



**ICRC**

independent competition and regulatory commission

## **ISSUES PAPER**

# **Investigation of an alternative pricing methodology under Part E of the National Electricity Code**

**May 2003**

The Independent Competition and Regulatory Commission (ICRC) is established by the *Independent Competition and Regulatory Commission Act 1997* (ICRC Act) to determine prices for regulated industries, advise government about industry matters, advise on access to infrastructure and determine access disputes. The Commission also has responsibilities under the Act for the determination of competitive neutrality complaints and providing advice about other government regulated activities.

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For further information on this inquiry or any other matters of concern to the Commission please contact Ian Primrose, Chief Executive Officer on 6205 0779

## FOREWORD

Electricity network prices are determined for the ACT under the National Electricity Code (the Code). Part E of the Code specifies the methodology to be adopted in converting the revenue calculated in accordance with Part D of the Code into actual prices. However, Part E also provides for the jurisdictional regulator, the Independent Competition and Regulatory Commission (the Commission) in the ACT, to develop and implement an alternative pricing methodology.

The Commission has concerns with both the administrative complexity and outcomes of applying Part E of the Code. The Commission is therefore considering implementing an alternative methodology.

The purpose of this paper is to highlight the Commission's concerns with the methodology outlined in the Code. Responses to this paper will assist the ICRC in finalising its position on this important matter.

### Proposed timetable for the inquiry

Issues Paper released	23 May 2003
Submissions on the Issues Paper close	23 June 2003
Draft Report	28 July 2003
Submissions on the draft report close	1 September 2003
Release of the Final Report and Direction	1 November 2003

People intending to make a submission should be aware that the Commission publishes all submissions made to its inquiries unless there is a specific claim for information to be treated as confidential and the Commission agrees with that claim. Submissions are published on the Commission's website and are available for scrutiny at the Commission's offices.

For further information about making a submission or about the inquiry in general please contact the Chief Executive Officer of the Commission, Ian Primrose, on 62050779 or by fax on 62075887.

Paul Baxter  
Senior Commissioner  
23 May 2003



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## **GLOSSARY OF TERMS**

The Commission	The Independent Competition and Regulatory Commission
The Code	The National Electricity Code
Part E	Section 6.11-18 of the National Electricity Code
NEM	National Electricity Market
NECA	National Electricity Code Administrator
LRMC	Long Run Marginal Cost
AARR	Average Annual Revenue Requirement
IPART	Independent Pricing and Regulatory Tribunal
PSR	Price and Service Report
PPM	Pricing Principles Methodology
DNSP	Distribution Network Service Providers
QCA	Queensland Competition Authority
ESCV	Essential Services Commission Victoria
Tascode	Tasmanian Electricity Code

# 1 INTRODUCTION

The Commission, as the Jurisdictional Regulator for the ACT, is responsible for determining an annual revenue requirement for each electricity distribution company in the Territory. At present there is only one company operating in the ACT-ActewAGL. The principles under which this revenue requirement is determined under the provisions outlined in Part D of the National Electricity Code (the Code). How this revenue requirement is translated into network pricing is provided for under Part E of the Code. Part E specifies a pricing methodology. However, clause 6.11(e) of the Code allows the Commission to develop, in consultation with Code Participants, an alternative pricing methodology.

Clause 6.11 (e) states:

The Jurisdictional Regulator may, in consultation with Code Participants, develop alternative pricing methodologies to the approach set out in Part E. Any new pricing methodology so developed must conform to any jurisdictional rules, principles, or guidelines for the regulation of distribution pricing formulated under clause 6.10.1(f).

The Commission is concerned with a number of aspects of Part E of the National Electricity Code<sup>1</sup>. Many of these concerns relate to the prescriptive, inflexible requirements of Part E and the level of detail that must be approved by the Regulator. The code methodology promotes a level of price sophistication that would be costly to implement and is difficult to justify in terms of consumers' ability to respond to price signals. The Commission considers that such concerns limit its ability to address adequately the outcomes and principles outlined in the Code<sup>2</sup>. These outcomes and principles include:

- An efficient and cost reflective regulatory environment
- An environment which fosters an efficient level of investment
- An environment which fosters efficient use of existing infrastructure
- Promotion of competition
- Provide Distribution Network Owners with incentives and reasonable opportunities to increase efficiency
- Creation of an environment in which generation, energy storage, demand side options and network augmentation options are given due and reasonable consideration
- The need to minimise the economic cost of regulatory actions and uncertainty

An overly prescriptive, inflexible approach would require an inappropriate level of intervention by the regulator and would restrict the network provider in satisfying its business requirements and customers' needs.

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<sup>1</sup> See Attachment 1 for a reproduction of Part E of *the Code*.

<sup>2</sup> Clauses 6.10.2 and 6.10.3 of *the Code*.

For these reasons, the Commission takes this opportunity to invite Code Participants and interested stakeholders to discuss the merits of an alternative pricing methodology.

In addition to formal submissions the Commission may hold meetings with interested stakeholders. Please contact Ms Jennifer Pullen on 6205 0158 or email [icrc@act.gov.au](mailto:icrc@act.gov.au) by 23 June 2003 to register your interest.

The Commission is aware of the potential impact an alternative pricing methodology may have on the development and structure of ActewAGL's prices during the forthcoming regulatory control period. Consequentially, the Commission has developed the following timetable for the consultation process:

Release of Issues Paper by the Commission	23 May 2003
Registrations for interested stakeholders close	23 June 2003
Submissions on the Issues Paper close	23 June 2003
Release of the Commission's Draft Position Paper	28 July 2003
Submissions on the Draft Position Paper close	1 September 2003
Release of the Commission's Final Position Paper	1 November 2003 <sup>3</sup>

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<sup>3</sup> Please note that the Commission may release its final position paper earlier than 1 November 2003.

## 2 BACKGROUND

The Commission undertook its first price determination for electricity distribution network services for a five-year price path in 1998/1999, completing the determination in March 1999. The Code was not effective when the determination took effect, it came into effect later in 1999. Thus, the original determination was not made under the Code, but rather the Commission was issued an industry reference by the ACT Treasurer under Sections 15 and 16 of the *Independent Pricing and Regulatory Commission Act* to determine ACTEW's maximum allowable revenues for providing electricity services in the ACT. However, the Commission received legal advice suggesting that it was required to ensure compliance with both the *Independent Pricing and Regulatory Commission Act 1997* (IPARC)<sup>4</sup> and the Code. As such the Commission noted:

...it is necessary to adopt transitional provisions which deem any determination made as a consequence of the current price direction to have been made in accordance with Parts D and E of Chapter 6 of the Code.<sup>5</sup>

As such, the Commission gave consideration to the provisions of the Code and set the maximum allowable revenues in accordance with the building block approach to regulation as set out in Part D of the Code. However, the Commission decided to use a variant of the pricing methodology in Part E of the Code that it considered more practical.

In the 1999/2000 - 2003/2004 price direction, the Commission allowed ACTEW a level of discretion in how the regulated revenue requirement was translated into prices. However, side constraints were imposed on the extent of annual price movements and the Commission required ACTEW (now ActewAGL) to submit to the Commission each year its proposed prices and projected revenue outcomes to confirm compliance with the price direction.

The Commission noted in the price direction that its ability to allow discretion in price setting was constrained by the Code, in particular Part E which prescribes in detail the steps for arriving at prices for prescribed distribution services. Furthermore, the Commission noted that to achieve compliance with Part E, ACTEW would need to provide the Commission with substantially more information than it had supplied for past price directions.<sup>6</sup>

Since the Commission's 1999/2000 - 2003/2004 price direction, the Australian regulatory environment has changed. Numerous reviews, and subsequent changes,

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<sup>4</sup> *The Independent Pricing and Regulatory Commission Act 1997* was renamed the *Independent Competition and Regulatory Commission Act 1997* in 2000.

