

# Compendium of Electricity Transmission Regulatory Guidelines

AUGUST 2005





## Message from the Chair

On 1 July 2005, the Australian Energy Regulator (AER) assumed the Australian Competition and Consumer Commission's (ACCC) responsibilities for the regulation of electricity transmission services in the National Electricity Market (NEM). As part of its best practice approach to regulation, the AER considers that at any point in time its approach, processes and policies with respect to regulation should be transparent. In this context and notwithstanding the AER is in the early stages of establishment, the AER has decided to release a compendium of regulatory guidelines for electricity transmission. The compendium includes:

- The Statement of Principles for the Regulation of Electricity Transmission Services (SRP)
- The Regulatory Test
- Service Standards Guidelines
- Guidelines for the Negotiation of Discounted Transmission Charges
- Transmission Ring-fencing Guidelines
- Information Requirements Guidelines
- The Post Tax Revenue Model and a handbook explaining the model.

This compendium is largely based on approaches developed by the ACCC, but draws all of the material together as a complete set of reference documents.

The compendium is intended as a user friendly overview of the AER's guidelines. In some areas there are additional detailed supporting documents. These are included in the accompanying CD.

The documents comprising the compendium were developed by the ACCC following extensive stakeholder consultation. The AER has decided to adopt these policies as a starting point to its own approach to regulation. This will evolve over time in consultation with industry participants and energy users and the compendium will be updated accordingly.

The compendium, therefore, represents the AER's current approach to regulating electricity transmission services. The AER will be monitoring the effectiveness of these guidelines and will review aspects in response to issues raised by industry and other interested parties and as circumstances, theory and best practice regulation develops over time. The guidelines may also be influenced by amendments to the National Electricity Market Rules. The AER will consult affected parties before making any changes. It is noted that the ring-fencing guidelines and the information requirements guidelines, in particular, are subject to change following a consultation process to be undertaken by the AER.

The guidelines in this compendium have been revised to reflect the governance arrangements and the changes in terminology that took effect on 1 July 2005. In

particular, references to the ACCC have been changed, where necessary, to the AER. Similarly, references to the National Electricity Code have been changed to the National Electricity Rules. A number of other minor amendments have also been made.

### *“One stop” national regulator*

Regulatory arrangements across the states and territories are fragmented. Currently there are seven economic regulatory agencies across the NEM with seven sets of regulatory instruments and seven different regulatory approaches. The consequential costs and uncertainty to business was recognised in the Energy Market Review (2003)<sup>1</sup> and is being addressed by the Commonwealth and state and territory governments in their development of a national framework for the energy sector. In December 2003, as part of this process, the Ministerial Council on Energy agreed to establish the AER and to transfer distribution and retail functions (apart from retail pricing) to it by the end of 2006. The agreement covers all states and territories participating in the NEM.

Accordingly, at this stage, this compendium only relates to electricity transmission. The AER would expect to develop a compendium of regulatory guidelines for energy distribution at a future time, for purposes of carrying out its distribution regulation responsibilities once transferred.

Once all of its functions are in place the AER will become a “one stop” national regulator. This will establish consistency in regulation across the NEM and across the gas and electricity sectors.

### *Best practice regulation*

The AER’s objective is to implement best practice regulation. Its focus will be on promoting efficient investment through a stable and predictable regulatory regime. To help achieve this, the AER will:

- adopt the opening asset valuations set by the ACCC unless the service provider can provide compelling reasons to vary them,
- add in new investment at cost at the end of each regulatory period consistent with the incentive regime outlined in the SRP, and
- provide stability in the Weighted Average Cost of Capital (WACC) parameters.

More generally the AER aims to provide stability in the regulatory framework it applies. The AER will only make changes after undertaking a thorough consultation process.

To help service providers and other interested parties predict the outcomes of AER processes, the AER will provide as much transparency about its regulatory approach as possible. The up front rules will be clear to the industry and provided well in

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<sup>1</sup> Ministerial Council on Energy, *Report to the Council of Australian Governments - Reform of Energy Markets*, 11 December 2003.

advance of relevant decisions. Releasing the compendium is a first step towards achieving this aim.

The compendium includes details on the AER's process for conducting price reviews. The process provides for extensive consultation with shareholders and sets out time frames. There may be scope to further streamline the process outlined. The AER's objective is to run a process that is as efficient and timely as possible.

In order to reduce the time taken to make decisions, the AER will look at ways to streamline regulatory process. This does not mean compromising robust analysis, rather it is about getting the right pitch below which costs and delays in analysis outweigh the benefits. To help in this the AER will look at initiatives like streamlining information requirements and providing more guidance on the information required in applications. The AER has commenced a review of the information requirement guidelines and will consult with industry and other interested parties as it develops a new approach.

The compendium will accordingly be updated over time with revisions released as appropriate.

#### *Feedback*

I hope that this compendium will prove to be a useful tool for interested parties to both understand the AER's approach to regulation and a point around which dialogue for improvements to regulation can take place in the future. I encourage you to read the compendium and provide feedback to the AER.

Steve Edwell  
Chairman



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## **Glossary**

ACCC	Australian Competition and Consumer Commission
AER	Australian Energy Regulator
Capex	Capital and Maintenance Expenditure
CAPM	Capital Asset Pricing Model
code	National Electricity Code (predecessor to the National Electricity Rules)
DRP	Draft Statement of Principles for the Regulation of Transmission Revenue (May 1999)
EBIT	Earnings before income and tax
EBITD	Earnings before income, tax and depreciation
MAR	Maximum Allowed Revenue
MC	Marginal Cost
MCE	Ministerial Council on Energy
MRP	Market Risk Premium
NECA	National Electricity Code Administrator
NEM	National Electricity Market
NEMMCO	National Electricity Market Management Company
NER	National Electricity Rules
Opex	Operating and Maintenance Expenditure
PTRM	Post Tax Revenue Model
RAB	Regulated Asset Base
SRP	Statement of Principles for the Regulation of Electricity Transmission Revenues
TNSP	Transmission Network Service Provider
TUOS	Transmission Use of System
WACC	Weighted Average Cost of Capital



## **Statement of Regulatory Principles**



## Statement of Regulatory Principles

The *Statement of principles for the regulation of electricity transmission revenues* (SRP) sets out the general approach to intended approach to setting CPI-X revenue caps for regulated electricity transmission network service providers (TNSPs).

The National Electricity Rules (NER) require the implementation of an incentive based regulatory regime in the form of a revenue cap or some incentive based variant. The NER intend that this incentive regime should foster efficient investment and operating practices, and ensure quality of service.

The SRP sets out how the NER obligations are intended to be implemented. The main objectives are to:

- promote certainty for investment
- improve efficiency incentives and
- enhance greater transparency of TNSP cost and service performance.

The fundamental cornerstone to the SRP's approach to regulation is an incentive based regime. The aim is to provide transmission companies with the incentives to operate more efficiently and undertake needed investment. If they are able to outperform benchmark costs they can keep the excess revenue and vice versa. If the company gains additional profit by beating the benchmark costs it will carry over that profit into the next regulatory period.

In releasing these guidelines the Australian Energy Regulator (AER) notes the extensive consultation process conducted by the Australian Competition and Consumer Commission in 2003 and 2004.

The AER intends to monitor the application of the SRP, and will review aspects over time in light of experience in its application. More immediately, the AER considers that there is scope to improve the proposed 're-opener' provisions and the 'pass-through' rules. The AER also wishes to consider whether it is possible to streamline processes for regulatory decisions. More generally, the AER will monitor process and thinking on these issues and adjust if improvements are possible. Any amendments to the SRP will follow due consultation will all relevant stakeholders.

The SRP supporting documents can be found on the accompanying CD.

# 1 Introduction

## 1.1 Background

Under the National Electricity Code (the predecessor of the National Electricity Rules), the Australian Competition and Consumer Commission (ACCC) was responsible for regulating transmission revenue in the National Electricity Market (NEM). On 1 July 2005 the Australian Energy Regulator (AER) assumed the ACCC's responsibilities for the regulation of transmission revenues in the NEM.

The National Electricity Code (code) envisaged that the ACCC would publish a *Statement of regulatory intent* to establish guidelines as to how the ACCC would perform its regulatory functions. Accordingly, in May 1999, the ACCC released its *Draft statement of principles for the regulation of transmission revenue* (DRP). The DRP set out the ACCC's intended approach to setting CPI-X revenue caps for regulated electricity transmission network service providers (TNSPs).

The ACCC considered it appropriate to review the principles in light of its experience from the first round revenue cap decisions so that it could apply the revised principles to the second round revenue cap decisions. The process of reviewing the DRP involved the following key steps:

- In August 2003 the ACCC released a discussion paper outlining the key issues for review in the DRP
- In March 2004 the ACCC released a supplementary discussion paper on the capital expenditure (capex) framework
- In April 2004 the ACCC held a public forum which discussed the key issues for review
- In August 2004 the ACCC released for public comment the *Draft statement of principles for the regulation of electricity transmission revenues* (draft SRP).

Following a further period of consultation, the ACCC released the *Statement of principles for the regulation of electricity transmission revenues* (SRP) in December 2004. The SRP comprises a background paper and a consolidated version of the principles.

## 1.2 Purpose

The SRP sets out the AER's general approach to setting revenue caps to apply to TNSPs under clause 6.2.4 of the National Electricity Rules (NER).

## 1.3 Application

The SRP does not form part of the NER and is not an instrument made pursuant to the NER. Accordingly, the application of the SRP to a particular TNSP will depend on the individual circumstances of the case. The AER will depart from the SRP where required or justified by the NER provisions.

The approach set out in the SRP will continue to evolve in response to factors such as NER amendments, changes in the industry, and improvements in regulatory models and best practice worldwide.

#### **1.4 Transition to SRP**

TNSPs that submit a revenue cap application after the release of the SRP should refer to the SRP rather than the DRP. However, where the relevant TNSP is subject to a revenue cap set before the release of the SRP, the following transitional arrangements apply:

- the approach outlined in chapter 5 of this SRP in relation to capex would only apply for future revenue cap decisions. The valuation of past capex for the purpose of the next revenue cap reset for that TNSP would be guided by chapter 5 of the DRP and appendix B of the SRP.
- the approach outlined in chapter 6 of this SRP in relation to opex would only apply for future revenue cap decisions. The treatment of past opex for the purpose of the next revenue cap reset for that TNSP would be guided by chapter 7 of the DRP.

#### **1.5 Related guidelines**

Since releasing the DRP, the ACCC has also issued the following documents:

- Information requirements guidelines (5 June 2002)
- Transmission ring-fencing guidelines (15 August 2002) and Reporting guidelines (23 October 2002)
- Service standards guidelines (12 November 2003)
- Guidelines for the negotiation of discounted transmission charges (3 May 2002)
- Review of the regulatory test for network augmentations (11 August 2004)

The *National Electricity (South Australia) Regulations 2005* provide that guidelines published by the ACCC under a provision of the code are deemed to have been published by the AER under the corresponding provision of the NER.

#### **1.6 Structure of SRP**

The AER's general approach to setting revenue caps is explained in the following chapters:

Chapter 2	Regulatory framework
Chapter 3	Revenue cap decision making process
Chapter 4	Asset base
Chapter 5	Incentive framework for capital expenditure

Chapter 6	Incentive framework for operating and maintenance expenditure
Chapter 7	Reopening the revenue cap
Chapter 8	Weighted average cost of capital
Chapter 9	Financial indicators
Appendix A	Information requirements
Appendix B	Transitional capital expenditure arrangements

## 2 Regulatory framework

### 2.1 Introduction

This section describes the broad framework that will be used by the AER for regulating transmission revenues.

### 2.2 Form of regulation

Clause 6.2.4(a) of the NER provides that economic regulation is to be of the CPI-X form or some incentive based variant. In applying this form of regulation, clause 6.2.4(b) requires the AER to set a revenue cap to apply to each TNSP for a regulatory period of at least five years. In setting the maximum allowable revenue for the regulatory period, the AER makes use of the building block model.

### 2.3 Building block approach

The building block approach is used to ensure that the expenditure of each TNSP is appropriately amortised over time to ensure that each TNSP, given efficient expenditure practices and decisions, is adequately compensated for the cost of providing the transmission services to customers in the long run.

The building block model consists of two equations which are known as the revenue equation and the asset base roll forward equation. These two equations are used to determine an allowed stream of revenues for each TNSP for as long as it remains regulated. Ignoring any incentive rewards or penalties, these equations together ensure that the present value of the allowed revenue stream is equal to the present value of the expenditure stream of the regulated firm.

Expressed in the simplest form, the building block equations are as follows:

$$\begin{aligned} MAR &= \text{return on capital} + \text{return of capital} + \text{opex} + \text{tax} \\ &= (WACC * RAB) + D + \text{opex} + \text{tax} \end{aligned}$$

and

$$\text{new RAB} = \text{previous RAB} - \text{depreciation} + \text{capex}$$

where:

$$MAR = \text{maximum allowable revenue}$$

$$WACC = \text{post tax nominal weighted average cost of capital}$$

$$RAB = \text{regulatory asset base}$$

$$D = \text{depreciation}$$

$$\text{opex} = \text{operating and maintenance expenditure}$$

$$\text{tax} = \text{expected business income tax payable}$$

A description of each of these cost components is outlined below:

regulatory asset base (RAB)	The RAB is a stock of funds which reflects the total amount (in present value terms) which must be returned to investors in the future to compensate them for investments made in the past.
cost of capital (WACC)	The cost of capital is the rate of return required by investors to induce them to commit funds to the TNSP. The required rate of return will depend on the riskiness of the returns of the TNSP relative to other risky assets and the return on risk free assets. TNSPs are funded using a combination of debt and equity. The rate of return required by investors to induce them to purchase the debt and equity of the TNSP will be different, reflecting the different risks of these two financial instruments. The required rate of return for the firm as a whole (also known as the cost of capital) is the weighted average of the required rate of return on debt and equity and is referred to as the weighted average cost of capital (WACC).
depreciation (return of capital)	Depreciation is a flow of funds which returns to investors the 'capital' component of the funds they commit to the TNSP (as distinct from the return on that capital). The total amount of depreciation of the firm must be equal to its total stock of capital expenditure over the life of the firm.
operating and maintenance expenditure (opex)	The expenditures of the TNSP which are not amortised over time ( i.e. which are recovered in revenue in the year in which they are incurred).
capital expenditure (capex)	The expenditures of the TNSP which are amortised over time (i.e. which are added to the RAB, earn a return on capital as long as they are in the RAB and which are recovered over time through the depreciation stream).
tax liabilities	In the 'post tax' framework, the firm's tax liabilities are treated as a separate expenditure item.

## 2.4 Incentive regulation

An objective of the regulatory regime is to foster efficient investment and operating practices within the transmission sector, and to provide for an equitable allocation between TNSPs and users of expected efficiency gains.

