

**REGULATION OF
NEW SOUTH WALES
ELECTRICITY DISTRIBUTION
NETWORKS**

**Pricing Principles and Methodologies
for
Prescribed Electricity Distribution Services**

**Developed pursuant to clause 6.11(e)
of Part E, Chapter 6 of the Code**

June 2002

**INDEPENDENT PRICING AND REGULATORY TRIBUNAL
OF NEW SOUTH WALES**

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FOREWORD

The Tribunal foreshadowed the development of pricing principles to guide the setting of network charges by the electricity distributors in its 1999 Report to the Premier. These Pricing Principles and Methodologies (PPM) have been developed to provide such a guide. The PPM were developed in consultation with the Pricing Principles Working Group that included representatives of the distributors, retailers, consumers and other regulators. Draft PPM were published for public comment in December 2000.

With the publication of the PPM the Tribunal is revoking the exemption from Part E of the National Electricity Code on and from 1 July 2001 - 12 months ahead of schedule. As provided by Section 6.11(e) of the Code, the PPM will apply simultaneously as an alternative pricing methodology under the Code and in lieu of Part E. This will enable the Tribunal to regulate network charges in a manner that avoids the problems inherent in Part E of the Code.

The PPM are based on the objectives of pricing set out in the Tribunal's 1999 report and Determination and are consistent with the objectives that can be discerned from the Code. It sets out pricing principles and rules consistent with these objectives and establishes a framework for translating these principles into tangible outcomes. Our underlying approach has been to:

1. Recognise that prices cannot be set by simply using a mechanical model. Judgement is required.
2. Leave distributors responsible for translating the overall caps set by the Tribunal into prices. Distributors know their costs and customers better than the regulator.
3. Make the distributors accountable for the pricing decisions through the public disclosure of their costs and pricing strategies.
4. Provide for the Tribunal to reject price changes where the prices are inconsistent with the Tribunal's determination or the distributor has not met the requirements under (3).

I wish to thank the members of the Pricing Principles Working Group for their contributions to the development of the PPM. **While I am confident that this is a significant step forward, it does not dispel the Tribunal's broader ongoing concerns about the Code and the ability to regulate efficiently, effectively and fairly under the Code.**

Thomas G Parry
Chairman

1 INTRODUCTION

Under the provisions of the National Electricity Code (the Code), the Independent Pricing and Regulatory Tribunal (the Tribunal) has developed this Pricing Principles and Methodologies for Prescribed Distribution Services (the PPM).

This report outlines the background and main issues that the Tribunal considered in developing the PPM. It sets out:

- the process the Tribunal followed to adopt the PPM
- the relationship between the PPM and the Code
- the purpose and scope of the PPM
- the approach used to develop the PPM
- the framework adopted for pricing and methodology
- the information Distribution Network Service Providers (DNSPs)¹ will be required to disclose in relation to pricing
- provisions to allow the PPM to be changed and developed over time.

The complete PPM follows this report.

2 PROCESS

Under the provisions of the Code, the Tribunal is responsible for regulating the prices charged by DNSPs in New South Wales. Chapter 6 of the Code sets out the approach it is to follow in doing so.

The Tribunal issued its *Regulation of New South Wales Electricity Distribution Networks: Determination and Rules under the National Electricity Code* (Network Determination)² in December 1999 pursuant to part D of Chapter 6. The Network Determination established the base revenue requirements for Prescribed Distribution Services³ of each of the DNSPs for the period from 1 February 2000 to 30 June 2004.

Part E of Chapter 6 sets out a methodology for determining the prices that apply to Prescribed Distribution Services for distribution networks. The Tribunal has previously expressed concern about the workability of Part E. In particular, it saw the potential for pricing principles in Part E to produce outcomes that were in conflict with the objectives and principles for regulating distribution pricing set out in clauses 6.10.2 and 6.10.3 of the Code. The NSW Government requested and was granted an exemption from the application of Part E⁴ in NSW until 2002.

¹ The Code refers to electricity distributors as *Distribution Network Service Providers*.

² This determination sets the total revenue to be recovered through network pricing for each distributor.

³ See the Code and the Network Determination for the definition of Prescribed Distribution Services.

⁴ See clause 9.16.3(c) of the Code.

The exemption allowed the Tribunal to reinstate the application of Part E to DNSPs in NSW if it chose to do so. In accordance with the provisions of that exemption the Tribunal has now determined that prices for Prescribed Distribution Services will be determined on the basis of Part E of Chapter 6 of the Code on and from 1 July 2001.

Clause 6.11(e) of Part E allows the Tribunal, as Jurisdictional Regulator under the Code⁵, to develop an alternative pricing methodology to the approach set out in Part E. The Tribunal has taken this opportunity, and has developed the PPM for use in NSW in place of Part E. The process the Tribunal followed to achieve this involved:

- determining that Part E applies pursuant to 9.16.3 on and from 1 July 2001
- revoking Rule 99/2, appended to the Network Determination, as this rule is now included in the PPM
- adopting the PPM as the alternative pricing methodology to the approach in Part E under clause 6.11 (e) of the Code with effect on and from 1 July 2001.

3 RELATIONSHIP WITH THE CODE

The PPM applies to DNSPs in NSW as Part E of the Code. It has the standing of Code provisions—to comply with the Code, DNSPs must comply with the PPM⁶.

As required by clause 6.11(e), the PPM is consistent with and conforms to any jurisdictional rules, principles and guidelines formulated by the Tribunal under clause 6.10.1(f) of the Code.