<sup>5</sup> Independent Pricing and Regulatory Commission, *ACTEW's electricity, water and sewerage charges for 1999/2000 to 2003/2004 (May 1999)*, Page 5

<sup>6</sup> Independent Pricing and Regulatory Commission, *ACTEW's electricity, water and sewerage charges for 1999/2000 to 2003/2004 (May 1999)*, Page 73



have been made to the Code including the NECA review of transmission and distribution network prices of July 1999.

The 1999 NECA review noted a number of concerns with the Cost Reflective Network pricing methodology outlined in the Code. The Commission notes that in ACTEW's 1998 submission to the NECA review, the organisation stated:

...ACTEW believes the code of conduct on network pricing should be much less prescriptive, focussing solely on network pricing objectives and principles<sup>7</sup>.

The NECA review recommended that the methodology in the Code should be revised better to ensure that:

- prices reflect the level of spare capacity on the existing system;
- costs are not allocated to specific customers or customer groups if the service provided delivers system-wide reliability or security benefits;
- prices signal anticipated future new investment costs;
- prices are designed to minimise uneconomic bypass; and
- prices provide a level of price stability.

However, the review also noted:

The structure of distribution network charges, including whether that structure should be determined in a tariff order (as is currently in Victoria) or left to the discretion of the Distribution Network Service Providers themselves within broad guidelines determined by the jurisdictional regulator (the NSW model), is properly an issue for State-based decision.<sup>8</sup>

As such, the Commission is left with the responsibility of determining the need for an alternative pricing methodology. If there is such a need, then the Commission should determine the form of that alternative methodology.

Part E has drawn numerous criticisms, including that it is prescriptive, contains inconsistencies and is imprecise in its language. For example, in the introduction to Part E, clause 6.11(a) states:

Prices for prescribed distribution services are based on the averaging of distribution service costs.

This creates a problem as distribution service costs are comprised of both prescribed and excluded services. Should the Commission apply clause 6.11(a) of the Code, the resultant price will provide the regulated firm with an over collection of revenues equal to the revenue of excluded services.

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<sup>7</sup> ACTEW Corporation, *Review of Transmission and Distribution Pricing submission to NECA (1998)*

<sup>8</sup> National Electricity Code Administrator, *Transmission and distribution pricing review: final report (1999) Page 56*

There are also legal inconsistencies between parts D and E of Chapter 6 of the Code. For example, for Part E to be applied, ActewAGL must obtain an annual revenue requirement from the Commission. However, under Part D, the Commission is not necessarily required to make such a determination. Additionally, in the definitions section of the Code, annual revenue requirement refers the reader to Part C (Transmission Pricing), not Part D (Regulation of Network Pricing for Distribution Systems).

Also, there are issues associated with regulatory efficiency and effectiveness. Under Part E, the Commission is required to agree with ActewAGL on a wide range of asset classification and cost allocation issues in the development of prices for prescribed distribution services. The Commission is then required to provide its approval for the allocation of costs to these asset classes followed by the allocation of these costs to different cost pools.

In practical terms, the Commission may find itself in the situation of approving a series of asset categories and allocations in the absence of considering what the ultimate price outcomes will be, the reasonableness of those outcomes and customer impacts. Effectively, Part E leads the regulator into micro management of the price setting process without oversight of the overall outcomes.

Finally, while the cost reflective network pricing revenue approach in Part E attempts to reflect long run marginal costs (LRMC) and provide appropriate pricing signals for new investment, it fails in this endeavour because the costing methodology is based on existing (sunk) assets. As such it is unlikely to reflect the actual LRMC in practice and is potentially highly inefficient.<sup>9</sup>

The Commission recognises and acknowledges that these other problems exist in the interpretation and application of Part E of the Code. In the spirit of attempting to adopt a light handed approach to regulation, the Commission proposes to consider an alternative to Part E of the Code. Desirably, any alternative approach adopted would overcome these criticisms while remaining administratively simple.

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<sup>9</sup> Steven King, *IPART's submission to the NECA network price review (1995)*

### 3 THE CODE METHODOLOGY

Part E of the Code provides the methodology for calculating individual prices for prescribed distribution services. Part E of the Code is provided as Attachment 1 to this paper. A four step methodology is provided in the Code whereby the Distribution Network Service Provider (DNSP) is to progress from the Aggregate Annual Revenue Requirement (AARR) to individual service prices. This methodology<sup>10</sup> is outlined below:

#### Step 1: Allocate AARR among different classes of network service

A Distribution Network Service Provider (DNSP) is to classify each element and cost of its network services into one of the following classes of network services (clause 6.13.1):

**entry services**, which includes the asset-related costs and services provided to serve a generator at a single network coupling point from that network coupling point to their connection point;

**exit services**, which includes the asset-related costs and services provided to serve an end user at a single network coupling point from that network coupling point to their connection point;

**network use of system services**, which includes the network shared by generators and end users, but excluding entry service, exit service and common service; and

**common services**, which includes the asset-related costs and services that ensure

#### Step 2: Allocate the AARR for each class of network service to asset categories

The DNSP is then to calculate the AARR for an asset category in relation to each class of network distribution service by allocating the AARR for that class of network service on a basis that can include (6.13.3(b)):

- the replacement cost of the relevant asset categories for asset-related costs including return on assets and depreciation charges; and
- chart of accounts information for operating and maintenance costs.

#### Step 3: Allocate asset category costs to different cost pools

The DNSP must then establish cost pools to which the AARR for all asset categories are allocated according to the use of the assets by groups of network users having similar load characteristics and voltage levels (6.13.4). In so doing:

- the methods of allocation may include: anytime demand, period demand (such as peak shoulder and off-peak), coincident demand, period energy (such as peak, shoulder and off-peak), anytime energy and load cycle basis (method of intercepts) (6.13.5);

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<sup>10</sup> Adapted from, Queensland Competition Authority, *Distribution Pricing Principles Issues Paper*(July 2000). References to specific Code clauses are shown in brackets.

- prices for the same voltage level and/or load class may differ between pricing zones (6.13.4(b));
- cost pools may include load classes within each voltage level which have similar load and/or metering characteristics as defined by the DNSP (6.13.4(c)); and
- additional cost pools may be included by the DNSP as required by the use of locational and zonal pricing and for any other relevant purpose (6.13.4(d)).

These cost pools are then to be allocated to generators and end users (under 6.13.6) as follows:

- the cost pools for entry services are all to be allocated to generators at the network coupling point;
- the cost pools for exit services are all to be allocated to end users at the network coupling point;
- in respect of the cost pools for network use of system services:
  - the portion of the network use of system costs allocated to generators must not exceed the long run marginal cost of augmenting the network and any other networks necessary to cater for additional generation at the network coupling point; and
  - the portion of the network use of system costs allocated to end users must be done on a cost reflective basis; and
- the cost pools for common services must be allocated to end users on a cost reflective basis.

#### **Step 4: Use cost pools to set prices**

Finally, the DNSP is expected to convert the resultant cost pools into prices. Clause 6.14.1 provides that the generator price for prescribed network services may incorporate entry costs, with the price payable by a generator for network use of system services to be determined in accordance with the access arrangements which the generators have with the DNSP. Clause 6.14.2 states that the end user price structure is to be determined by the DNSP, but that the ‘...pricing outcome will be subject to regulation’. The clause provides that the price payable by an end user for prescribed distribution service may incorporate fixed amounts related to exit costs and variables amounts related to use of system costs and common service costs.

