3 regarding prescribed entry services should also apply to prescribed exit services for directly connection customers.<sup>50</sup>

### **Commission Determination**

As noted in chapter 2 above, the 'causer pays' principle is the appropriate principle for determining which side of the market (load or generation) should contribute to the bulk of the costs of the shared network. In that context, the Commission suggested that the majority of the network is primarily built ultimately to serve the needs of load. This means it makes sense for loads to pay the bulk of the costs of the network. This view was supported by the MEU who stated:

*"There is no doubt that it is the consumer that causes the need for generation and networks to ensure electricity can be delivered to where the consumers desire it to be, and the amounts needed. Thus the causer of the need for networks can only be the consumer"<sup>51</sup>*

However, applying the concept of causation to the more detailed task of developing cost allocation principles is a more problematic exercise. This is because of the strong externalities and economies of scale and scope that arise in a transmission network, which mean that particular assets may provide multiple services. Therefore, it may be more efficient to 'overbuild' initially to cater for expected future requirements or to use existing infrastructure for different purposes rather than building duplicate assets.

The Commission also had previously noted that the causation principle was not necessarily appropriate to apply when recovering the prescribed TUoS Annual Service Revenue Requirement (ASRR). This is because individual loads do not directly 'cause' transmission investment to be undertaken. Rather, the CRNP methodology, which is based on an estimate of proportionate network usage, is considered a reasonable approach for allocating network costs to transmission connection points.

In the Draft Rule, the Commission acknowledged that even in the process of allocating the AARR to various prescribed service categories, basing cost allocation on causation has its limitations. For example, a generator may be paying prescribed entry charges in respect of certain assets. While these assets may initially only perform the function of providing entry services, over time as the network develops, the same assets may provide prescribed TUoS or common services without the explicit agreement or consent of the generator. One response to this problem may be to permit a generator to

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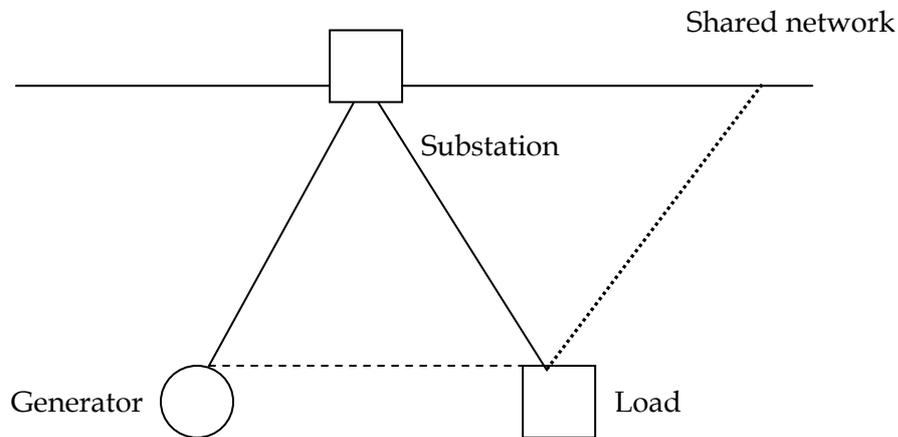
<sup>49</sup> Hydro Tasmania, 4 December 2006, p.3.

<sup>50</sup> ETNOF, 30 November 2006, p.6.

<sup>51</sup> Major Energy Users, November 2006, p.25.

effectively hold a power of veto over transmission development that alters the services provided by the assets it pays for. Yet allowing the function of transmission assets to freely change over time may promote the most efficient development of the network.

The following diagram provides a stylised example of this issue.



Assume in this example that the TNSP needs to reinforce the network serving the load for reliability reasons. It may be more efficient for the TNSP to build a new line from the generator direct to the load (the dashed line) rather than building a line to the load from elsewhere on the existing shared network (the dotted line).

In light of these considerations, the Revenue Rule allowed for the costs of assets that provide negotiated (eg connection) services to be reallocated to prescribed services if they are directly attributable to different services over time (see clause 6A.19.2(8)).

Similarly, in respect of existing assets providing prescribed entry services, although the Draft Pricing Rule notionally required TNSPs to determine the prescribed transmission services to which their assets were directly attributable on a causation basis as at 24 August 2006, it provided scope for assets attributable to prescribed entry services to migrate to TUoS or common services over time in accordance with the approach in the Revenue Rule for new (connection) assets. This intent was effected through clause 11.6.3. However, as noted above in the discussion of submissions, this clause was not interpreted in this manner and many participants were confused as to the ultimate intent of the Commission.

Therefore, the Commission has decided to provide increased clarity as well as consistency in drafting with the Revenue Rule regarding its view of the appropriate approach to cost allocation. This means that the words “(on a causation basis)” have been deleted from clauses 6A.22.3 (as well as 6A.22.4) and Draft Clause 11.6.3 has been deleted altogether. The expression “directly attributable” is intended to have the same meaning as it has in the Revenue Rule. That is, it refers to assets that are used or required to provide the relevant pricing category of prescribed transmission service. This will ensure consistency between the manner of cost allocation for assets that provide both existing and new connection services. This approach also implies that the costs of prescribed exit services can migrate to the prescribed TUoS or common services.

The Commission considers that the clearer articulation of the application of the cost allocation approach should address the concerns of Flinders Power and Hydro Tasmania regarding cost allocation and price shock respectively. In particular, this is because the Final Pricing Rule is clear that costs can be allocated and reallocated on the basis of how they are used rather than making an initial assessment of what may have 'caused' the assets to exist. In particular, regarding Flinders Power's concerns, the cost allocation principles to which they refer, which were given effect through draft clause 11.6.3, no longer apply for the Final Pricing Rule and the grandfathering (draft clause 11.6.2) has also been removed.

Hydro Tasmania also stated that they considered the unique nature of their system placed them at greater risk of price shock. However, the Commission considers it important to note that many of the issues that Hydro Tasmania consider to be unique to their system also exist in the rest of the NEM. For instance, it is common for base load generators to be located much closer to the source of their fuel rather than close to where the load may be. This means there are often long transmission lines between the remotely located generator and the main source of the load. In that regard, locating generators close to the source of fuel in Tasmania is similar to much of the generation in the wider NEM.

Hydro Tasmania also raised some questions in relation to draft clause 11.6.3, however, as previously stated this clause has now been removed and no longer applies.

### **3.1.4 Meaning of attributable cost share**

#### **Submissions on the Draft Pricing Rule**

EnergyAustralia were concerned that the network cost allocation based on asset costs other than Optimised Replacement Cost (ORC) does not attempt to mimic the network LRMC. EnergyAustralia considered that the Commission's approach may lead to increased price volatility and prices that are inconsistent with the way in which the assets are used.<sup>52</sup>

#### **Commission Determination**

The Commission agrees with EnergyAustralia's point that concepts of costs different to ORC may produce radically different cost allocation outcomes to ORC. The intent of providing that costs are referable to the values in accounts was to ensure that TNSPs were not unduly constrained in the values they use. However, the Commission also wants to ensure that the values that are used are largely consistent with how they would be valued using ORC. Therefore, the Commission has created a new clause (S6A.3.1) to provide that alternative values to ORC should be an accepted equivalent of ORC.

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<sup>52</sup> EnergyAustralia, November 2006, p.5.

### 3.1.5 Priority Ordering Approach

#### Submissions on the Draft Pricing Rule

As noted above, the ETNOF commented that the up-front adjustment to the AARR jointly with the Commission's approach to cost allocation could lead to prescribed transmission price increases of up to 10% for some consumers. The Commission understands that the majority of this increase would likely be due to the priority ordering provisions in clause 6A.23.2. This was because, in the ETNOF's view, the Commission's approach would have the effect of reclassifying some connection assets as TUoS assets.<sup>53</sup>

The ETNOF provided the Commission with a supplementary submission that outlined examples of how the priority allocation may occur in practice. In making this allocation the ETNOF attributed all the costs that are not directly attributable to TUoS.<sup>54</sup>

#### Commission Determination

As noted in the Draft Rule Determination, the Commission reconsidered the priority ordering it put forward in the Proposed Pricing Rule. The revised ordering in the Draft Pricing Rule sought to ensure consistency between the approach to be adopted in the pricing rules and the approach now encompassed in the Revenue Rule.

The priority ordering is the Commission's attempt to address the issue of economies of scope in transmission infrastructure. Such economies mean that it may be more efficient to develop one large asset to provide several services than to develop several assets that each provide one service.

Where a transmission system asset is directly attributable to the provision of multiple services, the priority ordering requires that the asset is first allocated to the provision of TUoS services to the extent of the 'standalone cost' of providing those services. This requires the TNSP to ask: "How costly would the asset be if it were only needed to provide prescribed TUoS services?" If the asset is more costly than it would have been had it been developed solely to provide the TUoS services it provides, the remainder of the asset's cost is then allocated to prescribed common services; again on a standalone basis. If there is still a residual amount, it is fully allocated to prescribed entry and exit services. In practice, this means there is no scope for any 'leftover' costs to remain unallocated.

The priority ordering is effectively a cascading principle for cost allocation in relation to transmission assets that exhibit economies of scope. As noted in the Draft Rule Determination, the reason that the ordering commences with prescribed TUoS services is to ensure consistency with the approach to cost allocation in the Revenue Rule. The principles in the Revenue Rule (clause 6A.9.1(3)) state that the price for a negotiated

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<sup>53</sup> ETNOF, 30 November 2006, p.2.

<sup>54</sup> ETNOF, Supplementary Submission in Response to AEMC Draft Rule Determination, 12 December 2006, p.2.

(shared) service that is above the required standard should reflect the incremental cost of providing that service. Accordingly, the Commission believes that where an asset provides multiple services, individual transmission customers should only be charged in respect of the *incremental* costs of providing the service over and above the cost of providing prescribed TUoS or common services.

The implication of the priority ordering principle is that the cost of assets that provide multiple pricing categories of prescribed transmission services should not usually be split on a simplistic pro-rata basis between the services the asset provides. For example, if a substation can be said to provide prescribed TUoS, common and entry services, its costs should not be allocated to each category based merely on the number or capacity of lines attached to that substation.

