Mercury

Electricity Authority
By email: submissions@ea.govt.nz

14 February 2019

More Efficient Distribution Prices Consultation Paper 11 December 2018 (Consultation)

Thank you for the opportunity to comment on the above consultation. We are pleased that the Authority is giving further thought to distribution pricing reform including the Distribution Pricing Principles (DPP), timing and implementation.

Mercury supports cost-reflective distribution pricing reform[1]. We agree that current flat pricing is sending inefficient signals for investment in new technologies which will have regressive impacts.

Distribution pricing reform must also consider whether and how the consumer will respond to pricing signals. Consumers are unlikely to respond if the tariffs are too complex to understand. As Concept Consulting notes:

> [e]ven if a price signal is theoretically highly cost reflective in terms of signalling the network cost consequences of increased demand at peak, it will only deliver economically efficient outcomes if consumers can understand the price signal, and get access to the necessary information to make good decisions.
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> Experience in New Zealand and overseas highlights that these are real issues which can have a significant bearing on the effectiveness of different tariff options. Thus, a theoretically efficient, but relatively complex network tariff structure may result in less efficient outcomes if consumers find it hard to engage with such a signal, compared with a simpler (and theoretically less cost-reflective) tariff which is much easier for consumers to understand and respond to.[2]

Mercury's view, supported by evidence[3], is that long-term benefits for consumers from cost-reflective pricing can be substantially realised from simple pricing structures that increase the proportion of fixed charges and provide some limited signalling of peak demand[4] (with non-seasonal preferred).

The current excessive variablisation, that occurs due to lines charges being mostly based on a per kilowatt hour basis, puts seasonal pressure on household budgets (which is of concern for vulnerable consumers who are on fixed incomes) and sends poor signals (leading to inefficient investment in new technologies and unfairly shifts costs to the most vulnerable) which have been estimated could cost consumers $1.8 billion over the next 20 years.[5]

The implementation options proposed in the consultation paper,[6] may be theoretically economically efficient and permissible under the LFC Regulations, are in our view likely to be highly complex for consumers. This would significantly reduce the likelihood implementation versus simpler pricing structures that in reality would provide the majority of efficiency benefits. Research shows that consumers have little understanding of network cost drivers and appreciate convenience and simplicity when it comes to using electricity. UMR research presented at the ENA conference on distribution pricing last year[7] indicated that there are significant barriers to communicating with

[1] See Mercury's submission on the Electricity Pricing Review pages 22 and 44.
[2] Concept "Issues and Options for Moving Towards More Cost-Reflective Network Tariffs" (2 November 2017) para 2.3.4.
[3] *Ibid.*
[4] This is supported by analysis from Concept that found that a relatively simple two-part charge which increased the fixed component and introduced a peak / off peak charge was likely to deliver most of efficiency benefits compared to more complex demand based charging. See, Concept "Issues and Options for Moving Towards More Cost-Reflective Network Tariffs" (2 November 2017).
[5] Concept "Electric cars, solar panels, and batteries in New Zealand Vol 2: The benefits and costs to consumers and society" June 2016.
[6] Seasonal time-of-use, static critical peak and dynamic critical peak.
[7] ENA "Moving Distribution Pricing Forward" (12 November 2018, Wellington).

consumers on pricing reform[8] and understanding was severely limited as options became more complex.[9]

The Lines Company experience with tariff reform illustrates in our view just how challenging it can be to implement more complex cost reflective pricing from a consumer perspective, despite this being the most theoretically efficient option. Faced with a small permanent population but significant demand during the winter tourist season, The Lines Company adopted a peak demand based charging approach. This resulted in significant bill shock for consumers and public backlash due to consumer reluctance and resentment to constantly monitor electricity demand to try and avoid consumption during peak periods.[10] As a result, The Lines Company subsequently changed its demand-based pricing to time-of-use pricing. Their review concluded that "*[w]hile the current system is arguably a better way to recover the costs of network growth under service-based pricing, the review concludes that TOU would be more equitable, have greater simplicity, and be more transparent*".[11]

In our view, the DPP need to strike the right balance between achieving economic efficiency, the ability for consumers to understand and react to pricing signals and the ability for retailers to implement new pricing structure into existing systems (and therefore increase the likelihood of them offering cost reflective tariffs rather than just flatter tariffs that are both easier to understand and provide greater certainty to consumers).