Clause 6.14.2 (d) provides that such prices:

*“...may comprise one or more elements related to:*

- (1) demand based charges (\$ per maximum kW per period or \$ per maximum kVA per period, which may include a time of use component);*
- (2) energy based charges (¢ per kWh or ¢ per kVAh which may include a time of use component); and*

*(3) Network Customer charges (\$ per Network Customer per period).”*

Clause 6.14.2 (e) states that:

*“Where quantities are used in determining charges, these quantities can be minimum quantities specified in the prices, actual quantities used by the Network Customer and quantities agreed by the Network Customer and Network Service Provider.”*

## 4 PRACTICE IN OTHER AUSTRALIAN JURISDICTIONS

The process outline in the previous section is prescriptive and has not been favoured by other regulators in Australian. These jurisdictions have taken the opportunity provided by Part E of the Code to develop and adopt alternative pricing methodologies. The approaches adopted in other jurisdictions are outlined below.

### 4.1 NSW Independent Pricing and Regulatory Commission (IPART) – Pricing Principles and Methodology

In its 1999 electricity network determination<sup>11</sup>, IPART advised that it considered Part E was inappropriate for purposes for setting distribution prices and that its application was likely to deliver incorrect pricing signals. Therefore, in that determination, IPART exercised its discretion to derogate from Part E pursuant to the provisions of Clause 6.11(e) of Part E of the Code.

IPART subsequently revoked this 1999 derogation and set out its alternative to Part E in its March 2001 report, *Pricing Principles and Methodologies* (PPM). IPART's PPM retains the pricing objectives set out in its 1999 network determination and is consistent with the Code objectives. It combines both a set of pricing principles together with a framework for translating these principles into price outcomes.

The PPM was developed to address the deficiencies in Part E and to bring together the main pricing related regulatory issues in a single document with the overall objective of ensuring a more flexible and effective form of price regulation. The NSW PPM:

1. Recognises that prices cannot be set mechanically and that judgement is required.
2. Leaves distributors responsible for translating the overall revenue caps set by the regulator into prices, recognising that distributors know their costs and customers better than the regulator.
3. Makes distributors accountable for pricing decisions through the public disclosure of their costs and pricing strategies.
4. Provides the opportunity for the regulator to reject price changes where prices are inconsistent with the regulator's overall prices determination or the distributor has not met the public disclosure requirements which are an integral part of the PPM.

While IPART allows each DNSP to bear responsibility for determining the structure of distribution tariffs, this freedom is accompanied by a responsibility to disclose

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<sup>11</sup> IPART, *Regulation of New South Wales electricity distribution networks: Determination and rules under the NEC (December 1999)*

information on medium term pricing strategies and the basis for determining tariffs. This information is published in an annual 'Price and Service Report' (PSR).

The purpose of the PSR is to inform stakeholders and customers about past, current and future performance in prices and service provision. The PSR is submitted to IPART annually and must document, describe and explain:

- the level and structure of current prices for network services;
- the standard of service provided ;
- the methodology used to derive prices and their current cost base; and
- medium term directions for prices and standards of service.

Under the pricing framework established by the PPM, the PSR submitted by the DNSP is taken to have met the information disclosure requirements of the PPM unless IPART advises the DNSP otherwise and requires that corrective actions be taken to meet the requirements. The PPM also provides IPART with powers to issue notices of non-compliance if a DNSP's network price changes do not meet the criteria in the PPM. Under the PPM only one price change per annum is allowed.

### **4.3 Queensland Competition Authority (QCA) – Pricing Principles Statement**

The QCA has also opted to adopt an alternative approach to that set out in Part E of the Code. Under its approach, the QCA requires each DNSP to submit a *Pricing Principles Statement* at the beginning of each regulatory control period. This statement outlines the objectives and method to be used by the particular DNSP to determine individual distribution prices. Once the pricing principles have been approved by the QCA, the QCA will disallow the annual tariff schedules subsequently submitted only if they are inconsistent with the pricing principles statements.

The pricing principles statement submitted to the QCA deals with distribution service charges, distinguishing between:

- tariffs to apply to different user groups (including embedded generation); and
- the method to be used with respect to establishing charges for new connections to the network and for existing (on-going) connections.

The QCA approach places the onus on the regulated businesses to develop their own pricing methodologies. This is different to the approach adopted by IPART where the PPM sets out a set of principles and a pricing framework and then allows the DNSPs the opportunity to apply those principles and the framework. When reviewing each year's pricing proposal from the DNSP's the QCA ensures compliance with the methodologies that have been agreed in the PPS.





### **4.3 Victoria – Essential Services Commission (ESCV)**

Under the ESCV's (formerly ORG) 2001-2005 price determination for electricity distribution, the Victorian DNSP's are not required to disclose their pricing strategies, provided their tariffs meet constraints set by the ESCV on the extent of re-balancing tariffs in any one year and fall within limits set by the overall tariff basket control. The current price determination outlines the general principles for distribution tariff setting which are based on the premise that tariff setting is basically the responsibility of the distributors, within the ESCV's overall 'tariff basket control'.

The ESCV has specified criteria that the distributors' tariffs must meet in order to provide economically efficient market signals. Under this arrangement, each DNSP is required to prepare and publish a tariff report by 1 March each year. The tariff report is to be generated with the price determination and is to contain sufficient information to enable customers to understand the basis for tariff policies and the tariffs adopted by the distributor for the year.

The ESCV determination dismissed arguments from Victorian DNSP's for more flexibility in determining their own tariff structures. The Victorian regulator also rejected DNSP proposals for a statement of principles similar to that established under the NSW PPM.

The ESCV has signalled its intention to develop further the pricing principles in that State. However, the major work on pricing principles for the ESCV's next price review is unlikely to begin before the end of 2003.

### **4.4 South Australia - The Essential Services Commission**

The South Australia Essential Services Commission (ESCOSA) sets prices through a Pricing Order which is a derogation from the Code. Under this Order, ESCOSA is exempt from using the arrangements of the Code until the 1 July 2005. ESCOSA has indicated that they will also be looking to develop an alternative to the Part E when they are required to have regard to this aspect of the Code.

### **4.5 Tasmania – Tascode**

The Tasmania electricity industry is regulated by the Tasmanian Electricity Code (TasCode). TasCode is based on the Code with amendments (and omissions) made to reflect the differences between the Tasmanian industry and the NEM. One of the omissions in the TasCode is Part E of the Code. The Government's Pricing Oversight Commission through a pricing order determines the translation of a DNSP's revenue requirement into prices. This approach is seen as providing the flexibility necessary to move towards compliance with the NEM and/or the identification of possible derogations or changes to the National Code when Tasmania joins the NEM and is obliged to adopt the Code.

As indicated above, there are a number of alternative approaches used by jurisdictional regulators to Part E of the Code. Part E, as it stands in the Code, is not currently applied in any jurisdiction in Australia.

## 5 THE COMMISSION'S CONCERNS

In considering the application of Part E of the Code, the Commission is concerned with the regulatory efficiency and effectiveness of this part of the Code. For example, the cost allocation methodology provided in Part E is based on sunk assets and may not provide appropriate pricing signals for new investments and customers' purchase decisions.

The Commission's preference would be for prices to reflect the economic cost of production. As such, prices which are set equal to the marginal cost of providing the service would be the best solution to the problem. There are, however, reasons why this was not practical in the pricing of distribution assets. These include:

- The importance of price stability. Given the short run problems associated with system capacity in the network, distribution prices which are set equal to the short-run marginal costs would be highly variable. As noted below, the Commission seeks comments on methodologies which take into account network congestion, or the lack of congestion, on prices.
- The major variable component of distribution prices are the energy losses and variable costs such as labour and materials. As such, in the short-run, prices set equal to marginal costs would not recover the fixed costs of production. In industries where the initial investment cost are substantial prices would not send the appropriate economic signals.
- The degree to which distribution assets display economies of scope. Allocating costs, either fixed or variable, to customers consuming the goods becomes problematic. As such it is difficult to determine which costs prices need to reflect.