At the same time, it may also be an overly simplistic interpretation of the priority ordering principles to allocate *all* of the fixed and common costs of the substation to the provision of prescribed TUoS services, just because the asset provides *some* TUoS service. This was the approach the ETNOF undertook for one example in their supplementary submission.<sup>55</sup> However, this is not what clause 6A.23.2(d) requires and may lie behind the ETNOF's predictions of a large increase in TUoS charges to consumers.

The Rule requires that TNSPs consider the standalone cost of the asset. For example, if the prescribed TUoS services provided by the substation could have been provided by a cheaper asset, it is only the cost of the cheaper asset that ought to be allocated to the TUoS category. The Commission has previously stated that this need only be a desktop exercise, but some attempt to consider counter-factual situations is expected.

The Rule Proposal Report provides an illustration of the priority ordering principles in practice, albeit based on the previous ordering. In light of the change to the ordering in the Draft Rule, it may be worth revisiting a similar example:

Consider a substation costing \$30 million that was developed:

- partly in order to provide Prescribed Transmission Use of System Services;
- partly in order to provide Common Transmission Services; and
- partly in order to provide Prescribed Exit Services.

Then assume that had the substation been developed solely to provide Prescribed TUoS Services, it could have been much smaller and would have cost only \$10 million. Had the substation been developed solely in order to provide Common Services, it would have cost \$5 million. Finally, had the substation been developed solely in order to provide Prescribed Exit Services, it would have cost \$20 million.

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<sup>55</sup> ETNOF, Supplementary Submission in Response to AEMC Draft Rule Determination, 12 December 2006, pp.1-2.

The application of the principle would then lead to the \$30 million cost of the substation being attributed to Prescribed Transmission Service categories as follows:

- \$10m to the Prescribed TUoS ASRR;
- \$5m to the Prescribed Common Services ASRR; and
- the remaining \$15 million to the Prescribed Exit Service ASRR.

The Commission notes that the ETNOF identified that some TNSPs may undertake the cost allocation approach at different levels of granularity. Such differences in allocation will lead to different outcomes across the NEM without a clear basis for difference. While the Commission considers that Approach 1 from the ETNOF's supplementary submission is likely to be the most appropriate,<sup>56</sup> in order to promote consistency across the NEM the Commission has decided to require the AER to develop guidelines on this issue. The AER guidelines will seek to clarify which types of assets are directly attributable to each category of prescribed services having regard to the desirability of consistency across the NEM.

The Commission expects that the additional clarity provided by the above discussion will help to ensure that the costs are appropriately allocated under the priority ordering principles.

### 3.1.6 Summary of Step 1 Principles

The AARR for a given year is to be allocated as follows:

- in accordance with the *attributable cost share* for each pricing category of Prescribed Transmission Services;
- so that the same portion of AARR cannot be allocated more than once;
- where a portion of the AARR can be allocated to more than one pricing category of Prescribed Transmission Service, it is to be allocated according to the priority ordering outlined in the Rules.

## 3.2 Allocation of the ASRR to connection points

A TNSP allocates the AARR amongst different Prescribed Transmission Services and so allocated is called the annual service revenue requirement (ASRR) in the Final Pricing Rule.<sup>57</sup> This section discusses how the ASRR is subsequently allocated amongst network user connection points.

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<sup>56</sup> ETNOF, Supplementary Submission in Response to AEMC Draft Rule Determination, 12 December 2006, p.1.

<sup>57</sup> Clause 6A.24.3 of the Draft Pricing Rule

### 3.2.1 Commission Approach

The intention of Step 1 is to allocate a TNSP's AARR amongst different Prescribed Transmission Services. This allocated revenue has been called the ASRR for the purposes of the Rules. This section discusses how the Commission considered ASRR allocated to each Prescribed Transmission Service should be further allocated amongst network user connection points.

#### For Prescribed Entry and Exit Services

The Proposed and Draft Pricing Rules required the ASRR for Prescribed Entry Services and Prescribed Exit Services to be allocated to individual connection points in a similar way to how the AARR is allocated to different Prescribed Transmission Service categories.<sup>58</sup> As with the allocation of the AARR to categories of Prescribed Transmission Services, the Rule sought to accommodate existing practice by allowing TNSPs to continue allocating the ASRR based on the relative ORCs of the assets that provide each Prescribed Entry/Exit Service.

That is, it was considered that the allocation should be based on the 'attributable cost share' of each individual Prescribed Entry and Exit Service. The 'attributable connection point cost share' would then be based on the relative asset costs and/or operating and maintenance costs directly attributable (on a causation basis) to provide the service *to that network user* as a proportion of *total* asset costs and/or O&M costs directly attributable (on a causation basis) to provide *all* Prescribed Entry and Exit Services. The emphasis to be given to relative asset costs as compared to relative O&M costs was considered to be a matter for the TNSP to determine.

#### For Prescribed Transmission Use of System Services<sup>59</sup>

The Commission sought to require a portion of the ASRR for Prescribed TUoS Services to be allocated to Transmission Customer connection points on a locational basis and the remainder to be allocated on a postage-stamped basis. The locational component was to be based on the 'estimated proportionate use' of the relevant network assets by each of those Transmission Customers, with CRNP and modified CRNP explicitly referred to as permitted means of estimating proportionate use.

The Rules also contained new definitions of CRNP and modified CRNP to replace the lengthy descriptions in Schedule 6.4 of the existing Rules. Under the Proposed Pricing Rule the AER could make guidelines to clarify the requirements of these allocation methodologies, however, this was removed for the Draft Pricing Rule as it was considered there were limited benefits to be gained through that approach.

#### Common Transmission Service

The Rules required the ASRR allocated to Common Transmission Services to be recovered through a postage-stamped price<sup>60</sup> (see also price structure below). The

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<sup>58</sup> Clause 6A.24.3 (a) and (b)

<sup>59</sup> Clause 6A.24.3 (c) and (d)

<sup>60</sup> Clause 6A.24.3(e) of the Draft Pricing Rule

intention of this was to limit any rebalancing of Prescribed Transmission Service charges to Transmission Customers in different locations and help maintain the stability and predictability of the pricing arrangements.

### **3.2.2 Allocation of the ASRR to connection points**

#### **Submissions on the Draft Pricing Rule**

The ETNOF submission sought to confirm that the allocation of the ASRR for prescribed entry and exit services to connection points did not:

- require the application of similar priority ordering principles to those used to allocate the AARR to categories of prescribed transmission services; or
- otherwise prescribe the means by which the ASRR for entry and exit services were to be recovered from different customers at each connection point.<sup>61</sup>

The MEU contended that charges for prescribed TUoS and common services ought to be determined in proportion to the demand at the point where substations interface with TNSPs' shared network transmission lines.<sup>62</sup> In respect of new connections, the Revenue Rule set out appropriate principles, however, in respect of existing connections, the situation was not so clear and needed to be clarified. Hydro Tasmania also commented on its understanding of the boundary between connection assets and the shared transmission network in relation to the definition of 'transmission network connection point'.<sup>63</sup>

With respect to the definition of attributable connection point cost share, as with the definition of attributable cost share in clause 6A.22.3, the ETNOF submission suggested that the words "causation based" in 6A.22.4 were confusing and should be removed.<sup>64</sup>

#### **Commission Determination**

The Commission agrees with ETNOF's suggestion to delete the words "(on a causation basis)" from clause 6A.22.4. The expression "directly attributable" is intended to refer to assets that are used or required to provide the prescribed transmission service to that transmission network connection point. Just as the existing Rule does not prescribe how this allocation occurs, the new Final Pricing Rule leaves this matter to each TNSP's pricing methodology.

With respect MEU's and Hydro Tasmania's contention about the appropriate location of the connection point and hence the appropriate point for determining transmission

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<sup>61</sup> ETNOF, 30 November 2006, pp.6-7.

<sup>62</sup> Major Energy Users, November 2006, pp.42-43.

<sup>63</sup> Hydro Tasmania, 4 December 2006, pp.5-6.

<sup>64</sup> ENTNOF, 30 November 2006, p.3

charges, the Final Pricing Rule does not change the definition of 'connection point'. Therefore, where a connection point is located continues to be a matter for the TNSP and its customers to determine. The Rules do not preclude a transmission customer or customers agreeing with a TNSP on the location of the connection point. In that regard, the Commission considers this to be a matter of detail and administration and is therefore not appropriate to be specified in Rules.

### **3.2.3 CRNP and modified CRNP**

#### **Submissions on the Draft Pricing Rule**

Very few comments were received on CRNP and modified CRNP. However, ETNOF suggested that references to optimised replacement cost in Schedule 6A.4 should be broadened to include "costs that are referable to values contained in the accounts of the TNSP".<sup>65</sup> This would be consistent with the definition of asset costs in clauses 6A.22.3 and 4.

#### **Commission Determination**

The Commission agrees with ETNOF that the definition of CRNP should be modified to allow for a broader conception of costs to be used than just ORC, in line with clauses 6A.22.3 and 4. In particular, because the Commission understands that, in at least one jurisdiction, CRNP is applied with an alternative to ORC.

### **3.2.4 Summary of Step 2 Principles**

The ASRR is to be allocated in accordance with the following principles:

- The ASRR allocated to Prescribed Exit or Entry Services is to be allocated to Transmission Customers or Generators (as the case may be) on the basis of the 'attributable connection point cost share' of the individual Prescribed Exit or Entry Service provided to each Transmission Customer or Generator;
- The ASRR allocated to Prescribed TUoS Services is to be allocated to Transmission Customer connection points in the following manner:
  - a portion is to be allocated on the basis of the 'estimated proportionate use' of the relevant network assets by each of those Transmission Customers with CRNP or modified CRNP being two permitted means of making this estimation; and
  - the remainder is to be allocated by the application of a postage-stamped price;
- For the ASRR allocated to Prescribed TUoS Services, the shares of the locational and non-locational components must be either a 50% share allocated to each component or an alternative allocation based on a reasonable estimate of future network utilisation and the likely need for future transmission investment with the

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<sup>65</sup> ETNOF, 30 November 2006, p.7.

objective of providing more efficient locational price signals;

- The ASRR allocated to Common Transmission Services for Transmission Customers is to be allocated by the application of a postage-stamped price.

‘Postage stamped’ price refers to an identical unit price applied to connection points throughout the relevant region(s).

