Distribution Pricing Scorecards 2021

Information paper

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1 Purpose

1.1 This paper summarises the main findings from the Authority's review of 29 electricity distribution businesses' pricing methodologies and roadmaps for the 2021 disclosure year (April 2021-March 2022).

1.2 The aim of this annual review is to encourage and monitor progress toward more efficient pricing.

1.3 The distribution pricing principles summarise the Authority's view of efficient pricing: see Appendix A for the full principles. Efficient pricing in particular:

(a) signals the economic costs of network use at a point in time or place

(b) recovers any shortfall in target revenue in a way that least distorts network use.

1.4 Adoption of more efficient distribution pricing is for the long term benefit of consumers, as it promotes:

(a) consumers making efficient choices about network use and energy-related investments (e.g. solar power, batteries, electric vehicles, and electrification)

(b) distributors making efficient investments in networks and network alternatives and

(c) innovation in electricity and network applications and service offerings.

1.5 The Authority's scorecards are part of a portfolio of work to support the sector's transition to a low emissions economy. They sit within a wider workstream that promotes faster reform to efficient distribution pricing.

1.6 Pricing is a key area of focus for the Authority because it affects how consumers use electricity, how distributors and others manage load, when distributors invest in new (or replacement) poles and wires, and the timing, level and location of investments in new technology by consumers and sector participants. Reform towards efficient pricing will drive the efficient integration of PV, DER and EVs and the electrification of process heat – in the right place at the right time. This would mean the distribution sector contributes to New Zealand being on a least cost pathway to a low emissions economy.

1.7 Distribution pricing in turn sits within a wider programme of work considering how the regulation of the distribution networks that may need to change to:

(a) Support the transition to a low emissions economy

(b) Ensure consumers benefit from the changes in technology and innovation happening now.

1.8 The Authority has recently consulted on this work through a discussion paper titled "Updating the regulatory settings for distribution networks: Improving competition and supporting a low emissions economy", which canvasses a number of other issues and options.[1]

1.9 The results from the 2021 distribution scorecards continues to inform this programme of work. As set out in our commentary accompanying the scorecards for distributors' 2020 pricing methodologies and roadmaps, the Authority's view is that reform of distribution

[1] That paper seeks views on access to information, connection standards, operating agreements, competition/equal access and distributor capability/capacity.

pricing has been too slow. We appreciate that some distributors have made significant progress this year, particularly on their pricing strategies and roadmaps. The actual level of pricing efficiency across the distribution sector remains largely unchanged (the impact of the low fixed charge regulations on pricing efficiency is discussed below).

2 Methodology

2.1 The Authority reviewed 29 distribution pricing methodologies, roadmaps, pricing schedules, and related documents for the 2021 disclosure year.

2.2 We assessed these documents against six dimensions, and discussed our draft assessments with representatives of each of the 29 distribution businesses.

2.3 Our assessments were then finalised and scores were moderated to be as consistent as possible between distributors and with respect to previous years. Ultimately, however, this is a qualitative assessment that seeks to give a sense of the current state of efficiency of distribution pricing and whether it is improving.

2.4 Our interpretation guide to scoring and our practice note on the application of the pricing principles are published on our website.[2]

[2] See https://www.ea.govt.nz/operations/distribution/pricing/.

3 Key themes from our 2021 review

3.1 In this section we summarise the common themes that emerged from our 2021 review.

First, determine your price signal

3.2 In the distribution pricing practice note, the Authority recommends that distributors start by determining what price signals are needed given network circumstances. Few distributors currently do this.

3.3 This starting place reflects the aim of the first distribution pricing principle, which is that (volume-based) prices reflect the economic cost of network use.

3.4 The reason to start here is that, if volume-based prices are too high or too low, they risk inefficiently depressing or encouraging consumption. Rather, price signals could be targeted at times or places where network capacity is expected to be constrained.

3.5 Many distributors could improve their methodologies, by providing:

- information on the extent to which their use-based charges reflect the impact of network use on economic cost, and
- a rationale for – if not evidence for the appropriateness of – differences between, say, day and night, peak and off-peak or controlled charges.