We welcome that the DPP acknowledge that implementation costs to retailers should be factor for consideration. However, if tariffs are highly complex (e.g. based on static critical peak or dynamic critical peak) then retailers' costs are likely to be excessive to educate consumers and implement systems. We emphasise the need for simplicity which will help reduce implementation costs and is therefore in the long-term interests of consumers. The seasonal time-of-use option in our view, will unduly penalise vulnerable customers, provide a much greater challenge in terms of customer education, and most likely result in overall lower demand response than a non-seasonal structure. We note that non-seasonal is the structure currently favoured by most distributors.

We agree with the Authority that there is no efficiency reason for a mandated retail pass-through of distributors prices to customers. All distributors should eventually offer a cost-reflective tariff to retailers. The retailer is best placed to work with the consumer on their preferences around pricing options and appropriate transition. Competition will result in the passing through pricing options over time. There also needs to be better alignment in pricing between the 29 distributors (e.g. in the definition of peak periods) to avoid complexity and costs associated with implementing new pricing structures. We note the ENA has been working on greater harmonisation for some time and we support this work.

In conclusion, an increase to the fixed component of tariffs coupled with non-seasonal time-of-use would discourage inefficient investment in solar generation and encourage the uptake of electric vehicles and batteries, while at the same time incentivising the charging of such vehicles overnight or at other off-peak periods. Our preferred proposed pricing will provide a suitable signal to achieve both ends, while more complex mechanisms run the risk of not being understood by the consumer.

Our more specific responses to the Authority's questions are in the Appendix. Should you wish to discuss anything raised in this submission please do not hesitate to contact Rebekah McCrae at rebekah.mccrae@mercury.co.nz or on 09 308 8237 or 022 070 2126.

Yours sincerely

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[8] This was said to arise from consumer knowledge gaps (they are not engaged on electricity, have limited understanding of bills and little knowledge of the sector structure and costs) and perceptions of misalignment of interests (suspicion of distribution aims, focus on overall use/expense rather than peaks, and prioritization of convenience and simplicity).

[9] For example, load/demand versus usage/consumption distinction was generally not understood.

[10] Concept "Issues and Options for Moving Towards More Cost-Reflective Network Tariffs" (2 November 2017) para 2.3.4 page 24.

[11] The Service Based Pricing Review 2017 page 2 available at https://www.thelinescompany.co.nz/site/uploads/Disclosures/Pricing/PricingReview/2017-Service-Based-Pricing-Review.pdf.

Appendix: Mercury Response to Questions

	Question	Response
1	Do you agree that distributors need to reform their prices? What is the reason for your answer?	Yes. Current flat pricing is sending inefficient signals for investment in new technologies which will have regressive impacts. Further, the excessive variabalisation of lines charges needs to be addressed to deal with higher bills in winter, which is particularly an issue for vulnerable consumers who are on fixed incomes.
2	How important and urgent are the issues identified by the Authority?	We agree there is a pressing need to reform pricing given the estimated costs to consumers (stated in our Cover Letter) if the status quo continues. However, there are simpler and more understandable pricing structures that can deliver very similar efficiency gains to the Authority's proposed more complex pricing structures (e.g. based on static critical peak and dynamic critical peak). We refer the Authority to the analysis done by Concept Consulting[12] which shows that increasing the fixed component of charging along with a simplified time-of-use structure can deliver a significant proportion of the benefits of demand based charges without the complexity and issues for retailers in billing structures. For simplicity, we favour a non-seasonal variant.
3	Do you agree with the proposed Distribution Pricing Principles?	We agree that the DPP should signal the economic costs of service however, in our view, the principles should also reflect the behavioural economic factors which are a significant factor in ensuring the effectiveness of pricing reform: - The greater number or complexity of options, the less likely consumers will make a choice and the more likely consumers will adopt sub-optimal 'short-cut' approaches to make a choice.[13] - And, consumers tend not to change from their current situation unless there is a strong reason to do so.[14] We refer the Authority to the Concept analysis mentioned above for a further discussion on these issues.[15] We also refer to the UMR research mentioned in our cover letter.

[12] Concept "Issues and Options for Moving Towards More Cost-Reflective Network Tariffs" (2 November 2017).
[13] See Concept "Issues and Options for Moving Towards More Cost-Reflective Network Tariffs" (2 November 2017) at 'Box 1' page 25.
[14] Ibid.
[15] Ibid.