The efficiency incentives are incorporated in the building block model through service standards, opex and capex incentive schemes. This can be expressed in a more precise version of the building block model equations as follows:

$$\text{forecast revenue} = \text{return on capital} + \text{return of capital} + \text{opex} + \text{tax} + \text{service standards incentive scheme} + \text{opex incentive scheme}$$

$$\text{closing } RAB_{t-1} = \text{opening } RAB_{t-1} + \text{actual capex}_{t-1} - \text{depreciation allowance}_{t-1} + \text{capex incentive scheme}$$



## **Service standards incentive scheme**

In addition to the statutory reliability requirements in each participating jurisdiction, the incentive to improve service standards is provided by the service standards scheme set out in the AER's *Service standards guidelines* (12 November 2003).

## **Opex incentive scheme**

The incentive to increase the efficiency of operating and maintenance practices is provided by:

- a) allowing the TNSP to retain, during a regulatory period, the difference between its actual opex and the forecast costs used to set the revenue cap
- b) the mechanism by which the AER takes into account past expenditure out turns when setting future expenditure targets
- c) the carry forward mechanism.

## **Capex incentive scheme**

The incentive to reduce capital expenditure is provided by allowing the TNSP to retain, during the regulatory period, the difference between forecast and actual return on capital and depreciation for the component of the RAB that relates to forecast capex.

## **2.5 Certainty and consistency**

An objective of the regulatory regime is to provide certainty and consistency for TNSP's and users. This is provided by not periodically revaluing the asset base which can lead to unpredictable revenues and prices. The AER will now roll forward the value of sunk assets at their depreciated historic cost, taking account of inflation. Further, the AER will continue with the ACCC's approach of a regulatory incentive for capital expenditure based on the determination of investment targets, before expenditure is incurred. This provides TNSP's with certainty on its revenue allowance over the life of the asset.

## **3 Revenue cap decision making process**

### **3.1 Introduction**

This section describes the process and timetable that the AER intends to follow when setting or resetting a revenue cap under clause 6.2.4(b) of the NER. The process and timetable may be adjusted by the AER where the process is not prescribed by the NER and an adjustment is justified.

### **3.2 Submission of application**

The TNSP must submit a revenue cap application by 1 April of the penultimate year of the regulatory period.

The application must comply with the information requirements set out in the *Information requirements guidelines* and should also contain the information set out in appendix A of the SRP.

Within four weeks of receipt:

- the AER will review the application for compliance with the *Information requirements guidelines* and appendix A of the SRP.
- the AER will review any accompanying requests that all or part of the application remain confidential
- if the AER is not satisfied with the information provided, the AER will provide a written notice to the TNSP
- the TNSP must resubmit the application addressing the issues outlined in the notice.

As TNSPs are required to publish their transmission prices by 15 May, it is important that any issues concerning the application be resolved within this four week period. If an issue is not resolved expeditiously, the AER may need to consider using its compulsory powers under clauses 6.2.5 and 6.2.6, or basing its revenue cap decision on assumptions drawn by the AER.

### **3.3 Public consultation process**

The AER will notify interested parties of the application and will:

- describe the TNSP to which the application relates
- state how copies of the non confidential parts of the application may be obtained
- request submissions by a date specified in the notice.

The commencement of the AER's assessment of the application will be effective from the date of publication of the notice.

### **3.4 Submissions**

The AER will call for submissions on the application to be submitted within six weeks from the publication of the notice. Submissions on any consultant's reports must be provided six weeks after publication of the consultants' reports.

If a party wishes to provide a submission after the closing date, the party must notify the AER before the closing date. The notification must set out:

- the date by which the party proposes to provide the submission
- the key arguments or issues to be addressed in the submission
- the reason for the lateness
- the detriment if the AER does not consider the submission.

The party will then be advised as to whether the AER will consider the submission.

### **3.5 Confidentiality**

All submissions and other documents relevant to the decision making process (except those containing information provided by a TNSP under clause 6.2.5 of the NER) will be treated as public documents and placed on the public register unless otherwise requested. If a party wishes to claim confidentiality with respect to all or part of a document, the party must:

- clearly identify the information that is the subject of the confidentiality claim
- where only part of a document is confidential, provide a non- confidential version of the document for the AER's public register. This version must clearly indicate where information has been deleted due to confidentiality
- set out the reasons in support of the confidentiality claim.

The request for confidentiality will be assessed by the AER. If the request is not accepted, the document (or relevant part of the document) will be returned to the party and will not be taken into account by the AER.

Where the document (such as the revenue cap application) contains information provided by a TNSP pursuant to clause 6.2.5, the TNSP should:

- clearly identify the information that is provided pursuant to clause 6.2.5
- indicate whether the TNSP consents to the disclosure of that information
- if consent is not granted, provide reasons as to why disclosure is refused (to assist the AER in deciding whether to issue a written notice under clause 6.2.6(c))

- if consent is not granted in relation to part of a document, provide a non-confidential version of the document for the AER's public register. This version should clearly indicate where information has been deleted due to confidentiality.

If consent is not granted, the AER will review the refusal and decide whether to follow the procedure set out in clause 6.2.6.

### **3.6 Assessment of the application and draft decision**

The AER will assess the application against the relevant NER provisions including clauses 6.2.2, 6.2.3 and 6.2.4.

In accordance with clause 6.2.6(a), the AER will publish full and reasonable details of the basis and rationale for the proposed decision, including but not limited to:

- reasonable details of qualitative and quantitative methodologies applied including any calculations and formulae
- the values adopted for each of the input variables in any calculations and formulae, including a full description of the rationale for adoption of those values
- reasonable details of other assumptions made in the conduct of all material qualitative and quantitative analyses undertaken in relation to the setting of a revenue cap or related matter
- full reasons for all material judgments and qualitative decisions made and options considered, and all discretions exercised which have a material bearing on the outcome of the AER's overall decision.

### **3.7 Public forum and consultation**

Any interested party who wishes to comment on the AER's draft decision may request a public forum within two weeks of the release of the draft decision.

If the AER decides to hold a public forum, the forum will be held within one month of the request date.

Interested parties may make submissions following the release of the draft decision and the public forum.

Submissions must be provided within six weeks of the release of the draft decision or, if a public forum is held, two weeks after the forum.

### **3.8 Final decision**

The AER will release the final decision on the application by 1 May of the final year of the regulatory period.

The process and timetable may be adjusted by the AER where the process is not prescribed by the NER and the particular circumstances justify a departure.

## **4 Asset base**

### **4.1 Introduction**

This section sets out the AER's decision on the calculation of the RAB at the end of the regulatory period.

### **4.2 Lock in**

The AER's preferred approach to asset valuation will be to lock in the RAB. This approach involves locking the value of the opening asset base of the prior regulatory period but adjusts for inflation and depreciation, and assesses capex incurred during the regulatory period on the basis of the capex regulatory arrangements set out in chapter 5.

The AER recognises that the NER provides the discretion to revalue assets and hence, if TNSPs propose a revaluation, the AER will consider the proposal on its merits having regard to all relevant matters at that time. The onus is on the TNSP to make a case for departing from the preferred principle of locking in the asset base. If it were to consider revaluing the asset base, the AER's preference would be to reopen the entire valuation and consider every element of the asset base.

## **5 Incentive framework for capital expenditure**

### **5.1 Introduction**

This section sets out the AER's approach with respect to the treatment of capital expenditure.

### **5.2 Capital expenditure framework**

The AER will adopt capital expenditure incentives focused, as far as possible, on the determination at the start of the regulatory period of an efficient level of capex for the duration of the regulatory period. The proposed incentive design consists of the following elements:

- an ex ante allowance: this will cover most or all expected investments during the regulatory period and will establish an allowance on the level of investment during the regulatory period to be included in the regulatory asset base at the end of that period.
- an contingent projects provision: this will cover very large and uncertain investments.

### **5.3 Ex ante capex allowance**

The ex ante capex allowance should cover most or all expected investment during the period of a regulatory control, including discretionary investment not related to statutory reliability obligations. The allowance will be determined on the basis of a probabilistic assessment of expected investments during the regulatory period.

However, the allowance does not entail project-specific approval and although an expected project may have been included in the determination of the allowance, this does not oblige the TNSP to develop that project during the regulatory period.

TNSPs will propose the form of the allowance best suited to their circumstances. It is expected that in most cases the allowance will reflect the change in total investment in response to a change in the main investment drivers. TNSPs will be required to provide quantified analysis of the relationship between any cost drivers (such as growth in peak demand) and the resulting investment requirement. The proposals would also need to establish how the relevant parameters would be measured and audited.

In respect of investments covered by the ex ante capex allowance, the calculation of the closing RAB at the end of the regulatory period will be the written down value of the actual investment in that period that complies with the requirements of the NER.

### **5.4 Contingent investment**

The AER proposes to exclude a project from the main ex ante capex allowance if the expected error presented by the inclusion of that project in the main allowance—quantified in terms of the revenue required to cover depreciation and the return on investment in that project—is equal to more than 10 per cent of the revenue required

to cover depreciation and return on investment of all projects included in the calculation of the main ex ante capex allowance.

The TNSP can apply to the AER for specific projects to be excluded from the ex ante allowance, even where this value threshold is not satisfied. It will be at the AER's discretion as to whether these projects will be considered as contingent projects.

Projects excluded from the ex ante capex allowance must be linked to unique investment drivers—such as a major point load or expected power station—rather than to general investment drivers (such as expectations of load growth within a region).

Determination of the allowed investment in contingent projects will occur during the regulatory period, once the probability of the project and its expected costs become known with greater certainty, but before investment is committed.

At the end of the contingent project incentive period the depreciated value of the actual investment in the contingent project that complies with the requirements of the NER will be included in the RAB.

## **5.5 Arrangements applicable to separate network planners and owners**

The AER proposes to set an ex ante allowance for those businesses which own, operate and maintain the transmission network in Victoria. However, as these businesses are not responsible for augmenting the transmission network, the AER does not propose to exclude any projects from the allowance.

The Victorian Energy Networks Corporation's (VENCorp) revenue cap will continue to be set by the AER with reference to its operating budget and the likely augmentations required for the efficient operation of the Victorian network.



## **6 Incentive framework for operating and maintenance expenditure**

### **6.1 Introduction**

This section sets out the AER's general approach to providing incentives on the TNSP to reduce its operating and maintenance expenditure.

### **6.2 Determining the expenditure allowance**

The AER will continue the current practice of relying primarily on historic and forecast expenditures for the TNSP in question in each revenue cap decision.

To facilitate greater use of benchmarking data in determining the opex allowance to be included in a revenue cap, the AER intends to undertake further work in this area in close consultation with industry and user groups.

### **6.3 Incentives to reduce operating expenditure**

Under the approach to regulation set out in this document, the incentive on TNSPs to reduce operating expenditure derives from three different factors:

- a) the fact that the AER will not claw-back any differences between forecast and actual opex which arise during the regulatory period
- b) the manner in which the AER makes use of information on past opex when setting future opex targets
- c) the carry forward mechanism.

### **6.4 The carry forward mechanism**

The efficiency gain or loss in a year may be expressed mathematically as:

$$E_1 = F_1 - A_1,$$

where  $A_1$  is the actual operating cost for year 1 and  $F_1$  is the regulatory target operating cost for that year.

For savings that arise in the second to fifth year of the regulatory period, the efficiency carry forward amount is calculated as:

$$E_t = (A_{t-1} - A_t) - (F_{t-1} - F_t)$$

where

$E_t$  is the efficiency benefit/loss in year  $t$

$A_t, A_{t-1}$  is the actual operating cost for year  $t, t-1$  respectively,

$F_t, F_{t-1}$  is the forecast operating cost for the years  $t, t-1$  respectively.

The efficiency benefit/loss will be carried forward for five years after the year in which the benefit/loss is incurred.

During the regulatory period in which the efficiency benefit/loss is incurred, the carry forward mechanism does not affect the annual opex allowance. The opex allowance for the next regulatory control period will be based on:

- the expected efficient costs (determined after taking into account past opex and reasons as to why future opex may be different from past opex)
- plus/minus the carry forward of the efficiency benefit/loss from the previous regulatory period.

Since the actual opex for the last year of the regulatory period will usually not be known at the time when the revenue cap is set for the next regulatory period, the carry forward of losses or gains will be incorporated through the use of a correction mechanism.

The efficiency carry forward calculation will be undertaken in such a way as to ensure inflation does not erode the value of any benefit/loss to be retained by the TNSP.

## **6.5 Self-insurance**

The cost of self-insurance will be recognised as an operating expense subject to the implementation of appropriate administrative arrangements including:

- a board resolution to self-insure (i.e. a copy of the signed minutes recording resolution made by the board)
- confirmation that the TNSP is in a position to undertake credibly self-insurance for those events
- self-insurance details setting out the specific risks which the TNSP has resolved to self-insure
- a report from an appropriately qualified actuary or risk specialist verifying the calculation of risks and corresponding insurance premiums
- ensuring that the cost of self-insurance is recorded as an operating expense in the audited and published income statement, and thereby deducted from the calculation of attributable profits
- ensuring that a self-insurance reserve (funded by self-insurance premiums charged in the income statement) is established in the audited and published balance sheet
- ensuring that when a claim against self-insurance is made, that an appropriate deduction to the self-insurance reserve is recorded.

## **7 Reopening the revenue cap**

### **7.1 Introduction**

This section sets out the AER will take account of events that could significantly alter the allowed efficient investment level.

### **7.2 Reopening the revenue cap**

To take account of events that could significantly alter the allowed efficient investment level, the AER believes there should be provision for the revenue cap to be reopened during the regulatory period. In some circumstances the AER would consider passing the cost of the event through without reopening all aspects of the revenue cap.

Only TNSPs would be able to propose that the revenue cap be reopened. There is no proposed limitation as to the nature of the event that could give rise to a reopening of the cap.

However reopening the revenue cap would be conditional on:

- the TNSP being materially adversely affected by the event
- the event being beyond the firm's control
- the event not having been contemplated at the time the revenue control decision was made
- the benefits of revoking the revenue control outweighing the detriment to the TNSP's customers from revoking the control.

Finally it should be recognised that at present the revenue cap can only be reopened in limited circumstances. These circumstances do not include those envisaged in this section. Therefore a NER change will be needed to give full effect to the reopening provisions specified here.

## 8 Weighted average cost of capital

### 8.1 Introduction

This section sets out the AER's view on each of the parameters in the WACC.

The AER will continue to establish the WACC on the basis of benchmark parameters to enhance certainty in investments. In saying this, the AER will also undertake further review and monitoring in this area with close consultation with industry and user groups. The AER also proposes to continue with exercising judgment in its application of empirical evidence from the market. The AER reserves the right to change the value of the WACC parameters with refinement in the methodology and data and in light of new available data.

The WACC is expressed as the weighted average of the return on equity and the return on debt:

$$WACC = r_e (E/V) + r_d (D/V)$$

where:

$$r_e = \text{required rate of return on equity or cost of equity}$$

$$r_d = \text{cost of debt}$$

$$E = \text{market value of equity}$$

$$D = \text{market value of debt}$$

$$V = \text{market value of equity plus debt.}$$

### 8.2 Weighted average cost of capital

The AER will determine a WACC that provides a fair and reasonable rate of return applicable to TNSPs.

