



Evaluation of Scanpower 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 Scanpower’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 Scanpower’s methodology

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

	Approach	Rationale
Customer categories	Consumers fall into this group if the connection is deemed to serve a permanent place of residence	Enables compliance with Electricity Regulations 2004
Cost allocation	Costs are allocated to the group on the basis of installed distribution transformer capacity	Given that there are no zone substations on the network, this allows for a straightforward, appropriate and fair allocation of costs
Charging basis	Tariffs are comprised of a fixed daily supply charge and two variable network charges (day and night units per kWh)	Prices are set to comply with the Low Fixed Charge Tariff Option

¹ Scanpower’s 2013 pricing methodology is available online at: <http://www.scanpower.co.nz/files/pricing-methodologies/Scanpower-Pricing-Methodology-Disclosure-2013-2014.pdf>

Overview of our evaluation of Scanpower's methodology

The methodology would be easier to follow if it adopted a structure that defines customer groups first, then describes how costs are allocated to those customer groups, and finally describes the tariff design and how tariffs recover costs. The methodology would also be improved by stating the units of measurement used in the data tables in the methodology. Although tables 2 to 16 provide valuable information, these tables could be condensed, for example by showing annual instead of monthly figures. This would reduce the length of the document, without sacrificing much information content.

In terms of alignment with the pricing principles, we were pleased to see that the pricing methodology makes reference to Scanpower's investment plans. The link between asset management planning and pricing is not widely recognised in distributor pricing methodologies, but the principles encourage distributors to explore this link. Scanpower's methodology could be improved further in this area by explaining how future investments are likely to impact on tariffs, and how tariff changes might change the need for investment (for example through efficient deferrals).

Improvements to better align with the pricing principles would come from showing that prices are subsidy free and discourage uneconomic bypass. The methodology would demonstrate subsidy free prices by presenting estimates of the incremental costs of serving each consumer group, and verifying that the revenue recovered from each group is greater than incremental cost. In order to show that uneconomic bypass is discouraged, estimates of standalone costs should be provided to see that prices are less than this cost for each consumer group. In addition, prices that fall below standalone cost can still encourage uneconomic bypass if the recovery of network fixed costs leads to customers adopting an alternative supply option that would cost more than the incremental cost of providing network services. Therefore, the methodology should also explain when it expects uneconomic bypass to be likely and the approach to mitigating it, for example through non-standard arrangements.

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"> ▪ There have been no material changes to Scanpower’s pricing methodology in the past year ▪ The methodology is published on Scanpower’s website 	<ul style="list-style-type: none"> ▪ The methodology would be much easier to follow if it adopted a structure that: defines customer groups, then allocates costs to those groups, and then explains the tariff design and the way that tariffs recover costs ▪ The units of measure for data presented in tables should be provided
<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> <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>	<ul style="list-style-type: none"> ▪ The methodology explicitly links to the pricing principles through a section showing how it is consistent with the principles ▪ The factors and the rationale for grouping consumers are provided on page 22 ▪ Consumer groups are clearly categorised ▪ The key components of costs and revenues are quantified in table 1 ▪ The rationale for the cost allocation methodology is presented on page 23 ▪ The allocator used to apportion costs is installed distribution transformer capacity ▪ Appendix A shows the revenue recovered by each tariff charge for each consumer group ▪ Domestic prices have been set to comply with Low Fixed Charge Tariff regulation 	<ul style="list-style-type: none"> ▪ We have found instances of non-alignment to the pricing principles and have noted them in our pricing principles review ▪ The methodology should explain how transformer capacity is allocated when customers from more than one group are served from the same transformer ▪ The methodology should show how the installed capacity ratings produce the allocation of costs presented in table 18. For example, how are EC Costs estimated using installed capacity? ▪ The rationale for the tariff design for non-domestic customers should be presented ▪ Appendix A would be improved by having columns showing tariff rates and the forecast level of demand used to calculate expected revenue

Guideline	What is done well?	What is missing?	
<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"> ▪ A brief idea of pricing arrangements for distributed generation is provided on pages 25 and 28 	<ul style="list-style-type: none"> ▪ The methodology should provide more information about pricing arrangements for network alternatives to enable an assessment of whether alternatives would be viable on Scanpower’s network. For example, the methodology should state whether avoided costs of transmission are paid out and on what terms 	
<p>(c) The pricing methodology should:</p> <p>(i) Employ industry standard terminology, where possible</p> <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>	<p>The methodology uses industry standard terminology</p> <ul style="list-style-type: none"> ▪ There have been no material changes to the pricing methodology or the tariff structure over the past year 		
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"> ▪ The methodology states that there is no indication of subsidies from one group to another 	<ul style="list-style-type: none"> ▪ We would expect to see and approach to defining and estimating incremental costs, and an illustration of how the revenues earned from each customer group are greater than incremental cost
<p>(ii) having regard, to the extent practicable, to the level of available service capacity</p>	<ul style="list-style-type: none"> ▪ The methodology presents the levels of current service capacity and peak demand per customer group for most groups ▪ Large customers face maximum demand charges ▪ Costs are allocated based on installed distribution transformer capacity 	
<p>(iii) signalling, to the extent practicable, the impact of additional usage on future investment costs</p>	<ul style="list-style-type: none"> ▪ At the bottom of page 26 the methodology outlines the investment plans for the next 5 years and their impact on O&M costs. This is pleasing to see because such an overview is missing from most other distributor pricing methodologies 	<ul style="list-style-type: none"> ▪ The methodology could summarise the specific investments that are expected to take place, their costs, and resulting impact on tariffs. The methodology could also explain whether tariff changes might have any impacts on the investments planned
<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"> ▪ A good definition of Ramsey pricing is provided ▪ Domestic users are charged a higher proportion of variable charges, which reflects the assumption that these consumers have a lower price-demand elasticity 	<ul style="list-style-type: none"> ▪ It is not clear from the methodology whether this principle applies ▪ The methodology should show how fixed costs are recovered from different consumer groups reflecting their demand responsiveness
<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 on page 25 leaves room for the existence of uneconomic bypass opportunities by stating that its pricing discourages uneconomic bypass “for the majority of customers”. The

Pricing principles	What is done well	What is missing	
(i) discourage uneconomic bypass		methodology should explain when it expects uneconomic bypass to be likely and its approach to mitigating it	
(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"> ▪ Consumers are consulted on price/quality trade off on a regular basis ▪ Scanpower has no non-standard arrangements and has not received a customer approach wishing to discuss such arrangements 	<ul style="list-style-type: none"> ▪ The methodology should show whether customers were consulted and their feedback considered when deciding to take intensive network development work 	
(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"> ▪ Scanpower does not levy annual charges for the connection of distributed generation to the network ▪ Scanpower has PV systems deployed at its head offices and is developing solar water heating products ▪ Scanpower is currently investigating standalone distributed generation systems for remote installations 		
(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 current price structure has been materially the same since 1998 ▪ Stakeholder impact is assessed through regular surveys 	<ul style="list-style-type: none"> ▪ The methodology could describe any transitional arrangements it has in place to implement 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	<ul style="list-style-type: none"> ▪ Scanpower's has a simple tariff design ▪ Economical equivalence is maintained across retailers 		
Key to Assessment	Does not align with principles	Partially aligns with principles	Aligns with principles