The Tribunal considers that the PPM and the requirements it places on DNSPs are a necessary part of the regulatory arrangements required to meet the Code's objectives for the pricing of Prescribed Distribution Services.

4 PURPOSE AND SCOPE

The PPM sets out the required approach for setting prices for Prescribed Distribution Services. It encompasses:

- the principles DNSPs are to follow in developing and applying prices for Prescribed Distribution Services
- the procedures to be followed by DNSPs in notifying the Tribunal of their pricing proposals and by the Tribunal in reviewing these proposals
- the information the DNSPs are required to disclose
- guidelines the DNSPs are to follow in areas related to the pricing of Prescribed Distribution Services where special considerations may apply (such as embedded generation, the negotiation of network charges and the unbundling of transmission charges).

⁵ See clause 9.16.3(b) of the Code.

⁶ In addition, it is a condition of Distribution Network licences that licence holders comply with the Code and hence with the PPM.

The PPM aims to provide a single reference point for the regulation of prices for Prescribed Distribution Services. It draws together and updates the elements of existing determinations, rules and guidelines related to the pricing of Prescribed Distribution Services and integrates these with a set of principles directed at the main objectives of distribution service pricing. It also sets out the requirements and obligations placed on DNSPs, together with the procedures that the Tribunal will adopt for compliance assessment.

The PPM incorporate the general provisions of Rule 99/2 (Pricing notification and information disclosure) that was appended to the Network Determination.

5 REGULATORY APPROACH

In determining its approach to regulating prices for Prescribed Distribution Services, the Tribunal:

- issued the PPM in draft form in December 2000 and sought submissions from interested parties; and
- consulted with stakeholders through its Pricing Principles Working Group⁷.

It is clear from the issues raised with the Tribunal that, to a large extent, the requirement for regulation will be shaped by the joint experiences of DNSPs and network users within an environment of commercial service provision that is continuing to evolve. In these circumstances it is prudent to allow some flexibility. Thus, the PPM focuses on key principles and minimises the level of prescription, and allows for further measures to be developed (or existing ones wound back) if the need arises.

The Tribunal will monitor the effectiveness of the PPM and will regularly seek feedback from DNSPs, network users and the public. If it considers it necessary, it will propose changes to the PPM. Where these are material, it will consult with stakeholders prior to introducing any amendments. A current version of the PPM will be maintained on the Tribunal's website.

The Tribunal's approach to developing the PPM comprised three elements:

- identifying the objectives of distribution pricing
- from these objectives, determining the principles, rules and standards of conduct that should apply
- establishing a framework for translating these principles into tangible outcomes.

5.1 Pricing Objectives

The pricing of Prescribed Distribution Services involves allocating the costs that underlie those services and formulating prices to recover those costs. A basic premise of the Tribunal's approach is that DNSPs should be responsible for determining their prices, given that they have a better understanding of their cost structures, the needs of users and their sensitivity to price signals, the level of network utilisation and the likelihood of the emergence of congestion.

⁷ Minutes of PPWG meetings can be found on the Tribunal's website.

Nevertheless, important regulatory issues arise from the exclusive position of DNSPs in providing access to the electricity network:

- Network prices affect economic efficiency by providing signals for the location of new demand, the use of the network by existing users and investment in the development of the network and in alternative forms of service provision. To promote economic efficiency prices should signal the economic value of providing the service.
- If DNSPs are to remain viable prices must recover, but not over-recover, allowed revenues. Because average costs are typically above incremental costs (unless the network is congested), the requirement for revenue recovery may conflict with the requirement for economic efficiency.
- Distribution networks provide an essential service for many users. With very limited alternatives available, network prices affect the distribution of costs and benefits across users. Price changes may cause significant adjustment costs for some network users.

The Code recognises the importance of providing a mechanism for managing these and other effects, and sets out objectives for the economic regulation of distribution pricing. These apply both to the manner in which regulation is exercised and to pricing outcomes. In summary, regulation is to be:

- cost effective, transparent and accountable
- applied consistently
- balanced between the interests of the stakeholders.

Pricing is to achieve the objectives of:

- economic efficiency
- revenue sufficiency
- equity.

The Tribunal's July 1999 Report⁸ considers at length the issues that arise in interpreting and applying the Code's objectives for distribution pricing. This discussion demonstrates that there can, and in most cases will, be tension between pricing objectives, requiring a balance to be struck. While the objectives can provide signposts for pricing, they do not provide simple rules. As a result, pricing decisions will involve a significant element of judgement and subjectivity. To be effective the regulatory approach must allow for these practical limitations.

Recognising this, the PPM aims to achieve prices for Prescribed Distribution Services that:

- Reflect economic costs by:
 - being subsidy free
 - having regard to the level of available capacity
 - signalling future investment costs
 - discouraging uneconomic bypass
 - allowing negotiation to better reflect the economic costs of specific services.

⁸ *Pricing for Electricity Networks and Retail Supply.*

- Return the allowed revenue stream while recovering the gap between marginal and average costs in the least distorting manner possible.
- Promote equity, stability and consistency of outcomes by:
 - having regard to the impact of price changes on customers
 - being transparent
 - being based on published costs and methods.

5.2 Pricing Principles

The PPM includes the following principles, which aim to give practical expression to the objectives outlined above:

1. ***Prices are to be consistent with the regulated revenue or price cap and any applicable side constraints determined by the Tribunal.***

A primary function of prices is the recovery of regulated revenues. The revenue cap set by the Tribunal allows for financial viability where operations meet reasonable efficiency targets. For equity reasons the Tribunal also limits the annual change in some prices.