### 8.3 Capital asset pricing model

The AER will use the Capital Asset Pricing Model (CAPM) to estimate the cost of equity capital. As illustrated in the following formula, CAPM yields the required expected return on equity given the return on the market portfolio, the market's own volatility and the systematic risk of holding equity in the particular company:

$$r_e = r_f + \beta_e (r_m - r_f)$$

where:

$$r_f = \text{expected risk free rate of return over the period}$$

$$(r_m - r_f) = \text{expected market risk premium (MRP), defined by the expected premium of return of the market (rm) as a whole over the risk free return for the same period}$$

$\beta_e$  = *a measure of investors' perceived systematic risk of the individual company's equity relative to the market.*

## **8.4 Risk free rate**

### ***Term to maturity of risk free rate***

The AER will use a 10-year government bond rate as a proxy for the risk free rate.

### ***Length of period used in moving average of bond rate***

The AER will accept the period used to calculate the moving average of the risk free rate (between 5 and 40 days) submitted by a TNSP in its application.

## **8.5 Market risk premium**

The AER will use a value of 6 per cent for the MRP in its TNSP revenue cap decisions.

## **8.6 Equity beta**

The AER will apply an equity beta of 1.

## **8.7 Cost of debt**

In determining the cost of debt the AER will use a 10 year government bond rate as a proxy for the risk free rate and proposes to calculate a benchmark debt margin, corresponding to a 10 year term and a benchmark 'A' credit rating for a TNSP. This would be subject to the practical application of available benchmark data on long dated Australian corporate bonds.

## **8.8 Gearing**

The AER will maintain the use of a gearing level at 60 per cent for a benchmark TNSP.

## **8.9 Gamma**

The AER will use an average gamma of 0.5.

## **8.10 Debt and equity raising costs**

The AER will treat debt and equity raising costs as opex items and will undertake a further review of debt and equity raising costs and hedging costs.

## **9 Financial indicators**

### **9.1 Introduction**

This chapter sets out the AER's use of financial indicators when setting a revenue cap. A financial indicator is a measure of a TNSP's financial viability and ability to obtain credit.

### **9.2 Financial indicators**

In general the AER will use the following financial indicators, compared to the key indicators used by Standard & Poor's, to assess the effect of revenue cap decisions on the financial viability of TNSPs:

- Earnings Before Income and Tax (EBIT) to revenues (per cent)
- Earnings Before Income, Tax and Depreciation (EBITD) to revenues (per cent)
- EBIT to funds employed (per cent)
- EBIT to regulated assets
- pre-tax interest cover
- funds flow net interest cover
- internal financing ratio
- gearing
- payout ratio.

## **Appendix A      Information requirements**

### **A.1      Introduction**

This Appendix A sets out the additional information that a TNSP should include in its revenue cap application with respect to:

- asset base roll forward
- past capital expenditure
- forecast capital expenditure
- operating and maintenance expenditure
- weighted average cost of capital.

### **A.2      Asset base roll forward**

- a)    For revenue cap resets, the TNSP should prepare a schedule that rolls forward its asset values from the date of the last revenue cap decision to the end of the current regulatory control period.
- b)    The roll forward schedule should set out the following:
  - opening asset values at the start of the current regulatory control period broken down into individual asset classes
  - forecast and actual capex broken down into the same asset classes
  - forecast and actual disposals broken down into the same asset classes
  - forecast depreciation broken down into the same asset classes
  - actual CPI adjustment for each asset class
  - closing asset values for each asset class at the end of the current regulatory period.

### **A.3      Past capital expenditure**

- a)    For revenue cap resets, the TNSP should provide:
  - information on actual capex projects undertaken over the course of the current regulatory control period
  - a comparison between the actual capex projects built in the regulatory control period and those forecast in the revenue cap decision
  - an explanation for any variations between forecast and actual expenditure.

- b) In relation to:
- augmentations that:
    - exceed \$10 million, the TNSP should supply the regulatory test applications
    - cost between \$1 and \$10 million, the TNSP should provide the annual planning report which sets out its regulatory test assessments of these projects
  - replacement/refurbishment capex, the TNSP should provide details on:
    - its overall asset management processes and procedures
    - how its individual investment decisions fit within this strategy
  - large replacement projects (that is, projects exceeding \$10 million), the TNSP should provide an explanation as to why the asset needed replacing (including comprehensive condition based assessments)
  - business support capex (for example, information technology and communications), the TNSP should provide a comprehensive and robust assessment of the need for these investments (including a business case showing the analysis undertaken to support the investment).

#### **A.4 Forecast capital expenditure**

a) Introduction

In contrast to an ex-post capex regime, an ex-ante regime places greater emphasis on conducting a rigorous review of forecast investment before the investment is undertaken. This increases the information required in a TNSP's revenue cap application.

- b) The TNSP should include in its revenue cap application a clear statement outlining:
- expected investment
  - the factors affecting the need for the investment.
- c) The forecast capex costs should be rigorous and as accurate as possible. Where forecasts cannot be supplied to a precise standard, this should be highlighted and an explanation provided.
- d) In relation to reliability augmentations, the TNSP should categorise its investments into the following groups:
- projects under construction
  - projects very likely to be built



— possible projects (not identified above).

- e) In relation to each forecast project, the TNSP should provide:
- a detailed description of the project
  - the regulatory test application (if one has been conducted)
  - details on why the project is required
  - the timing and costs of the project (and how these were derived)
  - details on the options considered in addition to the preferred option (including the estimated cost of the alternative options considered)
  - the methodology and analysis used to select the preferred option.
- f) In relation to projects that are neither under construction at the time of the revenue cap application nor very likely to be built, the TNSP should provide details on:
- the methodology used to forecast these projects (including their estimated cost)
  - any scenario modelling utilised in developing the TNSP's forecast capex plans.
- g) In relation to replacement/refurbishment capex, the TNSP should provide details on:
- its overall asset management processes and procedures
  - how its individual investment decisions fit within this strategy.
- h) In relation to large replacement projects (that is, projects exceeding \$10 million), the TNSP should provide an explanation as to why the asset needs replacing (including comprehensive condition based assessments).
- In relation to business support capex (for example, information technology and communications), the TNSP should provide a comprehensive and robust assessment of the need for these investments (including a business case showing the analysis undertaken to support the investment).

## **A.5 Operating and maintenance expenditure**

- a) The TNSP should provide:
- its actual opex spend (historical) over the first four years of the current regulatory control period
  - a reasonable forecast of the opex spend for the final year of the current regulatory control period

- the assumptions on which its opex forecasts are based
  - full and detailed explanations of the basis for its preparation of its opex forecasts
  - if the opex classification (or allocation framework) has changed during the current regulatory control period:
    - an explanation of the change
    - the historical annual opex presented using both the old classification and the new classification methodologies.
- b) To assist the AER in the consideration of partial indicator (ratio) analysis of opex, the TNSP should provide measures of its:
- line length (circuit kilometres)
  - number of substations
  - energy delivered (Gigawatt hour)
  - energy demand (megawatt).
- c) If the TNSP is requesting a self-insurance allowance as part of its revenue cap, it should address the self-insurance guidelines as set out in chapter 6.

## **Appendix B      Transitional capital expenditure arrangements**

### **B.1      Introduction**

The AER will apply the ex-post prudency test for investment during the first revenue control period in assessing the amount of capex out-turn to be rolled-into the RAB. The AER for subsequent revenue caps will apply an ex-ante framework. In assessing the amount of capex that should be rolled-into the RAB, the AER is guided by the principle that consumers only pay for prudent investment and that TNSPs meet their statutory obligations.

### **B.2      Prudency-test**

The AER will assess the prudency of actual capital expenditure subject to S5.1 of the *Draft statement of principles for the regulation of transmission revenues*, May 1999, which outlines the test for prudent investment, ‘...the amount that would be invested by a prudent TNSP acting efficiently in accordance with good industry practice’.

The AER will apply the prudency test to augmentation investment which has been assessed under the Regulatory Test, and to projects that have not been subjected to the Regulatory Test, by following a three stage process.

### **B.3      Regulatory test**

The AER is not expressly bound to accept the outcome of the Regulatory Test as the definitive statement on the amount to be rolled-in to the RAB. Nevertheless, the AER has adopted the Regulatory Test as the starting point for assessing the prudency of TNSP’s capex.

### **B.4      Application of prudency test**

First, assess whether there is a justifiable need for the investment. This stage examines whether the TNSP correctly assessed the need for investment against its statutory and NER obligations. At this stage, the assessment focuses on the need for investment, without specifically focussing on what the ‘correct’ investment to meet that need should be. An affirmation of the need for an investment does not imply acceptance of the specific project that was developed.

Second, assuming the need for an investment is recognised, assess whether the TNSP proposed the most efficient investment to meet that need. The content of the assessment here is whether the TNSP objectively and competently analysed the investment to a standard that is consistent with ‘good industry practice’.

Third, assess whether the project that was analysed to be the most efficient was indeed developed, and if not, whether the difference reflects decisions that are consistent with ‘good industry practice’. The analysis in this third step examines in detail the factors that caused changes in the project design and/or delivery and assesses how the TNSP responded to those factors in comparison to what could be expected of a prudent operator.

The AER will apply the prudence test to ‘non-augmentation’ and ‘support the business’ investment by reviewing the processes conducted by the TNSP in assessing the need for investment, selecting the appropriate project and then delivering that project.

## **The Regulatory Test**



## The Regulatory Test

The regulatory test is an economic cost-benefit test applied by network service providers in the National Electricity Market (NEM) to assess and rank the economic viability of network and non-network options. The regulatory test contains two limbs:

- the ‘reliability limb’ – is used for considering reliability driven augmentations, which are based on the service obligations imposed on network service providers. This arm of the test takes the form of a least cost test.
- the ‘market benefits limb’ – is used for assessing non-reliability driven investments, and involves the application of a net present value analysis, which is concerned with assessing the present value of a project’s benefits against the present value of its costs.

Prior to the regulatory test, the network investment test took the form of a customer benefits test, which was part of the original National Electricity Code (the predecessor of the National Electricity Rules (NER)). In light of problems with the customer benefits test, the Australian Competition and Consumer Commission (ACCC) was requested, as an independent party, to review the customer benefits test. The ACCC revised the customer benefits test to the regulatory test. In December 1999, the ACCC promulgated the regulatory test.

As part of a broader commitment to review the framework for essential new investment the ACCC, after extensive consultation with industry, promulgated version 2 of the regulatory test on 19 August 2004.

The amendments made in version 2 of the regulatory test eliminate inconsistencies between it and the NER and provide further guidance and definitional clarity to the market in the test’s application. One of the main amendments made was the inclusion of competition benefits. The new regulatory test specifically recognises the benefits of increased competition between generators across the NEM as a result of freer flowing transmission lines.

At this stage, the Australian Energy Regulator (AER) is not proposing to review or revise the regulatory test. However, the AER will monitor the operation of the regulator test and in particular the calculation of the competition benefits, which form part of the regulatory test.

The AER does recognise that the Ministerial Council on Energy is currently developing regulatory test principles, to be inserted into the NER, that provide minimum coverage guidelines for the AER to apply in promulgating the regulatory test<sup>2</sup>. The AER may need to make changes to the regulatory test based on the outcomes of possible changes to the legislative framework and other future developments which may require amendments to or have a consequential impact on the regulatory test principles released in August 2004.

The initial regulatory test and the August 2004 final decision for the review of the regulatory test can be found on the accompanying CD.

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<sup>2</sup> Ministerial Council on Energy, *Statement on NEM Transmission*, May 2005.

# Regulatory test

## Preamble

This *regulatory test* has been promulgated by the AER in accordance with clause 5.6.5A of the National Electricity Rules (NER).

In this test “option” includes, but is not limited to, an *augmentation*, a *new large network asset* and a *new small network asset*.

## The regulatory test

- (1) An option satisfies the *regulatory test* if:
  - a) in the event the option is necessitated solely by the inability to meet the minimum network performance requirements set out in schedule 5.1 of the NER or in relevant legislation, regulations or any statutory instrument of a participating jurisdiction - the option minimises the present value of *costs*, compared with a number of *alternative options* in a majority of *reasonable scenarios*;
  - b) in all other cases - the option maximises the expected net present value of the *market benefit* (or in other words the present value of the *market benefit* less the present value of *costs*) compared with a number of *alternative options* and timings, in a majority of *reasonable scenarios*.

## For the purposes of this test:

- (2) *Costs* means the total cost of an option (or an *alternative option*) to all those who produce, distribute or consume electricity in the National Electricity Market.
  - a) In determining the *costs*, the analysis may include, but need not be limited to, the following:
    - b) costs incurred in constructing or providing the option;
    - c) operating and maintenance costs over the operating life of the option;
    - d) the cost of complying with existing and anticipated laws, regulations and administrative determinations such as those dealing with health and safety, land management and environment pollution and the abatement of pollution (including greenhouse gas abatement). An environmental tax should be treated as part of a project’s cost. An environmental subsidy should be treated as part of a project’s benefits or as a negative cost.
  - e) other costs that are determined to be relevant to the case concerned.
- (3) *Alternative options* means:
  - a) For an option proposed in accordance with paragraph 1(a) of this test:



- (i) a genuine alternative to the option being assessed, in that it:
    - (A) has a clearly identifiable proponent; and
    - (B) meets the requirements referred to in paragraph 1(a);
  - (ii) a practicable alternative to the option being assessed in that it is technically feasible.
- b) For an option proposed in accordance with paragraph 1(b) of this test:
  - (i) a genuine alternative to the option being assessed, in that it:
    - (A) delivers similar outcomes to those delivered by the option being assessed; and
    - (B) becomes operational in a similar timeframe to the option being assessed;
  - (ii) a practicable alternative to the option being assessed in that it is:
    - (A) technically feasible; and
    - (B) commercially feasible, which is to be demonstrated by determining whether an objective operator, acting rationally according to the economic criteria prescribed by this test, would be prepared to construct or provide the *alternative option*.

The existence of a genuine proponent for the *alternative option* should be taken into account when determining practicability, however, absence of such a proponent will not exclude a project from being an *alternative option* for the purposes of the regulatory test.

- (4) *Reasonable scenarios* means scenarios incorporating:
  - a) reasonable forecasts of:
    - (i) electricity demand (modified where appropriate to take into account demand-side options, variations in economic growth, variations in weather patterns and reasonable assumptions regarding price elasticity);
    - (ii) the efficient operating costs of competitively supplying energy to meet forecast demand from existing, *committed*, *anticipated* and *modelled* projects including demand side and generation projects;
    - (iii) the avoidable costs of *committed*, *anticipated* and *modelled* projects including demand side and generation projects and

whether all avoidable costs are completely or partially avoided or deferred;

- (iv) the cost of providing sufficient ancillary services to meet the forecast demand; and
- (v) the capital and operating costs of other regulated network and *market network service* projects that are augmentations consistent with the forecast demand and generation scenarios;

b) scenarios defined as market development scenarios; and

c) sensitivity testing.