### 3.3 Price structure principles

This section develops and discusses the principles for pricing structures used to recover the portions of the ASRRs allocated to each connection point for each Prescribed Transmission Service category.

#### 3.3.1 Commission Approach<sup>66</sup>

The Commission approach to developing pricing principles to guide price structures in the Draft Pricing Rule was as follows:

- For Prescribed Entry and Exit Services - TNSPs must determine a fixed annual price at each connection point that recovers the share of the Prescribed Entry or Exit ASRR allocated to that connection point.<sup>67</sup>
- For:
  - Common Transmission Service ASRR; and the
  - Non-locational component of the Prescribed TUoS Services ASRR,prices must be postage-stamped.<sup>68</sup>
- For charges recovering the locational component of Prescribed TUoS Services ASRR, the Commission believed that the price should be structured to signal the potential long term consequences of actual or potential Transmission Customers’ use of the network. It was considered that this would provide appropriate outcomes because it is the locational component that is intended to reflect the LRMC of future network usage at various points in the grid. Therefore, the Draft Pricing Rule provided that the pricing structure must be based on demand or consumption at times that result in the highest levels of network utilisation and for which investment is most likely to be contemplated.

In addition, the Commission retained the current 2 per cent ‘side constraint’ on any given locational price compared with the average load-weighted locational price for the relevant region(s).

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<sup>66</sup> Clause 6A.24.4

<sup>67</sup> This approach is consistent with the current requirements in Part C of Chapter 6.

<sup>68</sup> This approach is also consistent with the current requirements in Part C of Chapter 6.

The Commission did not provide a detailed methodology in rules for determining whether the postage-stamped prices for Common Transmission Services and Customer TUoS General Charges should be energy-based (ie \$/MWh) or capacity-based (ie \$/MW). Rather, the Commission considered that TNSPs should propose the basis for postage stamp pricing that they consider is most appropriate to their circumstances.

Finally, the Commission highlighted that where pricing for Prescribed Entry and Exit Services is determined under the terms of connection agreements entered into on or before 24 August 2006, these Rules do not apply.<sup>69</sup>

### **3.3.2 Submissions on the Draft Pricing Rule**

The MEU made extensive comment on the appropriate pricing structure for recovering the costs of prescribed transmission services. In particular, the MEU was in favour of:

- greater emphasis on demand-based pricing for recovery of the TUoS locational, non-locational and Common Service charges;<sup>70</sup> and
- no variation in pricing structures across TNSPs.<sup>71</sup>

The rationale for the first point was that peak demand drives transmission system augmentation, while the rationale for the second point was to limit the difficulties of load customers operating across several jurisdictions. The MEU considered that allowing flexibility to the TNSPs in relation to price structure would lead to inconsistency across the NEM and decrease certainty for end-users.

On the issue of side constraints, ETNOF suggested that the two per cent cap on changes to the TUoS locational price should be relaxed in circumstances where a customer had expanded its operations and sought negotiation of its connection agreement to accommodate the increased load.<sup>72</sup>

Integral Energy commented that the drafting for applying postage-stamping to common costs could be made clearer to ensure that a TNSP can recover its operating and maintenance costs.<sup>73</sup> Stanwell Corporation also raised a similar issue in regards to the treatment of operating and maintenance costs.<sup>74</sup>

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<sup>69</sup> See Proposed Rule 6A.33.

<sup>70</sup> Major Energy Users, November 2006, p.5.

<sup>71</sup> Ibid, p.37.

<sup>72</sup> ETNOF, 30 November 2006, p.4.

<sup>73</sup> Integral Energy, 30 November 2006, p.2.

<sup>74</sup> Stanwell Corporation, 29 November 2006, p.2.

### 3.3.3 Commission Determination

In response to the point made by the MEU in favour of demand-based pricing, the Commission notes that some prescribed transmission prices are intended to send locational investment and network usage signals (for example the price recovering the TUoS locational charge) while others are not (for example the prices for recovering the TUoS non-locational charge and Common Service charges).

In respect of those prices intended to send locational investment or network usage signals, the Commission agrees that it makes sense for prices to be based on a transmission customer's demand at times of peak system demand. This is because it is network loading during peak system conditions that drives TNSPs to contemplate transmission investment to satisfy reliability criteria or enhance net market benefits. In this regard, the Draft Rule required prices for the locational TUoS charge to be based on "demand or consumption at times of greatest utilisation of the transmission network and for which network investment is most likely to be contemplated." The Commission took this path in recognition of the fact that most TNSPs already base their TUoS locational prices (currently, the TUoS Usage prices) on either or both of demand or consumption at high-demand times.

The Commission has been persuaded, however, that the Rules should be explicit that pricing for the locational TUoS charge should be based on demand (rather than consumption) of times of peak system conditions. The Commission considers that demand provides a better and clearer signal to users of the network. Therefore, the Final Pricing Rule has been amended to reflect this position.

Taking this approach in the Rules requires the resolution of two key issues. The first is the precise meaning of 'demand' – whether it should refer to contract demand, actual demand or some other measure. Resolution of this issue is likely to require consultation with TNSPs and transmission customers. The second issue is the timeframe of the assessment – whether demand and peak network conditions should be assessed over a single half-hour for the year, or whether they should be assessed over one day, several days or a longer period. The Commission believes these matters are best left to the assessment of the AER through an extensive consultation process. Therefore, the Final Pricing Rule provides for the AER to develop pricing guidelines on how demand-based pricing for the locational TUoS charge is to be formulated, having regard to:

- the desirability of consistency across the NEM, particularly for Transmission Customers that have operations in multiple jurisdictions; and
- the desirability of sending efficient signals to actual and potential Transmission Network Users regarding their investment and network utilisation decisions.

With respect to the non-locational TUoS price (currently, the TUoS General price) and the Common Service price, these are currently recovered through postage-stamped pricing – which means that prices are set at the same rate irrespective of the location or consumption of the customer. The existing Rules specify that TNSPs must calculate both an energy-based (\$/MWh) postage-stamped price for these charges as well as a demand-based price (\$/MW) and apply the most favourable to each Transmission Customer. However, the demand-based price is only to apply where the relevant

connection agreement specifies a maximum demand level with penalties for exceedence.

The Commission believes that the price structure for the non-locational TUoS charge and Common Service Charge should continue to postage-stamped. However, it would be inappropriate to specify the precise form or type of postage-stamping in the Rules. For example, postage-stamping could refer to various measures of either demand or consumption. In the Commission's view, the appropriate type of postage-stamping needs to reflect a balance of both:

- the importance of minimising the disincentive on Transmission Network Users to utilise the (existing sunk) network; and
- the importance of signalling the potential future impact of load growth on the need to invest in transmission or transmission alternatives.

In other words, the pricing structure needs to balance the demands of static efficiency and dynamic efficiency.

Once again, the Commission believes this matter is best left to the assessment of the AER. Therefore, the Final Pricing Rule provides for the AER to develop pricing guidelines on how demand-based pricing for the non-locational TUoS and Common Service charges are to be formulated, having regard to:

- the desirability of consistency across the NEM, particularly for Transmission Customers that have operations in multiple jurisdictions; and
- the desirability of sending efficient signals to actual and potential Transmission Network Users regarding their investment and network utilisation decisions.

On the issue of side constraints for the locational TUoS price, the Commission agrees with ETNOF that there may be cases where it is appropriate to relax the constraint due to step changes in demand. The Commission considers that this should only occur where the AER considers there has been a material change in demand. The Commission also believes that this flexibility should allow larger price increases *as well as decreases*, such as where a load customer closes down part of its operations. The Commission has amended the Final Rule to reflect this.

In response to Integral Energy's and Stanwell Corporation's concern, the Commission does not consider that there is a need for additional clarity or to draft an additional clause to expressly refer to operating and maintenance costs as the drafting is already sufficiently clear to those that need to apply it.

### 3.3.4 Summary of Step 3 Principles

#### Proposed Step 3 Principles

- For the recovery of the ASRR, a TNSP is to develop separate prices for each category of Prescribed Transmission Service in accordance with the following principles:
  - prices for Prescribed Entry and Exit Services must be a fixed annual amount;
  - prices for Common Transmission Service must be postage-stamped;
  - prices to recover the location component of Prescribed TUoS of the ASRR must be based on levels of demand at times of greatest utilisation of the transmission network and for which network investment is most likely to be contemplated;
  - prices to recover the location component of Prescribed TUoS of the ASRR must not change by more than two per cent per annum compared to the load-weighted average price for this component for the relevant region(s) except where the load at a connection point has materially changed, the transmission customer has requested a renegotiation of its connection agreement and the AER has approved the change; and
  - prices to recover the non-locational component of Prescribed TUoS Services ASRR must also be postage-stamped.

## 4 Procedural framework

An important element of the Commission's approach to transmission pricing is the specification of rules to provide a transparent and timely process for the making of transmission pricing decisions. By clarifying the obligations of parties involved in the regulatory process, greater certainty can be provided to market participants, with associated reductions in the time necessary for regulatory decisions making.

The key features of the Commission's proposed procedural framework are:

- an obligation on the AER to develop Pricing Methodology Guidelines in a number of specified areas; and
- aligning the obligations and timeframes for approval of a proposed pricing methodology with the process proposed in the Revenue Rule for approval of a Revenue Proposal and proposed negotiating framework.

This chapter describes the procedural requirements that the Commission proposed in the Draft Pricing Rule, the response from submissions, and the Commission's Determination in response to submissions.

### 4.1 Commission Approach

The Commission considered it appropriate that the consultation and approval process that will apply to a revenue cap determination and a proposed negotiating framework, as detailed in the Revenue Rule, should also apply to approval of a proposed pricing methodology. The Commission considered that this integration of processes will allow for a streamlined and efficient regime for the TNSP to propose its pricing methodology, and at the same time allow market participants and the regulator to obtain a better overall understanding of the links between revenue and pricing and the overall impact of the transmission determination.

