Distribution Pricing Scorecards 2020

Summary of findings and key themes

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Market Design

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1 Purpose

1.1 This paper summarises the Authority's main findings and themes from its review of each of the 29 electricity distribution businesses' 2020 pricing methodologies.

1.2 The Authority started producing pricing scorecards in 2019 to monitor and discuss distributors' progress toward more efficient pricing. To summarise, as far as practicable this involves prices:

- being cost-reflective
- reflecting the cost of using the network at any point in time or place
- recovering any shortfall in target revenue in a way that least distorts network use.

1.3 Amongst other things, the 2020 scorecards assess distributors' pricing methodologies against the distribution pricing principles that were updated in 2019. The updated distribution pricing principles are included in Appendix A.

1.4 This assessment is based on documentation provided to the Authority and may not capture all policies analysis or engagement the Distributors are undertaking.

1.5 Distributors need to improve the efficiency of their distribution prices because technology is rapidly changing how electricity is produced and consumed. These changes affect how distribution networks are, or could be, used and how distribution services should be priced.

1.6 It is also likely to be better for consumers in the long-run if distribution prices are changed soon, before more consumers and distributed generators make irreversible, inefficient investments based on the incentives of current pricing structures.

1.7 Efficient, cost-reflective pricing is for the long-term benefit of consumers, as it promotes:

- consumers making efficient network use choices and investments in solar power, batteries, electric vehicles
- valuable innovation in electricity and network applications and service offerings
- distributors making efficient investments in their networks.

2 Assessment of progress on distribution pricing reform

Mostly solid approaches to allocating cost to consumer groups

2.1 Pricing methodologies are transparent, strong on identifying costs and target revenues for the coming year and allocating these among consumer groups.

2.2 Consumer groupings make intuitive sense, and choices of cost allocators tend to be reasonable.

2.3 There are some exceptions to this assessment. For example, there is scope for more granularity within some consumer groups, particularly to better reflect locational differences in network capacity and costs. This is discussed below.

2.4 In contrast to the transparency on cost allocation, the translation of target revenues by consumer group into *prices* is much less transparent. There is generally less clarity about the price signals that are – or are not – required to foster efficient network use.

Pricing for larger commercial customers is in reasonable shape

2.5 Generally speaking, the structure of prices for larger commercial customers seems to be in reasonable shape, reflecting the drivers of network and pass-through costs.

2.6 A large share of revenue from these customers tends to come from capacity- and peak demand-based charges rather than volume-based charges. The latter often have time-of-use or seasonal components.

2.7 There is room for improvement. Pricing methodologies typically do not explain the extent to which charges reflect the economic cost of network use. It is also not clear whether mark-ups on variable charges for revenue recovery purposes minimise distortions to network use.

Progress toward more efficient pricing has stalled

2.8 We noted several examples of pricing reform. For example, Top Energy and Northpower introduced time-of-use pricing for residential and general customers, Vector made time-of-use pricing mandatory, and Counties Power made its smart tariff (peak/off peak structure) the default for all mass market customers.

2.9 Some distributors, like The Lines Company, recently completed transitions to new pricing plans, and Marlborough Lines and Wellington Electricity have made changes to pave the way for future improvements.

2.10 We also observed distributors using changes in target revenues (reflecting reductions in the weighted average cost of capital) to reduce their variable charges, as part of an explicit strategy to incrementally lift the share of revenues from fixed charges.

2.11 However, from here on in, the published plans for further pricing reform are incremental at best, and generally vague or non-existent. This contrasts with the firmer plans and statements of intent last year. In particular, a clear message in the current pricing methodologies and roadmaps is that many distributors regard further progress in distribution pricing reform to be contingent on the repeal of low fixed charge regulations.

2.12 The Authority understands these regulations limit options around fixed charges for many residential consumers, and has been supporting MBIE’s efforts to phase out these regulations. However, the Authority also considers there are other aspects of pricing that need attention. This includes, work on improving the efficiency of variable charges.

Focus first on getting the economic signal right

2.13 The revised distribution pricing principles have a subtle but important change, which emphasises that distributors should start their pricing methodologies by first identifying what price signals are required to support efficient network use.

2.14 Distributors provide almost no information on the extent to which their use-based charges 'reflect the impact of network use on economic cost' – see distribution pricing principles 1(b) and (c) in Appendix A. It is not the case that prices reflect economic costs of network use simply because buckets of costs are allocated to the relevant consumer groups.