- (5) *Market benefit* means the total benefits of an option (or an *alternative option*) to all those who produce, distribute and consume electricity in the National Electricity Market. That is, the change in consumers' plus producers' surplus or another measure that can be demonstrated to produce an equivalent ranking of options in a majority of *reasonable scenarios*. For clarity, *market benefit* does not include the transfer of surplus between consumers and producers.

In determining the *market benefit*, the analysis may include, but need not be limited to the following benefits:

- a) changes in fuel consumption arising through different generation dispatch;
- b) changes in voluntary load curtailment caused through reduction in demand-side curtailment;
- c) changes in involuntary load shedding caused through savings in reduction in lost load, using a reasonable forecast of the value of electricity to consumers, or deferral of reliability entry plant;
- d) changes in costs caused through:
  - (i) deferral of market entry plant. This must be excluded if reliability benefits are determined using deferral of reliability entry plant;
  - (ii) differences in capital costs;
  - (iii) differences in the operational and maintenance costs; and
  - (iv) deferral of transmission investments;
- e) changes in transmission losses;
- f) changes in ancillary services;
- g) *competition benefits*; and

- h) other benefits that are determined to be relevant to the case concerned.
- (6) *Competition benefits* means the change in benefit between the scenario where, after implementation of the option:
- a) generator bidding is assumed to be the same as it was before the option was implemented; and
  - b) generator bidding reflects any market power after the implementation of the option

or another reasonable measure that can be demonstrated to produce an equivalent change in benefit.

- (7) The *market benefit* of an option will only include *competition benefits* where:
- a) the option is a *new large network asset* or a *new large distribution network asset*; and
  - b) the *Network Service Provider* responsible for undertaking the analysis of the option determines that it is appropriate, in all the circumstances, to take *competition benefits* into account in assessing the *market benefit* of the option.
- (8) In determining *costs* or *market benefits*, any cost or benefit which cannot be measured as a cost or benefit to producers, distributors and consumers of electricity in terms of financial transactions in the market should be disregarded. The allocation of costs and benefits between the electricity and other markets must be based on principles consistent with the Transmission Ring-Fencing Guidelines and/or Distribution Ring-Fencing Guidelines (as appropriate). Only direct costs and benefits (associated with a partial equilibrium analysis) should be included and any additional indirect costs or benefits (associated with a general equilibrium analysis) should be excluded from the assessment.
- (9) In determining the *costs* or *market benefits*, it should be considered whether the *proposed option* will enable:
- a) a *Transmission Network Service Provider* to provide both prescribed and other services; or
  - b) a *Distribution Network Service Provider* to provide both prescribed distribution services and other services.

If it does, the *costs* and *market benefits* associated with the other services should be disregarded. The allocation of costs between prescribed and other services must be consistent with the Transmission Ring-Fencing Guidelines. The allocation of costs between prescribed distribution services and other services must be consistent with the relevant Distribution Ring-Fencing Guidelines.

- (10) The present value calculations must use a commercial discount rate appropriate for the analysis of a private enterprise investment in the electricity sector. The discount rate used should be consistent with the cash flows being discounted.
- (11) The analysis must include modelling a range of reasonable *market development scenarios*, incorporating varying levels of demand growth at relevant load centres (reflecting demand side options), alternative project commissioning dates and various potential generator investments and realistic operating regimes. These scenarios may include alternative construction timetables as nominated by the proponent providing that relevant reliability standards would be met.

*Market development scenarios* must include:

- a) *Committed projects*;
  - b) *Anticipated projects*;
  - c) *Modelled projects*; and
  - d) any other technically feasible projects identified during the consultation process.
- (12) *Committed project* means a project which satisfies all the following criteria:
- a) the proponent has obtained all required planning consents, construction approvals and licenses, including completion and acceptance of any necessary environmental impact statement;
  - b) construction of the proposal must either have commenced or a firm commencement date must be set;
  - c) the proponent has purchased/settled/acquired land (or commenced legal proceedings to acquire land) for construction of the proposed development;
  - d) contracts for supply and construction of the major components of the plant and equipment (such as generators, turbines, boilers, transmission towers, conductors, terminal station equipment) should be finalised and executed, including any provisions for cancellation payments; and
  - e) the financing arrangements for the proposal, including any debt plans, must have been finalised and contracts executed.
- (13) *Anticipated project* means a project which:
- a) does not meet each of the criteria in note 12; and
  - b) is in the process of meeting one or more of the criterion in note 12.

- (14) *Modelled project* means a project (other than a committed project or anticipated project) modelled using either ‘least-cost market development’ modelling or ‘market-driven market development’ modelling:
- a) Least-cost market development modelling means modelling projects based on a least-cost planning approach akin to conventional central planning. The proposals to be included would be those where the net present value of benefits, such as fuel substitution and reliability increases, exceeds the costs.
  - b) Market-driven market development modelling means modelling spot price trends based on existing generation and demand and includes new generation developed on the same basis as would a private developer (where the net present value of the spot price revenue exceeds the net present value of generation costs). The forecasts of spot price trends should reflect a range of market outcomes, ranging from short run marginal cost bidding behaviour to simulations that approximate non-competitive bidding or imperfect competition, with power flows to be those most likely to occur under actual systems and market outcomes.
- (15) The calculation of the *costs* or *market benefits* must encompass sensitivity testing on key input variables. Sensitivity testing may be carried out on, but not limited to, the following, and should be appropriate to the size and type of project:
- a) *Market benefits*:
    - (i) Using all reasonable methodologies; and
    - (ii) Testing reasonable forecasts of the value of electricity to consumers.
  - b) Capital and operating costs of *alternative options*.
  - c) Discount rate (the lower boundary should be the regulated cost of capital).
  - d) Market demand.
  - e) Generation bidding behaviour using:
    - (i) SRMC; and
    - (ii) Approximates of realistic bidding if measuring *competition benefits*.
  - f) Commissioning dates of:
    - (i) Alternative projects;
    - (ii) Committed projects;

- (iii) Anticipated projects; and
    - (iv) Modelled projects.
  - g) Market based regulatory instruments that may be used to address greenhouse and environmental issues.
  - h) Other sensitivity testing determined to be relevant and material to the case concerned.
- (16) Any relevant information which may have a material impact on the determination of *costs* or *market benefits* which comes to light at any time before an assessment is finalised must be considered and made available to interested parties.
- (17) This version of the *regulatory test* (version 2) comes into operation from the date of its promulgation, subject to the following transitional provisions.

The version of the *regulatory test* in operation immediately prior to the promulgation of version 2 of the *regulatory test* continues to apply in relation to:

- a) possible options for which a *Distribution Network Service Provider* has commenced consultation under clause 5.6.2(f) or an economic cost effectiveness analysis under clause 5.6.2(g) prior to the promulgation of version 2 of the *regulatory test*;
- b) a *new small network asset* for which a *Transmission Network Service Provider* has set out the matters required under clause 5.6.2A(b)(4) and (5) in an Annual Planning Report published before 30 June 2004. The AER can substitute a later date if a *Transmission Network Service Provider* does not publish its Annual Planning Report by 30 June 2004 (as required by clause 5.6.2A(a) of the *NER*);
- c) a *new small network asset* not identified in an Annual Planning Report for which a *Transmission Network Service Provider* has published a report required under clause 5.6.6A(c) prior to the promulgation of version 2 of the *regulatory test*; and
- d) a *new large network asset* for which a *Transmission Network Service Provider* has published an application notice under clause 5.6.6(b) prior to the promulgation of version 2 of the *regulatory test*.

## **Transmission Network Service Standards**





## Transmission Network Service Standards

The service standard guidelines outline the approach to setting service standards within the revenue cap framework set out in the National Electricity Rules (NER). The service standards guidelines provide economic incentives for Transmission Network Service Providers (TNSP) to improve service quality. The service standards are linked to the revenue cap to ensure that TNSPs:

- are rewarded when performance standards increase and penalised when performance standards decline, thus providing incentives for continued performance improvement and
- consider how their actions (i.e. investment, operation and maintenance) affect market outcomes.

There are five core performance measures used to determine a TNSPs revenue cap. The current approach has been to cap the financial incentive available from achieving or not achieving performance targets to  $\pm 1$  per cent of the TNSPs revenue cap. The measures adopted are defined in schedule 1 of the guidelines. They are:

- transmission circuit availability
- average outage duration
- frequency of 'off supply' events
- inter-regional constraints
- intra-regional constraints.

The Ministerial Council of Energy's (MCE) December 2003 report noted that there would be benefits in more closely aligning transmission performance measures with their market impact and supported consideration by the regulator of setting incentives on that basis. The MCE also stated the incentive regime should analyse the actual cost of constraints, set targets for circuit availability, and reward/penalise diversion from those target levels.

In response to the MCE report the Australian Competition and Consumer Commission, in July 2004, released its draft decision on market impact transparency measures. The draft decision canvasses a range of measures which may be used to measure the market impact of transmission services, including the 'total cost of constraint' and the 'marginal cost of constraint' measures.

The Australian Energy Regulator (AER) will release the final decision on the market impact transparency measures in the coming months. The final decision will provide market participants with greater information as to the impacts of transmission constraints on market outcomes.

Furthermore, the AER is continuing work on devising an economic incentive measure of the market impact of transmission constraints on market outcomes and possible linkages to revenue regulation. The AER intends to consult with relevant stakeholders on this matter.

The 2003 final decision can be found on the accompanying CD.

# **1 Application of the Service Standards Guidelines**

These guidelines will:

- 1.1 be used by the AER to decide the service standards component of transmission revenue cap decisions as required by the NER
- 1.2 provide guidance about the approach the AER will take in setting performance-incentives within each transmission revenue cap decision
- 1.3 provide guidance to TNSPs about the service quality information to provide in its revenue cap application
- 1.4 provide TNSPs with guidance about the information it should give the AER annually, to indicate its compliance with the incentive component of the transmission revenue cap decision.

## **2 The AER's treatment of service standards**

The AER will include a performance-incentive component in each transmission revenue cap decision.

- 2.1 The AER will use the TNSP's performance history to set performance targets within each revenue cap decision. If this performance history is not available the AER will use other appropriate information to set targets (see 2.2 of these guidelines). The performance measures will include:
  - circuit availability
  - average outage duration
  - frequency of 'off-supply' events
  - inter-regional constraints
  - intra-regional constraints.

These performance measures are defined in Schedule 1 – Definitions of Performance Measures.

- 2.2 In the case this information is not available, the AER may:
  - use an appropriate benchmark to set performance targets and incentives for each performance measure
  - apply other methods to set performance targets and incentives
  - consider the TNSP's request to include additional and/or amendments to performance measures when it makes its transmission revenue cap decision.

- 2.3 The AER may consider additional performance measures.

- 2.4 The AER will decide the appropriate performance targets before the regulatory period begins.
- 2.5 The AER will decide the financial incentives before the regulatory period begins.
- 2.6 The AER may decide collars and caps to limit the financial incentives.
- 2.7 The AER may decide to use performance dead-bands around performance targets, where appropriate.
- 2.8 The AER will use an open and transparent decision making process.
- 2.9 The AER will audit the annual compliance of the TNSP.

### **3. Information for the revenue cap decision**

The following outlines the information the AER requires the TNSP to report to make a transmission revenue cap decision.

- 3.1 The TNSP's performance for, at least, the three years before its revenue cap application.
  - The TNSP should report this information annually in the two months after the service standards reporting year ends.
  - This should include those five measures as described in section 2.1 of these guidelines.
- 3.2 Where the TNSP applies for additional performance measures, it must:
  - demonstrate why such the proposed performance measure would be supported by other National Electricity Market (NEM) participants
  - provide its performance history of the most recent three years as measured by its proposed performance measure
  - recommend performance-incentives for its proposed performance measure
  - propose a weight relative to the base performance measures, for the proposed measure.

### **4. Information for annual compliance**

The TNSP should report its annual performance to indicate its compliance with the AER's revenue cap decision by providing the following information.

- 4.1 Annual performance for the period of the revenue cap decision as measured by the performance measures decided by the AER in the revenue cap decision. Performance over time should be reported according to the same definition.

- TNSPs' must report their actual performance before any exclusion. They may apply to the AER to exclude events giving reasons. If the AER decides to exclude them, then they will be clearly identified and shown separately.
- 4.2 A list of events that the TNSP believes should be excluded from the performance measurements clearly showing, for each event:
- description
  - description of the impact
  - quantification of the impact of on the network and performance
  - the reasons for exclusion request
- 4.3 Calculation of the financial incentive as per the revenue cap decision.
- 4.4 The TNSP should report this information annually in the two months after the reporting period ends.

## **5. Annual performance statement**

The AER intends to annually release a summary of each TNSP's performance results.

- 5.1 The objective of the annual performance statement is to provide information to the market.
- 5.2 Looking forward, the statement will include a table of performance results as measured by the five performance measures described in section 2.1 of these guidelines and any additional measures included in the TNSPs revenue cap.
- 5.3 The AER will give each TNSP the opportunity to provide a commentary on the reported performance results and include this commentary in the annual performance statement.