The AER's role in the approval process was that it has to be satisfied that the proposed pricing methodology gives effect to the pricing principles. On this basis the Commission provided for a framework that included:

- pricing Principles contained in the Rules, as outlined in the chapter 3;
- the development of Pricing Methodology Guidelines by the AER to facilitate TNSP decision making in relation to the preparation of a proposed pricing methodology;
- a consultation and approval process that starts with a requirement for TNSPs to submit a proposed pricing methodology that conforms to the Pricing Principles in the Rules and the AER's Guidelines;
- a requirement for the AER to approve a proposed pricing methodology if it is consistent with, and gives effect to, the Pricing Principles and the Guidelines;
- a requirement for TNSPs to calculate and set prices for Prescribed Transmission Services in accordance with an (approved) pricing methodology;

- a requirement for TNSPs' approved Pricing Methodologies to be published on the website of the TNSP;
- a requirement for TNSPs to publish prices annually; and
- the maintenance of most existing obligations regarding prudential requirements and billing and settlement.

With the removal of existing detailed requirements from the Rules for transmission pricing, the Commission sought to ensure that transmission network users have the opportunity to be well informed on the price-setting process. The Commission believed that by requiring approval and publication of a pricing methodology as the basis for setting prices during a regulatory control period, the TNSP's pricing decision making is more transparent which assists in improving participant understanding of the transmission price setting mechanism.

## 4.2 Submissions on the Draft Pricing Rule

The MEU expressed strong concerns that the proposed procedural framework gave too much discretion to TNSPs to develop pricing methodologies that produced perverse or undesirable outcomes. The MEU acknowledge that the Commission's approach provides additional transparency through the approval of the pricing methodology by the AER, however, it considers that this process does not provide sufficient certainty for consumers.<sup>75</sup>

PIAC echoed this view by stating that the procedural requirements will not eliminate the complexity of transmission pricing especially in the light of what PIAC considers is a reduced oversight capacity by the AER.<sup>76</sup>

EnergyAustralia requested that certain aspects of the procedural framework be clarified. These were:

- whether the AER can refuse a TNSP's pricing methodology on any basis other than consistency with the Rules or the guidelines;
- whether the AER is required to make a decision on the appropriateness of a pricing methodology and the basis for such a decision; and
- the role of consultation, other than for consistency with Rules and guidelines, particularly where there is no intended change in methodology.<sup>77</sup>

Integral Energy submitted that limiting a TNSP's resubmitted proposal to those matters addressed by the AER could lead to the AER insisting upon amendments that may be inconsistent or contrary to other parts of the proposed pricing methodology.<sup>78</sup>

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<sup>75</sup> Major Energy Users, November 2006, p.19.

<sup>76</sup> Public Interest Advocacy Centre, 29 November 2006, p.1.

<sup>77</sup> EnergyAustralia, November 2006, p.8.

#### 4.2.1 Commission Determination

When considering the procedural requirements and the relationship between Rule making and Rule administration it is important to consider the governance framework that now exists for the NEM. The role of the Rules in the revised NEM governance arrangements is to provide regulators and market participants clear advance guidance about the content of the regulatory framework and how the regulatory functions should be carried out. The AER in this regard is responsible for the enforcement of the Rules for the NEM and the economic regulation of electricity transmission. Noting this framework, the Commission has sought to ensure that fundamental principles and processes for the regulatory framework are codified in rules in order to guide AER decision making.

The Commission also recognises that there are areas of detail and administration which require a full assessment based on the specific detail of the issue. In these circumstances it is not necessarily appropriate that the Rules specify the outcome unless there are strong reasons to do so. Therefore, as with the Revenue Rule, the Final Pricing Rule requires the AER to make determinations on issues of detail and administration with due consideration of all the elements and views available.

The rule and procedural based framework for the regulation of pricing is intended to be reflective of the governance arrangements in the NEM and the appropriate role of Rules and the AER in administering them. In that regard, a TNSP is required to ensure that it gives effect to, and is consistent with, the Pricing Principles for Prescribed Transmission Services and the guidelines developed by the AER. The AER subsequently publishes the proposed pricing methodology and accompanying information so that interested stakeholders can then make a written submission in response to it to the AER.

The Commission considers that this level of consultation on the detail and mechanics of a pricing methodology is an important improvement to the regime as this level of consultation did not occur under the existing Rules. Previously interested stakeholders were not provided with an opportunity to give transparent and public input in the methodology for the calculation of prices. The implication of the revised approach is that more detailed aspects of the framework including the implementation and administration of principles and processes have been left to the regulator to resolve with the TNSP and interested stakeholders through guided discretion. The Commission considers that the increased transparency and the ability for network users to provide input into the development of pricing methodologies better promotes the NEM Objective compared to the previous approach.

EnergyAustralia sought clarification in its submissions on the application of the procedures for approving a proposed pricing methodology in practice. In particular, EnergyAustralia was seeking clarification on when and how the AER can modify a proposed pricing methodology.

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<sup>78</sup> Integral Energy, 30 November 2006, p.3.

In assessing a proposed pricing methodology the AER is required to assess the appropriateness of it with respect to the guidance afforded in the Rules and its own guidelines. Where the pricing methodology is not consistent with the Rules the AER can require that it is modified such that it is consistent with the Rules and guidelines. The Commission accepts that there may be different interpretations of the principles in the Rules, in this context the AER is required to consider the views of stakeholders and the NEM Objective in determining the appropriate interpretation on details of implementation and administration. In addition, the Commission considers that the introduction of AER guidelines on a number of issues will provide increased clarity and certainty to market participants in this regard.

The Commission does not consider that the concerns of Integral Energy warrant a change in the Rules. The AER is required to assess the proposed pricing methodology and its consistency with the Rules and guidelines. Therefore, in resubmitting its pricing methodology in response to AER concerns the TNSP would be required to address any inconsistencies that may arise throughout their proposed pricing methodology to ensure that the proposal is consistent with the Rules and guidelines.

### **4.3 Timing of Price Methodology Proposals**

#### **4.3.1 Submissions on the Draft Pricing Rule**

The ETNOF provided further comments to their submission to the Proposed Pricing Rule in relation to the timing of implementing prices when a TNSP is seeking approval of their pricing methodology. The ETNOF agreed that using the draft pricing methodology was an appropriate approach to setting prices where a final decision on the pricing methodology has not been made for the forthcoming year. However, it considers this should only be where the AER has approved the methodology at the draft stage. In cases where the proposed pricing methodology is not approved it proposes that the pre-existing pricing methodology should be applied.<sup>79</sup>

EnergyAustralia reiterated their view that the current date of publication for transmission prices in the Rules (15 May) is too late to be implemented into distribution prices for the coming financial year. Therefore, TNSPs should be required to publish prices by 15 March each year.<sup>80</sup>

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<sup>79</sup> ETNOF, 30 November 2006, pp.4-5.

<sup>80</sup> EnergyAustralia, November 2006, p.8.

### **4.3.2 Commission Determination**

Based on the views in submissions the Commission maintains its decision that in instances where a TNSP has not yet finalised prices because it has yet to get its Pricing Methodology approved that it can use the proposed pricing methodology where this has been approved by the AER at the draft stage. The Commission agrees with the ETNOF proposal to use the previous approved pricing methodology or the previously implemented prices where the AER has not approved the proposed pricing methodology at the draft decision stage. Any under or over amount can then be recovered in the following year.

In response to EnergyAustralia's concerns, the Commission has not been persuaded that there is a significant problem with the current arrangements. The Commission understands that EnergyAustralia's primary concern is with TNSPs not meeting this timeframe. Therefore, this is a matter between the EnergyAustralia, the TNSP and potentially the AER. The Commission does not consider that there are benefits in drafting Rules with an expectation of non-compliance.

## 5 Prudent discounts

A feature of the existing Rules (clause 6.5.8) is that TNSPs are allowed (but not obliged) to negotiate a lower price for Prescribed Transmission Services than what is provided for in clauses 6.5.1 to 6.5.6. Where a TNSP agrees to a lower Customer TUoS General Charge or Transmission Customer Common Service Charge, the TNSP may recover the foregone amount from other Transmission Customers, so long as the TNSP has complied with the AER's "Guidelines for the Negotiation of Discounted Transmission Charges" (AER Guidelines)<sup>81</sup>.

The rationale for allowing these 'prudent discounts' is to prevent *inefficient by-pass* of the transmission network. 'By-pass' in this context refers to:

- technical by-pass - such as the development of a duplicate transmission line from a power station to a large load; as well as
- economic by-pass - such as a decision to not invest in or expand a load or to shut down an existing operation.

By-passing the existing transmission network can in some instances be efficient as a lower cost option may be available. This would occur where an alternative option has a lower cost compared to transmission charges based on the incremental cost of using the network. However, if the alternative option is only lower cost because transmission charges are greater than the incremental costs, then by-pass will be inefficient.

Under the Revenue Rule, TNSPs only face the risk of regulatory optimisation of assets within their Regulated Asset Bases (RAB) if:

- those assets no longer contribute to the provision of Prescribed Transmission Services;
- those assets are worth more than \$20 million (indexed) and are dedicated to a single network user or a small number of Transmission Network Users; and
- the TNSP has not sought to negotiate a discount or enter arrangements to manage the risk of the assets being commercially stranded.<sup>82</sup>

The Commission considered that this provides TNSPs with an incentive to negotiate prudent discounts in respect of services provided by certain dedicated assets.

The remainder of this chapter outlines the Commission's Final Pricing Rule in response to submissions to the Draft Pricing Rule.

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<sup>81</sup> Then the ACCC: ACCC, Guidelines for the Negotiation of Discounted Transmission Charges, 3 May 2002.

<sup>82</sup> Clause 6A.2.3 of the Draft Revenue Rule.

## 5.1 Commission Approach

In response to views in submissions the Commission agreed that the Rules should provide scope for the negotiation of prudent discounts, where appropriate. However, it was considered that the workability of the discounting arrangements could be enhanced in a number of ways. These included:

- elevating the AER's existing negotiation guidelines into the Rules;
- allowing (but not obliging) a TNSP to seek 'up front' approval from the AER for recovery of a discount and where such approval is granted, for it to be effective for the duration of the TNSP's (original) agreement with the relevant Transmission Customer; and
- providing a process in the Rules to apply to the AER's consideration of a TNSP's up front application for approval of a proposed recovery amount.

The Commission also agreed that the recovery from other Transmission Customers of discounts given under the pre-AER regime should be grandfathered<sup>83</sup>.

Finally, the Commission did not believe that prudent discounts, which relate to prescribed transmission services, ought to be the subject of a negotiating framework that applies to negotiated transmission services.

