15 August 2023

To the Distribution Pricing policy team,

Introduction

1. Thank-you for the opportunity to make this submission. We welcome working with the Electricity Authority (the Authority) to ensure distribution pricing delivers long-term benefits to consumers. We would be happy to host the Authority to see the issues faced by electricity distribution businesses (distributors) on the ground and invite you to visit. None of this submission is confidential.
2. Northpower is a trust-owned distribution company connecting consumers to our electricity network in the Whangarei and Kaipara districts. Operating and maintaining a network to more than 62,000 connected customers. We also provide specialist contracting services to our partners, other network owners and operators, across the North Island.
3. Top Energy is a trust owned electricity generation and distribution company which distributes power to the consumers of the Far North. Our geothermal stations generate more renewable electricity than the Far North consumers' need, and we operate a distribution and transmission network to our 34,000 consumers.
4. We also wish to note our support of the Electricity Networks Association (ENA) submission.

Targeted Reform on Distribution Pricing Issues Paper

5. We have not addressed the questions specifically outlined in the Issues Paper, but have commented generally on the key issues. Northpower and Top Energy support the need for pricing reform and over the last five years have already implemented many of the changes that the Authority has been recommending.
6. We agree that pricing needs to change away from highly variable pricing structures, towards structures that reflect the costs of using the network and that incentivises the management of peak demand. Improving guidance through practice notes and increased collaboration with industry is our preferred approach, rather than regulation. This provides clarity, enables learnings to be shared across the industry, and allows for flexibility in responding to network specific issues.
7. However, we question whether many of the proposals outlined will be effective in isolation. It's difficult to understand what the Authority wants to achieve from this Issues Paper and these proposals.
8. We recommend that the Authority clearly outline what it wishes to achieve from these changes and suggest this will guide the recommendations more clearly, including prioritisation. The Issues Paper is looking at distribution pricing in isolation and the sector

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cannot be effective in isolation. Electricity supply is an integrated system, and a systems view must be applied when considering any potential changes.

9. The entire sector, along with the Authority, needs to start looking long term to ensure a regime that allows for more innovation and technological advancements. Distributors are going to be at the heart of these changes for the future.

10. Assumptions have been made in the past that have suggested distribution is predominantly one-way traffic, although this is going to be changing, and soon. In the future, with increasing distributed energy resources, Networks will be managing much more dynamic energy flows as part of a system wide energy transformation.

11. Many of the recommendations outlined are trying to signal behavioural change. Electricity price signals by distributors alone are unlikely to make any material change to consumer behaviour, as there will be a heavy reliance on other factors to make these work. This has been shown with Powerswitch advertising consumers could save up to $500 from switching however trader switching in Northland is about 4.9% per annum. Engagement and education with customers by the Authority would likely play a key role in achieving the desired outcomes it wishes to realise.

12. Human behaviour has not been included in the Authority's assumptions, and distributor price signals on their own are unlikely to make consumers change their behaviour. Consumers still need to cook their dinner at the same time, and not all activities can be shifted to other times.

13. The Authority acknowledges many distributors have already made many of the pricing changes considered by this paper, but there has not been the flow on impacts to consumers. Working with those distributors that have yet to make these changes would be a more effective approach rather than adding more complexity through more regulation, as well as working with retailers on ensuring price signals are passed through. Further to this, the impacts of the Low Fixed Charges Regulations are still being felt with how much can be recovered from fixed prices limiting the pace of reform. These restrictions will still be in place until 2027 and until this transition is completed any regulation is premature.

14. The Issues Paper is tinkering on the edges and needs to take a more holistic approach. The Authority is wanting more reflective pricing to "influence usage and investment decisions", although in other parts of the paper is asking for fairer allocation, which is sometimes contradictory.

15. Some of the issues raised are new, for example target revenue allocation and connection pricing, and this has been acknowledged by the Authority. More work is needed to adequately understand these issues and their implications. Distributors need time to fully understand them and if there are any unintended consequences that could arise from their implementation. As mentioned above, Northpower and Top Energy are happy to work with the Authority to ensure fit-for-purpose changes.

16. There continue to be issues, often outside the control of distributors, that are unlikely to make these proposed changes effective, and these include:

    - greater focus is required on the foundational steps to support the development of additional load control (flexibility) services;
    - actual ICP data (at an increasingly granular level) is essential for effective pricing reform. More work needs to be done here;
    - smart meter roll outs are still not fully widespread, particularly in Northland; and

- retailers are not passing through the price signals implemented by distributors that would benefit consumers.

