



Evaluation of Wellington Electricity 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 Wellington Electricity’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 Wellington Electricity’s methodology

The table below summarises our understanding of the methodology that Wellington Electricity uses to determine prices for its residential consumer group. The purpose of this example is to explain our understanding of Wellington Electricity’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	The primary use of the point of connection is a private dwelling and the customers almost exclusively use the low voltage network	No rationale is provided, although the group meets the definition of ‘domestic consumer’ under the low fixed charge tariff option in the Electricity Regulations 2004
Cost allocation	No approach is described	No rationale provided
Charging basis	A fixed and a variable tariff are charged to these consumers. Low user fixed charge applies	No rationale provided

¹ Wellington Electricity’s 2013 pricing methodology is available online at: <http://www.welectricity.co.nz/disclosures/Pages/Pricing%20Information/WE%202013-14%20Pricing%20Methodology.pdf>

Overview of our evaluation of Wellington Electricity’s methodology

Wellington Electricity’s pricing methodology has some strong elements, but is missing some of the key elements required by the Electricity Authority’s information guidelines. Specifically, we could find no description of how costs are allocated to customer groups or how tariffs are designed to recover the network’s costs. The methodology also provides little information on how prices link to available service capacity or investment needs on the network.

Wellington Electricity does particularly well in explaining and illustrating how its prices are subsidy free. Where most other distributors have failed to provide convincing definitions and analysis on this point, Wellington Electricity has followed a sensible and clear approach. Figure 1 conveys useful information in a very effective way, succinctly and clearly showing that prices fall between standalone and incremental costs. The figure could be made even better by labelling the areas between avoidable cost and forecast revenue as each consumer group’s contribution to recovering the fixed costs of the network. Although the methodology does not highlight this point, the fact that the residential consumer group is contributing a greater proportion relative to other groups to fixed cost recovery suggests pricing according to demand responsiveness (assuming that residential users have lower price-demand elasticity than other users).

One aspect of the methodology which we find could be improved arises from the fact that the document is structured to respond to and meet the Commerce Commission’s Information Disclosure Determinations (IDD). By doing so, the methodology overlooks some of the Electricity Authority’s Information Disclosure Guidelines (IDG). In particular, the methodology does not have a cost allocation section that explains how costs are allocated to different consumer groups and the rationale for allocating costs. In the same manner, the methodology does not describe how tariffs are derived nor does it present a reasonable rationale for the tariff design. These are substantial information gaps that should be filled to enable readers to understand how prices are determined.

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"> ▪ The inputs for which price change occurred and the percentage change is provided ▪ The document is found on Wellington Electricity’s website 	<ul style="list-style-type: none"> ▪ The methodology would be easier to read if it did not present full clauses from the Commerce Commission ID determinations
<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>	<ul style="list-style-type: none"> ▪ The methodology explicitly links to the pricing principles through a section showing how it complies with the principles ▪ Consumers are clearly categorized ▪ The factors for grouping consumers are described ▪ The key cost allowance from the DPP decision is presented on table 5 	<ul style="list-style-type: none"> ▪ We have identified instances of non-alignment with the pricing principles and have noted them in our pricing principles review ▪ The rationale for the unmetered consumer group as well as for non-standard contracts is presented but not for any of the other groups ▪ The methodology could apply more intuitive names for consumer groups, e.g. naming low voltage connections <i>non-residential low voltage connections</i> so as to differentiate between residential consumers (which are also low voltage) ▪ Table 5 should show the key costs that Wellington Electricity plans to recover through its tariffs and should therefore include pass through costs