2. ***Prices should be based on a well-defined and clearly explained methodology.***

Where there is substantial market power, open and transparent pricing practices are essential.

3. ***Price development should incorporate an analysis of the cost of service provision that includes:***
 - (a) ***definition of the classes of service provided and the parameters by which the quantum and standard of service in each class are measured***
 - (b) ***an examination of the cost elements that arise from the use, operation and expansion of the network***
 - (c) ***for each class of service and each cost element, identification of the relationship between the quantum and standard of service provided and the level of current and future cost***
 - (d) ***an allocation of existing and future network costs to service classes***
 - (e) ***the translation of allocated costs into service prices at the defined service standard, and***
 - (f) ***estimates of the range of subsidy-free prices for each service class.***

The measurement and allocation of costs form the basic building blocks of price development. A range of feasible approaches exist. However, for DNSPs to be able to demonstrate that their prices are soundly based, efficient and transparent, the process of price development must be rigorous and systematic.

4. ***Prices are to signal the economic costs of service provision, by:***
 - (a) ***being subsidy free (greater than incremental costs and less than stand alone costs)***
 - (b) ***having regard to the level of available service capacity, and***
 - (c) ***signalling the impact of additional usage on future investment costs.***

Prices can influence how customers use the distribution network and how DNSPs operate and maintain it. They can also influence the level of investment undertaken in expanding capacity. Where prices reflect the economic value of the resources used in providing a service, they make an important contribution to economic efficiency and welfare.

Economic efficiency requires that prices give correct signals for the use, operation and expansion of the network. This encompasses both allocative and dynamic efficiency. These objectives share a common starting point: the efficient, forward-looking costs of meeting additional network loads.

There is considerable debate over the measurement of the upper and lower bounds for the range of subsidy-free prices (ie stand alone cost and incremental cost). The PPM does not mandate a particular methodology. Rather, it allows DNSPs to select the approach they consider most appropriate to their circumstances.

Congestion signalling is typically difficult to implement and administer. Sophisticated price signalling will be subject to metering constraints. Signals may be provided through price levels or price structure. In some circumstances, the provision of signals through varying the price structure without affecting the revenue raised may form a more practical alternative.

- 5. Where prices based on 'efficient' incremental costs under-recover allowed revenues, the shortfall should be made up in a manner that minimises the effect on consumption and investment while having regard to the impact on users, and should:**
- (a) not vary between locations**
 - (b) contain a fixed component; and**
 - (c) to the extent a variable component is necessary and metering permits, include both energy and demand components. Where metering permits their use and user impacts are manageable, costs recovered through demand or time of use pricing components should not exceed the long run marginal cost of supply.**

Economic efficiency requires that usage prices recover at least avoidable costs. This can lead to a shortfall in revenue, since for most networks avoidable costs are less than average costs for most of the time. In considering revenue make-up options, minimising the impacts on consumption and investment decisions are important criteria.

- 6. Provided that economic costs are covered, prices should be responsive to the requirements and circumstances of users in order to:**
- (a) discourage uneconomic bypass, and**
 - (b) allow negotiation to better reflect the economic value of specific services, including services associated with embedded generation and other options.**

Users may have individual service requirements that vary from the standard form offered. To maximise the economic benefits available from use of the network, an approach to pricing that is responsive to user requirements and circumstances will be required.

- 7. When allocating TUoS charges to distribution network users DNSPs should, where practicable, preserve the economic signals present in the structure of TUoS charges. Information on allocated TUoS charges should be available to users on request, where practicable.**

Distribution network charges include an allowance for charges paid by DNSPs for use of the transmission system (known as TUoS charges). DNSPs should have regard to the economic signals present in the structure of TUoS charges when determining the basis for allocating the charges across users of the distribution network.

Users may have an interest in knowing the extent of their contribution to the distributor's TUoS charges. Availability of this price information may lead to more efficient consumption and investment decisions. Metering constraints on the availability of data and the level of charges applied to meet the additional cost of providing the information are matters that would need to be addressed.

- 8. Information on customer class price levels and structures, service standards, underlying costs, price derivation methods and rationale and medium term price and service strategies should be publicly disclosed in order to allow:**
- (a) current and potential users to understand the basis for prices and to take account of prices and service standards in their consumption, investment and location decisions**
 - (b) interested parties to better assess the range of opportunities for meeting user requirements, including through services associated with embedded generation, demand management and other options that may reduce users' costs and lead to more efficient outcomes.**

Access to information is a key factor affecting market efficiency. The availability and transparency of price information is an essential ingredient for sound decision making. Since investment decisions rely on expectations about the future, this applies equally to information on future prices and service levels.

Some network services are potentially open to competition in meeting users' requirements. Where alternative or competing forms of service provision may be available, users should have the opportunity to choose the option with the lowest economic cost.

- 9. Underlying service classifications, cost data, cost allocations and other elements that contribute to pricing decisions should be periodically reviewed and updated where relevant to reflect industry developments and changes in user requirements and preferences, methods of service provision and costs.**

Changes in areas such as metering technology, retail competition, alternative forms of service provision and user preferences can lead to shifts in the nature of efficient network prices. For prices to remain efficient they should reflect such developments.

- 10. Where distributor price strategies lead to proposed price movements or price restructuring that may be expected to impose significant adjustment costs on users, transitional price options, a phased approach or other measures should be offered to assist in the management of adjustment costs.**

End users make decisions on location, production and investment in electricity-consuming equipment that are influenced by existing prices. Thus substantial or frequent price changes can impose unreasonable or inequitable adjustment costs on them. Such pricing practices can also reduce economic efficiency by increasing the level of uncertainty and risk.