Then recover revenue using pricing that least-distorts choices

3.6 Revenues from signalling prices alone are unlikely to be enough to cover distributors' target revenues. The second distribution pricing principle is about recovering the remaining revenues in a way that least influences – least distorts – a consumer's choices about network use.

3.7 The most practical approach to residual revenue recovery is to use some kind of fixed charge that does not depend on the amount of energy consumed (whether in the current or prior year). When this is not possible (e.g. because of low fixed charge regulations) or practical, one next-best alternative may be to use a low, flat mark-up on variable prices across all times.

3.8 A number of distributors have announced a target share of revenue from fixed charges. Setting a target can be a useful way to communicate the direction of travel to network customers, and we acknowledge that many distributors should be increasing the share of revenue from fixed charges because they have uncongested networks and have little need for variable price signals. But, from an efficient pricing perspective, the optimal revenue share from fixed charges should fall out as the result of having determined the right signalling prices, rather than being set first to then solve the level of volume-based prices.

3.9 This two-step pricing process requires both data and analytical capability to provide a sound foundation for pricing differentials. Some distributors have gaps in their access to data or capabilities. Roadmaps could outline distributors' plans to resolve such issues.

Distributors are converging on time of use pricing

3.10 Distributors have by-and-large chosen to implement time-of-use pricing. This generally involves a different volume-based rate at peak, shoulder,[3] and off-peak times for a given consumer group. These TOU prices are usually on top of a fixed ‘access’ charge (with a general undertaking to increase the share of revenue from fixed charges).

3.11 Some distributors without any immediate network capacity or quality issues are introducing TOU. Even though this may not improve the efficiency of their pricing at this point, their reason is generally to prepare for a future with more electric vehicles and increased demand from electrification.

3.12 Those networks without current network constraints need to take care not to over-signal the cost of network use at peak until a signal is needed. Some distributors in this situation have addressed this situation by introducing TOU with no or only a small notional difference between peak and off-peak rates; the peak time rate can be ramped up when the cost of network use increases.

3.13 The optimal pricing structure and rates for a network will depend on each network’s own circumstances and requirements. This is a reason the Authority has not prescribed a pricing methodology and instead is relying on distributors applying the pricing principles.

Uncertainty on low fixed charges is holding back price reform

3.14 Pricing methodologies commonly indicated a desire to increase the share of revenue from fixed charges, but that progress is contingent on government announcements on reform to the low fixed charges (LFC) regulations. Some distributors considered that their progress was also hindered for consumers not subject to those regulations, as they prefer to make changes as part of a coherent package.

3.15 The current uncertainty about next steps on LFC regulations was reflected in distributors not having a roadmap or being non-committal on next steps until they are sure changes to LFC regulations will be made. On the whole, though, the presence and quality of roadmaps improved compared to last year.

3.16 The Authority understands the LFC regulations limit options around increasing fixed charges for many residential consumers, and has supported MBIE’s efforts to advise on phasing out these regulations. However, the Authority still considers there are aspects of pricing that can be improved now, including pricing for mass-market consumers that are not subject to LFC regulations, the calibration and efficiency of variable charges, and the price design for commercial customer groups (even though the latter is generally in a better shape, particularly for the larger commercial customers).

Lack of retailer pass-through cited as another barrier

3.17 A number of distributors question whether the cost and effort that goes into improving the efficiency of their pricing can be justified if electricity retailers do not pass through their price signals directly to consumers.

3.18 The Authority understands those distributors’ concerns. However, our conceptual framework to date has been:

(a) Networks are not exposed to the same competitive pressures as retailers, so the pricing principles are in place to encourage them to price their services in a way

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3 Shoulder charges help to smooth the difference between peak and off-peak charges, avoiding the risk of simply shifting congestion to just outside peak periods.

that mimic outcomes under competition – pricing that reflects the economic cost of network use.

