Evaluation of Network Tasman 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 Network Tasman's s 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 Network Tasman's methodology

The table below summarises our understanding of the methodology that Network Tasman uses to determine prices for its Group 1 consumer group. The purpose of this example is to explain our understanding of Network Tasman'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	All customers taking supply at 230/400 volts and with a fuse capacity of <= 15kVA	Rationale is "according to service levels required by customers" determined by maximum capacity, use of network segments and metering type
Cost allocation	Costs are allocated by direct costs, co-incident maximum demand, management estimates and share of installed capacity	No rationale is given for the use of the various allocation approaches to allocate common costs
Charging basis	Charges comprise of a daily fixed charge of 15 cents—the low fixed charge set by regulations—with all other costs recovered by a kWh charge	The allocation of fixed and variable charges for this group represents a compromise to the conflicting expectations of economic theory, government policy, simplicity and consumer expectations

[1] Network Tasman's 2013 pricing methodology is available online at: http://www.networktasman.co.nz/Disclosures/PricingMethodology%201%20April%202013.pdf

Overview of our evaluation of Network Tasman's methodology

Network Tasman's pricing methodology aligns well with the information disclosure guidelines and pricing principles. The methodology clearly sets out "what is done" in terms of allocating costs and setting tariff structures. However, the methodology could be strengthened further by presenting more information on "why" the pricing approach is designed in the way that it is—for example, why particular cost allocation drivers have been used over other alternatives that were available.

The methodology also does not estimate either incremental or standalone costs for any of the customers groups. Instead, the methodology only address the issue in general terms stating that "if line pricing is cost reflective and cost below new entrant levels then the subsidy free test will be meet". In fact, we think that this pricing principle is really driving at the question of how the fixed costs of providing the network are recovered—and encouraging distributors to ensure that all customer groups make at least some contribution towards recovering those fixed costs.

Network Tasman also states that "Group 1 pricing no longer reasonably reflects the fixed costs of poor load factor or remotely located customers in this group". This infers that such customers are being cross subsidised. However, Network Tasman acknowledges that this arises from the need to set the fixed charge at the mandated maximum levels and not to differentiate charging between urban and rural customers. There is no proposal to address this apparent cross subsidy, other than a high load factor optional tariff that applies to a small number of Group 1 customers. This appears to be an area that could be addressed in future pricing methodologies.

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 states that there have been only minor changes since the previous year ▪ The document is published on Network Tasman's website	▪ While there are large amounts of data, tables and calculations in the document it isn't easy to follow the entire cost allocation process
(b) The pricing methodology disclosed should demonstrate: **(i)** How the methodology links to the pricing principles and any non-compliance	▪ The methodology explicitly links to the pricing principles through section 23 which shows how the document complies with the principles	▪ We have found instances where alignment to the pricing principles can be improved and have noted 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 for grouping consumers are identified ▪ Consumers are clearly categorized ▪ The rationale for customer groupings is inferred	▪ The rationale applied should be explicitly stated, e.g. customers are grouped by kVA as it is a measure of capacity which drives network costs
(iii) Quantification of key components of costs and revenues	▪ Key cost and revenue components are quantified in Appendix A	
(iv) An explanation of the cost allocation methodology and the rationale for the allocation to each consumer grouping	▪ A description of the cost allocation process through the use of explicit formulae is presented ▪ The rationale for allocating transmission costs to large customers is presented	▪ The methodology should clearly explain the process followed to allocate costs to consumer groups. A worked example of cost allocation using the formulae presented would be useful ▪ The methodology should clearly describe the rationale for the allocation of all costs to all consumer groups
(v) An explanation of the derivation of the tariffs to be charged to each consumer group and the rationale for the tariff design	▪ The different tariffs are listed in Appendix A ▪ The rationale for the tariff design is provided in pages 8 and 9 ▪ The derivation of tariffs and the link to revenues is presented 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.	▪ Section 22 presents the approach to distributed generation	
(c) The pricing methodology should: **(i)** Employ industry standard terminology, where possible	▪ The methodology uses industry standard terminology	
(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 changes made to the methodology are explained and the impacts to consumer classes are described	

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 identifies cases of cross subsidy due to the need to comply with low user fixed charge regulations ▪ The methodology defines incremental cost and compares it to its tariffs in general terms	▪ It would be good for the methodology to provide some estimate of incremental cost, in particular for domestic users so as to verify the statement that this group benefits from cross subsidies
(ii) having regard, to the extent practicable, to the level of available service capacity	▪ Appendix A provides measures of service capacity and maximum demands for each consumer group ▪ TOU and off-peak tariffs offered alongside other charging options which link prices to the level of available service capacity	
(iii) signalling, to the extent practicable, the impact of additional usage on future investment costs	▪ The methodology provides useful information linking prices with the physical characteristics of the network and demands	▪ The methodology should present information on the network investments that have been planned, and whether price changes could defer any of these investments
(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 from the methodology whether this principle applies. The methodology should be more specific as to whether this principle applies for its domestic customers ▪ The methodology should attempt to gauge how different customer groups would respond to charges that recover a greater or lesser proportion of Network Tasman's fixed costs (i.e. costs above incremental costs)
(c) Provided that prices satisfy (a) above, prices should be responsive to the requirements and circumstances of stakeholders in order to:	▪ The methodology identifies where uneconomic bypass may be likely to occur and the ways to mitigate it	

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	▪ Network Tasman has carried out surveys of larger customers concerning price quality trade-offs ▪ Network Tasman does not appear to have non-standard contracts	▪ The methodology could outline is approach to non-standard contracts even though at present no customers fall under this sort of arrangement
(iii) where network economics warrant, and to the extent practicable, encourage investment in transmission and distribution alternatives and technology innovation	▪ Approach to paying and encouraging distributed generation connections is provided	
(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	▪ Network Tasman's pricing structure seeks to be stable and certain ▪ Network Tasman chose not to operationalize a 9% allowance adjustment to avoid applying increases that are likely to be reversed	
(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	▪ The same prices are charged to all retailers ▪ Network Tasman's tariffs are relatively simple	

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