6 A FRAMEWORK FOR PRICING PRINCIPLES AND METHODOLOGIES

To oversee the regulation of prices, the Tribunal requires a framework that can, in an efficient and effective manner:

- give practical effect to the pricing principles set out above
- recognise that while some of the principles can be translated into verifiable quantitative criteria, the majority are qualitative in nature
- respond to the evolving commercial environment and the experience of participants.

To meet these needs, it has adopted an approach that contains four main elements:

- a requirement for the notification, review and assessment against specified criteria of all prices for Prescribed Distribution Services before their introduction
- an emphasis on information disclosure, backed by benchmarking and peer group comparisons, for assessing pricing outcomes against the more qualitative pricing principles
- the use of compliance criteria for proposed prices that are directed at the more objectively verifiable quantitative targets
- a flexible structure to allow guidelines to be added or deleted as circumstances require.

6.1 Price notification and review

The PPM establishes a price notification and review process. DNSPs must notify the Tribunal of the prices they propose to apply each year⁹. The Tribunal will then assess these proposals against set criteria (see section 6.2 below). When notifying the Tribunal of proposed prices, DNSPs must provide information that demonstrates that these criteria have been met. Where a price notification contains insufficient information on which to assess compliance, the Tribunal may ask for further information. If the Tribunal considers that the criteria have not been met, the proposed prices cannot be introduced. In these circumstances the Tribunal will have the option of setting a percentage amount by which the distributor's existing prices for Prescribed Distribution Services will be adjusted until such time as a complying price notification is provided by the distributor.

A price notification must be made at least 60 days before the prices are intended to apply. The Tribunal must then complete its assessment no later than 30 days before the prices are intended to apply. In practice assessments should be completed well within the allowed period. If the Tribunal considers that the proposal does not meet the criteria, it must notify the distributor in writing, setting out its reasons and indicating the corrective actions required. As a default condition if notification of non-compliance has not been issued by the required date then the proposal will be taken to comply and the distributor can proceed with its introduction.

⁹ Prices will apply for a 12 month period commencing 1 July. However, proposals to change prices at other times will be considered on a case by case basis.

The Tribunal is aware of the importance of ensuring a smooth transition from one year's prices to the next. Delays in the introduction of proposed prices would be disruptive to DNSPs and customers alike. While the PPM establishes procedures for circumstances where delays may occur as a result of non-compliance, such an outcome would be highly undesirable. The Tribunal commits to working constructively with DNSPs to ensure that the price reviews are conducted efficiently and in a manner that minimises the risks of delay. Where price proposals are received by the Tribunal in advance of the required date the Tribunal will aim to complete its assessment and provide notification to the distributor within 30 days of receipt.

6.2 Compliance criteria

To ensure transparency and fairness, the PPM sets out three compliance criteria that the Tribunal will apply to a distributor's price proposals.

Two of the criteria are directed at ensuring compliance with the Tribunal's quantitative controls on aggregate revenues and maximum annual changes for selected prices. These criteria refer to requirements established by the Network Determination¹⁰ and, as such, cannot be varied during the term of that Determination.

The third criterion requires DNSPs to meet defined standards of information disclosure, described in section 7 below.

If the Tribunal believes it is necessary to amend these criteria in the future, its proposed changes will be subject to public consultation. To provide adequate notice for DNSPs, amended criteria can only be used for price proposals that take effect at least 120 days from the date on which the amendments were confirmed.

7 INFORMATION DISCLOSURE

DNSPs will be required to publish and make publicly available an annual Price and Service Report. The purpose of this report is to clearly document, describe and explain:

- the level and structure of prices
- the standard of service provided
- the methodology used to derive prices and their cost basis
- medium term directions for prices and standards of service.

In particular, these reports will give DNSPs an opportunity to explain the extent to which their prices incorporate the principles for pricing set out by the Tribunal. DNSPs will be required to address the following broad questions:

- **Are the prices subsidy free?** The test for this is whether prices are between the stand-alone and incremental costs of supply. DNSPs will be asked to demonstrate that prices lie within this range and explain how they determined the range.

¹⁰ Clauses 3.4 and 3.8 respectively.

- **Do prices have regard to an acceptable cost of supply model?** The cost modelling used in the development of the proposed prices should be disclosed. This should include an explanation of the basis for the allocation of TUoS charges to distribution network prices.
- **Do prices reflect the future need for augmentation of the network?** Prices may be expected to be higher in locations where the system is closer to capacity. DNSPs will be asked to report on the significance of locational congestion and related capital spending requirements across their network. DNSPs should explain their decision to use or avoid locational price signals in the context of the congestion costs they face.
- **Does the structure of prices reflect marginal economic costs?** DNSPs will be asked to explain the extent to which prices signal marginal costs and the basis for their decisions on the weights applied to the fixed and variable price components.
- **Are the prices consistent with allowed revenues?** DNSPs will be asked to report the level of their unders and overs account and explain the means by which they intend to maintain consistency between prices and allowed revenues.
- **What is the impact of the distributor's price strategies on price stability in the short term?** The impact of price changes introduced for the current year on representative user profiles (to be provided by the Tribunal) should be described and the reasons for the changes explained.
- **What is the impact of the distributor's price strategies on price stability in the medium term?** The medium term price strategies and the expected impact on price outcomes for customer classes should be described. DNSPs will be asked to indicate whether the strategies are likely to create material adjustment costs for some users and if so the management options available to users and transitional measures that the distributor may adopt.
- **What level of service performance is provided for the prices charged?** DNSPs will be asked to report and explain the level of reliability and quality of service they provide to localities across their service areas. Variations in service levels should be explained and expected medium term trends described.