## Schedule 1—Definitions of performance measures

Measure 1	Transmission circuit availability
Sub-measures	<p>Transmission circuit availability (critical circuits)</p> <p>Transmission circuit availability (non-critical circuits)</p> <p>Transmission circuit availability (peak periods)</p> <p>Transmission circuit availability (intermediate periods)</p> <p>Transmission lines</p> <p>Transmission transformers</p> <p>Transmission reactive</p>
Unit of measure	Percentage of total possible hours available.
Source of data	<p>TNSP outage reports and system for circuit availability</p> <p>Agreed Schedule of Critical Circuits and plant</p> <p>Nominated peak/off-peak hours</p> <p>Currently peak-7:00 am to 10:00 pm weekdays</p> <p>Or as otherwise defined by the TNSP/NEMMCO</p> <p>Off peak-all other times</p> <p>May include intermediate time periods and seasonal periods</p>
Definition/formula	<p>Formula:</p> $\left( \frac{\text{No. hours per annum defined (critical/non - critical) circuits are available}}{\text{Total possible no. of defined circuit hours}} \right) \times 100$ <p>Definition: The actual circuit hours available for defined (critical/non-critical) transmission circuits divided by the total possible defined circuit hours available.</p> <p>Note that there shall be an annual review of the nominated list of critical circuits/system components</p>
Exclusions	<p>Exclude unregulated transmission assets.</p> <p>Exclude from ‘circuit unavailability’ any outages shown to be caused by a fault or other event on a ‘3<sup>rd</sup> party system’ e.g. intertrip signal, generator outage, customer installation (TNSP to provide list)</p> <p>Excluded force majeure events</p>
Inclusions	<p>‘Circuits’ includes overhead lines, underground cables, power transformers, phase shifting transformers, static var compensators, capacitor banks, and any other primary transmission equipment essential for the successful operation of the transmission system (TNSP to provide lists)</p> <p>Circuit ‘unavailability’ to include outages from all causes including planned, forced and emergency events, including extreme events</p>

<b>Measure 2                      Loss of supply event frequency index</b>	
Unit of measure	Number of significant events per annum
Source of data	TNSP outage reports and system for circuit availability
Definition/formula	<p>Number of events greater than x system minutes per annum</p> <p>Number of events greater than y system minutes per annum</p> <p>Such that:</p> <p>a x system minutes event has a return period of one year</p> <p>a y system minutes event has a return period of two years</p>
Exclusions	<p>Exclude unregulated transmission assets (e.g. some connection assets)</p> <p>Exclude any outages shown to be caused by a fault or other event on a 'third party system' e.g. intertrip signal, generator outage, customer installation</p> <p>Planned outages</p> <p>Excluded force majeure events</p>
Inclusions	<p>All unplanned outages exceeding the specified impact (that is, x minutes and y minutes)</p> <p>Includes outages on all parts of the regulated transmission system</p> <p>Includes extreme events</p>

<b>Measure 3</b>	<b>Average outage duration</b>
Sub-measures	Transmission lines Transmission transformers/plant
Unit of measure	Minutes
Source of data	TNSP Outage Reporting System
Definition/formula	Formula: $\frac{\text{Aggregate minutes duration of all unplanned outages}}{\text{No. of events}}$ Definition: The cumulative summation of the outage duration time for the period, divided by the number of outage events during the period
Exclusions	Planned outages Excludes momentary interruptions (< one minute) Excluded force majeure events
Inclusions	Includes faults on all parts of the transmission system (connection assets, interconnected system assets) Includes all forced and fault outages whether or not loss of supply occurs

<b>Measure 4</b>	<b>Transmission constraints (Intra-regional)</b>
Unit of measure	Hours per annum
Source of data	NEMMCO and TNSP
Definition/formula	Formula: Aggregate number of hours per annum that binding constraints exist on any part of the interconnected transmission system within a region (excludes interconnectors)
Exclusions	Hours of binding constraints at or near (>95 per cent) the capacity determined by the constraint equation describing all transmission elements in service Excludes connection assets Hours of binding constraints where non-credible generation contingencies coincide with previously notified planned outages Excluded force majeure events
Inclusions	Includes binding constraints requiring ‘out-of-merit-order’ scheduling of generation or rotational load shedding Includes binding constraints from all causes including planned, forced and emergency events, including extreme events

<b>Measure 5                  Transmission constraints (Inter-regional)</b>	
Unit of measure	Hours per annum
Source of data	NEMMCO and TNSP
Definition/formula	Formula: Aggregate number of hours per annum that binding constraints exist on an inter-regional interconnector. Hours of binding constraints to be accumulated against 'importing' TNSP.
Exclusions	Hours of binding constraints at or near (>95 per cent) the capacity determined by the constraint equation describing all transmission elements in service Hours of binding constraints where non-credible generation contingencies coincide with previously notified planned outages Any event which was clearly as a consequence of action or inaction of another TNSP Excluded force majeure events
Inclusions	Events where binding constraints occur due to unavailability of interconnector support assets Includes binding constraints from all causes including planned, forced and emergency events, including extreme events



## **Schedule 2—Definition of force majeure**

For the purpose of applying the service standards performance-incentive scheme, ‘force majeure events’ means any event, act or circumstance or combination of events, acts and circumstances which (despite the observance of good electricity industry practice) is beyond the reasonable control of the party affected by any such event, which may include, without limitation, the following:

- fire, lightning, explosion, flood, earthquake, storm, cyclone, action of the elements, riots, civil commotion, malicious damage, natural disaster, sabotage, act of a public enemy, act of God, war (declared or undeclared), blockage, revolution, radioactive contamination, toxic or dangerous chemical contamination or force of nature
- action or inaction by a court, government agency (including denial, refusal or failure to grant any authorisation, despite timely best endeavour to obtain same)
- strikes, lockouts, industrial and/or labour disputes and/or difficulties, work bans, blockades or picketing
- acts or omissions (other than a failure to pay money) of a party other than the TNSP which party either is connected to or uses the high voltage grid or is directly connected to or uses a system for the supply of electricity which in turn is connected to the high voltage grid
- where those acts or omissions affect the ability of the TNSP to perform its obligations under the service standard by virtue of that direct or indirect connection to or use of the high voltage grid.

In determining what force majeure events should be ‘Excluded force majeure events’ the AER will consider the following:

- Was the event unforeseeable and its impact extraordinary, uncontrollable and not manageable?
- Does the event occur frequently? If so how did the impact of the particular event differ?
- Could the TNSP, in practice, have prevented the impact (not necessarily the event itself)?
- Could the TNSP have effectively reduced the impact of the event by adopting better practices?



## **Guidelines for the Negotiation of Discounted Transmission Charges**



## **Guidelines for the Negotiation of Discounted Transmission Charges**

The National Electricity Rules (NER) includes provisions for network users to negotiate discounts on their transmission use of system charges (TUOS), and sets out the circumstances under which such discounts can be recovered from other network users. Specifically, the Transmission Network Service Provider (TNSP) may recover discounts of the TUOS general charges and common service charges where the discounts meet the Australian Energy Regulator's (AER) guidelines for the negotiation of discounted transmission charges.

The discounting guidelines are intended to provide and clarify procedures for assessing applications from TNSPs to recover the amount of discounts from other customers. In accordance with the NER, the guidelines provide for applications from TNSPs to be formally considered by the AER at each revenue reset. However, the guidelines also provide for a TNSP to apply for a letter of guidance from the AER at the time the discount is being negotiated.

The discounting guidelines were developed by the Australian Competition and Consumer Commission after consulting with industry. The AER intends to monitor the application of the guidelines, and may review these guidelines, following due consultation with all relevant stakeholders, in light of any future developments.

The 2002 final decision can be found on the accompanying CD.

## Discounting Guidelines

These Guidelines comprise the Australia Energy Regulator (AER) Guidelines for the Negotiation of Discounted Transmission Charges referred to in clause 6.5.8 of the National Electricity Rules (NER). These guidelines were first published on the Australian Competition and Consumer Commission's website on 3 May 2002.

Under the NER, a Transmission Network Service Provider (TNSP) that agrees to discount a transmission customer's Transmission Use of System (TUOS) general and/or common service charges is permitted to recover from other transmission customers all or part of the amount of the reduction provided that the TNSP is satisfied that it can demonstrate that the discount complies with these Guidelines. If at the regulatory reset the TNSP does not demonstrate to the satisfaction of the AER that the discount satisfies the Guidelines, the AER may reduce the TNSP's revenue cap for the next regulatory control period to take into account the discount amount that has been recovered from other transmission customers during the preceding regulatory control period.

Four guidelines are included. To demonstrate compliance with the Guidelines it will be sufficient to demonstrate that a discount complies with both guidelines 1 and 2, or with guideline 3, or with guideline 4.

Some comments and examples accompany the four guidelines. This material is designed to clarify the intent of the guidelines and assist with their application. The guidelines themselves however take precedence in any matters of interpretation.

### ***Guideline 1 – the discount is no larger than necessary***

The discount offered should be no larger than that necessary to prevent the general and/or common service charges altering the beneficiary's behaviour to the point of adopting the most attractive alternative in place of the course of action the beneficiary would have adopted if no such charges were levied.

To demonstrate compliance with Guideline 1 it is sufficient for the TNSP to:

- prove that the alternative scenario/s are technically and commercially credible; and
- provide information to the AER on the costs and benefits of the proposed course of action and the most technically and commercially attractive alternative (for example, a net present value analysis), sufficient to demonstrate that the negotiated discount is no larger than that required to prevent adoption of that alternative.

Depending on the context, an alternative scenario may for example involve bypassing parts of the network, not connecting to the network or refraining from increasing demand for electricity.

See Appendix 1 for a practical example of the application of Guideline 1.

### ***Guideline 2 – no other network users worse off.***

No other network users should be worse off as a result of the discount being offered compared to the situation where the discount was not offered.

In order to comply with Guideline 2 it will be sufficient for the TNSP to demonstrate to the AER that by offering the discount:

- a) its revenue cap will not increase; or
- b) that the increase in its revenue cap will be less than the increase in network charges (other than for dedicated assets) payable by the beneficiary of the discount;

relative to the situation which would prevail if the discount was not provided.

If neither of these conditions are satisfied outright, the TNSP will be required to absorb a proportion of the discount sufficient to reduce its effective revenue cap to a level at which (b) is satisfied.

See Appendix 1 for a practical example of the application of Guideline 2.

In some cases a negotiated discount may apply to only a portion of the customer's overall supply. In such situations Guidelines 1 & 2 should only be applied to that portion and not to the entire load.

### ***Guideline 3 – Safe-harbour provision***

Recovery of 70 per cent of the amount of a discount to a transmission customer's general and/or common service charges will be approved providing the TNSP has agreed to absorb the remaining 30 per cent.

Guideline 3 caps a TNSP's exposure in the event that it does not demonstrate to the AER compliance with Guidelines 1 and 2; or with Guideline 4.

See Appendix 1 for a practical example of the application of Guideline 3.

### ***Guideline 4 – Treatment of pre-existing discounts***

A TNSP may recover from other transmission customers the amount of a discount to a transmission customer's Customer TUOS general and/or common service charges:

- a) where the discount arises as a consequence of transmission charges being based upon an agreement entered into prior to 10 October 2001; and
- b) for so long as the agreement remains in effect and does not provide for re-negotiation of the amount of the transmission charges.

Approval for recovering the amount of a pre-existing discount lapses when the TNSP is no longer locked into that discounting arrangement, for example when the contract expires or where a contract provision for re-negotiation of charges can be exercised

Guidelines 1 and 2; or 3 would then be applicable. It should be noted that the NER only allows the AER to approve cost recovery in the case of discounts to the general and/or common service charges. Where the pre-existing TUOS charge is so low so as to effectively include a discount to the usage charge, then that portion of the discount relating to the usage charge must be borne by the relevant TNSP.

See Appendix 1 for a practical example of the application of Guideline 4.

## **Regulatory process**

### **Approval of the recovery of the amount of discounts**

Clause 6.5.8(c) of the NER provides that, following the publication of the AER's Guidelines, a TNSP may recover the amount of a discount to a transmission customer's general and/or common service charges from other transmission customers provided that the TNSP is satisfied it can demonstrate that the discount complies with those Guidelines.

Formal consideration by the AER of the recovery of the discount is to be undertaken when next setting a revenue cap for the TNSP. Clause 6.5.8(e) provides that the AER may, when setting a revenue cap for a TNSP, reduce the revenue cap to take into account the recovery of a discount in the preceding regulatory control period where the TNSP does not demonstrate to the AER's satisfaction that the recovery of the discount complied with the Guidelines.

Thus the NER places the onus on the TNSP in the first instance to satisfy itself that a discount is likely to meet the guidelines. The AER's formal assessment does not take place until the subsequent regulatory reset. Nevertheless, the AER is prepared, on request from the TNSP, to undertake a preliminary assessment and to provide an advance indication of its likely decision. It should be noted that any such advance indication cannot constitute formal approval for recovery of the discount under clause 6.5.8(e) and does not bind the AER in any way.

However where the AER has indicated that, in its opinion, the recovery of a discount will comply with the Guidelines, the AER would not anticipate departing from this opinion in its formal assessment of the discount unless:

- information provided to the AER in forming this opinion was incorrect or further information becomes available which would have justified the AER forming a different opinion; or
- forecasts used by the TNSP in its assessment of the discount were not made or relied on in good faith or were unreasonable.

Note: the AER acknowledges that some disparity between forecast and actual data is inevitable. It is not the AER's intention that this would provide grounds to depart from its opinion regarding a discount unless the disparity is so great as to suggest that the use of the forecasts by the TNSP was unreasonable. Accordingly, it is important that TNSPs exercise due care and diligence in assessing the recovery of a discount against these Guidelines and advise the AER as soon as possible if information provided to the AER is found to be incorrect or if new information emerges that could justify a re-assessment of a discount.



Clause 6.5.8(e) requires the AER to consider, at each reset, whether to reduce a revenue cap to take into account the recovery of a discount during the preceding regulatory control period. This means that, where a discount operates over more than one regulatory control period, the AER is required under the NER to consider at each revenue reset whether the recovery of the discount was permissible. However, where the recovery of a discount has been approved by the AER under clause 6.5.8(e) at the first reset following the negotiation of the discount, the AER would not anticipate departing from this decision except in the circumstances outlined above. At subsequent resets, TNSPs will not have to submit additional material to demonstrate that the recovery of the discount complies with the Guidelines unless specifically requested to do so by the AER.

It is possible that a discount negotiated in good faith may appear several months or years later, in light of new information not available at the time of the discount negotiations not to comply with the Guidelines. In undertaking its assessment of whether or not the discount complied with the Guidelines the AER intends to rely on information that could reasonably have been available at the time of the initial discount offer. That is, that any *ex post* assessment of a discount should be conducted as if it were done at the time the discount was negotiated, subject to the above caveats.

The AER notes that it intends to monitor the application of the Guidelines and may decide to review them at a later date after consultation with relevant stakeholders. Should the AER alter the Guidelines between the time a discount is negotiated and the time the AER undertakes its assessment the TNSP would have discretion as to whether or not the discount should be assessed under the Guidelines in effect at the time of negotiation of the discount or under the newly published Guidelines.

The AER may decide to provide a TNSP with a qualified response to a discount recovery application. For example, the AER may notify the relevant TNSP at the time of the regulatory reset that, while it does not consider that the full discount complies with the Guidelines, a smaller discount of size 'x' does comply. If an amount greater than 'x' has been recovered in the preceding regulatory control period, the AER may decide to claw back the excess in the subsequent control period.

Similarly an advance indication, provided in response to an application received during a control period may stipulate that although the AER is of the opinion that the full proposed discount would not satisfy the guidelines, a discount of size 'x' would appear likely to do so. The AER notes that the formal process in the NER envisages that a TNSP will satisfy itself that a discount is likely to satisfy the Guidelines before approaching the AER at the regulatory reset. The TNSP's assessment would be based on information supplied by the customer during the discount negotiations, information provided from independent experts and/or its own knowledge of network options and costs.

Likewise, the AER expects that the TNSP will satisfy itself that a discount is likely to satisfy the Guidelines before seeking a letter of guidance from the AER. Nevertheless, the AER is also prepared to review applications in the special circumstance where an irreconcilable difference has arisen between the customer and the TNSP as to whether the proposed discount would satisfy the Guidelines.

## **The assessment process**

A discount recovery application (Application) from a TNSP can be provided to the AER either during a regulatory control period or at the time of the regulatory reset.

- a) An Application submitted to the AER during a regulatory control period.

The Application would be accepted and a preliminary assessment would be undertaken as to whether or not it satisfies the AER's Guidelines. Should the Application be assessed as satisfying the Guidelines the AER would provide the TNSP with a letter of guidance to this effect. The Application would be placed on file for formal assessment at the relevant TNSPs next regulatory reset. A TNSP would, however, have the option of providing a revised Application if they wished as part of their formal revenue application.

It should be noted that prior to assessing an Application during a control period the AER would require some evidence that discount negotiations have been finalised or are at a late stage.

Should the preliminary assessment find that the discount does not comply with the Guidelines the AER would provide the TNSP with a letter of guidance to that effect. The AER may, where appropriate, provide an indication to the TNSP that a portion of the submitted discount might be considered as satisfying the Guidelines.

