



Pricing Methodology and Compliance with Pricing Principles

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Electra – Pricing Methodology and Compliance with Pricing Principles

1. Introduction

Electra Limited owns and operates the electricity distribution network in the Kapiti and Horowhenua regions. This is an area of 1700 square kilometres where the network is concentrated mainly along coast to supply a string of towns from Paekakariki to Foxton, the largest of these being Paraparaumu and Levin.

The towns in Kapiti have their origins as seaside resorts for Wellingtonians and latterly as fast growing dormitory areas where a good proportion of residents still travel to Wellington for work. The Horowhenua retains a number of seaside villages with holiday homes, but also includes a more developed commercial sector centered on Levin.



Electra receives electricity from Transpower at two locations situated at either end of its network at Valley Road Paraparaumu and Managahao and we distribute this to around 42,500 consumers.

Electra Limited is owned by the Electra Trust which appoints Directors and holds all the shares on behalf of all those consumers connected to the network. This ownership by a Consumer Trust means that all surpluses not required for the operations and development of the core business will be distributed by the company to consumers via sales discounts on their electricity accounts.

The Electra network is largely a natural monopoly and is not directly exposed to the competitive forces that drive other markets to deliver improved efficiency and service. Nevertheless the very nature of Trust ownership helps to ensure that Electra delivers an efficient and effective electricity distribution network.

This is recognised by the fact that as a Trust owned distribution company Electra is exempt from the control regime under the regulations for electricity network owners under the Commerce Act 1986 administered by the Commerce Commission. But Electra is still subject to information disclosure including this pricing methodology statement.

The purpose of this document is to outline Electra's pricing principles and methodology which applies from 1 April 2011.

It follows the intent of Sections 22 and 23 of Part 5 of the Electricity Distribution (Information Disclosure) Requirements 2004 (including amendments to 31 October 2008) and the Electricity Authority Distribution Pricing Principles and Information Disclosure Guidelines (published by the Electricity Commission in March 2010)

2. Pricing Policy

Network Characteristics

The load on Electra's network is heavily weighted towards domestic and small commercial consumers, reflecting the way the area has developed. This is evidenced by the fact that it continues to have the lowest average use per consumer of all New Zealand line companies.

Electra's current pricing position is based on analysis carried out in the mid 90's (when the SOLEC methodology formed part of the light handed information disclosure regulations for electricity supply businesses) that concluded that the small number of large (from Electra's perspective a medium sized supermarket was large) customers and lack of middle sized commercial load did not justify segmenting the customer base into load groupings. In other

words the substantial common costs of supplying all customers vastly outweighed the added complication of attributing costs that might be directly applied to a specific individual customer or small group of customers and applying another group of tariffs. This was reinforced by the fact that there was a diversity of end user types across the entire network.

Electra as a then line owner/retailer instead opted to offer the same line and energy price options to (effectively) all customers (i.e. not differentiating between residential or commercial, small or large), enabling them to choose the best option for their circumstances from the pricing menu.

The tariff options were developed at that time to meet the needs of both the retail and network components of the business and thus included strong signals to encourage consumers to use off peak electricity.

The lone exception to this was that different variable tariff options were implemented for street lighting and community lighting, accommodating particular known usage times and volumes. These options were not available to the vast majority of customers and could therefore be described in effect, as a form of load grouping.

The pricing options which remain within the line charges Electra offers today continue to reflect differentiation based on the time when electricity is used as this continues to meet the needs of our network.

The introduction of the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 provided an opportunity for Electra to reconsider its tariff structure and in particular its load grouping. At this time it was confirmed that the characteristics of the network continued to justify no segmentation for tariff setting purposes. Accordingly in 2005 it opted to apply the low fixed charge consistent with the regulations to all consumers and to continue with variable energy pricing based on unit consumption with variable tariff options reflective of contribution to peak.

Electra continues to recover its revenue requirements with the same fixed supply charge across all consumers and variable unit charges that allow choices between anytime, peak, off peak, controlled and night use. Prices are the same across Electra's entire network area.