Guideline	What is done well?	What is missing?
<p>(iv) An explanation of the cost allocation methodology and the rationale for the allocation to each consumer grouping</p>	<ul style="list-style-type: none"> ▪ Table 6 provides target revenues by consumer group 	<ul style="list-style-type: none"> ▪ The methodology should have a section presenting the cost allocation methodology. This section would provide: <ul style="list-style-type: none"> – A clear description of how costs are allocated to different consumer groups. This would include expanding table 6 to show a breakdown of the target revenues for each consumer group by each cost component. For example, the \$103 million of target revenue for the residential consumer group should be broken down to show how much is due to asset related costs, operations and maintenance, pass through items – A reasonable rationale for the allocation of costs – The relationship between costs and consumer groups
<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"> ▪ Table 7 identifies the proportions of target revenues coming from fixed and variable tariffs 	<ul style="list-style-type: none"> ▪ We would expect to see: <ul style="list-style-type: none"> – A clear description of how tariffs are derived – A reasonable rationale for the tariff design – The way tariffs are expected to recover the costs of each consumer group. For example, presenting the fixed charge for low user customers, multiplied by the number of low user customers and by the number of days in a year would provide an estimate of the revenue that is expected from the fixed charge. This, added to the revenue expected from variable charges would then be compared to the expected costs that this group will have on the network. This approach should then be replicated for all other consumer groups

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"> ▪ The methodology has a section dedicated to explain its avoided cost of transmission payments 		
<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"> ▪ The changes to prices are explained ▪ Prices are escalated on a uniform basis relative to the maximum weighted average price cap determined under the DPP ▪ The impact of the price changes on each consumer group should be 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
<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 provides a comprehensive explanation of the approach to defining and calculating incremental (avoidable) and standalone costs ▪ Figure 1 illustrates how revenues recovered from each consumer group compare to these cost benchmarks 	<ul style="list-style-type: none"> ▪ The standalone cost should be calculated from a non-network solution perspective
<p>(ii) having regard, to the extent practicable, to the level of available service capacity</p>	<ul style="list-style-type: none"> ▪ A demand charge is incorporated into the tariff structure 	<ul style="list-style-type: none"> ▪ We would expect to see: <ul style="list-style-type: none"> – A description of service capacity and how much is used to meet demand – An explanation of the relationship between prices and service capacity
<p>(iii) signalling, to the extent practicable, the impact of additional usage on future investment costs</p>	<ul style="list-style-type: none"> ▪ Controlled load is offered to customers 	<ul style="list-style-type: none"> ▪ The methodology should present: <ul style="list-style-type: none"> – forecasts of investment needs to meet future demand – the relationship between prices and future investment
<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"> ▪ Figure 1 shows that a high proportion of fixed costs are recovered from residential consumers relative to other consumer groups. This aligns with the understanding that residential consumers have a lower price-demand elasticity compared to other users 	<ul style="list-style-type: none"> ▪ The methodology does not attempt to determine price responsiveness ▪ Variable tariffs are not a way of charging consumers based on their price elasticity of demand if all consumers face the same tariffs regardless of 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 identifies cases where bypass can occur 	<ul style="list-style-type: none"> ▪ The methodology confuses economic with uneconomic bypass. If prices are above standalone cost, reducing prices to fall between incremental and standalone cost is economically efficient if this

Pricing principles	What is done well	What is missing	
(i) discourage uneconomic bypass		<p>provides a cheaper tariff than an alternative energy supply</p> <ul style="list-style-type: none"> Although Wellington Electricity's prices fall between standalone and incremental cost, this is for average prices. The methodology should explain specific cases where it expects uneconomic bypass to occur and how it mitigates this from happening 	
(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"> In 2011 a consumer survey was run to assess price/quality options Non-standard customers are offered price/quality trade-offs in their contracts A description of the approach to non-standard arrangements and the criteria for establishing such arrangements is provided 		
(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"> The methodology describes its approach to paying ACOT 	<ul style="list-style-type: none"> The methodology could show how it encourages distributed generation beyond ACOT, for example, by not charging injection costs 	
(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"> Some level of consultation is held The pricing structure is stable Prices are escalated on a uniform basis 	<ul style="list-style-type: none"> The methodology is not transparent in its allocation of costs to consumers and how tariffs are derived to recover those costs 	
(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"> The methodology identifies transaction costs and strives to minimise them Economical equivalence is maintained across retailers 	<ul style="list-style-type: none"> The methodology should explain why retailers face different tariffs for non-standard contracts, i.e. is it because they are charged directly by Wellington Electricity? 	
Key to Assessment	Does not align with principles	Partially aligns with principles	Aligns with principles