

COUNTIES POWER LIMITED

ELECTRICITY INFORMATION DISCLOSURE REQUIREMENTS 2004

DISCLOSURE OF PRICING METHODOLOGIES PURSUANT TO REGULATIONS PART 5, SECTION 22-23

1 APRIL 2010 to 31 MARCH 2011

Section 23(a) Describe the methodology used to calculate the prices charged or to be charged

Brief Outline of Methodology

Counties Power's pricing methodology is driven by the following principles:

- Recover the revenue requirement while allocating costs to customers on an economic basis.
- Promote price stability and limit rate shock
- Limit complexity and have regard to the transaction costs of stakeholders
- Send price signals that promote efficient use of the distribution and transmission network
- Comply with all applicable regulations

More Detailed Methodology

Counties Power follows the methodology outlined in the discussion paper "Distribution Pricing Methodology: Consultation paper on a model approach" prepared by the Electricity Commission (dated 5 June 2009) but with a number of modifications and simplifications. In addition Counties Power endeavours to adhere to the Pricing principles outlined in the paper "Distribution Pricing Principles and Information Disclosure Guidelines" (dated February 2010). A Summary of the approach is given below.

- 1) Total revenue requirements are categorised into five components: Consumer-specific costs, load-dependent costs, load-independent costs, Transmission Costs – load dependent, and Transmission Costs – Load Independent
- 2) Load-dependent costs are allocated to one of the following Network Asset classes on the basis of Optimised Replacement Cost (ORC):
 - Streetlighting
 - LV cables, lines and plant
 - Shared Distribution Substations
 - 11kV cables, lines & plant
 - Zone substations

- Subtransmission sub-network
- 3) Load-dependent costs that are allocated to Network Asset classes are then assigned to Load Groups. If the load group doesn't use that network asset as expected it is assigned zero costs. This avoids, for example, the allocation of low voltage asset costs to higher voltage customers who do not use these assets. If the load group does use the network assets, costs are assigned based on the weighted combination of the After Diversity Anytime Maximum Demand (AMD) and the Regional Coincident Peak Demand (RCPD) with each receiving a 50% weighting. This ensures that customer groups who make greater use of the assets will pay a greater proportion of the associated costs. The Load groups currently used by Counties Power are: Streetlights, General Connection Domestic (Low User), General Connection Domestic, General Connection Business, Major Connection, Unique Major Connection – A, and Unique Major Connection – B.
 - 4) The remaining revenue requirement components are assigned to the Load Groups mentioned previously on the basis of the following cost allocators
 - Load-independent costs are recovered on the basis of a 50:50 weighting of AMD and number of ICPs. After Diversity Anytime Maximum Demand (AMD) is calculated based on the average of the 200 highest peaks.
 - Transmission Costs – load dependent are recovered on the basis of RCPD. This maintains the pricing signal and mirrors the basis on which the transmission costs are allocated by Transpower New Zealand (TPNZ). Regional Coincident Peak Demand (RCPD) is calculated as at the times of the 12 highest peaks for the Upper North Island as defined by TPNZ.
 - Transmission Costs – Load Independent are recovered on the basis of a 50:50 weighting of AMD and number of ICPs
 - Consumer specific costs are allocated to the specific customer that incurs the costs.
 - 5) Now that costs have been allocated to load groups Counties Power needs to set the corresponding tariffs. In the case of half-hourly metered consumers, charges consist of a cents per kWh component which varies based on the time of day and the season (summer/winter) and which is intended to reflect the economic cost of service provision. In addition half-hourly metered customers will pay a maximum demand charge and a transformer charge.
 - 6) Non-half-hourly metered customers will pay a fixed daily charge that is intended to recover the load independent costs, and transmission load independent costs to the extent practical while being cognizant of the impact on consumers. Load dependent and transmission load dependent costs are recovered largely through cents per kWh charges. Counties Power offers a range of tariff options including controlled, uncontrolled, night, night plus boost. The ratios of these different tariff options are intended to mirror the underlying cost drivers. However this has been constrained to some degree by the current metering technology and other technical and economic constraints. In addition some adjustments have been made to

comply with the Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004 and in order to limit “price shock” for some consumers.

