



Evaluation of MainPower 2013 Pricing Methodology

What we have been asked to do

The Electricity Authority engaged Castalia to carry out an independent evaluation of the pricing methodologies published by the 29 electricity distributors in New Zealand. This document provides our evaluation of MainPower’s 2013 pricing methodology¹ against:

- The **Information Disclosure Guidelines** (Table 1). The guidelines set out the information that should be provided in distributor pricing methodologies.
- The **Pricing Principles** (Table 2). The principles contain economic benchmarks that should be reflected in pricing methodologies to the extent practicable.

The purpose of this review is to understand how distributors interpret the guidelines and principles, and to provide suggestions on how to improve distributor pricing methodologies. This review does not focus on ensuring compliance with the guidelines and principles.

Our understanding of MainPower’s methodology

The table below summarises our understanding of the methodology that MainPower uses to determine prices for one of its pricing regions. The purpose of this example is to explain our understanding of MainPower’s pricing methodology (this is not a comprehensive summary of the pricing methodology that applies to all customers).

	Approach	Rationale
Customer categories	Customers are grouped into three regions: MainPower Region, Kaiapoi Region, and Wigram Region	No rationale provided
Cost allocation	All of the costs associated to the MainPower Region are recovered from a single group which includes all customers, except one non-standard contract	No rationale provided
Charging basis	Residential customers in the MainPower Region have tariff options for controlled supply, uncontrolled supply, night rate and low user fixed charges	The tariff options act as pricing signals and, in the case of the low user fixed charge, respond to regulatory requirements

¹ MainPower’s 2013 pricing methodology is available online at: http://www.mainpower.co.nz/index.cfm/3,405,593/pricingmethodology_20130408.pdf

Overview of our evaluation of MainPower's methodology

Our overall evaluation of MainPower's methodology is that it aligns well with the Information Disclosure Guidelines and Pricing Principles. The consumer statistics presented in Appendix D are particularly informative. We have identified two ways that the table could be further strengthened. To improve legibility, each pricing region should be displayed on a separate page. The table could also present a column with estimates of average kWh consumption so that the reader can see how the revenue requirement has been calculated (which can be done for the fixed charge component, but not for the variable charge).

The methodology's two main weaknesses are in failing to describe the rationale for consumer groupings and how costs have been allocated to customer groups. Presenting clear reasons for grouping consumers by region instead of other characteristics (such as connection capacity) would improve the ability to understand and agree with the approach that has been adopted.

Table 1: Evaluation of the Pricing Methodology against the Information Disclosure Guidelines

Guideline	What is done well?	What is missing?
<p>(a) Prices should be based on a well-defined, clearly explained and published methodology, with any material revisions to the methodology notified and clearly marked</p>	<ul style="list-style-type: none"> ▪ The methodology has not changed its prices ▪ The document is published on MainPower’s website ▪ The methodology follows a logical structure and is clearly written 	<ul style="list-style-type: none"> ▪ Appendix A on regulatory requirements is probably unnecessary
<p>(b) The pricing methodology disclosed should demonstrate:</p> <p>(i) How the methodology links to the pricing principles and any non-compliance</p> <p>(ii) The rationale for consumer groupings and the method for determining the allocation of consumers to the consumer groupings</p> <p>(iii) Quantification of key components of costs and revenues</p> <p>(iv) An explanation of the cost allocation methodology and the rationale for the allocation to each consumer grouping</p>	<ul style="list-style-type: none"> ▪ The methodology explicitly links to the pricing principles through section 4 which shows the extent to which the methodology is consistent with the principles ▪ The methodology describes that consumers are grouped by region (MainPower Region, Kaiapoi Region, and Wigram Region) ▪ Figure 1 on page 9 presents the components of target revenue ▪ The methodology describes the basis for cost allocation on page 11 	<ul style="list-style-type: none"> ▪ We have found instances where the alignment to the pricing principles could be strengthened and have noted them in our review of the pricing principles ▪ The methodology should explain why customers are grouped by region. For example, costs of service may differ substantially between regions, making it sensible to divide consumers by location ▪ It appears from the table on Appendix D that all consumers in each region fall under General Supply. The methodology should be clearer about whether each region is a consumer group ▪ The methodology should explain why costs are allocated in the way that they are. For example, by explaining that administrative and overhead costs are allocated by consumption because customer inquiries and management costs vary by consumption levels (rather than by the number of connections) ▪ The methodology should present a breakdown of costs by pricing region to show how costs differ by region

Guideline	What is done well?	What is missing?
<p>(v) An explanation of the derivation of the tariffs to be charged to each consumer group and the rationale for the tariff design</p> <p>(vi) Pricing arrangements that will be used to share the value of any deferral of investment in distribution and transmission assets, with the investors in alternatives such as distributed generation or load management, where alternatives are practicable and where network economics warrant.</p>	<ul style="list-style-type: none"> ▪ Figure 2 describes the rationale for all tariff options offered by MainPower ▪ Appendix D provides valuable information concerning tariff make up <p>▪ The approach to distributed generation is described on pages 13 and 14</p>	<ul style="list-style-type: none"> ▪ MainPower has adopted uniform variable charges in each region. This makes it unclear why particular tariff options such as night rates would be effective. The methodology should explain the rationale behind this uniformity ▪ Appendix D would be strengthened by having a column showing estimates of average kWh consumed by customer so that required revenue can be calculated by the reader ▪ For legibility, Appendix D should be presented in three pages, one for each region
<p>(c) The pricing methodology should:</p> <p>(i) Employ industry standard terminology, where possible</p>	<p>Industry standard terminology is used</p>	