## 5.2 Submissions on the Draft Pricing Rule

The MEU believed that the Commission's prudent discounts regime provided little incentive for TNSPs to negotiate a prudent discount. The MEU stated the following in regard to the need for a strong prudent discounts regime:

*"If the TNSP is readily able to have its lost revenue recovered from other customers, then the loss of revenue from a user bypassing the TNSP is not an issue, and the TNSP can avoid the cost and aggravation of negotiating"*<sup>84</sup>

The MEU recommended that the threshold for requiring negotiation for prudent discounts should be set at \$2 million.<sup>85</sup>

Similar to the views of the MEU, Johnson, Winter & Slattery (JWS) believed that the regime for prudent discounts did not provide sufficient incentives for TNSPs to offer a discount. They also provided commentary on the prudent discounts regime submitting that the Rules should expressly contemplate economic by-pass as a ground for prudent discount.<sup>86</sup>

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<sup>83</sup> Clause 6A.27.2(l)

<sup>84</sup> MEU Supplementary Submission, 7 December 2006, p.7

<sup>85</sup> Ibid, p.8.

<sup>86</sup> Johnson, Winter & Slattery, 30 November 2006, p.1.

The ETNOF also provided a comment regarding prudent discounts submitting that it would be desirable if Rule 6A.27 commenced from 1 January 2007.<sup>87</sup>

### 5.3 Commission Determination

In the Draft Determination the Commission considered that there had not been sufficient support for a change in the regime to increase the incentives on TNSPs to negotiate with other parties regarding discounts. However, submissions to the Draft Pricing Rule have continued to express concerns and have provided further support for their claims that the proposed regime would not be effective in providing appropriate outcomes in practice. In light of the continued concern regarding this issue the Commission considers there is scope for some improvements to the regime.

In particular the Commission accepts that there are benefits from increasing the scope of the prudent discounts regime to a wider range of users. The use of a threshold (currently \$20 million) limits the scope of the risk of optimisation to those assets that are particularly large and for which the benefits of providing a discount are likely to be greater than the administration costs and costs of providing the discount. However, the Commission has been persuaded that there is a wider group of customers who could potentially benefit from requiring the TNSP to negotiate a prudent discount, without necessarily having a negative impact on the economics of the regime.

Noting that the threshold has to be set such that the economic benefits of providing a discount are greater than the costs, the Commission does not support the MEU proposal of a \$2 million threshold. Such a threshold is likely to see too many assets open to the threat of optimisation, such that the costs for the TNSP in undertaking negotiation are likely to be larger than the benefits. Therefore, the Commission believes that \$10 million provides a better balance between ensuring only appropriate optimisation risks are faced by the TNSP and the breadth of customers exposed to the regime.

The Commission also believes that in such instances where a TNSP is facing the prospect of optimisation that it is important they make a credible effort to negotiate. In practice, this should mean that in order to avoid the optimisation of assets that the TNSP should be able to demonstrate to the AER that took reasonable efforts to negotiate a discount with connected parties. The Commission notes that a number of submissions were concerned that the current arrangements do not provide sufficient incentives on the TNSP to negotiate in a credible manner. Therefore, the Commission has decided that the AER, in making a decision in relation to the optimisation of an asset, should consider if the TNSPs negotiations were undertaken in 'good faith'.

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<sup>87</sup> ETNOF, 30 November 2006, p.7.

## 6 TUoS rebates to embedded generators

The current Rules allow rebates of Customer TUoS usage charges to be provided to embedded generators, arising from savings made by Distribution Network Service Providers (DNSPs) when an embedded generator locates in their network. At present, 100 per cent of this saving is required to be passed through to the embedded generator. The rationale for this mandated approach is twofold. First, embedded generators are considered to create savings in future transmission augmentation costs. Therefore, the rebate is intended to provide an incentive for generators to locate in load-rich areas to help defer or avoid the need for future transmission investment. Second, DNSPs are considered to be in a superior bargaining position so that negotiation between the DNSP and the embedded generator proponent is not expected to result in appropriate outcomes.

In developing the transmission pricing rules, the Commission has considered whether the existing rebate arrangements should continue, or whether it is appropriate to modify the existing arrangements in some way. The Commission also considered the interaction between TUoS rebates and network support payments that can be offered to embedded generators through the application of the Regulatory Test.

### 6.1 Commission Approach

In the Proposed Pricing Rule the Commission maintained the existing arrangements for TUoS rebates. However, the Commission sought submission on three options that arose from consultation. These options were:

- that TUoS rebates apply to generators up to 10 MW in capacity while larger generators remain eligible for network support payments; or
- that a minimum threshold be defined to account for the reasonable costs of administering the TUoS rebate; or
- maintain the existing arrangements but require any network support payments to an embedded generator reflect the expected TUoS rebates they would receive.

The Commission received valuable comment back from submissions on these issues which suggested that there is a need to ensure the regime is providing effective signals to embedded generators.

The Commission believes that there are benefits in streamlining the TUoS rebates regime to prevent 'double-counting' of benefits and to promote negotiation rather than regulatory prescription. An improvement of this type could be achieved by ensuring that any network support payments to an embedded generator be reflected in the expected TUoS rebates they receive.

In addition, the Commission believes that there is some benefit in ensuring that the regime for TUoS rebates is delivering the most efficient outcomes for network utilisation. This could be achieved by establishing a threshold above which an embedded generator would need to demonstrate that it provides benefits in support of the network. In this circumstance larger generators would not necessarily receive an automatic TUoS rebates, but would offer themselves to TNSPs or DNSPs as providing

efficient non-network options for addressing congestion or meeting NSPs' reliability obligations in return for network support payments.

In undertaking its analysis the Commission formed the view that a comprehensive change to the regime for embedded generators is not within the scope of the transmission pricing rules. Instead the Commission undertook to bring these issues to the attention of the MCE for their review of the distribution Rules.

## **6.2 Submissions on the Draft Pricing Rule**

EnergyAustralia expressed disappointment that the Commission formed the view that a comprehensive change to the regime for embedded generators is not within the scope of the transmission pricing Rules. EnergyAustralia considered that the Commission was well progressed in developing a sound policy position on the relevant issues.

The MEU also provided comment on this issue stating:

*“What the outcome of addressing the jurisdictionally structured power systems has been is a view that embedded generation, while affording some benefit to the system, is only considered a small component of the system and therefore to be addressed as an adjunct to the overall system.*

*Here there is no doubt that embedded generation can and does provide a number of benefits to the network. Because of this there has been an attempt to incorporate the needs of the embedded generation into the economic approach that was developed to suit large remote generation. Thus was the concept of the TUoS rebate. The AEMC has decided that it is too hard to address the needs of the embedded generator and has referred it to the MCE”<sup>88</sup>*

## **6.3 Commission Determination**

The Commission recognises that embedded generation plays an important role in the electricity system. In that regard it is important that the signals for investment in embedded generation are effective and deliver efficient outcomes for investors and end-users. However, embedded generators, by their nature, have their greatest interaction with distribution businesses. Creating rules for embedded generation in transmission is not likely to be of significant consequence to the signals and outcomes for embedded generators. Therefore, the Commission remains of the view that the best way to deliver a comprehensive and effective the regime for embedded generation is through the rules for distribution.

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<sup>88</sup> Major Energy Users, November 2006, p.49.

## 7 Inter-regional TUoS

The current Rules allow TNSPs in regions that import electricity to receive inter-regional settlement residues (IRSRs) attributed to regulated interconnectors (clause 3.6.5(a)(5)). These amounts must be used by the importing region TNSP to reduce the Customer TUoS General Charge payable by its customers. In return, TNSPs in importing regions are required to pay a negotiated charge to the exporting region's TNSP that reflects the use of the exporting TNSP's network in effectively contributing to the creation of these residues (and benefits to the importing region). Clause 3.6.5(a)(5) of the existing Rules provide for the negotiation of these inter-regional TUoS payments to be undertaken by the respective jurisdictional governments. However, in practice only Victoria and South Australia have negotiated inter-regional TUoS payments.<sup>89</sup>

Subsequent to the release of the Issues Paper, the Commission received a Rule change request from the Victorian Department of Infrastructure, which among other matters sought to extend clause 3.6.5(a)(5)(i) until 1 July 2009. The Rule change was approved by the Commission and came into effect on 13 July 2006.<sup>90</sup>

Overall, the current Rules do not prevent a TNSP from recovering the costs of transmission interconnector investments. However, apart from the Victorian and South Australia case, TNSP's present practice is to recover the costs of such investments solely from their own customers.

### 7.1 Commission Approach

The Commission considered that an effective NEM-wide regime that provides for appropriate payments between TNSPs may be a necessary component of the regulatory framework for transmission pricing. The Commission considered that there were three options worthy of more detailed examination in relation to the treatment of inter-regional TUoS. These were:

- adopting a simplified 'rule of thumb' such as splitting the IRSR equally between the exporting and importing regions to (partially) recognise the benefit the importing region's network users gain from the exporting TNSP's network;
- implementing an inter-regional TUoS pricing arrangement by obliging TNSPs to apply the Customer TUoS Usage Charge to interconnectors. The TNSP in each importing region would pay this charge to the TNSP in the exporting regions and would recover the cost through an addition to the TUoS General charge; and
- undertaking a full NEM-wide cost allocation exercise for inter-regional TUoS pricing arrangements.

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<sup>89</sup> ESCOSA, Settlement Residue Auctions and Network rebates, April 2002, p.4

<sup>90</sup> AEMC, Extension of the Inter-regional Settlements Agreement, Final Determination, 13 July 2006.

The Commission considered that while the third option was likely to provide the best outcomes, options two and three were the most suitable to be developed in the short to medium term.

In recognition of the complexity and inter-jurisdictional nature of the issue the Commission considered that these matters are best dealt with outside the review of transmission pricing. The Commission, therefore, indicated that it would write to the MCE expressing its view and the need for a further review of the issues.