In the light of these practical limitations, it is usual to set prices between the incremental cost and stand-alone cost of production. The Commission notes that the competitive pressure of an open market usually governs the bounds that might apply in such circumstances, for example:

- Where price is less than incremental cost the price faced by the consumer results in an under recovery of costs by the supplier. In a competitive market, where price is below the incremental cost of supply, no producer in the market will supply customers.
- Where price is higher than stand alone price of supply, the consumer is overpaying for the services. In a competitive market, in these circumstances, another business will enter the market and offer the customer a price below the stand-alone cost of supply.

The cost allocation methodology adopted has the potential to underprice assets which are fully utilised, and correspondently overprice under utilised assets. Desirably prices should reflect the level of spare capacity in the network. The pricing structure, as outline in Part E of the Code, would potentially encourage

consumers to make investment decisions in areas where the network is close to capacity as the Part E pricing guidelines would require prices to be set at low levels. However, once consumers have made their investment decision the network may need augmentation resulting in an increase in the costs. Where prices are higher due to under utilisation, this may force consumers out of the area resulting in a reduction of demand, thus increasing the price further. The consequential effect on the network would be uneconomic bypass with increased under utilisation of the asset in question.

***The Commission seeks comments on the structure of charging that best represents capacity constraints on the network.***

The Commission is concerned that the Code methodology would require a level of price sophistication that cannot be justified in terms of costing systems and ability of consumers to respond to price signals. Under the Part E provisions there is a potential for a very large number of asset categories to be identified across the distribution network. This could result in a large number of prices reflecting the various asset categories which are essentially providing the same service.

The Commission is concerned about the regulatory burden that Part E places on both the business and the regulator. The process of determining just one charge is very complex and under the provisions of Part E require the process is repeated each year of the regulatory control period. In considering an alternative methodology the Commission needs to determine when and how ActewAGL should report on its pricing process. The Commission notes that Queensland and NSW, where alternative pricing principles to Part E are used, the reporting requirements differ. Businesses in Queensland are required to provide the QCA with a pricing statement at the beginning of the control period and are judged each year against that pricing statement. Businesses in NSW are required to submit annual pricing service reports to IPART and IPART must consider whether they meet the requirements of the PPM.

***The Commission is seeking input and views on the administrative burden associated with alternative methodologies and how these can be minimised***

The Commission is interested in developing information disclosure requirements under an alternative methodology which allow for the identification of congestion or emerging congestion on ActewAGL's network. The information would be used to provide alternatives to costly network augmentation and the information required by competitors to provide non-network solutions such as embedded generation, energy efficiency and demand management services in the ACT.

***The Commission seeks comments on what would be an appropriate reporting and monitoring program.***

The Commission notes that when allocating costs across distribution and assets classes, arbitrary decisions may have substantial impacts on the economic efficiency of prices. The Commission is reluctant to enter a situation where decisions about the allocation of costs becomes subject to debate between the regulator and ActewAGL. The Commission notes the difficulty associated with these cost allocations in industries with significant economies of scope resulting in joint and common costs.

***The Commission is seeking views on way in which the potential for debate on cost allocation principles and practices can be minimised.***

The Commission notes that some regulators have adopted the view that the business should be responsible for determining prices given:

- their intimate knowledge 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 on the network.

For these reasons, the process of deriving prices from allowed revenue is best left to the distributor.

Effectively, Part E leads the regulator into micro-management of the price setting process, where in fact it is the distributor which knows its costs and customers best.

***The Commission is seeking views as to the level of regulatory intervention it should use in setting prices.***

In the NECA review of how transmission and distribution use of system charges should be levied, NECA noted:

There should be a substantive peak demand-based element to the DNSP pricing structure in all jurisdictions. In line with our recognition of the degree of legitimate discretion that should be available to the jurisdictional regulator, we recommend that the precise form of that element and the proportion of total charges determined by it should properly be left to the jurisdictional regulator's discretion. The jurisdictional regulators should, however, consider the merits of coordinating their approach, including to the structure of the demand-based element, through the regulators' forum.<sup>12</sup>

The Commission notes there has not been a coordinated approach by regulators on the matter of demand charging. The Commission notes that to the extent that metering allows, the variable component of a bill could include both an energy and demand component. Where metering permits their use and user impacts are manageable, cost recovered through demand or time of use pricing components should not exceed the long run marginal cost of supply.

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<sup>12</sup> NECA, 1999, *Transmission and distribution pricing review: final report (1999)*, Page 56

*The Commission is seeking views on the appropriate approach to adopt in relation to demand charging.*

## ATTACHMENT 1

### Part E - Distribution Network Pricing

This part of the *Code* applies to the pricing of *prescribed distribution services* for *distribution networks*, and should be interpreted in accordance with the *network pricing* principles set out in clause 6.1.1 and schedule 6.7.

#### 6.11 Introduction

- (a) Prices for *prescribed distribution services* are based on the averaging of *distribution service* costs.
- (b) Prices for *Distribution Customers* may vary depending on the location, *voltage* level and *load* characteristics of individual *Distribution Customers*.
- (c) *Distribution service* pricing does not permit the concept of point-to-point wheeling arrangements.
- (d) *Distribution service* pricing must be applied to *distribution systems*.
- (e) The *Jurisdictional Regulator* may, in consultation with *Code Participants*, develop alternative pricing methodologies to the approach set out in Part E. Any new pricing methodology so developed must conform to any jurisdictional rules, principles, or guidelines for the regulation of *distribution* pricing formulated under clause 6.10.1(f).

#### 6.12 Step 1 - Determination of Aggregate Annual Revenue Requirement

To enable regulation of *distribution service* pricing under this Part E, each *Distribution Network Service Provider* must seek from the relevant *Jurisdictional Regulator* a determination of the *Distribution Network Service Provider's aggregate annual revenue requirement* in accordance with Part D.

#### 6.13 Step 2 - Allocation of Distribution Costs

The components of the *aggregate annual revenue requirement*, are to be allocated first amongst different assets within classes of *distribution service*, and then to different *cost pools* in accordance with clause 6.14.

##### 0 6.13.1 Classes of distribution service

- (a) Classes of *distribution service* may include:
  - (1) *entry service* which includes the asset-related costs and services provided to serve an *Embedded Generator* or group of *Embedded Generators* at a single *network coupling point* from that *network coupling point* to their *connection point*;

- (2) *exit service* which includes the asset-related costs and services provided to serve a *Distribution Customer* or group of *Distribution Customers* at a single *network coupling point* from that *network coupling point* to their *connection point*;
  - (3) *distribution use of system service* which includes the *distribution network* shared by *Embedded Generators* and *Generators* connected to a *transmission network* where benefits of *new distribution network investment* have been allocated to that *Generator* in accordance with schedule 6.8 and *Distribution Customers*, but excluding *entry service*, *exit service* and *common service*; and
  - (4) *common service* which includes the asset-related costs and services that ensure the integrity of the *distribution network* and benefit all *Distribution Customers* and cannot be allocated on the basis of *voltage* levels or location.
- (b) *Distribution Network Service Providers* must classify each element and cost of their *distribution service*, including payments made to other *Network Service Providers*, into one of the classes of *distribution services* listed in 6.13.1.
  - (c) The sum of the *aggregate annual revenue requirement* for each class of *distribution service* must equal the *Distribution Network Service Provider's aggregate annual revenue requirement*.