Guideline	What is done well?	What is missing?	
<p>(ii) Where a change to the previous pricing methodology is implemented, describe the impact on consumer classes and the transition arrangements implemented to introduce the new methodology.</p>	<ul style="list-style-type: none"> ▪ MainPower’s pricing structures have not changed materially since 2001 ▪ Prices have not changed from those of last year 	<ul style="list-style-type: none"> ▪ MainPower is in the middle of a pricing review which could see it change certain prices as early as 1 October 2013. The methodology should present information on the potential impacts these changes could have on customers. Also, a clearer indication of the timeframes (see page 6) in which changes will occur as well as any transitional arrangements being considered should be provided ▪ It is good to show the pricing history in Appendix D yet it is not clear why the previous fixed charges are not available 	
Key to evaluation	Does not follow guidelines	Partially follows guidelines	Follows guidelines

Table 2: Evaluation of the Pricing Methodology against the Pricing Principles

Pricing principles	What is done well	What is missing
<p>(a) Prices are to signal the economic costs of service provision by:</p> <p>(i) being subsidy free (equal to or greater than incremental costs, and less than or equal to standalone costs), except where subsidies arise from compliance with legislation and/or other regulation</p>	<ul style="list-style-type: none"> ▪ A good description of incremental cost and the way prices fall above this cost is provided 	<ul style="list-style-type: none"> ▪ The methodology should provide estimates for incremental and standalone costs to identify whether cross-subsidies are likely to exist
<p>(ii) having regard, to the extent practicable, to the level of available service capacity</p>	<ul style="list-style-type: none"> ▪ MainPower is investigating the merits of introducing a peak demand charge to align pricing with the cost of service provision ▪ The irrigation tariff is priced based on the installed kW capacity of irrigation motors to signal limited capacity in the high voltage distribution system 	<ul style="list-style-type: none"> ▪ We would expect to see a description of current service capacities and how much of that service capacity is being used to meet demand
<p>(iii) signalling, to the extent practicable, the impact of additional usage on future investment costs</p>	<ul style="list-style-type: none"> ▪ The methodology mentions the key drivers of future network investment costs ▪ MainPower is considering the merits of introducing peak time pricing, particularly for the large load group 	<ul style="list-style-type: none"> ▪ The methodology should present forecasts of investment needs to meet future demand, and how the cost of those investments are signalled through prices
<p>(b) Where prices based on ‘efficient’ incremental costs would under-recover allowed revenues, the shortfall should be made up by setting prices in a manner that has regard to consumers’ demand responsiveness, to the extent practicable</p>	<ul style="list-style-type: none"> ▪ Some tariff options are priced recognising consumers’ willingness to pay, e.g. the Residential Uncontrolled Tariff option is priced higher given that these consumers do not want their hot water load interrupted 	<ul style="list-style-type: none"> ▪ No explicit attempt is made to gauge demand responsiveness between customer groups, or how they would respond to paying more or less of the fixed costs of the network
<p>(c) Provided that prices satisfy (a) above, prices should be responsive to the requirements and circumstances of stakeholders in order to:</p>	<ul style="list-style-type: none"> ▪ The methodology describes when it expects uneconomic bypass to occur and how it mitigates it (through non-standard contracts) 	

Pricing principles	What is done well	What is missing	
(i) discourage uneconomic bypass			
(ii) allow for negotiation to better reflect the economic value of services and enable stakeholders to make price/quality trade-offs or non-standard arrangements for services	<ul style="list-style-type: none"> ▪ Price/quality trade-offs are sometimes addressed as part of the capital contributions policy ▪ Consultation on customer satisfaction is carried out through annual surveys ▪ The methodology describes MainPower’s approach to non-standard contracts 		
(iii) where network economics warrant, and to the extent practicable, encourage investment in transmission and distribution alternatives and technology innovation	<ul style="list-style-type: none"> ▪ MainPower does not levy annual charges to small scale distributed generators ▪ MainPower does not have large scale distributed generators in its network yet plans to develop a pricing methodology for these generators 	<ul style="list-style-type: none"> ▪ The methodology could describe which aspects of its planned pricing methodology would encourage distributed generators to join the network 	
(d) Development of prices should be transparent, promote price stability and certainty for stakeholders, and changes to prices should have regard to the impact to stakeholders	<ul style="list-style-type: none"> ▪ The pricing structure has been stable over the past decade ▪ The pricing review and pricing strategy are thoroughly described in pages 4 through 6 ▪ MainPower plans to consult extensively with consumers, retailers, and other affected parties prior to making a final decision of its pricing review 	<ul style="list-style-type: none"> ▪ The methodology could provide an idea of the likely impacts that the review will have on consumers 	
(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	<ul style="list-style-type: none"> ▪ Economical equivalence is maintained across retailers 	<ul style="list-style-type: none"> ▪ The second paragraph of point (e) on page 18 is not clear and should be better explained to show that transaction costs are effectively reduced 	
Key to Assessment	Does not align with principles	Partially aligns with principles	Aligns with principles