# Evaluation of Network Waitaki 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 Waitaki'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 Waitaki's methodology

The table below summarises our understanding of the methodology that Network Waitaki uses to determine prices for its mass market consumer group. The purpose of this example is to explain our understanding of Waitaki'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** | Mass market customers are grouped on the basis of a maximum less than 15kVA (63 amp fuse size) | No rationale is given other than "Customers are placed in load groups based on the capacity of supply they require" |
| **Cost allocation** | Costs are allocated to the customer group by connection, by ODRC asset value, by capacity and by anytime maximum demand | No rationale or justification is given for the use of individual allocation drivers to allocate certain types of costs |
| **Charging basis** | Costs are recovered from mass market customers through a conventional structure of fixed and variable (kWh) charges. Low user charges apply | To comply with the Low Fixed Charge Tariff Option |

[1] Network Waitaki's 2013 pricing methodology is available online at: http://www.networkwaitaki.co.nz/Pricing_Methodology_March_2013.pdf

**Overview of our evaluation of Waitaki's methodology**

The methodology provides a reasonably clear description of how customers are allocated to groups and how pricing structures are put together for these groups—but almost no information on why customers are grouped in this way. There is no discussion, for example of why all small capacity customers—regardless of location—have been placed in a single group. An alternative approach might have been to allocate customers into rural and urban groups if the cost of supply is quite different. Network Waitaki are likely to have made a considered policy decision to group customers together regardless of location, but that is not explained or justified in the methodology. The same comment applies to the allocation of costs between customer groups.

The pricing methodology does not provide estimates of incremental or standalone costs to demonstrate that the prices charged to different customer groups are subsidy free. In regard to incremental cost, the methodology asserts that prices are above incremental costs "given NWL's capacity utilisation reflective prices". This is driving at the right principle—that each customer group should at least make some contribution towards the fixed costs of providing network capacity—but could be more clearly explained. In regard to standalone costs, the methodology asserts that "in a well-run distribution system such as NWL's that standalone costs must be significantly higher than average costs".

The cost allocation methodology finishes with target revenue for each customer grouping. There is however, no reconciliation of this target revenue to the forecast revenue for each tariff group. As a result, it is not clear whether Network Waitaki expects to over- or under- recover revenue by applying its cost allocation and tariff approach for each individual customer group or overall.

**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 are minimal changes since the previous methodologies.<br>▪ The document is published on Network Waitaki's website | ▪ The methodology would be easier to understand if it followed a better structure. This structure clearly defines customer groups first, and then allocates costs and derives tariffs |
| **(b)** The pricing methodology disclosed should demonstrate:<br>**(i)** How the methodology links to the pricing principles and any non-compliance | ▪ The methodology shows the extent to which it is consistent with the pricing principles in Appendix 4 | ▪ We have found instances of non-alignment to the pricing principles 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 factor (kVA) for grouping customers is identified<br>▪ Customers are clearly categorized | ▪ The methodology should be explicit about the rationale for grouping customers by kVA, e.g. kVA is a measure of service capacity and so is reflective of the costs incurred to serve each group |
| **(iii)** Quantification of key components of costs and revenues | ▪ The key components of costs and revenues are presented on a table on page 6 | |
| **(iv)** An explanation of the cost allocation methodology and the rationale for the allocation to each consumer grouping | ▪ The overall approach to cost allocation is described<br>▪ The cost allocators are identified | ▪ The methodology does not provide a rationale for the use of particular cost drivers for particular costs<br>▪ The methodology should clearly show how the cost allocation results presented in Appendix 2 are obtained |
| **(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 3<br>▪ Section 5 present the rationale for the tariff design | ▪ There is no reconciliation of target revenue with allocated costs either at the customer group level or in total<br>▪ The methodology should clearly show the way in which tariffs recover costs |

| 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. | | ▪ The methodology should describe its pricing arrangements for distributed generators so as to inform potential investors in this form of generation |
| **(c)** The pricing methodology should:<br><br>**(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. | ▪ There have been no material changes to the previous pricing methodology | |

| **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:<br><br>**(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 the existence of cross subsidisation due to regulatory compliance | The methodology should present estimates 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 | ▪ The table presented on page 5 provides statistics on group capacity, both measured by kVA and MVA, as well as After Diversity Demand (MW) | ▪ The methodology should show the relationship between prices and capacity availability throughout the network. Dividing consumers due to transformer capacity signals capacity provision, not availability |
| **(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 | ▪ Good definition of Ramsey pricing | ▪ It is not clear whether the principle applies<br>▪ Variable charges are not a form of price discrimination if all customers, regardless of their demand responsiveness, face the same variable charge<br>▪ While Ramsey pricing is difficult for small customers, large customers are more likely to be price sensitive and thus could have proportionately less allocation of common costs. No demonstration that such approaches have been considered |
| **(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 | ▪ We note that it is both network and non-network supply alternatives that must be considered when assessing the likelihood of uneconomic bypass |

| 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 maintained<br>▪ Price/quality options assessed through survey and offered to individually assessed customers<br>▪ Network Waitaki is no longer open to negotiating non-standard contracts | ▪ The methodology should state the reasons for no longer offering the possibility of contracting in a non-standard manner, especially given the high number of individual contracts (29) it currently has |
| **(iii)** where network economics warrant, and to the extent practicable, encourage investment in transmission and distribution alternatives and technology innovation | | ▪ The methodology should describe the way in which distributed generation is encouraged, for example whether distributed generators are charged for injecting into the grid |
| **(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 | ▪ Consultation with stakeholders held<br>▪ Prices appear stable | ▪ The methodology confuses published prices with transparent prices |
| **(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 | ▪ Network Waitaki has consulted with retailers and as a result of feedback has divided its domestic low user category into sub-groups to lower transaction costs for retailers<br>▪ Economically equivalent across retailers | |

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