4	What if any, changes would you recommend are made to the proposed Distribution Pricing Principles, and why?	The proposed DPP should give weight to consideration of behaviour economic factors as well as economic pricing efficiency (see Q 3 response, above). The DPP should also include reference to consumer preferences for predictable, understandable, and stable charges. We welcome acknowledgment of retailer implementation costs (d) as this is a significant issue for more complex charging being established.
5	What if any, changes would you propose to the star-ratings to better reflect the relative efficiency of distribution prices?	While we don't refute the economic theory that the star-rating system is based on, in our view it does not provide a complete picture taking into account consumer preferences and acceptability issues as noted in our Cover Letter. The star-ratings should be augmented to reflect these factors to provide a more balanced view on the overall effectiveness and practicability of pricing structures.
6	How long do you think distributors would reasonably need to introduce the different price structures discussed above?	Mercury notes a number of distributors have already introduced or are trialling time-of-use pricing[16] which would suggest there are few barriers to making progress. Mercury favours pricing structures that build on existing concepts that consumers understand (e.g. cost per day/ per kwh) rather than introducing new concepts that the research to date indicates consumers will struggle with (see Cover Letter UMR Research and The Lines Company experience). Creating a straightforward non-seasonal time-of-use tariff can be achieved relatively quickly rather than delaying to create more complex pricing structures which the Concept analysis demonstrates are unlikely to have materially greater efficiency gains.
7	Can you illustrate how and to what extent the LCF regulation hinders price reform?	We appreciate that there may be ways to implement cost-reflective pricing that is permissible under the LFC Regulations. However, in our view it appear this requires the implementation of much more complex charging concepts that will have challenging implications for consumer understanding and acceptability versus more simple pricing structure. One example of this is rather than introducing pricing based on static critical peak and dynamic critical peak to recover the residual fixed charges, it would be far simpler to allow distributors to recover more of these fixed charges through the existing mechanism (cents per day) which are already understood by consumers. We repeat the Concept analysis which supports our

[16] E.g. Vector, Counties, and Unison have existing time-of-use tariffs, Powerco, WEL Networks, and Waipa Networks have recently migrated eligible customers to time-of-use tariffs, Top Energy and Northpower are trialling time-of-use tariffs.

		view. Concept note that a "*significant proportion of network costs are not driven by the level of peak kW demand on the system…from an economic perspective, such residual costs should ideally be recovered from consumers in an approach which least-distorts their incentives to consume electricity…[T]his ideally means recovering such costs from fixed ($/day) charges*."[17] As the Authority notes, approximately 80% of distribution costs are fixed. We note ENA state the typical cost of a connection to the grid is $2.50 a day[18] so an increased in fixed charge should reflect this. However, to increase the fixed charge and realise the benefits, the LFC Regulations would actually need to be repealed due to their restricting maximum fixed charge of 15 cents per day.[19] The repeal of the LFC regulations is currently being considered by the Electricity Pricing Review panel and Mercury supports its removal to allow for more efficient and consumer friendly pricing structures to be implemented.
8	How accurately has the Authority categorised distributor revenues and costs? How could this be done more accurately?	We don't have insight into actual costs but the Authority's analysis that the majority of distributors' charges are fixed and 80% seems like a reasonable assumption.
9	What if any would be better indicators of the efficiency of distribution prices, or the ambition of and progress being made by distributors on their price reforms?	As mentioned in our Cover Letter and Q5 above, while the economic theory around the efficiency of network prices is well established, in our view the effectiveness of pricing reform is likely to be undermined by only considering efficiency and not other factors such as the ability of consumers to understand and be influenced by pricing signals and the ability for retailers to easily pass signals through. We repeat the Concept analysis set out in our Cover Letter. We support the Authority monitoring progress and staying informed of issues particularly around consumer preferences.
10	What assistance could the Authority (or other stakeholders) offer distributors in order to speed up the reform process, or help to remove or reduce barriers to distribution price reform?	It would appear that there is industry consensus for removal of the LFC Regulations which are no longer fit-for-purpose. We would encourage the Authority to support their repeal in a timely fashion with appropriate transition through the Electricity Pricing Review process.

[17] See Concept "Issues and Options for Moving Towards More Cost-Reflective Network Tariffs" (2 November 2017) at page 5.
[18] EA Consultation page 21.
[19] LFC Regulations regulation 14(1)(b).