Pricing Principles and Objectives

Underlying the policy outlined above are Electra's pricing principles which form the basis of its pricing methodology. These are:

- Clarity and simplicity for both consumers and retailers
- Fairness to all consumers and retailers
- No differentiation for consumers on the basis of end-use for electricity (i.e. commercial versus domestic), or directly by load grouping
- Encouragement for consumers to both shift load away from peak and to use electricity efficiently with the recognition that demand behavior is changed only over long periods of time. Hence the importance of providing strong and consistent pricing incentives that contribute towards the efficient use of Electra's assets
- Producing a commercially acceptable rate of return commensurate with the ownership structure
- Reliance upon Retailers to fairly reflect Electra's charges in their own prices to customers
- Reliance upon retailers to supply accurate electricity consumption data required to maintain revenue requirements.
- Full compliance with regulatory requirements.

3. Consumer Grouping

As already noted above Electra does not differentiate its pricing methodology across different load (usage) groups. The characteristics of Electra's load grouping used for tariff setting purposes is set out in the table below and comprises estimates for the year ended 31 March 2012.

Consumer Numbers	Maximum Demand (MWh)	Energy Conveyed (GWh)
42,831	94	415

4. Revenue Requirement

In order to determine the level of prices to be charged from 1 April 2011 Electra firstly determines its Annual Revenue Requirement for the 1 April 2011 – 31 March 2012 pricing period. This is set out below in the following table:

Transmission Charges	\$7.08m
Operational & Maintenance	\$4.9m
Administration / Overheads	\$2.53m
Depreciation	\$6.85m
Cost of Capital (before tax)	\$10.02m
	<hr/>
	\$31.38m
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We discuss each component briefly below.

Transmission services

All transmission services are provided by Transpower through the two GXPs at Mangahao and Paraparaumu.

Electra is obliged by legislation to pay Transpower even if not paid by the Retailers.

Charging for transmission Services

Electra on-charges Transpower transmission charges to Retailers on a cost-recovery basis plus a small administration charge.

Although Transpower charges are mainly fixed, Electra absorbs some risk by dividing these charges into a ratio of approximately 22% fixed and the remainder comprising of variable KWh charges on the same basis as line charges.

Any over recovery of transmission charges is returned to consumers through the sales discount.

Components of Transmission Charges

Transpower charges for transmission services compose three components and are charged on a monthly basis.

- Interconnection
- Connection
- New Investment Agreement Charges.

Rental Rebates

Electra estimates the likely Transpower rental rebates on an annual basis and includes this credit in the revenue required to cover Transpower transmission charges.

Any rental rebates received above the annual estimate are returned to consumers through sales discounts. Electra carries the risk of any deficit.

Network Costs

Network costs can be generally classified as direct and indirect.

Direct Costs:

- Maintenance & Operating Costs

Direct costs are driven by the detailed Asset Management Plan (AMP) which sets out the expenditure required to operate and maintain the network. The AMP is a ten-year forecast and is updated annually. The revenue requirement for the forthcoming pricing year reflects the first year of this forecast.

Indirect Costs:

- Administration & Overheads
- Regulatory Compliance Costs

These are costs incurred in running the lines business activity of Electra such as those necessary to produce the required information within this document. They comprise general management, finance, office services time and other administrative costs.

Capital Related Charges

Capital charges reflect a return of the capital Electra has invested in the network, via an annual depreciation charge and a return on capital reflecting target profit levels. These charges are based on the total value of assets being \$186.2 million. This comprises network assets with a net depreciated value of \$184.9 million and non-network assets with a net depreciated value of \$1.3 million.

