Evaluation of Centralines 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 Centralines' 2013 pricing methodology[1] against:

- The **Information Disclosure Guidelines** (see Table 1 below). The guidelines set out the information that should be provided in distributor pricing methodologies
- The **Pricing Principles** (see Table 2 below). 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 Centralines' methodology

The table below summarises our understanding of the methodology that Centralines uses to determine prices for its mass market consumer group. This example is provided to explain our understanding of Centralines' pricing methodology, using the example of one type of customers.

	Approach	Rationale
Customer categories	Consumers are allocated to a pricing category based on whether the ICP is a permanent place of residence or not, whether the ICP is supplying an irrigator, and based on the ICP's annual kWh consumption	No rationale is provided. However, it appears that categorising by permanent place of residence derives from the requirement that low user fixed charges apply only to domestic consumers
Cost allocation	Costs are assigned to consumer groups by: Utilised Asset Values, AMD total MWs, per ICP, CMD and interconnection rates, ACOT	For costs that are not direct pass-throughs, Centralines determines a "reasonable" basis for allocation. However, the methodology does not explain why Centralines has selected particular underlying drivers to allocate costs
Charging basis	Low user domestic customers are charged lower fixed charges and higher variable charges. Domestic customers with higher usage are charged a higher fixed tariff and a lower variable tariff	Existing tariffs are adjusted each year to comply with regulatory requirements (low user fixed charge regulations and the default price path)

1 Centralines' 2013 pricing methodology is available online at: http://www.centralines.co.nz/docs/publications/pricing/centralines_pricing_methodology_disclosure_2013141.pdf

Overview of our evaluation of Centralines' methodology

Centralines' pricing methodology is well-structured and easy to read. Our evaluation found that the allocation of price categories is very clear and properly illustrated in figure 1. However, the methodology does contain a substantial amount of information at the beginning (for example, section 4 on regulatory context), which has made the document longer than necessary.

A key concern that arose from our evaluation was that Centralines does not clearly explain whether the current tariffs are volume-based or capacity-based. The methodology focuses on the relativities between tariffs, rather than how the tariffs are charging consumers. Centralines initially states that it plans to make further changes to the tariff methodology to move towards capacity or demand based charges (page 24). However, Centralines also maintains that the current approach "ensures that all consumers pay for the capacity required to supply them regardless of the duration of their peak load" (page 31), indicating that the current charges are capacity based. The methodology should be clearer about the approach used to set tariffs.

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 document follows a clear structure ▪ A summary of the key changes from the last pricing methodology is presented in section 6 ▪ The methodology is published on the distributor's website	
(b) The pricing methodology disclosed should demonstrate: **(i)** How the methodology links to the pricing principles and any non-compliance	▪ The methodology has an appendix showing how it adheres to the pricing principles	▪ We have found two areas of non-compliance and noted them in our evaluation of the pricing principles
(ii) The rationale for consumer groupings and the method for determining the allocation of consumers to the consumer groupings	▪ Figure 1 gives a clear categorisation of consumers ▪ The methodology identifies three factors that are used to determine consumer groupings	
(iii) Quantification of key components of costs and revenues	▪ Under the key statistics section an overview of the components of costs and revenues is given in table 11.1	
(iv) An explanation of the cost allocation methodology and the rationale for the allocation to each consumer grouping	▪ The methodology follows a Cost Allocation Model that is broken down into four stages ▪ Centralines costs are assigned to consumer groups based on Utilised Asset Values, AMD total MWs, per ICP, CMD and interconnection rates, and ACOT ▪ The allocation basis is described clearly with sufficient specificity	▪ Tables 11.2, 11.3 and 11.4 present information for only two of the three consumer groups ▪ The rationale for the allocation basis needs to be explained. This could be done by adding a third column to the table on page 32. For example, why are EA levies allocated on the basis of AMD total MWs, whereas Electricity and Gas Complaints Commission Levies are allocated on a per ICP basis? ▪ It is not clear how grouping all price categories into two consumer groups, (mass market and large customers), reflects the relationship between costs and price categories ▪ It is not clear what the box "costs mostly allocated" means on the diagram on top of page 30

Guideline	What is done well	What is missing
(v) An explanation of the derivation of the tariffs to be charged to each consumer group and the rationale for the tariff design	▪ Tariff options are derived depending consumers' metering type (TOU or non-TOU) and their price category	▪ The methodology needs to identify the link between the costs allocated to each group (as per table on page 32) and the way tariffs recover those costs ▪ Section 12 provides a high level description of the approach to dividing fixed and variable charges, but the method to calculating these for each tariff category is not explained
(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.	▪ Centralines does not have embedded generators on its network. However, the methodology in section 14 provides a detailed picture of the pricing arrangements it would put in place for distributed generators joining the network	
(c) The pricing methodology should: **(i)** Employ industry standard terminology, where possible		▪ The difference between goal revenue and required revenue is not clear, and we were confused by the dates used for expected revenue. Other distributors manage to present their methodologies without using this distinction
(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 methodology identifies that no pricing changes have occurred since the last methodology	▪ For the three tariff options presented on page 28 the methodology states: "adjustments will be undertaken in future years where this can be done without creating price shocks for individual consumers". Although this is a task for future disclosures, Centralines' approach to transition arrangements could be outlined