#### 1 **6.13.2 Allocation of aggregate annual revenue requirements to asset categories within classes of network service**

- (a) The assets required by the *Distribution Network Service Provider* to deliver each class of *distribution service* except *common service* may be split into asset categories for the purpose of allocating the *aggregate annual revenue requirement* prior to setting prices.
- (b) The asset categories referred to in clause 6.13.2(a) must be defined by the *Distribution Network Service Provider* and agreed with the *Jurisdictional Regulator* and may include:
  - (1) *use of system voltage* levels; and
  - (2) *connection asset voltage* levels.
- (c) The *Distribution Network Service Provider* may elect to use locational prices and if used, the *Distribution Network Service Provider* must obtain the approval of the *Jurisdictional Regulator* and specify the locations and *voltage* levels for which these locational prices are to apply.



- (d) The *Distribution Network Service Provider* may elect to divide its *network* into geographical areas for one or more *voltage* levels which will represent different zones for pricing purposes and if this occurs, the *Distribution Network Service Provider* must obtain the approval of the *Jurisdictional Regulator* of the geographic boundaries incorporated in the *pricing zones* and of the *voltage* levels of *distribution service* incorporated within these *pricing zones*.

**2      6.13.3      Method of allocation to asset categories**

- (a) The *aggregate annual revenue requirement* for an asset category in relation to each class of *distribution service* is to be calculated by the *Distribution Network Service Provider* by allocating the *aggregate annual revenue requirement* for that class of *distribution service* to the asset categories using an allocation basis agreed with the *Jurisdictional Regulator*.
- (b) The method by which the *aggregate annual revenue requirement* is allocated under clause 6.13.3(a) may include:
  - (1) for asset-related costs including return on assets and current cost depreciation charges, the basis may be the replacement cost of the relevant asset categories determined in accordance with any rules specified by the *Jurisdictional Regulator* including rules for treating asset category replacement costs which were provided as partially or fully contributed;
  - (2) chart of accounts information for operating and maintenance costs; or
  - (3) for the *transmission or distribution service* costs paid to other *Network Service Providers*, on such basis as may be agreed with the *Jurisdictional Regulator*.
- (c) Payments to and from *Embedded Generators* are to be determined up to an amount of the long run marginal cost of *augmenting* the *distribution network*, including any other *networks* necessary to cater for additional *generation* at the *network coupling point*, calculated on a case by case basis in accordance with schedule 6.3.
- (d) Any payments made under clause 6.13.3(c):
  - (1) to *Embedded Generators* must be added to: and
  - (2) from *Embedded Generators* must be deducted from,the *aggregate annual revenue requirement* for the relevant asset category consistent with the calculation used to determine that payment.

### 3 6.13.4 Allocation of asset category costs to cost pools

- (a) Each *Distribution Network Service Provider* must establish *cost pools* to which *aggregate annual revenue requirements* for all asset categories referred to in clause 6.13.2 must be allocated according to the use of the assets by groups of *Network Users* having similar *load* characteristics and *voltage* levels, other than in relation to *cost pools* for services provided by *new distribution network investment* assets, for which *cost pools* the *aggregate annual revenue requirements* must be allocated in a manner that is consistent with schedule 6.8.
- (b) Prices for the same *voltage* level and/or *load class* may differ between *pricing zones*.
- (c) *Cost pools* may include *load classes* within each *voltage* level which have similar *load* and/or *metering* characteristics as defined by each *Distribution Network Service Provider*.
- (d) Additional *cost pools* may be included by the *Distribution Network Service Provider* as required by the use of locational and zonal pricing and for any other relevant purpose.
- (e) *Distribution service* prices are to be derived from the costs allocated to each *cost pool*.

### 4 6.13.5 Method of allocation to cost pools

- (a) The method of allocating the *aggregate annual revenue requirement* for the asset categories to *cost pools* must be agreed with the *Jurisdictional Regulator*.
- (b) Methods of allocation referred to in clause 6.13.5(a) may include one or more of the following measures:
  - (1) anytime demand;
  - (2) period demand (such as peak, shoulder and off-peak)
  - (3) coincident demand;
  - (4) period *energy* (such as peak, shoulder and off-peak);
  - (5) anytime *energy*; and
  - (6) *load cycle* basis (method of intercepts).

5      **6.13.6      Cost allocation to Distribution Customers and Embedded Generators**

*Distribution service* costs must be allocated to *Embedded Generators* and *Distribution Customers* as follows:

- (a) The *cost pools* for *entry services* are all to be allocated to *Embedded Generators* at the *network coupling point*.
- (b) The *cost pools* for *exit services* are all to be allocated to *Distribution Customers* at the *network coupling point*.
- (c) In respect of the *cost pools* for *distribution use of system services* (as defined in clause 6.13.1(a)(3):
  - (1) the portion of the *distribution use of system* costs allocated to *Embedded Generators* must not exceed the long run marginal cost of *augmenting* the *distribution network* and any other *networks* necessary to cater for additional *generation* at the *network coupling point*, calculated on a case by case basis in accordance with schedule 6.3; and
  - (2) the portion of the *distribution use of system* costs allocated to *Distribution Customers* must be done on a cost reflective or other basis agreed with the *Jurisdictional Regulator*.
- (d) The *cost pools* for *common services* must be allocated to *Distribution Customers* (other than *Market Network Service Providers* as they are not required to pay for *common services*) on a cost reflective or other basis agreed with the *Jurisdictional Regulator*.
- (e) Where *entry services* are shared by *Embedded Generators* and *exit services* are shared by *Distribution Customers*, the allocated cost must be shared between the *Network Users* either:
  - (1) as agreed with the *Network Users*; or
  - (2) on a cost reflective or other basis agreed with the *Jurisdictional Regulator*; or
  - (3) on the basis of the *maximum demand* of individual *Network Users* at a *network coupling point*, measured in respect of the 10 hours for which the *Network User* has used the *network* most intensively during the preceding year.

- (f) The *cost pools* for services provided by *new large distribution network assets* and *new small distribution network assets* must be allocated to *Embedded Generators* and *Generators connected to a transmission network* where benefits of *new distribution network investment* have been allocated to that *Generator* in accordance with schedule 6.8 and *Distribution Customers* in a manner which is consistent with schedule 6.8.

**6 6.13.7 Treatment of network service costs paid to other Network Service Providers**

- (a) A *Distribution Network Service Provider* must pay *transmission service costs* to a *Transmission Network Service Provider* in respect of the *Distribution Network Service Provider's* use of a *transmission network* at each *connection point* on the *transmission network*.
- (b) The *transmission service costs* referred to in clause 6.13.7(a) must be allocated to asset categories using an appropriate allocation method agreed with the *Jurisdictional Regulator* and consistent with the objective of the *distribution service pricing regulatory regime* set out in clause 6.10.2(b)(4).
- (c) Where a *Distribution Network Service Provider* uses other *distribution networks*, *distribution service costs* must be paid by that *Distribution Network Service Provider* to the owner of those other *distribution networks* for the use of those other *distribution networks* at each *network coupling point*.
- (d) The *distribution service costs* referred to in clause 6.13.7(c) must be allocated to asset categories using an appropriate allocation method agreed with the *Jurisdictional Regulator*.

**6.14 Step 3 - Usage Based Prices for Distribution Network Service**

The outcome of the cost allocation process specified in clause 6.13 is a number of *cost pools* containing allocated annual costs referable to categories which may include one or more of the following classes depending on the type of *Embedded Generator* or *Distribution Customer* receiving *distribution service* at each *connection point*. Typical *cost pools* include:

- (a) *Embedded Generator entry costs;*
- (b) *Distribution Customer exit costs;*
- (c) *Embedded Generator distribution use of system costs;*
- (d) *Distribution Customer distribution use of system costs;*
- (e) *Distribution Customer common service costs;*
- (f) *new large distribution network asset costs; and*
- (g) *new small distribution network asset costs.*

These classes of cost may be converted into prices in accordance with clauses 6.14.1 to 6.14.3.