5. Network Tariffs

As noted above the annual revenue requirement is recovered from all consumers without load group segmentation. However a number of variable tariff options are offered. A brief description of each (with consumer numbers) is set out below:

<i>Variable Tariff Option</i>	<i>Description</i>
Anytime (36,694)	A standard price for using electricity at any time of the day, taking into account Electra's very large residential bias and building in the significant impact that these consumers have upon peak capacity requirements. Can be used in conjunction with other tariff options.
Managed saver (24,111)	A price which consumers may choose for hot water heating (and for other uses) on the basis that they are accepting an interruptible supply in return for a cheaper price. Electra is able to switch off the load for up to 4 hours every day at peak times.
Combined (3295)	A combination of Anytime and Managed Saver prices on a weighted average (60:40) basis. This was implemented to assist consumers who wanted to make use of either Thrifty or Super Thrifty, while retaining Anytime and Managed Saver options, but did not have room on the switchboard for a third meter. From 1 April 2009 this option was closed, except to existing consumers.

Triple Saver (596)	A three rate (peak, off peak and night) time of use option for medium to large commercial consumers with the ability to either move load or otherwise take advantage of price signals.
PayGo (506)	An Anytime price for pay as you go consumers.
Night/Day (1582)	A continuous electricity supply at two different prices, one a lower rate for the 10 hours between 9pm and 7am and the other a higher rate during the day.
Super Thrifty (646)	Night rate between 11pm and 7am only reflecting the large amount of available capacity on the network at this time. Designed for hot water, storage heating or under floor heating loads.
Thrifty (2124)	As for Super Thrifty with the addition of an afternoon boost.

In addition, as noted previously, streetlight and community lighting consumers are charged dedicated variable tariffs which have built in, Electra's calculation of the impact of the proportion of that load that occurs at peak times.

As from 1 April 2011 Electra has decided to limit the triple saver option to those consumers with annual consumption in excess of 25,000kWh per annum for new connections. Existing consumers who have elected this tariff can continue to use it.

Power Factor Charge

Electra reserves the option of applying a charge in the situation where a commercial consumer has a power factor materially below 0.95 lagging. This charge allows Electra to signal that the consumer needs to improve power factor and has the ultimate goal of helping to avoid unnecessary network reinforcement. This charge is not expected to be applied in many cases or to be a significant revenue item.

Equipment Charges

Electra's pricing does not include separate equipment charges.

Low Fixed Charge

As already noted Electra complies with the low fixed charge regulations by charging 15 cents (plus GST) per day to all consumers no matter what price option they choose.

Industry Terminology

Electra believes its tariff schedule is presented in a manner consistent with industry terminology, and includes sufficient information to enable each option to be readily understood.

Changes to the Methodology

The only change to the pricing methodology at 1 April 2011 is to limit the Triple Saver option to new consumers consuming above 25,000kWh. This has no impact on existing consumers and therefore there are no transitional issues to consider.

6. Review of Pricing Policy

Electra is currently undertaking a review of its pricing to ascertain whether it is sustainable and consistent with its Asset Management Plan requirements.

This review may include the construction of a cost of supply model to test the current assumption that everyone is one load group and to examine whether there is a definable layer between individual large consumers and the mass market. In other words the objective will be to analyse the benefits of introducing stepped load groups.

Depending on the results of the model, Electra may seek to alter its current relatively simple approach to charging and to refine the signals it sends through pricing as to the impacts on the network of additional installed capacity.

This should be noted when considering the following commentary on Electra's compliance with the Electricity Authority's pricing principles.

7. Compliance with the Electricity Authority's Pricing Principles

The following sets out Electra's compliance with the pricing principles introduced by the Electricity Commission last year. Electra believes it complies with all of the principles, where they are relevant to its network.

Prices are to signal the economic costs of service provision by:

(a)

(i) being subsidy free, that is, equal to or greater than the incremental costs and being less or equal to standalone costs, except where subsidies arise from compliance with legislation and/or other regulation

Electra agrees that it is both economically and commercially desirable for its charges to be subsidy free. Electra has not developed estimates of the subsidy free range, particularly as previous work indicated that there was little value in the added complication of segmenting the market either geographically or by load size given the relatively uniform nature of the customers connected to the network.