Key to Assessment	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 provides a very good and accurate explanation of how Centralines interprets incremental and standalone costs (page 43)	▪ Centralines does not estimate these two costs for any consumer group, but gives another company's two estimates for incremental cost across their network. However, although it is not known if this value is comparable for the Centralines' network ▪ The methodology does not illustrate how the capital contributions (charged to consumers for new connections) are calculated to show that new connections recover incremental costs (bottom of p.43)
(ii) having regard, to the extent practicable, to the level of available service capacity	▪ There are mechanisms within the pricing methodology that seek to increase the use of available assets. For example, price incentives are offered through TOU charges which signal the value of consuming outside peak periods	▪ The methodology does not show how much of the current capacity is being used to meet demand
(iii) signalling, to the extent practicable, the impact of additional usage on future investment costs	▪ The methodology provides: – Differentials between controlled and uncontrolled usage, within each price category – Increasing fixed charges as large consumers increase their consumption ▪ Centralines recognises that it "must build its assets to meet capacity requirements, not volumes consumed". Consumers with a high peak demand are therefore allocated a representative share of their supplied capacity regardless of their volume consumed.	▪ We see that most prices are volume based and do not find evidence to support Centralines' comment that consumers with high peak demand are allocated a representative share of their supplied capacity ▪ To properly signal the impact of additional usage on future investment costs, we would expect to see: – Forecasts of investment needs to meet future demand – Analysis of peak demand growth by consumer group and network location to illustrate the relationship between prices and future investment – A link drawn between the breakdown in prices (which has been provided) and future investment needs

<table>
<tr><th>Pricing principles</th><th>What is done well</th><th>What is missing</th></tr>
<tr><td>(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</td><td></td><td>The methodology maintains that it is not practicable to assess consumers’ demand responsiveness to set prices accordingly. This is because distributors are forced to use tariff structures which use high proportions of variable charges to recover predominantly fixed charges. We do not see how a high component of variable charges in the tariff structure precludes the scope to gauge for demand responsiveness of different consumers. For example through:
The movement of consumers from one tariff group to another, i.e. to take advantage of different prices
The changes in demand resulting from changes in prices within tariff groups</td></tr>
<tr><td>(c) Provided that prices satisfy (a) above, prices should be responsive to the requirements and circumstances of stakeholders in order to:

(i) discourage uneconomic bypass</td><td>Centralines points out the cases were it would expect uneconomic bypass to occur and the measure it takes (lowers charges) to avoid it (page 45)</td><td>The methodology states that by the use of a proportional cost allocation approach pricing is set below standalone costs and therefore uneconomic bypass is avoided. However, the methodology does not illustrate how it minimises the risk of consumer groups being allocated a portion of the cost higher than what is due to them.</td></tr>
<tr><td>(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</td><td>Centralines carried out a consumer survey in 2012 that found that consumers are satisfied with the quality of service
The methodology notes that the Commerce Commission’s DPP is based on no material change in quality of supply
Centralines does not currently have any non-standard contracts</td><td></td></tr>
</table>

Pricing principles	What is done well	What is missing
(iii) where network economics warrant, and to the extent practicable, encourage investment in transmission and distribution alternatives and technology innovation	▪ The methodology distinguishes between distributed generators who are "solely generators" and "those who generate for their own consumption". Centralines is willing to pay sole generators ACOT at the Transpower interconnection rate of $99.44/kW. Centralines rewards the remaining distributed generatorsin three ways: – Variable network charges are reduced – The interconnection charge component used in calculating their tariff is reduced as their Coincident Peak Demand is reduced – The proportion of network asset values allocated to the customer is reduced as the Anytime Maximum Demand that they place on the network is reduced	
(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	▪ Centralines holds yearly formal consultations with retailers on pricing strategy, price category and tariff development ▪ Price changes are limited to less than 10% per year to a consumer group, ensuring a degree of price stability ▪ A customer survey was carried out in 2012 ▪ Centralines publishes a pricing policy, in addition to the methodology, which details the different tariffs for each price category	
(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	▪ All retailers are subject to the same tariff schedules ▪ Centralines tried to reduce administration overheads on retailers when new price categories in 2013-14 were introduced, by notifying them of which of the new categories each ICP would go into	

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