- b) An Application submitted to the AER at the time of a TNSP's regulatory reset.

The Application would be accepted and assessed as part of the TNSP's revenue determination. It is expected that the Application would be provided to the AER as part of a confidential attachment to a TNSP's formal revenue application. As part of its revenue determination the AER would advise the TNSP as to whether or not the submitted discount wholly or partially satisfies the Guidelines. Should the discount not fully comply then there is a possibility that the AER may 'claw back' the non-complying part of the discount from the TNSP through a reduction in its revenue cap. The AER considers that it may be useful, either before or after making a formal application, for a TNSP to arrange a meeting with the AER to present its Application. Similarly, the AER may request a meeting with a TNSP to clarify aspects of an Application. Attendance of beneficiary representatives would be permissible with the agreement of the TNSP(s).

For an Application received during the regulatory control period the AER requires a period of 40 business days to assess and provide guidance as to whether or not it is likely to satisfy the Guidelines. However, should further information be required to assess the Application, this period would be extended by the time taken to obtain the additional information. An Application received, as part of a TNSP's revenue application will be processed in the time allocated for the AER to make its revenue determination.

The Guidelines do not place a limit on the term of any negotiated discount as this is a matter for the discounting parties. However, the AER does intend to assess more rigorously discounts of a longer term than those of a shorter duration.

On occasions a network user may need to negotiate a discount with more than one TNSP. The AER considers that it is in all parties interests for initial discount negotiations to involve all parties (utilising the negotiating framework referred to in NER clause 6.5.9) and for a joint application or at least concurrent applications to be made to the AER for approval of cost recovery. However, the NER clearly provides for the transmission customer to negotiate separately with each TNSP if it so wishes. As such the AER considers that it should be left to the customer's discretion as to how to proceed.

As discussed below it is important that an Application outline the method the TNSP has chosen to calculate the amount to be recovered from other transmission customers in each financial year for the term of the discount. The AER's approval will refer to this method and may specify an alternative or modified method if considered appropriate.

### **The discount recovery application**

An Application from a TNSP to the AER for the recovery of the amount of a discount from other network users must contain the following information as a minimum:

- identification of the TNSP(s) seeking to recover the amount of the discount (for example, company name, ACN, address for correspondence; and trading name (if different from company name);
- the name of a contact officer within the TNSP(s) and their contact details;
- the name of the beneficiary of the negotiated discount;
- a description of the discount, including:
  - which charge(s) the TNSP(s) propose to discount;
  - the term of the discount;
  - the proportion of the discount for which cost recovery approval is sought;
  - the method for calculating the amount to be recovered from other transmission customers in each financial year for the term of the discount;
  - the date of the commencement of the discount;
  - the nominated guideline(s) under which approval is being sought (that is, either Guideline 1 & 2; or 3; or 4 or some combination of them); and
  - the type of Application being made (that is, either single, joint or concurrent). If a concurrent Application is being made then reference to the related application(s).
- for an Application made during a regulatory control period evidence that discount negotiations have been finalised or are at a late stage;

- supporting material sufficient to enable meaningful assessment of the discount. Should the material provided be inadequate for the AER to undertake meaningful assessment then there is a possibility that the processing of the request for cost recovery could be delayed; and
- the authorised signatories (including name(s), position(s), signature(s) and date signed).

### **Requirement to publish aggregate discount information**

The AER's considers that, in instances where negotiated discounts are to be recovered from other network users, these users have a right to know the amounts involved. Clause 6.2.5 of the NER requires a TNSP in each instance, as part of the annual compliance statement process, to provide information to the AER regarding each discount negotiated in a financial year. In doing so the TNSP must substantiate any claim that the discounting information is of a confidential nature. This information may then be used by the AER to publish aggregate information on the dollar amount of discounts provided by a TNSP and the percentage of the discounts recovered from other transmission customers in that financial year.

The AER intends to publish annually aggregate information on the discounts offered and the proportion of those amounts to be recovered from other network users. In doing so the AER undertakes to maintain the confidentiality of any commercially sensitive information provided to it. It intends to do this by aggregating the information to such a level so that the confidentiality of the information is maintained.

## Appendix 1: Applying the discounting guidelines

### Example I – Application of guidelines 1, 2 and 3

#### Description

An entrepreneur plans to establish a factory that will consume 100 MW on a continuous basis. The factory's size and location are dictated by factors unrelated to electricity supply but on-site generation is a credible alternative to taking supply through the grid.

The transmission prices that would normally apply at the connection point are:

Usage:	\$6/MWh in business hours (2000 hours per year) and zero at other times
General:	\$5/MWh applied to energy consumed during relevant year or \$30,000/MW applied to connection capacity (whichever results in the lower charge).
Common service:	\$1/MWh or \$6,000/MW, applied in same way as the general price.

However the customer has negotiated a 40% discount on the general price, reducing it to \$3/MWh or \$18,000/MW.

If the customer connects it pays \$200,000 per year for its dedicated connection assets (of which \$20,000 is assumed to be profit for the TNSP).

Other relevant facts are:

- the price of energy at the customer's connection point would be \$30/MWh;
- the annualised cost of on-site generation would be \$40/MWh;
- if the customer installed on-site generation it could sell 50 MW of by-product heat at \$10/MWh;
- the on-site generating equipment would be out of service for five days per year and the customer would either have to purchase standby energy from the grid or shut down production during that period; and
- profits forgone while production was shut down would be \$20,000 per day.

The TNSP is seeking approval to recover the full cost of the discount from other network users. The TNSP must demonstrate that Guidelines 1 and 2 are both satisfied, that is:

1. *The discount is no larger than necessary* – The discount offered should be no larger than that necessary to prevent the general and common service charges altering the beneficiary's behaviour to the point of adopting the most attractive

alternative in place of the course of action the beneficiary would have adopted if no such charges were levied.

2. *No other network users worse off* – no other network users should be worse off as a result of the discount being offered compared to the situation where the discount was not offered.

The following sections illustrate how the TNSP might demonstrate conformance with these guidelines.

### **Guideline 1: the discount is no larger than necessary**

The assessment involves comparing the costs and benefits that accrue to the customer if it receives the discount and proceeds with its preferred option ('the discounted network option') with those that would accrue under the most attractive alternative option ('the credible alternative'). To satisfy guideline 1, the discount will need to be no larger than is necessary to ensure the discounted network option is more attractive to the customer than the credible alternative.

#### **Credible alternatives**

Two alternative scenarios will be considered:

1. install generating equipment on-site, but connect to network so as to be able to obtain standby supply when on-site equipment is out of service (about 5 days per year); and
2. install generating equipment on-site, but instead of connecting to network stop production when on-site generating equipment is out of service.

#### **Comparison of costs and benefits to customer**

Costs and benefits accruing to the customer under the discounted network option and these two credible alternatives are summarised in Table 1. Only those costs and benefits that are scenario-dependent have been considered, since costs that are common to all scenarios have no impact on their ranking.

#### **Discussion**

From Table 1, it is evident that the discounted network option is the most attractive, given the proposed discount. Complete reliance on embedded generation (credible alternative #2) is the next most attractive option at that level of discount. Thus the proposed discount is large enough to ensure the discounted network option is the most attractive one for the customer, but is it significantly larger than it needs to be to achieve that? It results in the discounted network option being the most attractive by a margin of \$260,000 per year. On the face of it, the proposed discount is not significantly larger than necessary to achieve its purpose.

**Table 1. Costs and benefits accruing to the customer.**

Scenario	Item	Annualised benefit (amounts in 2002 dollars; negative values parenthesised)	
Discounted network option (Note 1)	electrical energy	100 MW x 24 h x 365 days x \$30/MWh	= (26,280,000)
	usage charge	100 MW x 2000 h x \$6/MWh	= (1,200,000)
	general charge	100 MW x \$18,000/MW	= (1,800,000)
	common service	100 MW x \$6,000/MW	= (600,000)
	connection services	\$200,000/year	= (200,000)
	<b>TOTAL for discount network option</b>		<b>= (30,080,000)</b>
Credible alternative #1 (Note 2)	electrical energy	100 MW x 24 h x 5 days x \$30/MWh	= (360,000)
	usage charge	100 MW x 30 h x \$6/MWh (Note 3)	= (18,000)
	general charge	100 MW x 24 h x 5 days x \$5/MWh	= (60,000)
	common service charge	100 MW x 24 h x 5 days x \$1/MWh	(12,000)
	connection services	\$200,000/year	= (200,000)
	generation costs	100 MW x 24 h x 360 days x \$40/MWh	= (34,560,000)
	sale of process heat	50 MW x 24 h x 360 days x \$10/MWh	= 4,320,000
	<b>TOTAL for credible alternative #1</b>		<b>= (30,890,000)</b>
Credible alternative #2	generation costs	100 MW x 24 h x 360 days x \$40/MWh	= (34,560,000)
	sale of process heat	50 MW x 24 h x 360 days x \$10/MWh	= 4,320,000
	forgone production profits	\$20,000/day x 5 days	= (100,000)
	<b>TOTAL for credible alternative #2</b>		<b>= (30,340,000)</b>

**Notes on Table 1**

1. The capacity-based form of the general price and common service price has been used for the purpose of estimating charges under the discounted network option as this form leads to the lowest charge when a continuous 100 MW is taken from the grid.
2. Conversely, the energy-based form has been used for estimating charges under credible alternative #1 as that form leads to the lowest charges when supply is taken from the grid for 5 days per year.
3. For the purpose of estimating usage charges under credible alternative #1, it has been assumed that of the five days per year when supply is taken from the grid, 30 hours fall within peak periods when a non-zero usage price applies.

However this conclusion is quite sensitive to the data used in the analysis and in practice the AER might require the TNSP to provide supplementary information. For example, if the cost of energy in the NEM was a little lower than assumed or the cost of on-site generation was a little higher, the alternative options would be less attractive and the discount might no longer appear justifiable.

It should also be noted that other costs and benefits exist that have not been considered in detail. For example, by bypassing the network a transmission customer could avoid paying market fees and TUOS charges. However, on the other hand the opportunity cost of utilising available easements may need to be considered as part of any bypass option. Such costs and benefits should be included where they are considered material.

## **Guideline 2: no other network users worse off**

### **Does the TNSP stand to benefit?**

The first step in deciding whether other users will be worse off is to determine whether the TNSP is likely to benefit. If no benefit flows to the TNSP, it is assumed that the benefits<sup>3</sup> flow to other network users who are therefore, as a group, better off than if the discount had not been offered.

It is evident from the analysis for Guideline 1 that if the discount is not provided, the customer will elect not to connect to the network at all. The TNSP will then forgo the \$200,000 per year that would have arisen from the dedicated connection assets, of which \$20,000 would have been profit.

It is assumed that if the customer does not connect, the revenue requirement of under-utilised shared assets will be reduced by \$2,500,000 per year, due to a revision of the depreciated optimised replacement cost. If the customer connects, the increased utilisation is sufficient to avoid this devaluation.

Thus, the TNSP stands to benefit by \$2,520,000 per year through offering the discount. It is therefore necessary to proceed to the next step of assessing whether other network users will pay more than if the discount was not offered and the customer did not connect.

### **Given that the TNSP benefits, will other network users be worse off?**

Under the discounted network option, the discount beneficiary will contribute \$3,600,000 per year in usage, general and common service charges (see Table 1). If the discount was not offered and the customer did not connect to the network that contribution would be absent. In addition, as a result of the customer not connecting to the network, the amount of revenue to be recovered by the TNSP would be reduced by \$2,500,000 per year due to asset devaluation. The net result is that, under the discounted network option, even if other customers bear the whole cost of the discount they will be paying approximately \$1,100,000 less per year than they would if no discount was offered.

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<sup>3</sup> Provided the discount is no larger than necessary (i.e. it satisfies Guideline 1) it should be safe to assume it delivers a net positive benefit to the market.



## Discussion

On the face of it, the other network users as a group are better off than if the discount had not been offered. Under the Guidelines, the TNSP should therefore be permitted to recover the full cost of the discount.

This conclusion appears reasonably robust to the assumptions made in the analysis. For example, the TNSP's exposure would need to be at least \$1,100,000 higher than the assumed \$2,500,000 per year before it would be required to bear a portion of the discount.

### Guideline 3: Safe-harbour provision

As an alternative to demonstrating conformance to Guidelines 1 and 2, the TNSP can elect to absorb 30% of the discount, in which case it will satisfy Guideline 3 and will automatically receive approval to recover the remaining 70%.

The projected annual discount is the difference between the general charge the customer would pay under the discount network option if exposed to the full general price (\$30,000/MW), and the charge it will pay on the basis of the discounted price (\$18,000/MW):

$$\begin{aligned}\text{Annual amount of discount} &= (\$30,000/\text{MW} - \$18,000/\text{MW}) \times 100 \\ \text{MW} &= \$1,200,000 \text{ per year}\end{aligned}$$

Thus providing the TNSP agrees to absorb \$360,000 per year (30% of \$1,200,000) it will automatically receive approval to recover the remaining \$840,000 per year from other network users.

## Conclusion

The discount appears to satisfy Guidelines 1 and 2, leading to the provisional conclusion that the TNSP should be allowed to recover the full amount from other network users. However that conclusion is quite sensitive to some of the data used in the analysis. In practice, the AER may require further information on the most critical assumptions before arriving at a final decision. In any event, the TNSP's maximum exposure to the discount will be \$360,000/year, since if it agrees to absorb that amount it satisfies Guideline 3.

### Information to be published in relation to the example

The AER intends to publish aggregate information on the amount of any discounts to general and/or common service charges in each financial year and the percentage to be recovered from other transmission customers. These statistics will be aggregated sufficiently to preserve beneficiaries' confidentiality.

In the present example, the relevant amounts would be as follows:

The discount to the general charge in any one year will be the difference between the charge actually paid by the customer and the charge that would have been payable if the general price had not been discounted. Assume for example, the customer's connection capacity is 100 MW and the consumer consumes at that rate more or less constantly throughout the year in question. Assume also that the full general price remains at \$30,000/MW while the discounted price is \$18,000/MW. Then the discount in that year will be  $(\$30,000/\text{MW} - \$18,000/\text{MW}) * 100 \text{ MW} = \$1,200,000/\text{year}$ .

Each financial year the relevant TNSP is required to report to the AER the actual amount of each discount and the amount of that discount it recovered from other transmission customers in accordance with clause 6.2.5 of the NER.

Before publishing, the AER will aggregate this information with that relating to other discounts so as to preserve beneficiary anonymity. If three or more discounts are active for the TNSP in that financial year, aggregation to the TNSP level should suffice. If not, aggregation to a higher level may be necessary. For example, the statistics may be reported at a jurisdictional level or higher if necessary.

## **Example II - Application of guideline 4**

### **Description**

Under an arrangement negotiated prior to 10 October 2001, a customer pays an agreed price of \$3/MWh for use of the shared transmission network. The contract contains a provision for renegotiation of this price in the event the customer's annual consumption changes by more than 30% from its normal value of 1500 GWh/year. The contract expires on 30 June 2009. The customer's agreed connection capacity is 200 MW.