## **7      6.14.1      Embedded Generator prices**

- (a) The *Embedded Generator* charge for *prescribed distribution services* may incorporate *entry costs*.
- (b) The charge payable by an *Embedded Generator* for *entry services* is a fixed annual amount equal to the *entry services cost* allocated to each *Embedded Generator* under clause 6.13.6(a) unless the charge for those *entry services* has been agreed in a current *connection agreement* with the *Embedded Generator*.
- (c) The charge payable by an *Embedded Generator* for *negotiated use of system services* will be determined in accordance with the access arrangements for *Generators* in clause 5.5(f)(2) and the parties may seek recourse to the *Jurisdictional Regulator* in the event of a dispute.
- (d) There may be other charges applicable to *distribution services* for *Embedded Generators*, including local *connection* requirements and any risk premium associated with the provision of *generator access* between the *Embedded Generator* and the *Distribution Network Service Provider* and such charges must be agreed between the *Embedded Generator* and the relevant *Distribution Network Service Provider*. Any revenue received from charges for *generator access* does not form part of the relevant *Distribution Network Service Provider's* *aggregate annual revenue requirement*.
- (e) There may be situations where the *Distribution Network Service Provider* is prepared to pay for equivalent *network service* by *Embedded Generators*. These arrangements are set out in clause 6.10.5(d)(7)(iii) and payments for such equivalent *network services* are to be agreed between the relevant *Distribution Network Service Provider* and *Jurisdictional Regulator*.

- (f) Where an *Embedded Generator* benefits from *new large distribution network assets* or *new small distribution network assets* as determined in accordance with clause 5.6.2, the charge payable by the *Embedded Generator* for the services provided by those new assets will be as determined in accordance with schedule 6.8.

## 8 6.14.2 Distribution Customer price

- (a) The charges payable by a *Distribution Customer* for *prescribed distribution service* may incorporate *exit costs*, *Distribution Customer distribution use of system costs* and *common service costs*.
- (b) The charge payable by *Distribution Customers* is to be determined as an amount consistent with the following (subject to any relevant *price cap* level):
  - (1) a fixed amount equal to the *exit cost* specified in clause 6.13.6(b); plus
  - (2) a variable amount so that costs for *distribution use of system* allocated to *Distribution Customers* under clause 6.13.6(c) are fully recovered; plus
  - (3) a variable amount so that costs for *common service* allocated under clause 6.13.6(d) are fully recovered.
- (c) The *Distribution Customer* price structure is to be determined by the *Distribution Network Service Provider*.
- (d) The prices determined under this sub-clause may comprise one or more elements related to:
  - (1) demand based prices (\$ per maximum kW per period or \$ per maximum kVA per period, which may include a time of use component);
  - (2) *energy* based prices (¢ per kWh or ¢ per kVAh which may include a time of use component); and
  - (3) *Distribution Customer* charges (\$ per *Distribution Customer* per period).
- (e) Where quantities are used in determining charges, these quantities can be minimum quantities specified in the prices, actual quantities used by the *Distribution Customer* and quantities agreed by the *Distribution Customer* and *Distribution Network Service Provider*. The pricing outcome will be subject to regulation as outlined in clause 6.14.4.
- (f) Where the charge payable for *exit services* has been agreed between a *Distribution Customer* and the relevant *Distribution Network Service Provider* in a current *connection agreement*, the charge payable by that *Distribution Customer* determined under clause 6.14.2(b) must not include any amount attributable to *exit costs*.

### 6.14.3 Prices for Network Users that are both Distribution Customers and Embedded Generators

- (a) *Network Users* may have *connection points* that combine *Embedded Generators* and *Distribution Customers*. Depending on the relative status of the relevant *generation* and the *load*, the *connection point* could represent a net *Distribution Customer* or a net *Embedded Generator*. Where the net loading position at a *customer connection point* fluctuates between net import and net export during a *billing period* the following conditions are to apply:
- (1) periods of net export of energy will be subject to *Embedded Generator* pricing arrangements; and
  - (2) net import of energy will be subject to *distribution network service* pricing arrangements.
- (b) For *Distribution Customers* where there is no export of *generation* into the *distribution network*, prices are to be applied and payable by the *Network Users* as determined under clause 6.14.2.
- (c) For *Embedded Generators* where there is not consumption of electricity from the *distribution network* by the *Distribution Customer*, prices are to be applied as determined under clause 6.14.1 provided that the *Network User* must not be charged twice for the use of the same assets.

### 6.14.4 Regulation of distribution prices

- (a) The *Jurisdictional Regulator* may place limits on the annual variation in published *distribution service* prices. Any such limits must be specified by the *Jurisdictional Regulator* at the commencement of the *regulatory control period* and are to apply for the duration of the *regulatory control period*.
- (b) Pricing outcomes for *Distribution Customers* under clause 6.14.4 must not be inconsistent with any applicable jurisdictional requirements and any applicable *price cap* level.

### 6.14.5 Publication of distribution network prices

- (a) *Distribution Network Service Providers* in conjunction with the *Jurisdictional Regulator* must publish by 31 May each year:
- (1) a schedule of prices for all classes of *distribution services* at each *voltage level*, *load class* and *pricing zone* where the schedule prices are to be the maximum price charged;
  - (2) a statement providing details of principles and methods for determining *connection charges*; and
  - (3) the service standards to which it will adhere for the services to which those *distribution service* prices relate, which service standards must include, and not be inconsistent with, any service standards imposed on the *Distribution*

*Network Service Provider* and/or *Distribution Service Owner* (as appropriate) by any regulatory regime administered by the *Jurisdictional Regulator*,

to apply to *Distribution Customers* and *Embedded Generators* in the following year, commencing 1 July.

- (b) Price variations other than on an annual basis can only be made with the approval of the *Jurisdictional Regulator* who will also determine the amount of notice which should be given before implementation of the new price.

## 12      6.14.6      **Agreement as to distribution prices**

- (a) Subject to clause 6.14.6(b) and (c), the prices determined in accordance with clauses 6.14.1 to 6.14.3, or the prices determined by the application of a *price cap* are the maximum prices which a *Network Service Provider* is entitled to charge for providing the relevant *prescribed distribution services* to:

- (1) the standards described in schedule 5.1; and
- (2) the standards published in accordance with clause 6.14.5(a)(3),

notwithstanding any agreement with another person to the contrary.

- (b) A *Network Service Provider* may, but is not required to, agree with a *Network User* to charge that *Network User* lower prices than those described in clause 6.14.6(a) and, if the relevant parties have so agreed, the prices payable by that *Network User* for the provision of the relevant *prescribed distribution services* are those so agreed rather than those described in clause 6.14.6(a).
- (c) If a *Network Service Provider* agrees to provide a *Network User* with *prescribed distribution services* to higher or lower standards than those described in schedule 5.1 or the standards published in accordance with clause 6.14.5(a)(3), then the prices payable by the *Network User* as a result of the difference between the level prescribed by schedule 5.1 or the standards published in accordance with clause 6.14.5(a)(3) and the agreed higher or lower standard are to be those agreed between the *Network Service Provider* and the relevant *Network User* in accordance with clause 6.14.7, provided that the reductions in prices payable by the *Network User* for the provision of *revenue capped* services to a lower standard are limited to the amount of the *Distribution Network Service Provider's* avoided costs (if any) as a result of the provision of services to that lower standard.