Supporting the development of flexibility services

17. Flexibility is rewarded through controller pricing, which values a guaranteed response as opposed to price signals that incentivise, but do not guarantee, a response. The Authority suggests there has been little progress in establishing price signals that reward flexibility, and that there has been regression in some areas, however the current regulatory settings have driven this.
18. The Transmission Pricing Methodology (TPM) has removed the price signal which previously incentivised distributors to manage total load on their network. This assists matching supply of and demand for generation and helped manage peak demand on the transmission network. It was entirely foreseeable (and the Authority was warned by many parties during the years long TPM consultation) that the removal of a peak transmission charge would result in an increase in peak demand.
19. Distributors no longer have a direct financial incentive to maintain and use ripple control, now that a peak transmission charge has been removed. Distributors are also not participants on the spot market, so they now have no price signal to load control. The first signal distributors now get to control load is a grid emergency notice.
20. However, despite this both Northpower and Top Energy have maintained controllable load price categories. This controllable load is useful for network purposes to manage planned and unplanned outages. We expect this will evolve over time to include control of other load devices (such as home EV smart chargers) for distribution system balancing and management (although such control will not be exclusive).
21. The Authority should be focussing on ensuring the foundations are in place to support the development of controllable load and flexibility services. For example, capturing the installation in the Registry of smart EV chargers, and supporting the establishment of communication protocols.

Data and information sharing

22. We agree with the ENA that the use of actual ICP data for market reconciliation and distribution billing is vital. Accurate data is essential to unlocking the effectiveness of pricing signals.
23. Again, as highlighted by the ENA, the protocols (EIEPs) and systems that underpin the exchange of data between retailers and distributors relies upon the exchange of CSV files. The Authority should undertake a review of the industry’s data exchange processes, to ensure accurate data is being shared.

Smart metering

24. It is well known that smart meters are needed to assist with many of the recommended proposals. Smart meters are essential for the effective use of Time-of-Use (TOU) pricing. More uptake is needed to be effective.

25. Here in Northland, smart meter installation has been an issue. Top Energy's area only has 70 per cent penetration of smart meters with the remaining legacy meters concentrated in high deprivation areas.

26. Does the Authority intend to address the installation of smart meters? Or at the very least work with the sector to increase their uptake and address gaps.

27. Smart meter use is also limited by data communication, effectively making some smart meters "dumb". There are several areas within Northland that do not have effective internet coverage to ensure smart meters can adequately transmit their data. Again, distributors alone cannot ensure their effectiveness.

28. These hard-to-reach communities that have yet to have smart meters installed are those that would benefit the most. This is leading to those that could benefit from these reforms the most, being the least likely to receive them.

Pass-through requirements

29. Price signals are dependent on retailers passing these through to customers and it is our experience that they do not always pass them through. We are supportive of the Authority's preferred pricing regime outlined in clause 4.29, however with a caveat that changes are made to ensure retailers pass through these price signals to ensure customers can change their behaviour if they wish, or alternatively, choose to consume at peak periods and pay a higher price.

30. As a minimum it needs to be made mandatory for retailers to have pricing plans that pass these price signals through, otherwise distributor pricing will be meaningless. We have nil (Northpower) or lower (Top Energy) off-peak rates but often these signals are not passed through. We acknowledge some retailers will want to provide innovative products to their customers (e.g. 3 hours free off peak power), and therefore different pricing options should be given to consumers.

31. We encourage the Authority to work with retailers to ensure that they are actively passing-through any pricing signals issued by distributors.

Peak period price signals

32. The Authority needs to acknowledge the difference between prices that allow consumers to make informed decisions at peak periods versus those that reward consumers for providing distributors the ability to actively control their usage (where an instant response is required).

33. Distributors need to be able to manage their networks when they are constrained with certainty that controllable load will respond, which is currently achieved through ripple control. Certainty of response is not provided through TOU pricing, which is just a signal that consumers may or may not respond to.

34. Northpower and Top Energy have both introduced the Authority's recommended proposals associated with TOU and peak pricing and we agree it is a useful tool to encourage behaviour. However, care needs to be taken that the peak signals are not too steep, as this may exacerbate energy hardship, and cause adverse social and economic outcomes for consumers. This has been shown by the Lines Company's experience. Therefore, any strict economic approach to setting peak signals must be modified to ensure we avoid adverse impacts on end consumers.

35. As already mentioned, we suggest working with those distributors that have yet to make some of these changes would be a more effective use of the Authority's resourcing and better targets the current problem.

Off peak price signals

36. As already mentioned, Northpower and Top Energy have already implemented TOU pricing and use peak period prices to signal network usage. However, again, this is unlikely to influence material change when used in isolation. It requires those signals to be passed through to consumers, so they can adjust their behaviour accordingly.