## **7.2 Submissions on the Draft Pricing Rule**

The MEU accepted in their submission that the Commission needs to refer the issue of inter-regional TUoS to the MCE. The MEU commented that there is a requirement for a national transmission planning and implementation entity which must address the NEM as a whole and identify the ways and means to incentives for the augmentation of interconnection and ensure that efficient economic principles underpin the cost allocation of inter-regional flows.<sup>91</sup>

## **7.3 Commission Determination**

The Commission notes that the ERIG provided some comment in relation to the discussion of inter-regional TUoS in the Draft Determination. In particular the ERIG stated:

*“In addition, the inter-regional arrangements need to be fully examined with efficient and robust arrangements for the payment of inter-regional TUoS put in place. ERIG is of the view that the changes suggested in this report have the potential to increase the number of strategic investments being undertaken by TNSPs, with benefits that extend past their own state borders. Accordingly, the transmission pricing arrangements need to be capable of allowing for the incremental cost of network augmentation, where the project has been enhanced due to the potential for national benefits, to be met by the beneficiary state(s).”<sup>92</sup>*

The ERIG subsequently recommend that the AEMC develop an efficient and robust inter-jurisdictional TUoS payment system. As indicated in the Draft Rule Determination the Commission has undertaken to work with the MCE on developing and reviewing the arrangements for inter-regional TUoS and will seek further guidance from the MCE on the matter.

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<sup>91</sup> Major Energy Users, November 2006, p.54.

<sup>92</sup> Energy Reform Implementation Group, *Discussion Papers*, November 2006, p.144

## 8 Consistency of the transmission rules with the Competition Principles Agreement

The final issue that the Commission has considered in developing the rules for the economic regulation of transmission services is the consistency of the rules with the requirements provided in the TPA for certification of the regime, particularly clauses 6(2) to 6(4) of the CPA. While certification of the national electricity regime is a matter for each State and Territory jurisdiction, the Commission has sought to ensure that the rules relating to the economic regulation of transmission services are capable of certification, with little or no further amendment.

The TPA provides three pathways to access monopoly infrastructure services. First, an access seeker can apply to the NCC for a recommendation that a service be declared, in accordance with section 44F. Second, an access provider can develop an access undertaking, for the approval of the Australian Competition and Consumer Commission (ACCC), in accordance with section 44ZZA. Third, a State or Territory jurisdiction can apply to the NCC for certification of an access regime, as provided in Division 2A of Part IIIA. Each approach has different criteria for assessment, which creates potential for different access arrangements to be developed according to the pathway chosen. The MCE however, has indicated that it intends to seek certification of the national electricity regime.<sup>93</sup>

In summary, the certification process requires each state and territory jurisdiction to apply to the NCC seeking certification of the electricity access regime. The NCC is required, in accordance with section 44M(4) of Part IIIA of the TPA, to assess the regime against clauses 6(2) to 6(4) of the CPA.

Based on this assessment, the NCC determines whether the regime is 'effective' in accordance with the CPA requirements and recommends to the relevant Commonwealth Minister whether the regime it should be certified. In accepting a recommendation that the regime be certified, the Minister must specify the period for which the regime is to be considered certified, in accordance with section 44N of the TPA.

Certifying the electricity regime creates certainty for both access seekers (transmission and distribution service users) and infrastructure providers on the regulatory approach to accessing electricity services. Once the regime is certified, the NCC cannot subsequently recommend declaration of the service, unless it believes there have been substantial modifications to the regime since it was certified, and these modifications are contrary to the CPA requirements.<sup>94</sup> Certainty in the regulatory regime creates appropriate incentives for ongoing efficient investment in, and use of, electricity transmission and distribution infrastructure, consistent with the NEM Objective.

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<sup>93</sup> The Ministerial Council on Energy has indicated that it intends to seek certification for the energy regulatory regime, as the national model for energy access: The Council of Australian Governments ('COAG') confirmed this approach at its meeting in Canberra on 10 February 2006, see: COAG Meeting, 10 February 2006, Communiqué.

<sup>94</sup> Section 44G(4), TPA.

Given the Commission's reference for this review is in relation to the economic regulation of transmission services, it has only considered issues that may arise in the context of an application by the jurisdictions for certification in relation to the transmission rules. The Commission recommends however that these issues also be considered in detail as part of the development of the initial rules for the regulation of distribution services. The overall effectiveness of the electricity regulatory regime will also be dependent on the consistency of regulatory approaches between each element of the electricity industry.

In undertaking this analysis of the rules relating to transmission services, the Commission has focused on two key areas, as highlighted in a report undertaken on the Commission's behalf by NERA Economic Consulting:

- first, the need to provide for an **enforceable right of access** to prescribed and negotiated services; and
- second, creating an **effective dispute resolution framework** for transmission services.

A key finding of the NERA review was that:<sup>95</sup>

*"Our key conclusion from this analysis is that the Rules developed by the Commission for the economic regulation of transmission services, are consistent with the principles required for certification and specified in clauses 6(2) to 6(4) of the Competition Principles Agreement. Concerns arise however in relation to whether the Rules provide an 'enforceable right of access' to transmission services, and the effectiveness of the dispute resolution mechanism, particularly because of the split in arbitration processes for price and non-price terms and conditions between chapter 6A mechanism and that provided in chapter 8."*

It should be emphasised that the Commission's amendments as described in this chapter have only been to ensure that the transmission rules are consistent with the requirements in the CPA. The Commission acknowledges that these amendments and issues have not been raised in any of the preceding consultation documents in relation to this review. This is unfortunate and inconsistent with the Commission's commitment to consultation and transparency of decision making. However, the Commission believes that it is in the interests of all stakeholders that the rules provide certainty in relation to the regulation of electricity services and avoid the potential for electricity users seeking access through alternative means as provided in Part IIIA of the TPA.

The changes to the Rules made by the Commission to comply with the requirements of the CPA are also consistent with well established and previously agreed policy views as to the necessary requirements for providing an effective regulatory regime. To this end, they are considered by the Commission to be sufficiently important to make prior to the completion of its review. It will still, however, be necessary at the time of an

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<sup>95</sup> NERA, *Consistency of the Transmission Rules with the Competition Principles Agreement*, December 2006, p.60.

application for certification for the jurisdictions and the NCC to undertake a complete and comprehensive independent review of the entire regime against the CPA requirements. This review may identify further matters that require the rules to be amended, which would then be referred to the Commission for consideration via the usual rule change process.

In examining whether the transmission rules satisfy the CPA requirements, the Commission has made a number of changes to the rules in response to issues identified. The main amendments to the rules are as follows:

- inclusion of a specific enforceable right of access to prescribed and negotiated transmission services under the Rules – clause 6A.1.3(1);
- requiring TNSPs to not engage in conduct that would hinder access – clause 6A.1.3(3); and
- applying the commercial arbitration framework to disputes in relation to both price and non-price aspects of service provision which are inextricably linked, and also to prescribed services. For disputes in relation to the price of prescribed services, the commercial arbitrator is bound by the same requirements as the TNSP to the pricing methodology approved by the AER in accordance with Part J of Chapter 6A of the Rules – Part K, Chapter 6A;

The chapter is structured as follows:

- Section 1 outlines the issue in relation to the enforceable right of access and the Commission’s approach to creating an enforceable right of access, including prohibiting the hindering of access by a TNSP;
- Section 2 outlines the Commission’s approach to creating an effective dispute resolution mechanism for price and non-price terms and conditions and the specification of the criteria that an arbitrator must take into consideration in the context of an arbitration; and
- Section 3 provides the Commission’s final views in relation to certification of the rules relating to the economic regulation of transmission services.

## **8.1 An effective access framework**

For an access regime to satisfy the CPA requirements, it must provide an appropriate framework for access seekers to obtain access to the relevant services. In this regard, the CPA provides a range of requirements including:

- a requirement to provide of an enforceable right of access – clauses 6(4)(a) to (c);
- a requirement for TNSPs to use all reasonable endeavours to provide access – clause 6(4)(e); and
- a prohibition against conduct for the purpose of hindering access – clause 6(4)(m).
- The Commission’s approach to each of these requirements is discussed below.

### 8.1.1 An enforceable right of access

The CPA in clauses 6(4)(a) to (c) in combination require an access regime to:

- provide for negotiation of terms and conditions of access between an access seeker and facility provider, wherever possible – clause 6(4)(a);
- where agreement cannot be reached, provide a right to access – clause 6(4)(b); and
- the right to access should be accompanied with an enforcement process – clause 6(4)(c).

In developing the definitions of prescribed and negotiated transmission services, the Commission has carefully balanced considerations regarding the market power characteristics of the service, and the potential cost and incentive benefits that are expected to be achieved through providing a more flexible form of regulation. For prescribed services, the Commission believes that a control form of regulation is appropriate, with prices determined by the AER through the regulatory determination process established in the Rules. As highlighted by the NCC<sup>96</sup> this is consistent with clause 6(4)(a). For negotiated transmission services, the Commission believes there are benefits arising from providing a less intrusive form of regulation, with access to dispute resolution in the event direct negotiations fail.

The Commission therefore believes that its approach to defining services is consistent with the requirements of clause 6(4)(a). As indicated by NERA, the balancing approach applied by the Commission is likely to also be consistent with the clause 6(4)(i) requirements, thereby further ensuring compliance with the CPA requirements.<sup>97</sup>

Upon examining the rules however, it is apparent that clauses 6(4)(b) and (c) are unlikely to be satisfied. While arguably, an enforceable right of access may arise indirectly in the current Rules via the Chapter 8 dispute resolution framework “enforcing” the Rules relating to connection in Chapter 5, there is no explicit right of access.

An enforceable right of access is an important element within an effective access regime. Its absence can potentially allow a TNSP to refuse access to transmission services even on terms and conditions agreed by the access seeker. This would create an opportunity for an aggrieved access seeker who is unable to gain access to seek declaration of transmission facilities in accordance with the TPA.

To address this concern, the Commission has decided to include as the foundation for economic regulation of transmission services, an enforceable right of access, in order to

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<sup>96</sup> NCC, *The National Access Regime: A Guide to Part IIIA of the Trade Practices Act, Part C – Certification of Access Regimes*, February 2003, p.15 paragraph 2.19.