2.15 The pricing methodologies tend not to provide much, if any, rationale for the chosen relativities between, say, day and night, peak shoulder and off-peak, or controlled and uncontrolled use-based charges. The methodologies do not present evidence that such pricing differentials are proportionate or desirable.

2.16 Given the significant reliance on revenue from $/kWh charges, the Authority considers improvements here may be key for more efficient pricing.

2.17 If use-based prices are unnecessarily strong (when a network has lots of spare capacity) or are not well targeted at specific times and seasons when a network's capacity is a binding constraint, electricity consumption may be inefficiently suppressed. People may also make unnecessary investments to shift consumption.

2.18 Pricing methodologies and pricing strategies tend to portray these as minor issues. (For example, because distributors find uptake of solar power or EVs is still small, or because simplicity seems more important.) But they will become major issues as the cost of technology drops, and harder to address as the constituency of people that have invested in batteries, solar panels, and electric vehicles grows.

2.19 Getting these price signals right is at the core of efficient pricing. It is why the Authority's practice note suggests this is where the design and setting of distribution prices should start. The Authority urges distributors to focus on this area in the next pricing methodology and roadmaps.

Take the long view on providing locational price signals

2.20 A considerable number of distributors do not reflect cost differences between low (or rural) and high density (or urban) areas in their pricing.

2.21 Some distributors claim the equalisation of prices compensates for poorer service levels for rural customers. We do not find this argument particularly convincing (since the equalisation of service levels would require even greater expenditure in low density areas), but none of the methodologies provide any evidence that distributors have tested whether such compensation is reasonable or proportionate. Others say cost differences are already captured in capital contributions for connections.

2.22 Often though the decision to avoid locational cost differences in pricing is based on a mistaken or particularly risk-averse reading of s113(1)c of the Electricity Industry Act. The Authority notes that there are no regulations that stop distributors reflecting higher per connection costs for rural or remote consumers.

2.23 We encourage distributors to pay more attention to the efficiency of locational pricing, and to be transparent about any cross-subsidies and efficiency trade-offs when deciding not to reflect location-based differences in costs in their prices.

2.24 The Authority considers that distributors may find that location-specific, or targeted pricing will become increasingly useful in future and may provide a way to signal differences in cost on different parts of the network. This could be due to conditions such as the take-up of EVs or small scale distributed generation being concentrated in particular neighbourhoods.

Avoid other considerations becoming a barrier to change

2.25 The Authority acknowledges that distributors must balance a range of considerations when they determine their pricing strategy and pricing structures. This includes paying close attention to consumer requirements and preferences, with feedback gathered through surveys and other means.

2.26 We have noted that concepts like simplicity and fairness are often used in pricing methodologies to justify particular pricing choices. But generally, distributors do not define these terms and they are not transparent about the efficiency trade-offs that are then being made.

2.27 It would be useful for distributors to define the other considerations when appealing to them. Without these definitions, pricing reform can become harder. For example, changes to pricing often involve winners and losers. It is not easy to resist appeals that a change is not fair, if fairness is not defined.

2.28 Similarly, distributors should avoid arbitrary limits on the size of price changes. Common concerns about “bill shock” and methodologies that explicitly limit the size of price changes, by consumer group, should be accompanied by justification for the limits imposed.

2.29 We also note that the distribution pricing principles cover concepts like consumer impacts, uptake incentives and transaction costs as matters to ‘have regard to’. That is, these are intended to be considerations that could influence implementation detail and transition paths rather than necessarily being fundamental determinants of the pricing strategies and structures.

3 Review of 29 pricing methodologies

Background

3.1 We use the same approach to assess the pricing methodologies as in 2019. The qualitative assessment is judgement-based.[1]

3.2 We assign a score between 1-5, where 1 is poor and 5 is leading practice, on each of six dimensions. These six scores are then rolled up into an average score for three results areas (current state, strategy, and outcome), reported to the nearest half point, and into a total average score.

3.3 In 2019 we noted that the Authority's expectations on progress would ramp up over time. This means that each aspect may be scored less generously in future years, even if the content or approach has not changed. Stricter scoring is intended to promote continuous improvement in pricing.