(b) By contrast, retailers are subject to competitive pressures that encourage them to offer supply at the best prices they can offer, and offer different packages to suit consumers with different needs. Retail competition remains an important mechanism to prompt innovation and to ensure that price-product packages are for the benefit of consumers. Some consumers are well placed to adapt to price volatility, while others benefit from stable price plans provided by retailers.

(c) Retailers have to work with, and manage the risks of, network prices, which provide incentives to them to identify mechanisms to reduce costs.

3.19 As part of its faster pricing reform workstream, the Authority will be seeking stakeholder views regarding whether the need for networks to support a fast transition to a low-emissions future impacts on our conceptual framework. For example, will greater pass-through be required to enable aggregators of interruptible load to develop services, such as via ‘prices for devices’.[4]

Mixed perspectives on data access

3.20 Distributors have offered a range of perspectives on access to data.

3.21 Some distributors noted that access to data, in a format or on reasonable terms so that it can be used for testing and monitoring pricing options, remains an issue for them. Some highlighted the transaction costs of having to negotiate with so many parties and with mixed success; some are less concerned with regular access as they do not have capacity to do analysis; and others do not see data access as an issue, as they have good relationships with sufficient number of retailers to get a reasonable sample of data for their purposes. The Authority recently consulted on data access issues in the July 2021 consultation paper *Updating the regulatory settings for distribution networks* and is reviewing the feedback that has been provided.

4 That is, prices for devices such as electric vehicles and heat pumps that could be managed with appropriate technology.

4 Overall results

4.1 Table 1 presents the assessment scores for 2021.

4.2 This year Aurora Energy and Wellington Electricity received the highest overall score. They demonstrated leading practice on a number of dimensions, and marked a material improvement on last year, when both distributors received were rated relatively low.

4.3 Eastland also materially improved its score. Counties Power, Electricity Ashburton, and Horizons Network also improved their overall score; the assessment for others was the same as or very similar to last year's.

Table 1 2021 Pricing Scorecards assessment scores

Distributor	Circumstances (1-5)	Principles (accord with) (1-5)	Strategy (1-5)	Roadmap / implementation (1-5)	Efficiency (1-5)	Consumer impact (1-5)	Overall Score 2021
Aurora Energy	5	5	5	4	2	4	4.2
Wellington Electricity	5	3	4	5	3	3	3.8
Northpower	4	3	4	4	3	4	3.7
The Lines Co	4	4	3	3	3	4	3.5
Electricity Ashburton	4	3	4	4	2	4	3.5
Top Energy	4	3	4	3	3	N/A	3.3
Marlborough Lines	4	3	4	4	2	3	3.3
Horizon Networks	4	3	3	4	3	N/A	3.3
Electricity Invercargill	4	3	4	4	2	N/A	3.2
Otagonet	4	3	4	4	2	N/A	3.2
The Power Co	4	3	4	4	2	N/A	3.2
Network Tasman	3	4	3	3	2	4	3.2
Orion	3	3	4	3	3	N/A	3.2
Powerco	3	3	4	4	2	N/A	3.0
Alpine Energy	5	3	3	1	3	N/A	3.0
Mainpower	2	3	4	3	2	3	2.8
Unison Networks	4	3	3	3	2	N/A	2.8
Buller Electricity	4	2	3	3	2	3	2.8
Centralines	4	3	3	3	2	N/A	2.8
Network Waitaki	2	3	4	3	2	3	2.8
Counties Power	3	2	4	4	2	N/A	2.8
Eastland	3	2	3	4	2	3	2.8
Electra	4	2	3	3	2	N/A	2.7
Nelson Electricity	4	2	3	2	2	N/A	2.5
Vector	2	3	3	3	2	N/A	2.5
Waipa Networks	2	4	2	2	2	N/A	2.3
WEL Networks	3	2	3	1	2	N/A	2.2
Westpower	3	2	2	1	2	N/A	2.0
Scanpower	3	2	2	1	1	N/A	1.7

Notes:

Dark green shading is used to highlight overall scores of 4.0 and above; light green scores 3.5-3.9; no highlighting scores of 3.1 to 3.5; grey highlighting for scores from 2.6-3.0; light red shading for scores 2.1 to 2.5; and dark red scores 2.0 and below.