**13 6.14.7 Pricing of negotiable services**

- (a) Each *Distribution Network Service Provider* (other than a *Market Network Service Provider*) must establish a framework in accordance with the requirements of clause 6.14.7(b) (the "*negotiating framework*") setting out the minimum requirements to be followed during negotiations with *Network Users* for *negotiable services*.
- (b) For the purposes of clause 6.14.7(a), the *negotiating framework* must specify:
  - (1) a requirement for the *Distribution Network Service Provider* and the *Network User* to negotiate in good faith for the provision of *negotiable services*;
  - (2) notwithstanding clause 6.18.2, a requirement for the *Distribution Network Service Provider* to provide all such commercial information as the *Network User* may reasonably require to enable the *Network User* to engage in effective negotiation with the *Distribution Network Service Provider* for the provision of *negotiable services*, including the cost information described in clause 6.14.7(b)(3);
  - (3) a requirement for the *Distribution Network Service Provider* to:
    - (i) identify, and inform the *Network User* of, the reasonable costs and/or the cost increase or decrease (as appropriate) of providing the *negotiable services*; and
    - (ii) demonstrate to the *Network User* that its charges for providing those *negotiable services* reflect those costs and/or the cost increment or decrement (as appropriate);
  - (4) a requirement for the *Network User* to provide all such commercial information as the *Distribution Network Service Provider* may reasonably require to enable the *Distribution Network Service Provider* to engage in effective negotiation with the *Network User* for the provision of *negotiable services*;
  - (5) a reasonable period of time for commencing, progressing and finalising negotiations with the *Network User* for the provision of *negotiable services*, and a requirement that each party to the negotiation must use its reasonable endeavours to adhere to those time periods during the negotiation; and
  - (6) a process for dispute resolution which provides for all disputes arising out of or concerning negotiations for *negotiable services* to be dealt with in accordance with clause 8.2 of this *Code* or, where the *Network User* is not a *Code Participant*, in accordance with a specified alternative dispute resolution process;

- (7) a requirement to *publish* the outcome of the negotiation to provide *negotiable services*; and
- (8) the arrangements for payment by the *Network User* of the *Distribution Network Service Provider's* reasonable direct expenses incurred in processing the application to provide the *negotiable services*; and
- (9) a requirement that the *Network Service Provider* determine the potential impact on other *Network Users* of the negotiated provision of a *prescribed service* to a higher or lower standard than any standard:
  - (i) described in schedule 5.1 of the *Code*; or
  - (ii) *published* by the *Network Service Provider* in accordance with clause 6.14.5(a)(3),

and a requirement that the *Network Service Provider* must notify and consult with any affected *Network Users* and ensure that the provision of these *negotiable services* does not result in non-compliance with any service standards or other obligations in relation to other *Network Users* under the *Code*.

- (c) Each *Distribution Network Service Provider* must:
  - (1) have its *negotiating framework* developed in accordance with clause 6.14.7(b) approved by the *Jurisdictional Regulator*; and
  - (2) comply with the requirements of the *negotiating framework* in accordance with its terms and subject to any amendments or conditions imposed by the *Jurisdictional Regulator*.
- (d) For the avoidance of doubt, commercial information which is required to be provided to a *Network User* in accordance with clause 6.14.7(b)(2):
  - (1) does not include confidential information provided to the *Distribution Network Service Provider* by another person; and
  - (2) may be provided subject to a condition that the *Network User* must not provide any part of that commercial information to any other person without the consent of the *Distribution Network Service Provider* which provided the information to the *Network User*.
- (e) For the avoidance of doubt, commercial information which is required to be provided to a *Distribution Network Service Provider* in accordance with clause 6.14.7(b)(4):

- (1) does not include confidential information provided to the *Network User* by another person; and
- (2) may be provided subject to a condition that the *Distribution Network Service Provider* must not provide any part of that commercial information to any other person without the consent of the *Network User* which provided the information to the *Distribution Network Service Provider*.

#### **6.15 *Distribution Network Service Provider Prudential Requirements***

This clause sets out the arrangements by which *Distribution Network Service Providers* may minimise financial risks associated with investment in *network* assets, and to achieve cost-reflective payment options in conjunction with the use of average *distribution* prices. The clause also prevents *Distribution Network Service Providers* from receiving income twice for the same assets through prudential requirements and *distribution service* prices.

### **14 6.15.1 Prudential requirements for distribution network service**

- (a) A *Distribution Network Service Provider* may require an *Embedded Generator* or *Distribution Customer* that requires a new *connection* or a modification in service for an existing *connection* to establish *prudential requirements* for *connection service* and *distribution use of system service*.
- (b) *Prudential requirements* for *connection service* and *distribution network use of system service* are a matter for negotiation between the *Distribution Network Service Provider* and the *Embedded Generator* or *Distribution Customer* and the provisions agreed must be set out in the *connection agreement* between the *Distribution Network Service Provider* and the *Embedded Generator* or *Distribution Customer*.
- (c) The *connection agreement* may include one or more of the following provisions:
  - (1) the conditions under which and the time frame within which other *Network Users* who use that part of the *distribution network* contribute to refunding all or part of the payments;
  - (2) the conditions under which financial arrangements may be terminated; and
  - (3) the conditions applying in the event of default by the *Distribution Customer* or *Embedded Generator*.
- (d) *Prudential requirements* may incorporate, but are not limited to one or more of the following arrangements:

- (1) financial capital contributions;
- (2) non-cash asset contributions;
- (3) *distribution service* charge prepayments;
- (4) guaranteed minimum *distribution service* charges for an agreed period;
- (5) guaranteed minimum *distribution service* quantities for an agreed period; and
- (6) provision of financial guarantees for *distribution service* charges.

**15 6.15.2 Capital contributions, pre-payments and financial guarantees**

The principles to be applied to capital contributions, pre-payments and financial guarantees are:

- (a) the *Distribution Network Service Provider* is not entitled to receive any asset related cost component of *annual revenue requirement* for assets provided by *Network Users*;
- (b) the *Distribution Network Service Provider* may receive a capital contribution, pre-payment and/or financial guarantee up to the future *annual revenue requirement* for any new assets installed as part of a new *connection* or modification to an existing *connection*, including any *augmentation* to the *distribution network*;
- (c) where assets have been the subject of a contribution or prepayment, the *Distribution Network Service Provider* must amend the *aggregate annual revenue requirement*; and
- (d) the asset categories referred to in clause 6.13.3 must not incorporate the asset related cost components of the *annual revenue requirement* for any asset category covered by clause 6.15.2 and the *Network Users* who use any such asset together as a group are to pay less for the ongoing use of that asset category than they otherwise would have paid.

**16 6.15.3 Treatment of past pre-payments and capital contributions**

- (a) Payments made by *Customers* and *Embedded Generators* for *distribution service* prior to the introduction of the *Code* must be made in accordance with any existing contractual arrangements with *Distribution Network Service Providers*.

- (b) Where specific contractual arrangements are not in place, past *distribution service* pre-payments or capital contributions may be incorporated in the capital structure of the *Distribution Network Service Provider's* business.
- (c) The *Jurisdictional Regulator* may intervene in and resolve any dispute under this clause 6.15.3 which cannot be resolved between the relevant *Customers, Embedded Generators* and the *Distribution Network Service Provider*.

## **6.16 Billing and Settlements Process**

This clause describes the manner in which *Distribution Customers* and *Embedded Generators* are billed by *Distribution Network Service Providers* for *distribution service* and how payments for *distribution service* are settled.

### **17 6.16.1 Billing for distribution network services**

- (a) The *Distribution Network Service Provider* must bill *Network Users* for *distribution service* as follows:

- (1) *Embedded Generators*:

- (i) by applying the *entry price* as a fixed annual charge to each applicable *Embedded Generator*; and
- (ii) by applying the *Generator distribution use of system price* to the applicable *Embedded Generator's* nominated capacity.