Testing draft scorecards

3.4 We discuss our draft scorecard assessment with each distributor. This is an opportunity to ensure that our assessment of the pricing methodology and roadmap does not misinterpret or miss significant aspects of a distributor's approach, the progress made, or their future plans.

3.5 It also provides an important opportunity to exchange views on progress, barriers and enablers, and what distributors and the Authority could do to promote pricing reform.

Overall

3.6 Table 1 presents the 2020 scores for each distributor.

3.7 Overall, the mean score out of five is 2.7, with a minimum of 1.5 (Eastland) and maximum of 3.7 (Northpower). A total of nine distributors scored three or higher.

3.8 In general, distributors with higher scores provided a good outline of network circumstances, drawing linkages to implications for pricing. The discussion of the consistency or inconsistency with the pricing principles tended to be higher quality. The higher-scoring distributors also presented a clearer pricing strategy and roadmap.

3.9 Our assessment of the efficiency of current distribution pricing structures is that most contained unaddressed efficiency issues. Scores were accordingly low in this category, averaging two. This was also the case for those distributors that had made ostensibly positive changes to their pricing in recent years.

3.10 We found that price signals were often not linked clearly to network circumstances. A common example was that of a distributor with peak prices that were substantially higher than prices at other times when there were no capacity issues to signal or manage. This over-signalling can lead to the types of inefficient outcomes outlined earlier in this report.

3.11 Most distributors did not get a score for consumer impacts – reflecting the limited changes to pricing structures. However, consumer impacts are clearly high on distributors' radar.

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1 More detail on the scorecards and the criteria is available at https://www.ea.govt.nz/development/work-programme/pricing-cost-allocation/distribution-pricing-review/development/distribution-pricing-practice-note-and-scorecards/.

Table 1 Overall results 2020

Distributor	Circumstances	Principles	Strategy	Roadmap	Efficiency	Consumer impact	Current State	Strategy	Outcomes	Average
Northpower	4	3	4	4	3	4	3.5	4	3.5	3.7
Top Energy	4	3	3	4	2	4	3.5	3.5	3	3.3
Electricity Invercarg	4	4	4	4	2	N/A	4	4	2	3.3
Otagonet	4	4	4	4	2	N/A	4	4	2	3.3
The Power Co	4	4	4	4	2	N/A	4	4	2	3.3
Marlborough Lines	4	3	4	3	2	3	3.5	3.5	2.5	3.2
The Lines Co	4	3	3	4	2	3	3.5	3.5	2.5	3.2
Mainpower	2	3	4	4	2	3	2.5	4	2.5	3.0
Unison Networks	5	3	3	3	2	N/A	4	3	2	3.0
Network Tasman	3	4	3	1	2	4	3.5	2	3	2.8
Buller Electricity	3	3	4	3	2	N/A	3	3.5	2	2.8
Centralines	4	3	3	3	2	N/A	3.5	3	2	2.8
Nelson Electricity	4	3	3	3	2	N/A	3.5	3	2	2.8
Orion	2	3	4	2	3	N/A	2.5	3	3	2.8
Powerco	3	3	4	3	2	N/A	3	3.5	2	2.8
Electricity Ashburto	4	3	2	1	2	4	3.5	1.5	3	2.7
Network Waitaki	2	3	3	3	2	3	2.5	3	2.5	2.7
Vector	2	3	3	2	2	3	2.5	2.5	2.5	2.5
Waipa Networks	2	2	3	2	2	3	2	2.5	2.5	2.3
Alpine Energy	4	3	2	1	2	N/A	3.5	1.5	2	2.3
Electra	4	2	3	1	2	N/A	3	2	2	2.3
Horizon Networks	2	2	3	3	2	N/A	2	3	2	2.3
Scanpower	3	2	3	2	2	N/A	2.5	2.5	2	2.3
WEL Networks	3	3	3	1	2	N/A	3	2	2	2.3
Counties Power	2	2	3	2	2	N/A	2	2.5	2	2.2
Wellington Electricit	2	3	2	2	2	N/A	2.5	2	2	2.2
Westpower	3	2	3	1	2	N/A	2.5	2	2	2.2
Aurora Energy	4	2	1	1	2	2	3	1	2	2.0
Eastland	3	2	1	1	1	N/A	2.5	1	1	1.5