The general provisions of Rule 99/2, Pricing notification and information disclosure, have been incorporated into the PPM and Rule 99/2 revoked. In addressing the above questions the information provided by DNSPs should include:

- cost information provided in a form consistent with the Tribunal's pro forma information template that has been provided to DNSPs
- the basis for allocating shared costs
- an explanation and quantification of the methodology used to calculate current prices from the costs identified
- unders and overs account balance, tolerance margin and action plan
- forecast demand and load factors used in calculating current prices
- a summary of asset management and development plans and their relationship to prices
- data on performance measured against key service standard indicators
- an outline of future strategies for pricing and standards of service.

DNSPs will be required to publish their Price and Service Reports by 30 November each year. This timing takes the preparation of the reports away from the congestion associated with the end of the financial year.

The availability of a current report that meets the information disclosure requirements of the PPM forms the third criterion for a distributor's price proposal. In addition to the benefits from improved access to information, this also serves to establish a link between the more qualitative aspects of the pricing principles and pricing outcomes.

The Tribunal will review each distributor's Price and Service Reports and advise the distributor if it has any concerns. As a default condition a report will be taken to have complied with requirements unless the Tribunal has advised the distributor otherwise within 60 days of receiving the report. The status of the reports will therefore be known well in advance of the price review.

While the PPM establishes minimum information requirements, DNSPs have the opportunity to develop the Price and Service Reports as a key communication channel with their customers and the broader community on pricing, service and related matters. The Tribunal also recognises that there is a significant qualitative element in the value of information that can be progressively improved. To assist in this it will publish an annual review that monitors reactions to the Reports, provides the Tribunal's comments and presents a comparative summary of price and service information.

8 PROVISIONS TO ALLOW FOR CHANGE AND DEVELOPMENT

To be effective the PPM will need to change in response to changes in the commercial environment and the experiences of DNSPs, network users and other interested parties. While provision has been made for aspects of the PPM to be amended, subject to appropriate public consultation, there are a number of areas where regulatory matters are currently under review. These include matters related to embedded generation, the negotiation of network prices and the unbundling of transmission charges. Following appropriate public consultation, the Tribunal anticipates that further schedules directed at these matters will be added to the PPM.

**Pricing Principles and Methodologies
for
Prescribed Electricity Distribution Services**

**Developed pursuant to clause 6.11(e)
of Part E, Chapter 6 of the Code**

1 PREAMBLE

- 1.1 On 30 December 1999 the Tribunal issued the Network Determination pursuant to clause 6.10.5 of the Code.
- 1.2 In clause 3.1.1 of the Network Determination the Tribunal determined the Prescribed Distribution Services for the purposes of clause 6.10.4(a) of the Code.
- 1.3 Unless clause 9.16.3 of the Code applies, pricing of Prescribed Distribution Services for Distribution Networks in New South Wales is determined under Part E of Chapter 6 of the Code.
- 1.4 The Tribunal has determined that prices for Prescribed Distribution Services should be determined on the basis of Part E of Chapter 6 of the Code on and from 1 July 2001.
- 1.5 Clause 6.11(e) of Part E of the Code provides that the Jurisdictional Regulator, (the Tribunal in NSW pursuant to clause 9.16.3(b) of the Code), may, in consultation with Code Participants, develop alternative pricing methodologies to the approach set out in Part E.
- 1.6 The Tribunal has developed the Pricing Principles and Methodologies (PPM) as an alternative pricing methodology to the approach set out in Part E with effect on and from 1 July 2001.
- 1.7 This version 2 of the PPM replaces version 1 of the PPM in force between 1 July 2001 and 21 June 2002.

2 APPLICATION OF THE PPM

- 2.1 The PPM, as amended from time to time, is a part of the Code.
- 2.2 The PPM sets out the following requirements that Distribution Network Service Providers (DNSPs) must apply to the pricing of Prescribed Distribution Services:
 - (a) principles DNSPs must have regard to in developing and applying Proposed Prices for Prescribed Distribution Services;
 - (b) procedures for DNSPs notifying Proposed Prices to the Tribunal; and
 - (c) information that DNSPs must publicly disclose in Price and Service Reports.
- 2.3 The general provisions of Rule 99/2 are incorporated into the PPM.
- 2.4 The PPM must be read in conjunction with the Network Determination and is in place from 1 July 2001 to 30 June 2004.
- 2.5 Prices for Prescribed Distribution Services that apply during the period 1 July 2001 to 30 June 2004 must be developed and applied in accordance with the PPM.

3 PRICING PRINCIPLES

- 3.1 Each DNSP has responsibility for setting and applying prices for connection to and use of its Distribution Network.
- 3.2 In setting and applying prices for Prescribed Distribution Services a DNSP must have regard to the principles set out in Schedule 1.

4 NOTIFICATION OF PRICE PROPOSALS

4.1 Prices for Prescribed Distribution Services will:

- (a) apply for a maximum of 12 months; and
- (b) take effect on and from the Due Date,

unless otherwise approved in writing by the Tribunal.

4.2 DNSPs:

- (a) must notify the Tribunal in writing of all Proposed Prices for their Prescribed Distribution Services no less than 60 days prior to the Due Date ('Notification'); and
- (b) such Notification must demonstrate compliance to the Tribunal's satisfaction with the criteria set out in Schedule 2 ('Schedule 2 Criteria').