- (2) *Distribution Customers*:

The charges to *Distribution Customers* are to be determined according to use of the *distribution network* as determined in accordance with a *Metrology Procedure* or, in the absence of a *Metrology Procedure* allowing such a determination to be made, by a *meter* or by agreement between the *Distribution Customer* and the *Distribution Network Service Provider* by applying one or more of the following measures:

- (i) demand-based prices to the *Distribution Customer's metered* or agreed half-hourly demand;
- (ii) *energy-based prices* to the *Distribution Customer's metered* or agreed *energy*;

- (iii) the *Distribution Customer* charge determined under clause 6.16 as a fixed periodic charge to each *Distribution Customer*; and
  - (iv) a fixed periodic charge, a prepayment or other charge determined by agreement with the *Distribution Customer*.
- (b) Subject to clause 6.16.1(c), where a *Distribution Customer* (other than a *Market Customer*) incurs *distribution network* charges, the *Distribution Network Service Provider* must bill the *Market Customer* from whom the *Distribution Customer* purchases electricity directly or indirectly for such *distribution services* in accordance with clause 6.16.1(a)(2).
- (c) If a *Customer* and the *Market Customer* from whom it purchases electricity agree, the *Distribution Network Service Provider* may bill the *Customer* directly for *distribution services* used by that *Customer* in accordance with clause 6.16.1(a)(2).
- (d) *Distribution Network Service Providers* must:
  - (1) calculate *transmission service* charges and *distribution service* charges for all *connection points* in their *distribution network*; and
  - (2) pay to *Transmission Network Service Providers* the *transmission service* charges incurred in respect of use of a *transmission network* at each *connection point* on the relevant *transmission network*.
- (e) Charges for *distribution service* based on *metered* kW, kWh, kVA or kVAh for:
  - (1) *Embedded Generators* that are *Market Generators*;
  - (2) *Market Customers*; and
  - (3) *Second-Tier Customers*,must be calculated by the *Distribution Network Service Provider* from:
  - (1) *settlements ready data* obtained from NEMMCO's *metering database*, for those *Embedded Generators*, *Market Customers* and *Second-tier Customers* with *connection points* that have a type 1, 2, 3 or 4 *metering installation*; and
  - (2) *energy data*, in accordance with a *metrology procedure* that allows the *Distribution Network Service Provider* to use *energy data* for this purpose, or otherwise *settlements ready data*

obtained from *NEMMCO's metering database*, for those *Embedded Generators*, *Market Customers* and *Second-Tier Customers* with *connection points* that have a type 5, 6 or 7 *metering installation*.

(f) Charges for *distribution services* based on *metered kW, kWh, kVA or kVAh* for:

(1) *Embedded Generators* that are not *Market Generators*;

(2) *Non-registered Customers*; and

(3) *franchise customers*,

must be calculated by the *Distribution Network Service Provider* using data that is consistent with the *metering data* used by the relevant *Local Retailer* in determining *energy settlements*.

(g) For *Non-registered customers* and *franchise customers*, the *Distribution Network Service Provider* may bill the relevant *Local Retailer* for *distribution services* used by *Non-registered customers* and *franchise customers*.

(h) Where the billing for a *Distribution Customer* for a particular *financial year* is based on quantities which are undefined until after the commencement of the *financial year*, charges are to be estimated from the previous year's billing quantities with a reconciliation to be made when the actual billing quantities are known.

(i) Where the previous year's billing quantities are unavailable or no longer suitable, nominated quantities may be used as agreed between the parties.

## 18 **6.16.2 Minimum information to be provided in distribution network service bills**

The minimum information to be provided directly to a *Code Participant* for a *distribution network coupling point* is:

(a) the *distribution network coupling point* identifier;

(b) the dates on which the *billing period* starts and ends;

(c) the identifier of the *distribution service* price from which the *coupling point* charges are calculated; and

(d) measured quantities, billed quantities, prices and amounts charged for each component of the *Distribution Customer's* total *distribution service* account.

**19      6.16.3      Settlement between distribution network service providers**

The billing and *settlement* process specified in this clause 6.16 must be applied to all *Distribution Customers* including other *Distribution Network Service Providers*.

**20      6.16.4      Obligation to pay**

A *Network User* must pay *distribution service* charges properly charged to it and billed in accordance with clause 6.16 by the due date specified in the bill.

**6.17      *Distribution Network Service Pricing Records***

Each *Distribution Network Service Provider* must maintain appropriate *distribution service* pricing records that satisfy any requirements of the *Jurisdictional Regulator*.

**6.18      *Data Required for Distribution Network Service Pricing***

**21      6.18.1      Forecast use of networks by Distribution Customers and Embedded Generators**

The information required by *Distribution Network Service Providers* is to be provided by *Code Participants* as part of the *connection* and access requirements set out in Chapter 5 of the *Code*.

**22      6.18.2      Confidentiality of distribution network pricing information**

All information used by *Distribution Network Service Providers* for the purposes of *distribution service* pricing is *confidential information* and must be treated in accordance with clause 8.6.

**Part EA – Unbundling TUOS and DUOS charges**

**23      6.18A      Separate disclosure of transmission and distribution charges**

(a) *A Distribution Customer:*

- (1) with a *load* of greater than 10MW or 40GWh per annum; or
- (2) which has *metering* equipment which is capable of capturing relevant *transmission* and *distribution system* usage data,

may request a *Distribution Network Service Provider* to whose network the *Distribution Customer* is connected (a "TUOS/DUOS disclosure request") to provide the *Distribution Customer* with a statement identifying the separate components of the transmission use of system and



distribution use of system charges which the Distribution Customer has been charged for electricity supplied to its connection points (a "TUOS/DUOS disclosure statement").

- (b) Within 10 *business days* of receipt of any *TUOS/DUOS disclosure request*, a *Distribution Network Service Provider* must notify the relevant *Distribution Customer* of the estimated charge, including details of how the charge is calculated, for providing the *TUOS/DUOS disclosure statement*, which charge must be no greater than the reasonable variable costs directly incurred by the *Distribution Network Service Provider* in preparing the statement for the particular *Distribution Customer*.
- (c) If the relevant *Distribution Customer* advises the *Distribution Network Service Provider* within 30 days of receipt of the notice referred to in clause 6.18A(b) that it still requires the requested *TUOS/DUOS disclosure statement*, the relevant *Distribution Network Service Provider* must prepare the statement and provide it to the *Distribution Customer* within 30 days of the end of the period for which the *TUOS/DUOS disclosure statement* has been requested. The *TUOS/DUOS disclosure statement* must include detailed information on the methodology used to determine the *distribution use of system charges* and the allocation of the *transmission use of system charges* which the *Distribution Customer* has been charged for electricity supplied to its *connection point*, which information must be sufficient to allow the *Distribution Customer* to assess the impact on their *network charges* of a change in their *network use*.
- (d) The *TUOS/DUOS disclosure statement* must also separately identify the *Customer TUOS usage charge*, *Customer TUOS general charge* and *common service charge* components of the *transmission use of system charges* which the *Distribution Customer* has been charged for electricity supplied to its *connection point*, where a *Distribution Customer* that makes a *TUOS/DUOS disclosure request* in accordance with clause 6.18A(a) requests this information.
- (e) Where a *Distribution Customer* requests the inclusion in the *TUOS/DUOS disclosure statement* of the information referred to in clause 6.18A(d), the *Distribution Network Service Provider* must separately identify that component of the charge notified under clause 6.14.8(c) that relates to the provision of this additional information.
- (f) Each *Distribution Network Service Provider* must *publish* information annually disclosing the *transmission use of system* and *distribution use of system charges* for each of the classes of *Distribution Customers* identified for this purpose by the *Distribution Network Service Provider*, or as required by the *Jurisdictional Regulator*.