A score of N/A in consumer impact indicates that no material price changes were made that required management of consumer impact.

When the consumer impact score is N/A the efficiency score receives 1/3 of the weight in the overall score. Otherwise each dimension has a weight of 1/6.

5 Results by dimension

Circumstances

5.1 The average score was 3.6, a small improvement compared to last year.

5.2 Distributors can improve on this dimension by briefly explaining what key aspects of a network's characteristics and context mean for pricing.

5.3 Alpine, Aurora, and Wellington Electricity in particular do this well.

Pricing principles

5.4 The average score was 2.9, similar to last year. Distributors usually offer a reasonable self-assessment of how well their pricing aligns with the current pricing principles.

5.5 As we indicated last year, distributors can improve on this dimension by explaining how:

- variable prices reflect the impact of network use on economic cost – this would also give clarity on the differences between say peak and off-peak rates
- remaining revenues are recovered with prices that least distort network use – such as by using fixed charges or low flat-rate mark-ups.

5.6 Orion and The Lines Company have a clear economic benchmark for their peak prices.

5.7 Aurora's self-assessment is notable because it highlights not just how its pricing currently aligns with the pricing principles, but also its target after its planned pricing reform.

Strategy

5.8 The average score was 3.4, a small improvement compared to last year. Almost all distributors set out their intended direction for pricing reform.

5.9 Aurora stood out, but many distributors are at least considering what increased uptake of electric vehicles and small scale distributed generation and batteries might mean for pricing.

5.10 A common message is that distributors are waiting for clarity on how and when low fixed charge regulations, and to a lesser extent transmission pricing, may change.

Roadmap

5.11 The average score was 3.1, marking a clear improvement on last year.

5.12 Last year we found it was not uncommon for roadmaps to be out of date or missing. This year, we saw some clear improvements on this front. Wellington Electricity provides a good example. This year only four distributors received a score of one (generally indicating that they did not complete a roadmap).

5.13 A number of roadmaps contain only a high level outline of intentions or have a short horizon. We understand that distributors are waiting for clarity on how and when low fixed charge regulations, and to a lesser extent transmission pricing, may change. Often though distributors could make progress on pricing for other consumer groups, or in doing the enabling background work. PowerNet provides a good example of the latter.

Efficiency

5.14 The average score was 2.2, a minor improvement on last year.

5.15 In the majority of instances, distributors' pricing has been assessed as having 'unaddressed efficiency issues'. This was often because they did not offer a rationale for the strength of their variable prices and underused fixed charges.

5.16 The handful of cases that scored better provide insight into how others could improve their pricing. In a few cases, distributors had a clear benchmark for their peak prices (Orion, TLC), and in other cases distributors had a clear rationale for the absence of a strong price signal.

Consumer impacts

5.17 Many distributors had not made substantive changes in prices in the 2021 disclosure year, meaning that they did not have material consumer impacts to manage. For these distributors the consumer impact was assessed as N/A.

5.18 Where distributors had made, or were planning, substantial changes that might involve substantial consumer impacts, the distributors tended to provide a sensitive consideration of potential impacts and how these could be managed. This included the phasing-in of changes to avoid bill shock and investing in detailed analysis of consumer impacts and consumer support.

Appendix A Distribution pricing principles

a. Prices are to signal the economic costs of service provision, including by:

   i. being subsidy free (equal to or greater than avoidable costs, and less than or equal to standalone costs);

   ii. reflecting the impacts of network use on economic costs;

   iii. reflecting differences in network service provided to (or by) consumers; and

   iv. encouraging efficient network alternatives.

b. Where prices that signal economic costs would under-recover target revenues, the shortfall should be made up by prices that least distort network use.

c. Prices should be responsive to the requirements and circumstances of end users by allowing negotiation to:

   i. reflect the economic value of services; and

   ii. enable price/quality trade-offs.

d. Development of prices should be transparent and have regard to transaction costs, consumer impacts, and uptake incentives.