<sup>97</sup> See section 4.2.2, NERA, *Consistency of the Transmission Rules with the Competition Principles Agreement*, December 2006, pp.23-25.

satisfy the requirements of clause 6(4)(b) and (c). Clause 6A.1.3 provides an express right of access for both prescribed and negotiated transmission services, subject to and in accordance with, the Rules. The rule provides a right to apply for the provision of prescribed or negotiated transmission services (clause 6A.1.3(1)), and the TNSP must provide the requested service on terms and conditions consistent with the requirements provided in the rules (Rule 6A.1.3(2)).<sup>98</sup>

Given the seriousness of any failure to provide access by a TNSP, the Commission recommends that the right of access provided in clause 6A.1.6 be nominated as a civil penalty provision in accordance with section 58 of the NEL. Due to its importance in the access regime for electricity, it would be appropriate for the penalty to be significant in monetary terms. This would mean that a failure by a TNSP to provide access to prescribed or negotiated services is enforceable by the AER under the NEL regime as a breach of the Rules and would attract a significant financial penalty.

### **8.1.2 Requirement to use all reasonable endeavours**

Clause 6(4)(e) of the CPA requires the owner of a facility to use all reasonable endeavours to accommodate a person seeking access. This requirement ensures that access is not prevented on the basis of the actions of an infrastructure provider allowing access, but with terms and conditions designed to prevent actual access occurring.

The Commission has provided in Parts E and F of Chapter 6A a comprehensive regulatory and information gathering process that ensures a TNSP uses all reasonable endeavours, particularly in the context of prescribed services. The relevant elements of this process include:

- the submission of a revenue proposal by a TNSP to the AER relating to prescribed services – clause 6A.10.1;
- examination and consultation on the revenue proposal by the AER – clause 6A.11;
- making of a draft decision in accordance with guidance provided in the rules, and further consultation by the AER – clause 6A.12;
- making of a final decision by the AER in accordance with the rules – clause 6A.13;
- guidance on the contents and reasons for decision by the AER – clause 6A.14;
- information disclosure requirements on a TNSP to the AER – clause 6A.17; and
- information disclosure by the AER – clause 6A.18.

In combination, the Commission believes that these rules ensure that a TNSP must use all reasonable endeavours to provide relevant information to allow the terms and

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<sup>98</sup> To complete the creation of an explicit enforceable right of access in Chapter 6A, the Commission has now deleted the previous Rule 6A.9.7 and Schedule 6A.3 that expressly excluded consideration of non-price matters by a TNSP or a Commercial Arbitrator.

conditions of access to prescribed services to be determined by the AER, in accordance with the rules.

A TNSP's negotiating framework in relation to negotiated transmission services, clause 6A.9.5, in effect requires the TNSP to use all reasonable endeavours in negotiations for those services, and therefore access. The relevant elements of this process include:

- requirements on a TNSP to provide commercial information that an access seeker may reasonably require to enable that person to engage in effective negotiation with the provider as to the price at which the negotiated service is to be provided – clause 6A.9.5(c)(4);
- requirements on the TNSP to advise an access seeker of the reasonable costs of providing the negotiated service – clause 6A.9.5(c)(3)(i);
- requirements on the provider to demonstrate to an access seeker how the charges reflect those costs – clause 6A.9.5(c)(3)(ii);
- requirement on a TNSP to specify the time period for negotiating access and use reasonable endeavours to meet the specified time frame – clause 6A.9.5(c)(5); and
- requirements for TNSPs and users to negotiate in good faith – clause 6A.9.5(c)(1).

The Commission has re-examined the requirements placed on a TNSP in the context of the provision of prescribed and negotiated services in light of the requirement in clause 6(4)(e) of the CPA. The Commission believes that the requirements imposed in the rules is consistent with, and also requires that, both users and TNSPs use best endeavours to accommodate access. It has therefore decided to make no additional amendments to the rules to satisfy clause 6(4)(e).

### **8.1.3 Prohibition against hindering access**

Clause 6(4)(m) of the CPA requires an owner or user of a service to not engage in conduct that prevents access to the service by any other person. Importantly, this requirement would require the Rules to place obligations on both TNSPs and users of transmission services, to not take any action that would hinder the use or access to transmission services by any other person.

The Commission was concerned that Chapter 6A did not expressly provide for a requirement prohibiting the hindering of access. This omission may have implications on the satisfaction of the Rules in relation to clause 6(4)(m). To address this issue, the Commission has included in clause 6A.1.3(3) an obligation on both TNSPs and users to not engage in any conduct that would hinder access to transmission services.

## **8.2 An effective dispute resolution mechanism**

The CPA requires that, in the event that the terms and conditions of access cannot be agreed between the parties, an independent body should be appointed to resolve the dispute – clause 6(4)(g). The CPA provides a series of requirements for a dispute resolution mechanism to be considered effective, including:

- the dispute resolution body must be appointed and funded by, but be independent of, the parties – clause 6(4)(g);

- the decisions of the dispute resolution body must be binding, although rights of legislative appeal should be preserved – clause 6(4)(h);
- the dispute resolution body must be capable of taking into account all of the requirements specified in clause 6(4)(i); and
- the dispute resolution body must be adequately resourced, and have access to sufficient information to make its decisions – clause 6(4)(o).

A key concern of the Commission was the satisfaction that the dispute resolution framework adequately allowed for the balancing of the elements provided in clause 6(4)(i). The Commission is satisfied that the criteria specified for the commercial arbitrator as previously provided in schedule 6A.3 (and now incorporated in Part K of Chapter 6A) in relation to disputes on negotiated prices is consistent with the requirements of clause 6(4)(i).<sup>99</sup> However, the fact that the current rules provide multiple dispute resolution mechanisms in relation to disputes about non-price terms and conditions – the Chapter 8 mechanism – suggested that the overall dispute resolution framework was unlikely to satisfy the clause 6(4)(i) requirements.

In addition, the Commission notes the assessment by NERA that indicates that the Chapter 8 mechanism itself is also unlikely to satisfy the clause 6(4)(i) requirements. NERA indicates:<sup>100</sup>

“whilst the provisions in chapters 5 and 8 do not necessarily preclude an advisor or a DRP from reaching an appropriate determination, they are sufficiently unclear as to not promote confidence among the parties that credible and reasonably consistent outcomes will occur, consistent with clause 6(4)(i).”

The Commission has therefore decided to amend the rules to ensure that the dispute resolution framework as it applies to transmission services satisfies the requirements for certification, by complying with the relevant CPA requirements. The amendments made include:

- the inclusion of a dispute resolution framework applicable to all disputes relating to price and non-price terms and conditions for prescribed and negotiated services within the Chapter 6A mechanism (“transmission service access disputes”)– Part K, Chapter 6A, Rule 6A.30;
- creating a new definition for *terms and conditions of access* to allow elements of Chapter 6A that previously applied only to price related matters, to also apply to non-price related matters as provided within the rules;
- requiring the commercial arbitrator to determine disputes in relation to negotiated services in accordance with the principles relating to negotiated

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<sup>99</sup> See detailed examination in section 6.2.3.1, NERA, *Consistency of the Transmission Rules with the Competition Principles Agreement*, December 2006, pp.45-46.

<sup>100</sup> NERA, *Consistency of the Transmission Rules with the Competition Principles Agreement*, December 2006, p.47

transmission services provided in clause 6A.9.1 and the pricing criteria developed in accordance with clause 6A.9.4;

- amending the principles in clause 6A.9.1 to be applicable to the terms and conditions of access for a negotiated transmission service, rather than only price;
- requiring the commercial arbitrator to determine disputes in relation to the price of prescribed services in accordance with the relevant AER approved pricing methodology;
- requiring the commercial arbitrator to determine disputes in relation to the non-price terms and conditions of prescribed services in accordance with the rules, particularly the requirements in Chapters 4, 5 and 6A clause 6A.30.4; and
- deleting previous clauses 6A.9.7 and S6A.3.5(c), which prevented the commercial arbitrator from directing a TNSP to provide negotiated services, and empowering the arbitration to include in a determination a direction to provide services.
- The Commission's reasons for the inclusion of each of these requirements are provided below.

### **8.2.1 Providing a single dispute resolution process for price and non-price terms and conditions**

A critical concern with the splitting of the dispute resolution mechanism between non-price disputes provided in Chapter 8 and price disputes provided in Chapter 6A, is the impact on the effectiveness of the overall dispute resolution mechanism.

As highlighted in submissions, it is difficult to negotiate price matters in isolation from non-price terms and conditions of access, mostly provided through the requirements in Chapter 5.<sup>101</sup> Any distinction between the two frameworks is therefore likely to impact on the effectiveness of the entire arbitration regime.

While the Commission is satisfied that the earlier provisions relating to the commercial arbitrator were sufficient to satisfy the clause 6(4)(i) requirements in the CPA, because they were limited to price issues, it did not allow for the arbitrator to meaningfully balance interests in relation to both price and non-price terms and conditions. It is likely that for the dispute resolution mechanism to satisfy the clause 6(4)(i) requirements as a whole, it is necessary to establish a single mechanism for addressing disputes, recognising that price and non-price matters are inextricably linked.

As discussed in greater detail in section 8.2.2 below, the Commission is concerned that the Chapter 8 framework does not provide sufficient guidance to the dispute resolution body to satisfy the clause 6(4)(i) requirements. The Commission has therefore provided in the Rules for any disputes in relation to the terms and conditions of access to prescribed and negotiated transmission services to be undertaken in accordance with the requirements in Chapter 6A. To implement this decision, the Commission has

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<sup>101</sup> MEU, November 2006, p.7 ; Johnson, Winter & Slattery, 30 November 2006, p.1.

brought the integrated dispute resolution framework into Chapter 6A through the new Part K.

In addition, the Commission has extended the commercial arbitration framework to price and non-price terms and conditions of access for prescribed services. Acknowledging the importance of ensuring that the arbitrator does not deviate from the outcomes of a process conducted by the AER in accordance with the requirements in the Rules, the Commission has also provided in clause 6A30.4 a requirement that the arbitrator is bound to comply with a pricing methodology where relevant.

The effect of these amendments are:

- the Rules provide a consistent dispute resolution mechanism for price and non-price terms and conditions of access for negotiated services; and
- the Rules provide a dispute resolution mechanism for prescribed services, which was previously absent from the Rules.
- The Commission believes that these amendments to the Rules will ensure that the transmission regulatory regime creates an effective dispute resolution mechanism in accordance with the requirements of clauses 6(4)(g) and (h).

