Evaluation of Marlborough Lines 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 Marlborough Lines' 2013 pricing methodology[1] 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 Marlborough Lines' methodology

The table below summarises our understanding of the methodology that Marlborough Lines uses to determine prices for its Residential consumer group. The purpose of this example is to explain our understanding of Marlborough Lines' pricing methodology using the example of one consumer group (this is not a comprehensive description of the pricing methodology that applies to all customers).

	Approach	Rationale
Customer categories	The basis for allocating consumers to groups is the predominant end use of energy for each installation and the installed capacity of each installation	No clear rationale is provided. Predominant use appears to be based on the fact that water and space heating loads are able to be interrupted by the company's ripple control system. The regulatory restrictions that apply to domestic consumers also appear relevant
Cost allocation	Costs are allocated based on share of assets, share of RCPD, MWh/ICPs and net revenue	Limited rationale provided
Charging basis	Daily fixed charges are set on the basis of two capacity bands. Variable rates are provided for uncontrolled energy, 13 hour controlled and 8 hour controlled energy	Limited rationale provided

[1] Marlborough Lines' 2013 pricing methodology is available online at: http://www.marlboroughlines.co.nz/Documents/Pricing-Methodology/Pricing-Methodology-Disclosure-2013_14-Final.aspx

Overview of our evaluation of Marlborough Lines' methodology

The pricing methodology has a clear structure that makes the document easy to follow.

The methodology aligns well with the Electricity Authority's Information Disclosure Guidelines. However, the methodology could be strengthened by providing clear reasons why the cost allocation methodology and tariff design have been chosen. For example, the methodology does not explain why administration and overhead costs are allocated based on MWh/ICPs, rather than some other user characteristic (such as ICPs). These decisions are no doubt discussed internally at Marlborough Lines, but should be presented to enhance the understanding and credibility of the pricing approach.

The methodology has more room for improvement to align with the Pricing Principles. The methodology does not provide a clear basis for concluding that the prices charged to consumers reflect the economic costs of service provision, or the relative responsiveness of different consumer groups to changes in price. Clearly explaining how the prices charged to different consumer groups sit between incremental and stand alone cost benchmarks would enable the reader to understand how Marlborough Lines recovers the fixed costs of providing its network (for example, whether fixed costs are recovered proportionately from all users or are directed towards less price-responsive consumer groups). While it may not be realistic to obtain accurate estimates of price responsiveness, we would expect lines businesses to have some views about how broad customer groups are likely to respond to changes in price.

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

Guideline	What is done well?	What is missing?
(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	▪ The key changes from the last pricing methodology are presented ▪ The document is published on Marlborough Lines' website ▪ The document follows a logical structure and is easy to read	▪ Section 2 on the regulatory framework is unnecessary
(b) The pricing methodology disclosed should demonstrate: **(i)** How the methodology links to the pricing principles and any non-compliance	▪ Section 5 on compliance with the pricing principles directly links the methodology to the principles	▪ We have found instances of non-alignment and present them in our pricing principles review
(ii) The rationale for consumer groupings and the method for determining the allocation of consumers to the consumer groupings	▪ The factors leading to each category are presented ▪ The rationales for grouping customers into groups are provided	▪ The methodology is not clear on how the predominant end use of a consumer is identified. This creates confusion in terms of the boundary between Residential and Small and Medium Commercial consumer groups
(iii) Quantification of key components of costs and revenues	▪ Table 2 presents cost components and their estimates	
(iv) An explanation of the cost allocation methodology and the rationale for the allocation to each consumer grouping	▪ The cost allocation methodology is described in a clear and organized manner ▪ The key statistics as well as the cost allocators used are presented in tables	▪ The methodology should provide a clear rationale for the allocation of assets as well as for the choice of cost allocators ▪ The methodology would be strengthened by presenting a worked example of how table 6 is obtained from tables 2 and 4 (the methodology refers to table 5 instead of table 4). This could be done by showing how costs are allocated to the Residential group, for example
(v) An explanation of the derivation of the tariffs to be charged to each consumer group and the rationale for the tariff design	▪ The rationale for the fixed-variable ratio of tariffs and its relationship to costs is explained on page 26 ▪ A good description is given of the tariff make up by consumer group	▪ A clear rationale for the tariff design should be presented ▪ The methodology would be strengthened by presenting in a table the written information it provides showing how tariffs recover costs for each consumer group

Guideline	What is done well?	What is missing?
(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.	▪ A brief description of the approach to embedded generators is provided on page 31. Further information as to the pricing arrangements is provided in section 5	
(c) The pricing methodology should: **(i)** Employ industry standard terminology, where possible	Industry standard terminology is used	
(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.	▪ The pricing structure for the majority of consumers has not changed and, were changes have occurred, they are explained	

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
(a) Prices are to signal the economic costs of service provision by: **(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	▪ The methodology recognizes cases of cross subsidies both within consumer groups and between groups	▪ We would expect to see estimates of incremental and standalone costs. This would show the magnitude of the subsidy
(ii) having regard, to the extent practicable, to the level of available service capacity	▪ A capacity charge is collected from the Large Commercial and Industrial consumer group ▪ A winter peak charge was disestablished on 31 March 2013 given recent investment meant winter peak demand was no longer such a distinct driver of network costs ▪ Table 4 provides measures for the total and peak capacity demanded by each consumer group	▪ The methodology should present service capacities for different areas of the network, i.e. areas where capacity constraints exist, so as to show the level of available service capacity
(iii) signalling, to the extent practicable, the impact of additional usage on future investment costs	▪ Aspects of the tariff design show that the impacts of additional usage are considered, such as the regional peak demand charge collected from the Large Commercial and Industrial consumer group	▪ We would expect to see forecasts of investment needs to meet future demand and any impacts that this would have on pricing
(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		▪ It is not clear whether prices for which Marlborough Lines is under recovering costs are based on efficient incremental costs or whether they are below that ▪ Variable charges are not a form of Ramsey pricing if all consumers are offered the same variable charge regardless of their demand responsiveness ▪ Even if elasticities cannot be accurately measured, we would expect Marlborough Lines to have some understanding of how different consumers might respond to changes in price.
(c) Provided that prices satisfy (a) above, prices should be responsive to the requirements and circumstances of stakeholders in order to:	▪ Uneconomic bypass is mitigated through non-standard contracts	▪ The methodology should point out when uneconomic bypass is likely to occur

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	▪ Customer consultation is maintained regularly, asking customers about overall satisfaction, reliability of supply, quality, faults, etc. ▪ A very brief description is given of the only non-standard contact that is part of the network	▪ The methodology should better describe the approach to non-standard arrangements in general ▪ It would appear that price/quality trade-offs per say are not yet offered
(iii) where network economics warrant, and to the extent practicable, encourage investment in transmission and distribution alternatives and technology innovation	▪ Embedded generators are paid ACOT to encourage their operation ▪ Lines charges for new distributed generators to feed into the network have been set at zero where the capacity has been readily available	
(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	▪ Annual surveys and regular consultation with customers are held ▪ The reasons for price changes are presented on page 25 and the price change perceived by each consumer group is provided on table 7 ▪ Price increases are limited to 15% of the lines charge component to mitigate price shock	▪ The methodology could describe the sort of transition arrangements it employs to mitigate price shock
(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	▪ Pricing is more complex for larger consumers who have greater understanding of billing, taking into account the transaction costs for small consumers ▪ The number of tariffs have been reduced in the past ▪ All retailers are subject to the same tariffs	

Key to Assessment	Does not align with principles	Partially aligns with principles	Aligns with principles