It should be noted that Electra's choice of applying the low fixed charge requirement across all customers has probably resulted in some cross subsidy from larger customers (those above 8000KWh consumption) to smaller customers as a result of the averaging required to achieve standard variable prices for each tariff option. However this is a pragmatic solution in response to a legislated requirement, and is consistent with achieving tariff simplicity and transparency for stakeholders (refer below).

(ii) having regard, to the extent practicable, to the level of available service capacity

Electra does not differentiate by service capacity as all consumers are treated equally and provided the same tariff options. This is reflective of the homogeneous nature of the consumers supplied by Electra. However by offering differential prices for controlled/uncontrolled/off peak load Electra rewards consumers (through lower prices) for the ability to either interrupt or nominate the hours of supply.

In addition Electra believes that its current peak related prices are a reasonable proxy for capacity type charges, particularly as there are no current capacity restraints on the network.

(iii) and having regard to the extent practicable, the impact of additional usage on future investment costs

Electra regards that its current variable pricing structure also signals the impact of each extra unit on future investment costs. It has always been Electra's objective to use its prices to reflect as much as possible the costs of meeting peak demands and to encourage customers to consider the benefits of moving load away from peak and to reward them for this through lower price. Higher variable charges are a clear signal to consumers of the benefits of being more energy efficient and these are enhanced by our peak/offpeak, thifty and night/day tariff options

The core of these signals is the controlled rate for hot water heating, but also other loads that are willing to trade lesser hours of supply at peak times for a lower price, for example at night. Day and peak rates are designed to reflect the extra investment required to meet demand on an ongoing basis.

(b)

Where prices based on "efficient" incremental costs would under recover allowed revenues, the shortfall is made up by prices being set in a manner that has regard to consumers' demand responsiveness, to the extent practicable.

As documented above, as all consumers are offered exactly the same tariff options, consumers themselves may select their own pricing plan. This is perhaps one of the best ways of ensuring prices respond to the demand characteristics of consumers as we are not imposing limits on one consumer group at the expense of another.

It should be acknowledged however, that the pricing signals set by Electra may not in fact be passed onto consumers by retailers. In practice it could be said that this does put some limit on the ability of Electra to directly meet this principle.

(c)

Provided prices satisfy (a) (i), prices are responsive to the requirements and circumstances of consumers in order to –

(i) discourage uneconomic bypass

Electra's current pricing methodology combined with the nature of its consumer base has not resulted in any uneconomic (or economic) bypass of its network.

(ii) allow negotiation to better reflect the economic value of services and enable consumers to make price/quality trade-offs or non standard arrangements for services

Electra does not currently negotiate non standard arrangements for services, or for price/quality tradeoffs. In reality, until very recently, the nature of Electra's consumers has not resulted in a demand for such an approach.

However the pricing review work about to be undertaken will allow Electra to better address and manage these issues in the future.

(iii) where network economics warrant, and to the extent practicable, encourage investment in transmission and distribution alternatives (e.g. distributed generation or demand response) and technology innovation.

This is not relevant on Electra's network at this time however our relatively low fixed charges are consistent with incentivising investment in alternatives which may in the future be developed within our network region.

(d)

Development of prices is transparent, promotes price stability and certainty for consumers, and changes to prices have regard to the impact on stakeholders

Electra's prices are published in the local newspapers and are available on its website. They are based on principles and a methodology that have not changed significantly for over 15 years and as such offer certainty for consumers and retailers. The nature of Electra's ownership ensures that the concerns of stakeholders are also taken into account in considering price changes.

(e)

Development of prices should have regard to the impact of transaction costs on retailers, consumers and other stakeholders and should be economically equivalent across retailers.

Electra's relatively simple pricing structure ensures low transaction costs for all. All retailers operating on Electra's network pay the same prices, related to either the options their particular customers choose, or more particularly how they choose to pass through Electra's charges.