## **8.2.2 Guidance for the commercial arbitrator**

Finally, for the dispute resolution mechanism to be effective, it must have the effect of requiring the dispute resolution body to take into account the criteria specified in clause 6(4)(i) of the CPA. These criteria can be grouped into a number of themes including:

- the interests of the facility owner – clauses 6(4)(i)(i), (iv), and (v);
- the costs of providing access – clauses 6(4)(i)(ii), (iii), and (vi); and
- economic efficiency objectives – clauses 6(4)(i)(vii) and (viii).

Given that these criteria may conflict and overlap, the NCC has indicated that so long as the dispute resolution mechanism is likely to result in outcomes that are consistent with those likely to be achieved in an effectively competitive market, the clause 6(4)(i) requirements will be met.<sup>102</sup>

The Commission has broadened the requirements placed on the commercial arbitrator to encompass non-price matters for both prescribed and negotiated transmission services. The requirements are:

- requiring the commercial arbitrator to determine disputes in relation to negotiated services in accordance with the principles relating to negotiated

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<sup>102</sup> NCC, *The National Access Regime: A Guide to Part IIIA of the Trade Practices Act, Part C – Certification of Access Regimes*, February 2003, pp.57-58, paragraph 3.149.

transmission services provided in clause 6A.9.1 and the criteria developed in accordance with clause 6A.9.4;

- the price for a negotiated service should be based on the costs incurred in providing that service – clause 6A.9.1(1);
- the price for a negotiated service should in most cases be at least equal to the avoided cost of providing it but no more than the cost of providing it on a stand-alone basis – clause 6A.9.1(2);
- that prices must be the same for all users unless a material cost difference exists – clause 6A.9.1(5);
- that prices should be adjusted over time to the extent the assets used to provide the service are provided to other persons, in which case adjustments should reflect the extent to which the costs of that asset are being recovered through charges to those other persons – clause 6A.9.1(6);
- that the price should enable the provider to recover the efficient costs of complying with all regulatory obligations associated with the provision of negotiated services – clause 6A.9.1(7);
- amending clause 6A.9.1(8) to (10) to be applicable to the terms and conditions of access for a negotiated transmission service, rather than only price;
- requiring the commercial arbitrator to determine disputes in relation to the price of prescribed services in accordance with the relevant pricing methodology and Part J determination by the AER; and
- requiring the commercial arbitrator to determine disputes in relation to the non-price terms and conditions of prescribed services in accordance with the rules, particularly the requirements in Chapter 4, 5 and 6A.
- The Commission believes that, in combination, the Rules outlined above adequately consider the interests of the facility owner and existing facility users, the costs of providing access and efficiency objectives, for any dispute in relation to price and non-price terms and conditions relating to prescribed and negotiated transmission services.<sup>103</sup>

### **8.3 Commission’s views in relation to certification**

The Commission’s approach has been to ensure that the rules developed for the economic regulation of transmission services are consistent, to the greatest extent possible, with the requirements of the CPA. The additions to the rules that the Commission has decided to include to ensure consistency will facilitate any future application for certification to the NCC by the jurisdictions for the entire national electricity regulatory regime.

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<sup>103</sup> For a detailed analysis of these requirements in relation to the dispute resolution mechanism for negotiated services see NERA, *Consistency of the Transmission Rules with the Competition Principles Agreement*, December 2006, pp.41-48.

It will be important however, for a similar exercise to be undertaken in the development of the rules relating to the economic regulation of distribution services. The Commission recommends that the MCE consider this issue in further detail as it finalises the electricity distribution Rules.

The Commission is confident that the changes to the Rules determined through its review of the rules relating to the revenue and pricing of transmission services is consistent with the CPA requirements, and where these rules interact with other aspects of the Rules that may not satisfy the CPA requirements, appropriate amendments have been made. Despite these changes, the Commission is mindful that it will be necessary, particularly in developing the appropriate dispute resolution mechanism to apply to distribution services, that the CPA requirements be explicitly considered.

## Appendix 1: Schedule 1 to NEL items 15-24

- 15 The regulation of revenues earned or that may be earned by owners, controllers or operators of transmission systems from the provision by them of services that are the subject of a transmission determination.
- 16 The regulation of prices charged or that may be charged by owners, controllers or operators of transmissions systems for the provision by them of services that are the subject of a transmission determination, and the methodology for the determination of those prices.
- 17 Principles to be applied, and procedure to be followed, by the AER exercising or performing an AER economic regulatory function power.
- 18 The assessment, or treatment by the AER, of investment in transmission systems for the purposes of making a transmission determination.
- 19 The economic framework and methodologies to be applied by the AER for the purposes of item 18.
- 20 The mechanisms or methodologies for the derivation of the maximum allowable revenue or prices to be applied by the AER in making a transmission determination.
- 21 The valuation, for the purposes of making a transmission determination, of assets forming part of a transmission system owned, controlled or operated by a regulated transmission system operator, and of proposed new assets to form part of a transmission system owned, controlled or operated by a regulated transmission system operator, that are, or are to be, used in the provision of services that are the subject of a transmission determination.
- 22 The determination by the AER, for the purpose of making a transmission determination with respect to services that are the subject of such a determination, of:
  - a. a depreciation allowance for a regulated transmission system operator; and
  - b. operating costs of a regulated transmission system operator; and
  - c. an allowable rate of return on assets forming part of a transmission system owned, controlled or operated by a regulated transmission system operator.
- 23 Incentives for regulated transmission system operators to make efficient operating and investment decisions.

- 24 The procedure for the making of a transmission determination by the AER, including
- a. the publication of notices by the AER; and
  - b. the making of submissions, including by the regulated transmission system operator to whom the transmission will apply and by affected Registered participants (within the meaning of section 16 (3)); and
  - c. the publication of draft and final determinations and the giving of reasons: and
  - d. the holding of pre-determined conferences.

## **Appendix 2: List of Submissions**

Australian Energy Regulator

Australian Pipeline Industry Association

Electricity Transmission Network Owners Forum

EnergyAustralia

Energy Users Association of Australia and Energy Action Group

Flinders Power

Hydro Tasmania

Integral Energy

Major Energy Users Inc and Major Employers Group of Tasmania

Public Interest Advocacy Centre

SP AusNet

Stanwell Corporation Limited

## Appendix 3: Competition Principles Agreement

- 6(2) The regime to be established by the Commonwealth legislation is not intended to cover a service provided by means of a facility whether the State or Territory Party in whose jurisdiction the facility is situated has in place an access regime which covers the facility and conforms to the principles set out in this clause unless:
- (a) the council determines that the regime is ineffective having regard to the influence of the facility beyond the jurisdictional boundary of the State or Territory; or
  - (b) substantial difficulties arise from the facility being situated in more than one jurisdiction.
- 6(3) For a State or Territory access regime to conform to the principles set out in this clause, it should:
- (a) apply to services provided by means of significant infrastructure facilities where:
    - (i) it would not be economically feasible to duplicate the facility;
    - (ii) access to the service is necessary in order to permit effective competition in a downstream or upstream market; and
    - (iii) the safe use of a facility by the person seeking access can be ensured at an economically feasible cost and, if there is a safety requirement, appropriate regulatory arrangements exist; and
  - (b) incorporate the principles referred to in subclause (4).
- 6(4) A State or Territory access regime should incorporate the following principles:
- (a) Wherever possible third party access to a service provided by means of a facility should be on the basis of terms and conditions agreed between the owner of the facility and the person seeking access.
  - (b) Where such agreement cannot be reached, Governments should establish a right for persons to negotiate access to a service provided by means of a facility.
  - (c) Any right to negotiate access should provide for an enforcement process.
  - (d) Any right to negotiate access should include a date after which the right would lapse unless reviews and subsequently extended; however, existing contractual rights and obligations should not be automatically revoked.
  - (e) The owner of a facility that is used to provide a service should use all reasonable endeavours to accommodate the requirement of person seeking access.

- (f) Access to a service for persons seeking access need not be on exactly the same terms and conditions.
- (g) Where the owner and a person seeking access cannot agree on terms and conditions for access to the service, they should be required to appoint and fund an independent body to resolve the dispute, if they have not already done so.
- (h) The decisions of the dispute resolution body should bind the parties; however, rights of appeal under existing legislative provisions should be preserved.
- (i) In deciding on the terms and conditions for access, the dispute resolution body should take into account:
  - (i) the owner's legitimate business interests and investment in the facility;
  - (ii) the costs to the owner of providing access, including any costs of extending the facility but not costs associated with losses arising from increased competition in upstream or downstream markets;
  - (iii) the economic value to the owner of any additional investment that the person seeking access or the owner has agreed to undertake;
  - (iv) the interests of all persons holding contracts for use of the facility;
  - (v) firm and binding contractual obligations of the owner or other persons (or both) already using the facility;
  - (vi) the operational and technical requirements necessary for the safe and reliable operation of the facility;
  - (vii) the economically efficient operation of the facility; and
  - (viii) the benefit to the public from having competitive markets.
- (j) The owner may be required to extend, or to permit extension of, the facility that is used to provide a service if necessary but this would be subject to:
  - (i) such extension being technically and economically feasible and consistent with the safe and reliable operation of the facility;
  - (ii) the owner's legitimate business interests in the facility being protected; and

- (iii) the terms of access for the third party taking into account the costs borne by the parties for the extension and the economic benefits to the parties resulting from the extension.
- (k) If there has been a material change in circumstance, the parties should be able to apply for a revocation or modification of the access arrangement which was made at the conclusion of the dispute resolution process.
- (l) The dispute resolution body should only impede the existing right of a person to use a facility where the dispute resolution body has considered whether there is a case for compensation of that person and, if appropriate, determined such compensation.
- (m) The owner or user of a service shall not engage in conduct for the purpose of hindering access to that service by another person.
- (n) Separate accounting arrangements should be required for the elements of a business which are covered by the access regime.
- (o) The dispute resolution body, or relevant authority where provided for under specific legislation, should have access to financial statements and other accounting information pertaining to a service.
- (p) Where more than one State or Territory regimes applies to a service, those regimes should be consistent and, by means of vested jurisdiction or other cooperative legislative scheme, provide for a single process for persons to seek access to the service, a single body to resolve disputes about any aspect of access and a single forum for enforcement of access arrangements.