Changes in scores compared to the 2019 baseline

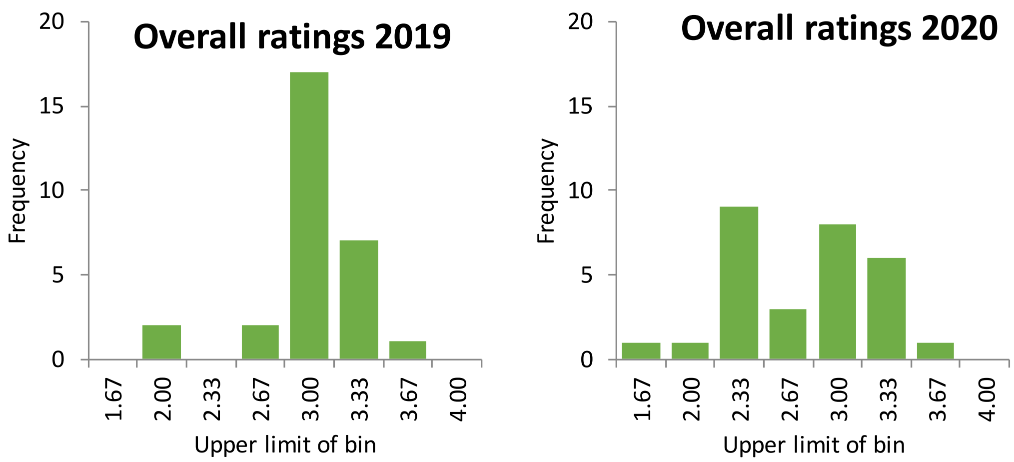
3.12 Overall scores shifted significantly from the previous year with a wider spread of scores. Whereas in 2019 17 distributors scored three or higher, in 2020 there were only nine in this range.

3.13 In 2020 the average score was 2.7, down from 2.9 in 2019.

Table 2 Summary statistics of overall scores, 2019 and 2020

	2019	2020
Mean	2.9	2.7
Median	3.0	2.8
Standard deviation	0.3	0.5
Minimum	2.0	1.5
Maximum	3.5	3.7

Figure 1 Frequency of overall scores, 2019 and 2020



Results by dimension

Current state: circumstances

3.14 The average score was 3.2. The descriptions of network circumstances are reasonably helpful. On balance, there was a slight improvement compared to last year, with a greater focus on presenting information that is relevant for pricing. Unison's pricing methodology is particularly useful in this regard.

3.15 Many distributors could improve their methodologies by explaining how network circumstance motivates pricing.

Current state: pricing principles

3.16 The average score was 2.9. Overall, distributors present good self-assessments of the alignment of their prices with the pricing principles, but we found that in two important areas distributors' interpretation of the principles was not well-aligned with the Authority's intent:

- reflecting the impact of network use on economic cost
- recovering shortfall of revenue with prices that least distort network use.

3.17 In a few cases, distributors assessed their pricing methodologies against the old (2010) pricing principles.

Strategy: pricing strategy

3.18 The average score was 3.0. Most distributors set out their broad intent for pricing, or at least set out objectives. However, the horizon is often rather limited, and in a number of cases there was no mention of strategic direction.

3.19 The common intent is to recover a greater proportion of pricing from fixed charges, keeping a watching brief with respect to the uptake of EV and small scale DG, or waiting for ENA work to be completed. Many feel constrained by the LFC regulations as discussed above.

Strategy: road map

3.20 This aspect of distributors' effort was disappointing. The average score was 2.5, down on last year, and with more dispersion in scores.

3.21 Some distributors do not have a roadmap at all. More frequently there is a roadmap in the pricing methodology or in a separate document, but it is clearly out-of-date, or contains only vague undertakings and statements of intent.

3.22 There were, however, also some better examples, such as in the case of the Powernet group, Mainpower, Northpower, and Top Energy.

Outcomes: efficiency of pricing

3.23 The average score was 2.1. This was the weakest area across the board, as discussed in paragraph 3.9. This category, too, was where scores tended to deteriorate. This reflected our assessment in light of the new pricing principles, and because we had raised the same points already in 2019.