5 REVIEW OF PRICE PROPOSALS

5.1 The Tribunal will assess a DNSP's Notification to determine whether that DNSP has complied with the Schedule 2 Criteria.

5.2 A DNSP's Notification will be taken to have complied with the Schedule 2 Criteria unless the Tribunal advises the DNSP to the contrary in accordance with clause 5.4.

5.3 Where the Tribunal considers a DNSP has provided insufficient information in its Notification to enable the Tribunal to assess whether the Notification complies with the Schedule 2 Criteria, the Tribunal may request the DNSP to provide it with additional information.

5.4 Where:

- (a) the Tribunal considers a DNSP's Notification does not comply with the Schedule 2 Criteria; or
- (b) a DNSP has not provided the additional information requested by the Tribunal pursuant to clause 5.3; or
- (c) a DNSP has not complied with its obligations under clause 4.2,

the Tribunal may issue a notice advising of non-compliance ('notice of non-compliance') to a DNSP by no later than 30 days prior to the Due Date.

5.5 A notice of non-compliance will identify the corrective actions the Tribunal requires of the DNSP for its Notification to comply with the Schedule 2 Criteria.

5.6 A notice of non-compliance issued by the Tribunal to a DNSP means that the DNSP's Proposed Prices cannot take effect unless:

- (a) the DNSP has addressed the areas of non-compliance in its Notification; and
- (b) the Tribunal has advised the DNSP in writing
 - (i) that it considers the DNSP's Notification meets the Schedule 2 Criteria; and
 - (ii) of the date from which the DNPS's Proposed Prices will take effect.

6 DEFAULT PRICING ARRANGEMENTS

- 6.1 Where the Tribunal has issued a notice of non-compliance to a DNSP then the Tribunal may advise the DNSP of a percentage amount by which that DNSP must adjust its prices for Prescribed Distribution Services.
- 6.2 Any adjustment to a DNSP's prices under clause 6.1 will apply from the Due Date until the date advised by the Tribunal in accordance with clause 5.6(b)(ii).
- 6.3 In developing a percentage amount by which the DNSP must adjust its prices for the purposes of clause 6.1, the Tribunal may have regard to:
- (a) the extent of the DNSP's non-compliance with the Schedule 2 Criteria and the corrective actions required;
 - (b) if applicable, the reasons why the DNSP did not provide additional information to the Tribunal as requested pursuant to clause 5.3;
 - (c) projected revenue levels and the annual aggregate revenue requirement for that DNSP for the purposes of the Network Determination;
 - (d) the effect upon the DNSP's future pricing strategies; and
 - (e) other factors the Tribunal may consider to be relevant.

7 INFORMATION DISCLOSURE

- 7.1 Unless otherwise advised by the Tribunal in writing, each DNSP must publish a Price and Service Report by 30 November each year.
- 7.2 A DNSP must make its Price and Service Report publicly available and provide copies of that Price and Service Report to interested parties on request free of charge.
- 7.3 The information and requirements DNSPs must include in the Price and Service Report are set out in Schedule 3 ('Schedule 3 Requirements').
- 7.4
- (a) The Tribunal may waive any of the Schedule 3 Requirements upon the written request of a DNSP provided the Tribunal considers such request is reasonable.
 - (b) Such requests by DNSPs must be submitted to the Tribunal no less than 60 days prior to when the Price and Service Report must be published and must explain why it considers such request is reasonable.
 - (c) Where the Tribunal agrees to waive any of the Schedule 3 Requirements it will advise the DNSP accordingly in writing and will publish its decision and supporting reasons on the IPART website.¹¹
- 7.5 The DNSP's Price and Service Report will be taken to have met the Schedule 3 Requirements unless the Tribunal advises the DNSP to the contrary in writing within 60 days of the Tribunal receiving that Report.

¹¹ Paper copies will be available from IPART upon request.

- 7.6 Where the Tribunal has advised a DNSP that it considers its Price and Service Report does not meet the Schedule 3 Requirements, the Tribunal will identify:
- (a) the requirements that have not been met; and
 - (b) the corrective actions necessary to meet those requirements
- and the DNSP must publish a revised Price and Services Report within 21 days of the date of notification.

8 EFFECTIVENESS OF PRICE AND SERVICE REPORTS

- 8.1 The Tribunal will monitor the effectiveness of the requirements for information disclosure set out in Schedule 3 and may amend these as it considers appropriate. To assist it the Tribunal may invite comments from interested parties on the usefulness of the Price and Service Reports.
- 8.2 (a) The Tribunal will review the Price and Service Reports of DNSPs as required, taking into consideration any comments provided by interested parties.
- (b) The Tribunal will publish a report on its review, which will include:
- (i) a comparative summary of Prescribed Distribution Service prices and service performance levels; and
 - (ii) commentary on prices, pricing practices and information disclosure, of all DNSPs.

9 RECOVERY OF METERING COSTS FROM RETAIL SUPPLIERS

- 9.1 A DNSP must comply with the principles for the recovery of metering costs in Schedule 8.

10 MISCELLANEOUS

- 10.1 The PPM will be updated and amended by the Tribunal as required from time to time.
- 10.2 The Tribunal may issue additional schedules containing principles and methodologies for matters related to the pricing of Prescribed Distribution Services where special considerations may apply.
- 10.3 A current version of the PPM is maintained on the Tribunal's website¹².