The customer's transmission charge, calculated on the basis of the agreed price of \$3/MWh is normally \$4,500,000 per year. In most years this turns out to be less than the full charge that would be payable if the full usage, general and common service prices applied. That is, the customer is in receipt of a discount in most years. The TNSP therefore applies to the AER for permission to recover the amount of the discount from other network users, in accordance with guideline 4.

### **Assessment**

It will be assumed the TNSP submits adequate evidence (eg a certified copy of the agreement with the customer) to demonstrate to the AER's satisfaction that the TNSP is indeed locked into the arrangement until either the agreement expires or the customer varies its consumption by more than 30%. The AER therefore approves the TNSP's application to recover the amount of the effective discount to the general and/or common service charges, subject to the conditions that the TNSP remains unable to activate the renegotiation clause and that the agreement's expiry date has not been reached.

## Financial effect

Suppose that over the next few years transmission prices at the customer's connection point follow the trajectory shown in Table 2, below. Usage prices are postulated to be rising steeply, reflecting increasing local congestion in the transmission network. There is some offsetting decrease in general charges. The resultant size of the discount in each year and the amount approved for recovery from other users are also shown in Table 2. Initially the full amount of the discount is recoverable. However by 2005/06, the normal usage charge has risen to a level where it exceeds the agreed charge payable by the customer. The customer is now receiving a discount of \$1,500,000 on its usage charge as well as a 100% discount on its general and common service charges. The discount on the usage charge is not recoverable from other network users and must be borne by the TNSP.

Table 2 illustrates events up until 30 June 2006. Suppose for the sake of this example that in July 2006, the customer decommissions half its plant, resulting in a 50% reduction in its consumption. As a result, the renegotiation clause in its agreement can be invoked by the TNSP. Permission to recover the amount of the discount under guideline 4 therefore lapses.

Following negotiation of revised transmission charges with the customer, the TNSP may consider it has a case to recover the new discount amount under guidelines 1 and 2, and as a minimum will be entitled to recover 70% in accordance with guideline 3. However this will not be explored any further here.

**Table 2**

Year	Transmission Prices			Charges payable in the absence of discount (\$000/year)			discount	recoverable amount
	Usage \$/MWh (note 1)	General \$/MW (note 2)	Cmn \$/MW (note 2)	Usage (note 3)	General	Cmn	(\$000/y) (note 4)	(\$000/y) (note 5)
2002/03	7	20,000	5,000	2,100	4,000	1,000	2,600	2,600
2003/04	10	17,500	5,000	3,000	3,500	1,000	3,000	3,000
2004/05	15	15,000	5,000	4,500	3,000	1,000	4,000	4,000
2005/06	20	10,000	5,000	6,000	2,000	1,000	4,500	3,000

### Notes

- Usage price is assumed to apply to consumption during on-peak times, assumed in aggregate to be 2000 hours per year.
- The general and common service prices apply to agreed connection capacity. (It is assumed that the customer's load factor is sufficiently high to warrant a capacity-based charge instead of an energy-based one.)

3. The usage charges have been calculated on the assumption that consumption during the relevant 2000 hours per year totals 300 GWh.
4. The annual discount is calculated by subtracting the charge actually paid by the customer (\$4,500,000 p.a.) from the sum of the usage, general and common service charges that would be payable in the absence of a discount.
5. The amount recoverable from other customers equals the discount unless the discount exceeds the sum of the general and common service charges that would normally be payable.

## **Transmission Network Ring-Fencing Guidelines and Reporting Guidelines**



## **Transmission Network Ring-Fencing Guidelines and Reporting Guidelines**

The ring-fencing guidelines require the separation of the accounting and functional aspects of regulated transmission services from other contestable services provided by Transmission Network Service Providers (TNSP). All TNSPs must comply with these guidelines under clause 6.20.1 of the National Electricity Rules (NER).

The objective of the ring-fencing Reporting Guidelines is to ensure that the obligations imposed on TNSPs are consistent with the obligations that arise from the Information Requirements Guidelines.

The AER intends to amend these guidelines to reflect the governance arrangements and changes in terminology that came into effect on 1 July 2005. The AER intends to monitor these guidelines, and may review, after consultation with all relevant stakeholders, aspects over time in light of experience in its application.

The AER is required to consult on amendments made to the ring-fencing guidelines. The ring-fencing guidelines and reporting guidelines in this compendium have been amended to reflect the governance arrangements and the change in terminology that took effect on 1 July 2005. In particular, reference to the ACCC have been changed, where necessary, to the AER. Similarly, reference to the National Electricity Code have been changed to the NER.

Anyone wishing to comment on these amendments should provide written comments which can be sent electronically to: [ainerquiry@er.gov.au](mailto:ainerquiry@er.gov.au). Or alternatively, comments can be sent to:

Mr Sebastian Roberts  
General Manager  
Transition Branch  
Australian Energy Regulator  
GPO Box 520  
Melbourne Vic 3001

Comments must be provided by **Friday 1 September 2005**.

The 2002 final decisions for the ring-fencing guidelines and reporting guidelines can be found on the accompanying CD.

# Transmission Ring-Fencing Guidelines

## Background

1. Clause 6.20.1 of the National Electricity Rules (the *NER*) requires all *Transmission Network Service Providers* to comply with the *Transmission Ring-Fencing Guidelines* prepared in accordance with clause 6.20.2 of the *NER*.
2. Clause 6.20.2(a) of the *NER* requires the Australian Energy Regulator (*AER*) to develop the *Transmission Ring-Fencing Guidelines*.
3. These Guidelines were *published* by the *ACCC* on 15 August 2002.

## Preliminary

4. In these Guidelines, unless the contrary intention appears, italicised expressions have the meaning given to them in:
  - a) this clause 4; or
  - b) if they are not defined in this clause 4, the meaning given to them in the *NER*.

Note: To avoid doubt, *NER* means the National Electricity Rules as in force from time to time.

**associate**, in relation to a *person*, has the meaning it would have under Division 2 of Part 1.2 of the *Corporations Act* if sections 13, 14, 16(2) and 17 of that Act were repealed.

Note: Schedule 1 section 13(7) of the *Gas Pipelines Access (South Australia) Act 1997* (SA) contains an identical definition of 'associate'.

**auditing standards** means the Auditing Standards and Auditing Guidance Statements as in force or existing from time to time issued by the Auditing Standards Board of the Australian Accounting Research Foundation (and any succeeding bodies).

**auditor** means a *person* who qualifies as an auditor under Part 2M.4 of the *Corporations Act*.

**Corporations Act** means the *Corporations Act 2001* (Cth) as in force from time to time.

**economic entity** has the meaning given in Accounting Standard AASB 1024: Consolidated Accounts as in force from time to time.

**marketing staff** means servants, consultants, independent contractors or agents directly involved in sales, sale provision or advertising (whether or not they are also involved in other functions) but does not include



servants, consultants, independent contractors or agents involved only in:

- a) strategic decision-making, including the executive officer or officers to whom *marketing staff* report either directly or indirectly; or
- b) technical, administrative, accounting or service functions.

Note: Section 10.8 of the National Third Party Access Code for Natural Gas Pipeline Systems contains an identical definition of ‘marketing staff’.

**operational activities** means activities common to the production of both *ring-fenced services* and *unregulated activities*.

**parent entity** has the meaning given in Accounting Standard AASB 1024: Consolidated Accounts as in force from time to time.

**person** includes an individual or a body politic or corporate.

**related business** means the activities of *generation, distribution* and electricity retail supply.

**relevant commencement date means the later of the following dates:**

- a) 1 November 2002; or
- b) either the date on which the *ACCC*, under s. 44ZZA of the *Trade Practices Act 1974* (Cth), accepts an access undertaking provided by the *Transmission Network Service Provider* in accordance with clause 2.5 of the *National Electricity Code* or, if a person is registered by NEMMCO as a *Transmission Network Service Provider* after 1 July 2005, the date on which the person is registered.

**reporting entity** has the meaning given in Accounting Standard AASB 1024: Consolidated Accounts as in force from time to time.

**ring-fenced services** means *prescribed transmission services*.

**TNSP** means a *Transmission Network Service Provider*.

**unregulated activities** means activities other than the supply of *ring-fenced services*, and includes but is not limited to carrying on a *related business*.

5. Where these Guidelines authorise the making of an instrument or decision:

- a) the power includes the power to amend or repeal the instrument or decision; and
- b) the power to amend or repeal the instrument or decision is exercisable in the same way, and subject to the same conditions, as the power to make the instrument or decision.

6. In these Guidelines:
- a) words in the singular include the plural; and
  - b) words in the plural include the singular.

**Ring-fencing minimum obligations**

7. A *TNSP* must comply with the following provisions on and from the *relevant commencement date*:

- 7.1 a) A *TNSP* that supplies *ring-fenced services*:
- (i) must be a legal entity incorporated under the *Corporations Act*, a statutory corporation or an entity established by royal charter; and
  - (ii) subject to clause 7.1(b), must not carry on a *related business*. To avoid doubt, if the *TNSP* is a member of a partnership, joint venture or other unincorporated association, the *TNSP* is carrying on the activities of the partnership, joint venture or unincorporated association.
- b) A *TNSP* is not subject to clause 7.1(a)(ii) if it carries on *related businesses* that, in total, attract revenue of less than or equal to 5 per cent of the *TNSP*'s total annual revenue.
- 7.2 a) The directors of a *TNSP* that provides *ring-fenced services* must act in the best interest of the *TNSP* in respect of all decisions relating to the provision of *ring-fenced services* and the terms and conditions on which those services are provided.
- b) A *TNSP* that provides *ring-fenced services* must not make decisions or act in a manner that discriminates in favour of an *associate* in relation to the terms or conditions on which those services are provided. To avoid doubt, a *TNSP* providing *ring-fenced services* must offer those services to its customers on terms and conditions no less favourable than it provides to itself or its *associates*.
- 7.3 a) A *TNSP* that provides *ring-fenced services* must establish and maintain:
- (i) a separate set of accounts for the provision of *ring-fenced services*; and
  - (ii) a separate amalgamated set of accounts for its entire business.
- b) The accounts must be prepared in accordance with any guidelines that apply to the *TNSP* under clause 8.

Note: Since clause 7.1(a)(ii) prohibits a *TNSP* from carrying on a *related business*, clause 7.3(a)(ii) will only impose additional obligations on a *TNSP* if (a) the *TNSP* is carrying on any *unregulated activities* other than a *related business*; (b) clause 7.1(b) applies to the *TNSP*; and/or (c) the *AER*, under clause 11, has waived the *TNSP*'s obligation under clause 7.1(a)(ii).

- 7.4 A *TNSP* that provides *ring-fenced services* must allocate any costs that are shared between an activity covered by a set of accounts described in clause 7.3(a)(i) and any other activity, in accordance with a methodology that complies with any guidelines that apply to the *TNSP* under clause 8.

Note: Clause 7.4 regulates the allocation of costs between *ring-fenced services* and any other activity including activities undertaken by other entities. The purpose of clause 7.4 is to prevent *TNSPs* subsidising contestable activities through regulated activities.

- 7.5 If a *TNSP* that provides *ring-fenced services* is part of an *economic entity*, the *TNSP* must ensure that:

- a) a separate amalgamated set of accounts in respect of the provision of *ring-fenced services* by that *economic entity* is established and maintained; and
- b) the accounts are prepared in accordance with any guidelines that apply under clause 8.

Note: Accounting Standard AASB 1024: Consolidated Accounts requires a *parent entity* in an *economic entity* that is a *reporting entity* to prepare consolidated accounts to reflect the *economic entity* as a single *reporting entity*. Principally, adjustments will be necessary whenever entities within an *economic entity* have had transactions with each other. The purpose of clause 7.5 is to ensure that the cost of providing the *ring-fenced services* is adjusted to reflect any transactions between the entities within the *economic entity*, that relate to the provision of the *ring-fenced services*.

- 7.6 A *TNSP* that provides *ring-fenced services* must:

- a) ensure that information it provides in relation to its *ring-fenced services*, to any *associate* that takes part in a *related business* is available to any other party; and

Note: The purpose of clause 7.6(a) is to restrict access to information that may give the associated entity an unfair advantage over other participants in the national electricity market.

- b) ensure that preferential treatment is not given to an *associate* that takes part in a *related business*, through sharing of *operational activities*.

- 7.7 A *TNSP* that provides *ring-fenced services* must:

- a) (i) ensure that its *marketing staff* are not also servants, consultants, independent contractors or agents of an *associate* that takes part in a *related business*; and

- (ii) in the event that its *marketing staff* become or are found to be servants, consultants, independent contractors or agents of such an *associate* contrary to clause 7.7(a)(i), procure their immediate removal from its *marketing staff*; and
- b)
  - (i) ensure that none of its servants, consultants, independent contractors or agents are *marketing staff* of an *associate* that takes part in a *related business*; and
  - (ii) in the event that any of its servants, consultants, independent contractors or agents are found to be the *marketing staff* of such an *associate* contrary to clause 7.7(b)(i), procure their immediate removal from their position with the *TNSP*.

Note: Clause 8.6.1(d) of the *NER* also states that the officers of a *TNSP* participating in *transmission service* pricing must not be involved in or associated with competitive electricity trading activities of any other *NER Participant*.

7.8 A *TNSP* that provides *ring-fenced services* must notify the *AER* if:

- a) any of its servants, consultants, independent contractors or agents are, or will be, servants, consultants, independent contractors or agents of an *associate* that takes part in a *related business*; or
- b) any servants, consultants, independent contractors or agents of an *associate* that takes part in a *related business* will be servants, consultants, independent contractors or agents of the *TNSP*.

7.9 A notification under clause 7.8 must be provided to the *AER* on or before the later of the following dates:

- a) the *relevant commencement date*; or
- b) five *business days* prior to the date:
  - (i) on which the servant, consultant, independent contractor or agent of the *TNSP* will be a servant, consultant, independent contractor or agent of the *associate*; or

Note: See clause 7.8(a).

- (ii) on which the servant, consultant, independent contractor or agent of the *associate* will be a servant, consultant, independent contractor or agent of the *TNSP*.

Note: See clause 7.8(b).

8. In complying with clauses 7.3, 7.4 and 7.5, a *TNSP* must:

- a) if the *AER* decides to *publish* accounting guidelines for *TNSPs* that apply to the accounts being prepared, comply with those guidelines; or
- b) if the *AER* has not *published* such guidelines, comply with any guidelines that are prepared by the *TNSP* and approved by the *AER*.

Note: To avoid doubt, clause 8(b) does not require a *TNSP* to prepare guidelines.