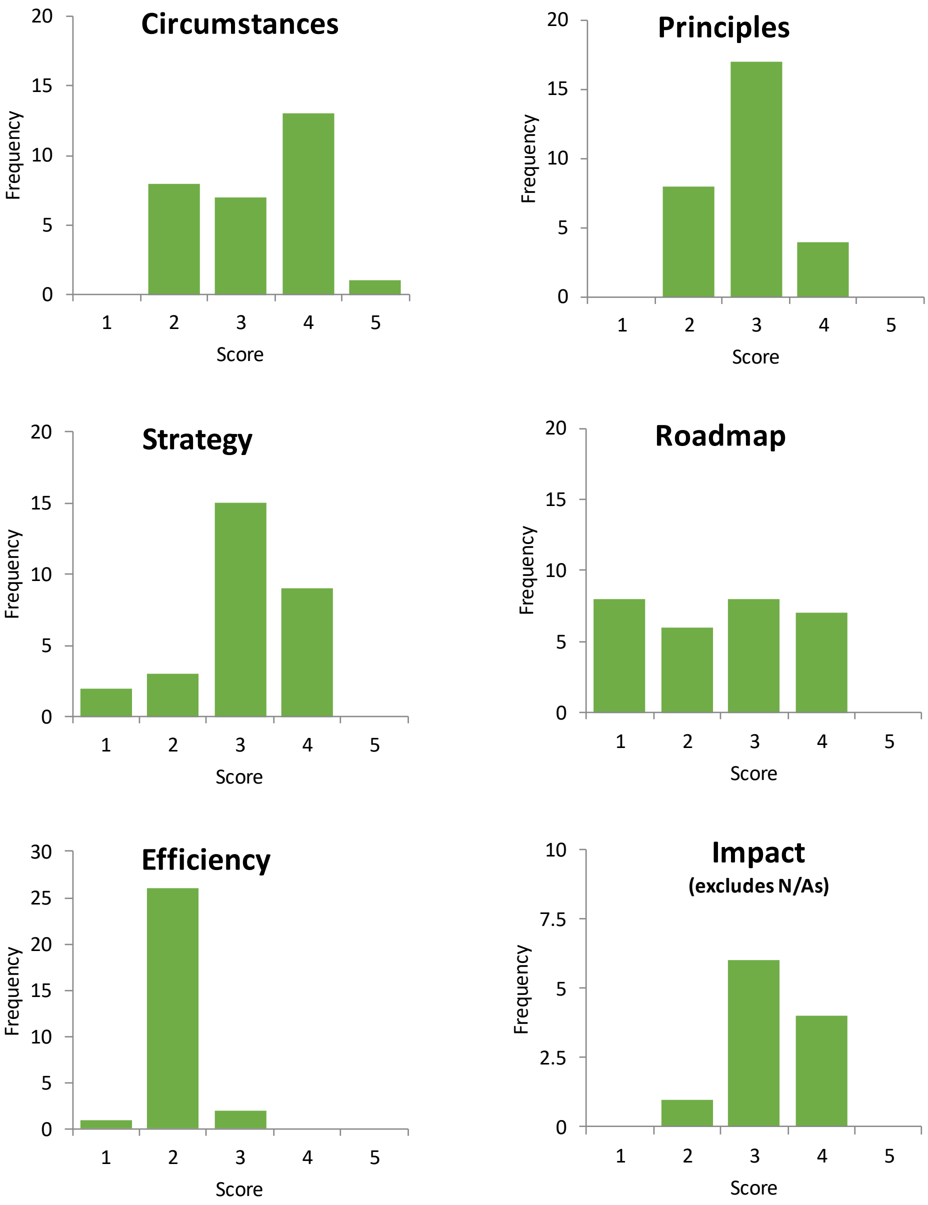
Outcomes: consumer impacts

3.24 This category contains many missing values (N/A), because these distributors are not in the process of pricing reforms that require consideration of consumer impacts. Where this does become a point of concern, distributors generally present a cogent discussion.

Table 3 Summary statistics for 2020 score dimensions

	Circumstances	Principles	Strategy	Roadmap	Efficiency
Mean	3.2	2.9	3.1	2.5	2.0
Median	3.0	3.0	3.0	3.0	2.0
Standard deviation	0.9	0.6	0.8	1.1	0.3
Minimum	2.0	2.0	1.0	1.0	1.0
Maximum	5.0	4.0	4.0	4.0	3.0

Figure 2 Frequency of scores across each dimension, 2020



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.