¹² Paper copies are available from IPART upon request

11 DEFINITIONS AND INTERPRETATIONS

11.1 Definitions

AARR has the same meaning as in the Network Determination

Code means the National Electricity Code

customer means a customer of a DNSP

Due Date for the purposes of implementing Proposed Prices means

- (a) annually on 1 July, or as near as practicable to that date; or
- (b) on a date otherwise approved by the Tribunal in writing

Interval meter means a meter that records interval energy data

[Note: Interval energy data is defined in the Cost as data that results from the measurement of the flow of electricity in a power conductor where the data is prepared by a data logger into intervals which correspond to a trading interval or a sub-multiple of a trading interval.]

Network Determination means the *Regulation of New South Wales Electricity Distribution Networks: Determination and Rules under the National Electricity Code*, issued by the Tribunal in December 1999

notice of non-compliance has the meaning set out in clause 5.4

Notification has the meaning set out in clause 4.2(a)

NUOS charge is a network use of a system charge comprising when relevant, a transmission use of system component and a distribution use of system component

Prescribed Distribution Service has the same meaning as in the Network Determination

PPM means the alternative pricing methodology, including all schedules, developed by the Tribunal pursuant to clause 6.11(e) of the Code as amended from time to time

Price and Service Report means the report that DNSPs must publish each year pursuant to clause 7

Proposed Prices means the prices for Prescribed Distribution Services that DNSPs propose to apply

Retail supplier has the same meaning as in the *Electricity Supply Act 1995 (NSW)*

Rule 99/2 means the *Pricing notification and information disclosure* rule made by the Tribunal pursuant to clause 6.10.1(f) of the Code and revoked with effect on and from 1 July 2001 by determination of the Tribunal

Schedule 2 Criteria has the meaning set out in clause 4.2(b)

Schedule 3 Requirements has the meaning set out in clause 7.3

Tribunal means the Independent Pricing and Regulatory Tribunal of New South Wales established under the *Independent Pricing and Regulatory Tribunal Act, 1992*

TUOS charges means transmission use of system charges

11.2 Interpretations

11.2.1 Words and phrases used in this PPM that are defined in the Code have the same meaning as in the Code.

11.2.2 In the interpretation of this Determination a construction that would promote the purpose or object underlying the Code (whether or not that purpose or object is expressly stated in the Code) is to be preferred to a construction that would not promote that purpose or object.

11.2.3 In the event of any uncertainty the Overview to this Determination may be used for interpretation purposes.

11.2.4 The singular includes the plural and vice versa.

SCHEDULE 1 PRINCIPLES FOR THE DEVELOPMENT AND APPLICATION OF PRICES FOR PRESCRIBED DISTRIBUTION SERVICES

1. Prices are to be consistent with the regulated revenue or price cap and any applicable side constraints determined by the Tribunal.
2. Prices should be based on a well-defined and clearly explained methodology.
3. Price development should incorporate an analysis of the cost of service provision that includes:
 - (a) definition of the classes of service provided and the parameters by which the quantum and standard of service in each class are measured
 - (b) an examination of the cost elements that arise from the use, operation and expansion of the network
 - (c) for each class of service and each cost element, identification of the relationship between the quantum and standard of service provided and the level of current and future cost
 - (d) an allocation of existing and future network costs to service classes
 - (e) the translation of allocated costs into service prices at the defined service standard, and
 - (f) estimates of the range of subsidy-free prices for each service class.
4. Prices are to signal the economic costs of service provision, by:
 - (a) being subsidy free (i.e. between incremental costs and stand alone costs)
 - (b) having regard to the level of available service capacity; and
 - (c) signalling the impact of additional usage on future investment costs.
5. Where prices based on 'efficient' incremental costs under-recover allowed revenues, the shortfall should be made up in a manner that minimises the effect on consumption and investment while having regard to the impact on users, and should:
 - (a) not vary between locations
 - (b) contain a fixed component; and
 - (c) to the extent a variable component is necessary and metering permits, include both energy and demand components. Where metering permits their use and user impacts are manageable, costs recovered through demand or time of use pricing components should not exceed the LRMC of supply.
6. Provided that economic costs are covered, prices should be responsive to the requirements and circumstances of users in order to:
 - (a) discourage uneconomic bypass, and
 - (b) allow negotiation to better reflect the economic value of specific services, including services associated with embedded generation and other options.

7. When allocating TUoS charges to distribution network users DNSPs should, where practicable, preserve the economic signals present in the structure of TUoS charges.
8. Information on allocated TUoS charges will be provided to users on request, in accordance with the requirements of Schedule 4.
9. Information on customer class price levels and structures, service standards, underlying costs, price derivation methods and rationale and medium term price and service strategies should be publicly disclosed in order to allow:
 - (a) current and potential users to understand the basis for prices and to take account of prices and service standards in their consumption, investment and location decisions
 - (b) interested parties to better assess the range of economic opportunities for meeting user requirements, including through services associated with embedded generation, demand management and other options that may reduce users' costs and lead to more efficient outcomes.
10. Underlying service classifications, cost data, cost allocations and other elements that contribute to pricing decisions should be periodically reviewed and updated where relevant to reflect industry developments and changes in user requirements and preferences, methods of service provision and costs.
11. Where DNSP price strategies lead to proposed price movements or price restructuring that may be expected to impose significant adjustment costs on users, transitional price options, a phased approach or other measures should be offered to assist in the management of adjustment costs.