### **Additional ring-fencing obligations**

- 9. The *AER* may, by notice to the *TNSP*, require the *TNSP* to comply with obligations in addition to those contained in clause 7 provided that the *AER* is satisfied that the administrative cost to the *TNSP* and its *associates* of complying with the additional obligations is, or is likely to be, outweighed by the benefit to the public.
- 10. Without limiting the additional obligations that may be imposed under clause 9, the *AER* may require that:
  - a) the *TNSP* ensure its servants, consultants, independent contractors or agents are not also servants, consultants, independent contractors or agents of an *associate* that takes part in a *related business* and, in the event that they become or are found to be involved with such an *associate*, ensure their immediate removal from their position with the *TNSP*;
  - b) at least one director of the *TNSP* is not also a director of a company (whether or not an *associate*) that takes part in a *related business* or is a *Registered Participant* or *Intending Participant*; and
  - c) the electronic, physical and procedural security measures employed in respect of the offices of the *TNSP* and of all offices of its *associates* are satisfactory to the *AER*.

The examples given in this clause 10 shall not be construed as limiting the types of action a *TNSP* may have to take to comply with clause 7.

### **Waiver of ring-fencing requirements**

- 11. The *AER* may, by notice to the *TNSP*, waive any of the *TNSP's* obligations under clause 7 provided that the *AER* is satisfied that the benefit, or any likely benefit, to the public is outweighed by the administrative cost to the *TNSP* and its *associates* of complying with the obligation.

Note: In deciding whether to waive any of the *TNSP's* obligations under clause 7, the *AER* may consider any additional obligations that can be imposed under clause 9.

### **Compliance procedures and compliance reporting**

- 12. A *TNSP* must establish and maintain appropriate internal procedures to ensure it complies with its obligations under clause 6.20.1 of the *NER*. The *AER* may require the *TNSP* to demonstrate the adequacy of these procedures upon

reasonable notice. However, any statement made or assurance given by the *AER* about the adequacy of the *TNSP's* compliance procedures does not affect the *TNSP's* obligations under clause 6.20.1 of the *NER*.

13. A *TNSP* must provide a report to the *AER*, at reasonable intervals determined by the *AER*, describing the measures taken to ensure compliance with its obligations under clause 6.20.1 of the *NER*, and providing an accurate assessment of the effect of those measures.
14. A *TNSP* that is required to prepare documents in accordance with clauses 7.3, 7.4 and/or 7.5 must provide those documents to the *AER* at least once a year or at reasonable intervals determined by the *AER*.
15.
  - a) The *AER* may, on reasonable notice, require a *TNSP* to:
    - (i) appoint an independent *auditor* approved by the *AER* to report on such matters as specified by the *AER*; and
    - (ii) provide a copy of the *auditor's* report to the *AER* by a date specified by the *AER*.
  - b) If the *AER* nominates *auditing standards* to apply to an audit under clause 15(a), the *auditor* must report in accordance with those *auditing standards*. To avoid doubt, the *AER* may nominate one or more *auditing standards*.
  - c) For the purpose of clause 15(a), the *AER* may *publish* auditing guidelines with which a *TNSP* must comply.

Note: The *AER* need not *publish* auditing guidelines to impose an obligation on a *TNSP* under clause 15(a). It is intended that auditing guidelines will be *published* where obligations are to apply generally to *TNSPs* on an on-going basis.

16. When a *TNSP* becomes aware of a breach of any of its obligations under clause 6.20.1 of the *NER*, it must immediately inform the *AER*.

## Consultation

17. In deciding whether to:
  - a) amend the *Transmission Ring-Fencing Guidelines*;
  - b) impose additional obligations on a *TNSP* under clause 9; or
  - c) waive a *TNSP's* obligations under clause 11;

the *AER* will follow a consultation process that complies with clauses 6.20.2(a) and 6.20.2(e) of the *NER*.

Note: Under this consultation process, the *AER* will:

- a) publish a notice on its website and notify relevant parties about the possible amendments, imposition of additional obligations or waiving of obligations (as the case may be);
- b) specify a time by which any comments or submissions are to be received;
- c) issue a draft decision seeking comments; and
- d) issue a final decision.

# Reporting Guidelines under the Transmission Ring-Fencing Guidelines

## Background

1. Clause 6.20.1 of the National Electricity Rules (the *NER*) requires all *Transmission Network Service Providers* to comply with the *Transmission Ring-Fencing Guidelines* prepared in accordance with clause 6.20.2 of the *NER*.
2. Clause 6.20.2(a) of the *NER* requires the Australian Energy Regulator (*AER*) to develop the *Transmission Ring-Fencing Guidelines*.
3. On 15 August 2002, the *ACCC* published its *Transmission Ring-Fencing Guidelines*.
4. These Reporting Guidelines are made under clauses 8, 13 and 14 of the *Transmission Ring-Fencing Guidelines*.
5. The *ACCC* published these Reporting Guidelines on 29 October 2002.

## Preliminary

6. In these Reporting Guidelines, unless the contrary intention appears, italicised expressions have the meaning given to them in:
  - a) this clause 6; or
  - b) if they are not defined in this clause 6, the meaning given to them in the *Transmission Ring-Fencing Guidelines*; or
  - c) if they are not defined in this clause 6 nor in the *Transmission Ring-Fencing Guidelines*, the meaning given to them in the *NER*.

Note: To avoid doubt, *NER* means the National Electricity Rules as in force from time to time.

## Information Requirements Guidelines means:

- a) the publication released by the *ACCC* on 5 June 2002 pursuant to clause 6.2.5 of the *National Electricity Code*, entitled 'Statement of Principles for the Regulation of Transmission Revenues: Information Requirements Guidelines' as amended from time to time; and
- b) any additional obligations imposed on the relevant *TNSP* by the *AER*, from time to time, pursuant to clause 6.2.5 of the *NER*.

Note: As at the dates the Reporting Guidelines were released, the *ACCC* had not imposed any additional obligations on any *TNSP* under clause 6.2.5 of the *NER*.



7. In these Reporting Guidelines:
- a) words in the singular include the plural; and
  - b) words in the plural include the singular.

### **Financial Accounts**

- 8.
- a) This clause 8 is made pursuant to clause 8 of the *Transmission Ring-Fencing Guidelines*.
  - b) This clause 8 applies to a *TNSP* on and from the *relevant commencement date*.
  - c) A *TNSP* that is required to prepare documents in accordance with clauses 7.3, 7.4 and/or 7.5 of the *Transmission Ring-Fencing Guidelines*, must prepare those documents in accordance with the *Information Requirements Guidelines* to the extent that the *Information Requirements Guidelines* apply to that *TNSP* under clause 6.2.5 of the *NER*.
- 9.
- a) This clause 9 is made pursuant to clause 14 of the *Transmission Ring-Fencing Guidelines*.
  - b) This clause 9 applies to a *TNSP* on and from the *relevant commencement date*.
  - c) Unless the *AER* specifies otherwise, a *TNSP* that is required to prepare documents in accordance with clauses 7.3, 7.4 and/or 7.5 of the *Transmission Ring-Fencing Guidelines*, must provide those documents to the *AER* at the same time that it provides information to the *AER* in accordance with sections 3.9 and 6.1 of the *Information Requirements Guidelines*.

Note 1: Under section 6.1 of the *Information Requirements Guidelines*, a *TNSP* is required to deliver the information to the *AER* no later than four months after a 'regulatory accounting date' (defined as the end date of a 'regulatory accounting period' being the period on which a single set of regulatory financial statements report). Under section 3.9 of the *Information Requirements Guidelines*, unless the *AER* specifies otherwise, a *TNSP*'s regulatory accounting period corresponds to the general purpose financial statements prepared in accordance with the *Corporations Act* and Australian Accounting Standards.

Note 2: In deciding whether to release publicly any information provided by a *TNSP* to the *AER* in accordance with clauses 7.3, 7.4 and/or 7.5 of the *Transmission Ring-Fencing Guidelines*, the *AER* will treat that information in the same way as it treats information provided in accordance with the *Information Requirements Guidelines*.

## Compliance Procedures

10. a) This clause 10 is made pursuant to clause 13 of the *Transmission Ring-Fencing Guidelines*.
- b) This clause 10 applies to a *TNSP* on and from the *relevant commencement date*.
- c) Unless the *AER* specifies otherwise, a *TNSP* must provide the report referred to in clause 13 of the *Transmission Ring-Fencing Guidelines*, to the *AER* at the same time that it provides information to the *AER* in accordance with sections 3.9 and 6.1 of the *Information Requirements Guidelines*.

Note: See Note 1 to clause 9(c) of these Reporting Guidelines.

## **Information Requirement Guidelines**



## **Information Requirements Guidelines**

In June 2002, the Australian Competition and Consumer Commission released Information Requirement Guidelines following extensive consultation. These guidelines set out information required from Transmission Network Service Providers (TNSP) to satisfy annual reporting requirements and information required from the TNSP as part of any revenue reset application.

The Guidelines have been prepared in accordance with clause 6.2.5 of the National Electricity Rules (NER). Clause 6.2.5 requires TNSPs to submit certified annual financial statements to the Australian Energy Regulator (AER) in the form and by a date determined by the AER. In addition, the AER may require a TNSP to provide any other information the AER reasonably requires to perform its regulatory functions.

Information requirements for annual reporting and revenue reset processes provide information and insight into TNSPs' performance. Annual regulatory reporting is a useful tool and provides significant benefits such as facilitating informed public input into future decisions by the AER, allowing public scrutiny of annual TNSP performance against the revenue caps, and providing greater transparency of the regulatory process. Information provided by TNSPs also informs the exercise of the economic regulation functions set out in Chapter 6 of the NER.

The AER's annual reporting and revenue reset information requirements will continue to be reviewed to ensure implementation of best-practice regulation. The AER is currently looking at streamlining information requirements and providing more guidance on the information required in applications. The AER has commenced a review of the information requirement guidelines and will consult with industry and other interested parties as it develops a new approach.

The current Information Requirement Guidelines including the pro forma documents contained in Appendix A, B and C can be found on the accompanying CD.

## Information Requirements

### Statement of Regulatory Principles

#### ***Proposed Statement – S1***

Each TNSP must comply with the information requirements set out in the *Information requirements guidelines*.

#### ***Proposed Statement – S2***

##### **General**

The TNSP must submit all information to the AER in both electronic and written form.

Information submitted as part of the regulatory application must be submitted to the AER in accordance with the processes and timetable specified in the *Statement of Regulatory Principles for the Regulation of Electricity Transmission Revenues*.

The TNSPs shall ensure that all information provided to the AER is verifiable.

The regulatory statements must reflect the commercial substance of transactions or events. Where the commercial substance of a transaction or event differs from legal form, it is the commercial substance that must be reported.

#### ***Proposed Statement – S3***

##### **Financial information requirements**

All items reported to the AER in the Regulatory Financial Statements are to be derived from the TNSP's audited financial statements.

All items reported to the AER in the other regulatory statements and schedules listed in appendix B of the *Information requirements guidelines* are to be derived from the audited accounts.

All material items must be disclosed.

All transactions between TNSPs and related parties must be disclosed to the AER.

All items within the audited regulatory statements and schedules listed in appendix B of the *Information requirements guidelines* are to be disaggregated between prescribed services and non-prescribed services where indicated.

No cost category may be attributed to more than one business segment.

All transactions reported in the regulated financial statements as prescribed services must be adjusted to account for regulatory accounting rules that differ from those used in the preparation of the audited financial statements.

The regulatory statements and schedules must be audited before being submitted to the AER.

In instances where:

- the regulated activities relating to a single TNSP are conducted by more than one legal entity or
- any entity that is involved in regulated activities is not required to prepare audited financial statements under the Corporations Law

the following requirements must be complied with.

- Consolidated, or aggregated, financial statements must be prepared encompassing the activities of all legal entities that are conducting the regulated activities.
- The consolidated statements must be prepared and audited as if they were required by the corporations law.
- The audited statements are then to be used as the audited financial statements, which are then to be used for the preparation of the disaggregated regulatory financial statements, subject to all of the regulatory requirements of this guideline.

Forecast financial information must be prepared on a consistent basis with the regulatory financial statements. The forecast financial information must include, as notes to the appropriate statements, the rationale and explanations of how the forecasts have been derived, and must state the accounting principles that have been employed.

#### ***Proposed Statement – S4***

##### **Non financial information**

The directors of the TNSP will be required to complete a Directors' Responsibility Statement to be signed by two or more directors.

The TNSPs are to be responsible for ensuring that the AER receives sufficient assurances from the auditors that the information can be relied upon for regulatory purposes.

If the audit fails to satisfy AER requirements, the AER will notify the TNSP that a further audit must be conducted that addresses the AER's requirements. The AER will include a rationale for requiring a further audit and timeframe for completion of the audit in the notification.

The TNSP must submit sufficient information to ensure that the AER can assess compliance with service standard requirements.

## ***Proposed Statement – S5***

### **Information disclosure**

The regulatory application must include written consent from the TNSP for the public release of all information within that application or, where confidentiality is sought, details of each specific item for which the TNSP wishes to claim confidentiality and an explanation stating why confidentiality is required.

Information submitted annually, as part of the ongoing monitoring of the TNSP must include written consent from the TNSP for the public release of the regulatory accounts and assumptions underlying those accounts. When confidentiality is sought the TNSP must provide details of each specific item for which confidentiality is claimed and an explanation stating why it is required.

Any additional information requested by the AER or otherwise provided to the AER by the TNSP must be accompanied by a written consent for public release, or a detailed statement outlining the claims for confidentiality.

When the AER decides to release information for which confidentiality is claimed, the AER will follow the processes set out in clause 6.2.6(b)-(e) of the NER.

## ***Proposed Statement – S6***

### **Direction for the future**

The AER will continue to develop the information disclosure requirements over time. The development of the information disclosure requirements will be driven by several factors including:

- the evolving information requirements of the AER for the discharging of its duties under the NER
- developments that occur in the transmission sector
- developments in accounting and reporting theory, including any associated changes in the accounting standards
- developments in regulatory information disclosure requirements and analytical tools to ensure the best regulatory practice is adopted.



## **Post-tax Revenue Model**



## **Post-tax Revenue Model**

The Australian Competition and Consumer Commission's (ACCC) Post-Tax Revenue Model (PTRM) was released in October 2001. The PTRM is a simplified Microsoft Excel-based financial model accompanied by an explanatory Handbook. It was designed to demonstrate the application of post-tax modelling as undertaken by the ACCC in its regulation of a variety of Australian utilities. The PTRM may be modified to suit a particular application or purpose.

The Australian Energy Regulator's (AER) simplified PTRM – Electricity Module is one example of a modification of the original PTRM and is used for modelling a Transmission Network Service Provider's revenue requirements. The draft PTRM – Electricity Module and Handbook were released in December 2003. Following consultation with stakeholders, the PTRM – Electricity Module and Handbook have been updated.

The AER intends to apply the methodology outlined in the PTRM – Electricity Module and Handbook in future revenue resets, amended to reflect best-practice regulation where appropriate.

The AER is releasing the PTRM to illustrate the process that it undertakes when determining revenue requirements as part of its regulatory decisions, and so that regulated entities and other interested parties will be able to examine and manipulate the model to obtain a clear understanding of the AER's approach.

Furthermore, the AER is currently undertaking some work in formulating a roll-forward model to provide industry with a clear understanding of the AER's approach. The AER will consult with relevant stakeholder in the development of this model.

The updated PTRM – Electricity Module and Handbook can be found on the accompanying CD.





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