- 7) In addition when setting the tariffs Counties Power has made its best efforts to adhere to the pricing principles:
- Prices signal the economic cost of providing the service
 - Limit rate shock
 - Promote price stability and certainty for stakeholders
 - Have regard to the impact of transaction costs and limit complexity

23 (b) Include the key components of the revenue required to cover costs and profits of the disclosing entity's line business activities, including cost of capital and transmission charges, which must include the numerical value of each of the components

Table 1. Counties Power Line Business Revenue Requirements Categorised

<u>Revenue Type</u>	<u>\$000</u>
Consumer Specific Costs	938
Load Dependent Costs	11162
Load Independent Costs	9232
Transmission Costs - Load Dependent	6912
Transmission Costs - Load Independent	1199
Cost of Capital	7359
<u>TOTAL</u>	<u>36802</u>

23 (c) State the consumer groups used to calculate the prices charged or to be charged, including –

- (i) The rationale for the consumer grouping; and*
- (ii) The method by which the disclosing entity determines which group consumers are in; and*
- (iii) For each of these consumer groups, the statistics relating to that group which were used in the methodology*

The rationale for the consumer grouping was to match customers to the network assets used as well as to group customers with similar load profiles together. Group membership is determined based on the type of metering installed, the capacity of the connection, the nature of the activity carried out at the site, and the number of kilowatt hours used annually.

Table 2. Load Group Statistics used in Pricing Methodology to Allocate Costs

Group	ICP count	AMD (MW)	RCPD (MW)
Streetlights	1	309	309
General Connection Domestic (Low User)	16514	15546	21417
General Connection Domestic	12469	30856	42508
General Connection Business	6510	16827	16500
Major Connections	171	19592	12625
Unique Major Customer A	3	8358	6143
Unique Major Customer B	2	2924	840
TOTAL	35670	94412	100342

23 (d) Describe the method by which the disclosing entity allocated the components of the revenue required to cover the costs of its line business activities amongst consumer groups, which must include the numerical values of the different components allocated to each consumer group and the rationale for allocating it in this manner

The methodology is discussed in section 23(a). The numerical values for the different components are given in the table below.

Table 3. Components of Revenue allocated to Load Groups

Group	Load Dependent Costs	Load Independent Costs incl. ROI	Transmission Costs - Load Dependent	Transmission Costs - Load Independent	Consumer Specific Costs	TOTAL
Streetlights	51	81	21	6	0	159
General Connection Domestic (Low User)	2555	3200	1475	231	0	7461
General Connection Domestic	5070	4760	2928	344	0	13102
General Connection Business	2319	4723	1137	341	0	8520
Major Connections	1168	2989	870	216	938	6180
Unique Major Customer A	0	620	423	45	0	1088
Unique Major Customer B	0	217	58	16	0	291
TOTAL	11162	16591	6912	1199	938	36802

23 (e) Describe the method by which the disclosing entity determined the proportion of its charges which are fixed and the proportion which are variable, and the rationale for determining the proportions in this manner

The method for determining the proportion of fixed and variable charges is dependent on the load group concerned. For streetlights the proportions are intended to mirror the proportion of fixed versus variable costs. Since for distributed networks of streetlights the costs vary by the number of lights installed as opposed to the amount of electricity consumed, charges are levied in the same

manner. Hence the charges can be regarded as essentially fixed for a streetlight network of a given size.

For General Connection Domestic (Low User) Counties Power is constrained by the Low Fixed Charge Tariff Option for Domestic Consumers, so the fixed charge is no more than 15 cents per day. For General Connection Domestic the fixed charge is set at a level which is intended to more fully reflect the actual ratio between fixed and variable costs in the distribution business but as this is the first year Counties Power distinguishes between Low Users and Regular Domestic Users, the increase in the fixed daily charge has been limited to prevent price shock.

Similarly for General Connection Business customers, Counties Power endeavours to set the proportion of fixed to variable charges at a level which reflects the proportion of fixed to variable costs. However due to the fact that a relatively large portion of our costs are fixed and that historically the tariffs have been weighted towards variable charges, Counties Power needed to balance a number of considerations and set the fixed charge at a level which avoids the rate shock and potential financial hardship that a sudden shift in the fixed / variable proportion would cause to various subgroups of customers.

For major connections the fixed charges are based on the dedicated assets employed to deliver electricity to that customer (such as transformers) the remainder of the charges are variable and are levied on the basis of the quantity of electricity consumed and the maximum demand. Again if the tariffs strictly reflected the economic costs a greater proportion of charges would be recovered on the basis of fixed charges and maximum demand charges. However the shift in allocation has been limited to prevent rate shock and promote price stability for stakeholders.

In contrast for Unique major customers the fixed charges are based on the assets used to distribute electricity to those customers. The majority of the charges are fixed with a variable portion being based on the contribution to annual Transpower costs.

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31 March 2010