SCHEDULE 2 PRICING PROPOSALS COMPLIANCE CRITERIA

1. *Amendments to this Schedule 2:*

- (a) will only be determined following a period of public consultation by the Tribunal, including with Code Participants and other interested parties; and
- (b) will not be used in the review of price proposals for which the period between the Due Date and the date on which the amendments are determined by the Tribunal is less than 120 days.

2. *Revenue cap criterion*

A DNSP's revenues must not exceed the AARR as set out in clause 3.4 of the Network Determination.

3. *Side constraint criterion*

A DNSP's prices must not exceed the limits on price movements set out in clause 3.8 of the Network Determination.

4. *Information disclosure criterion*

A DNSP must have published a current Price and Service Report that meets the requirements set out in Schedule 3.

SCHEDULE 3 INFORMATION DISCLOSURE

1. A DNSP's Price and Service Report will provide information on customer class price levels and structures, service standards, underlying costs, price derivation methods and rationale and medium term price and service strategies in order to allow:
 - (a) current and potential users to understand the basis for prices and to take account of prices and service standards in their consumption, investment and location decisions
 - (b) interested parties to better assess the range of economic opportunities for meeting user requirements, including through services associated with embedded generation, demand management and other options that may reduce users' costs and lead to more efficient outcomes.
2. A DNSP's Price and Service Report will clearly document, describe and explain:
 - (a) the level and structure of prices
 - (b) the standard of service provided
 - (c) the methodology used to derive prices and their cost basis, and
 - (d) medium term directions for prices and standards of service.
3. DNSPs are required to address the following broad questions in their Price and Service Reports.
 - (a) Are the prices subsidy free? The test for this is whether the prices for individual customers are between the stand-alone and incremental costs of supply. DNSPs must demonstrate that prices lie within this range and explain how they determine the range.
 - (b) Do prices have regard to an acceptable cost of supply model? The cost modelling referred to in the development of the Proposed Prices should be disclosed. This should include an explanation of the basis for the allocation of TUOS charges to distribution network prices.
 - (c) Do prices reflect the future need for augmentation of the network? Prices may be expected to be higher in locations where the system is closer to capacity. DNSPs should report on the significance of locational congestion and related capex requirements across their network. DNSPs should explain their decision to use or avoid locational price signals in the context of the congestion costs they face.
 - (d) Does the structure of prices reflect marginal economic costs? DNSPs should explain the extent to which prices signal marginal costs and the basis for their decisions on the weights applied to the fixed and variable price components.
 - (e) Are the prices consistent with allowed revenues? DNSPs should report the level of their overs and unders account and explain the means by which they intend to maintain consistency between prices and allowed revenues.
 - (f) What is the impact of the DNSP's price strategies on price stability in the short term? The impact of price changes introduced for the current year on representative user profiles (to be provided by the Tribunal) should be described and the reasons for the changes explained.

- (g) What is the impact of the DNSP's price strategies on price stability in the medium term? The DNSP's medium term price strategies and the expected impact on price outcomes for customer classes should be described. DNSPs should indicate whether the strategies are likely to create material adjustment costs for some users and if so the management options available to users and transitional measures that the DNSP may adopt.
 - (h) What level of service performance is provided for the prices charged? DNSPs should report and explain the level of reliability and quality of service they provide to localities across their service areas. Variations in service levels should be explained and expected medium term trends described.
4. In responding to the requirements of paragraphs 2 and 3, the information disclosed must include, but is not limited to:
- (a) cost information provided in a form consistent with the Tribunal's pro forma information template
 - (b) the basis for allocating shared costs
 - (c) an explanation and quantification of the methodology used to calculate current prices from the costs identified under (a)
 - (d) unders and overs account balance, tolerance margin and action plan
 - (e) forecast demand and load factors used in calculating current prices
 - (f) a summary of asset management and development plans and their relationship to prices
 - (g) data on performance measured against key service standard indicators; and
 - (h) an outline of future strategies for pricing and standards of service.

SCHEDULE 4 UNBUNDLING OF TRANSMISSION USE OF SYSTEM CHARGES

To be developed.

SCHEDULE 5 EMBEDDED GENERATION

To be developed.

SCHEDULE 6 DEMAND MANAGEMENT

To be developed.

SCHEDULE 7 NEGOTIATION

To be developed.

SCHEDULE 8 PRINCIPLES FOR THE RECOVERY OF METERING COSTS

1. This Schedule applies to a customer that uses less than 100MWh/year and who, during a year, requests the installation of an interval meter.
2. Currently a DNSP provides a customer with metering services which comprise the installation of a standard meter, maintenance and reading of the meter. Except for those customers that use in excess of 100MWh/year, the cost of these metering services is recovered through the NUOS charge levied by the DNSP.
3. If a customer (or a retail supplier on the customer's behalf) requests that the DNSP install an interval meter, the charge that the DNSP may impose on the customer (or the retail supplier on the customer's behalf, as the case may be) for the installation, maintenance and reading of the interval meter must not exceed the difference between the following (the "additional interval meter cost"):
 - a) the cost that the DNSP would have incurred had the meter been a standard meter; and
 - b) the cost that the DNSP would incur as a consequence of the meter being an interval meter.
4. A DNSP may elect to recover the additional interval meter cost through either:
 - a) a charge applied to customers with interval meters; or
 - b) through a capital contribution made by a customer for some of the additional interval meter costs with the remainder to be recovered through the NUOS charge.
5. The revenue derived by a DNSP from the application of clause 4 (other than that revenue derived through a capital contribution made by a customer) will be included in the previously determined AARR of the DNSP.
6. In the application of this schedule, a DNSP must treat all retailer suppliers on a fair and equitable basis.