Target revenue allocation

37. The Authority notes that this is a new area of focus. Given the lack of analysis, and prior guidance by the Authority in this area, we agree with the ENA that this should be an area of future collaboration between the Authority and the ENA.
38. We agree that the next steps are to clarify expectations, better understand what the Authority considers "good" looks like, and to develop useful guidance and tools for distributors to use.

Connection pricing

39. We both have policies associated with connection charging and have endeavoured to strike a balance between the interests of existing customers and new customers seeking to connect to the network. This is to ensure that those already connected are not unfairly burdened by paying for increases in capacity required by new users.
40. Similarly, as noted above, some of the Authority's assumptions associated with connection pricing are at odds with its cost reflective principles. Reflecting the Authority's prior guidance on pricing, we have reflected the costs of a new connection into the capacity and connecting pricing for new load customers. A new high-capacity multi EV charging station needs a significant amount of capacity, and depending on its size, it can represent a large residential subdivision, or a new supermarket.
41. Commercial EV charging providers are seeking to reduce the costs of connection. However, who pays instead is a question moving forward if distributors were to fully adopt the Authority's recommendations? It's unfair to make smaller consumers subsidise new commercial EV charging providers, just like it is unfair to make them subsidise the new connection costs of property developers, supermarkets, and other commercial interests.
42. Further to this, it hardly aligns with the Authority's new statutory objective to protect the interests of domestic consumers and small business consumers in relation to the supply of electricity to those consumers. The approach suggested makes small consumers pay more than their fair share.
43. Any change in approach to connection pricing requires distributors and the Authority to be extremely mindful of intergenerational equity issues. For existing customers who have paid upfront for connections, a change in approach risks new consumers benefiting from the contributions of existing consumers without making a contribution of their own.
44. If the Authority wants cost reflection to influence consumer's investment decisions this should apply for *all* new connections as well. However, in this space, the Authority seems to

prefer reducing allocations to access seekers where these are overly high. As such the Authority is calling for different charging in this space; however, who is this really benefiting? This appears highly contrary to the Authority's principle of cost reflective pricing.

45. We also question the Authority's assumption "it is efficient for a distributor to use such price signals to delay the necessity of investments, until the cost of a network upgrade (or alternative solution) becomes economically justifiable – ie, the value to consumers exceeds the cost. In this way, price signals lead to efficiency in the long-term." Often it is most efficient for distributors to add capacity ahead of demand.

46. For example, when replacing an end-of-life power transformer, it is only marginally more expensive to replace with a larger capacity transformer, than keeping the same size, to allow for future growth. Or when a proposed new large mixed use subdivision necessitates a new substation as recently highlighted on Northpower's network. These examples highlight it can be more efficient to put in a larger transformer to support growth in that area, than was immediately required.

47. In this recent Northpower example, the developer was expected to pay a growth charge to fund the proportion of the capacity in the new substation needed to support it, with the remainder of the costs being socialised across existing customers until other customers connect. This ensures those driving costs pay and keeps prices in the long term lower for consumers than would otherwise be the case.

48. There is always a danger with new subdivisions (or any new load customers) that the anticipated growth might not eventuate (e.g. due to economic downturn, developer failure) effectively pushing the costs of these assets onto existing customers. Therefore, it is entirely fair that the new load customer meets the costs associated with their connection, including a contribution to upstream costs and new capacity created as a result of that customer's requirements.

49. In relation to the complementary measures discussed at 7.28, we have no objections to publishing further asset information (noting much of this is already included in our Asset Management Plan). However, in our experience with customers, they find it more useful to have individualised conversations around their capacity needs and how the network can accommodate them, including different options for upgrades and connections. For load customers, it is generally not capacity on the network that drives investment decisions, unlike distributed generation customers where this is a primary consideration.

50. Regarding clause 7.29, around a broader group of approved providers, the Authority is correct that in regional areas there is unlikely to be a sufficient pool of contractors that can provide the full range of network connection services. This is despite the fact that we have both worked with local service providers to gain network approved status. However, quality, technical competencies and safety requirements limit the range of services these regional contractors are able to provide.

51. Therefore, we are very concerned that the Authority's intent to intervene in this area may have adverse and inequitable consequences for consumers, particularly smaller consumers. They will end up paying higher prices for capacity upgrades driven by new load customers. We caution against any change, and instead urge the Authority to take the time to work with the industry. A better understanding of the problem is needed, the rationale for different approaches, and a focus on working through with the ENA on standardising terminology, processes, and approaches.

Retailer response

52. We are in full agreement with the Authority's concerns regarding retailers' lack of response to distributors' pricing signals and recommendation for retailers to use actual half hourly usage. Northpower, in particular, has been asking for these changes for some time.

53. However, as previously mentioned, this is reliant on smart metering and retailers passing-through these signals. Without participation from retailers, these recommendations are unlikely to be effective.

Timing of this review

54. Following this Issues Paper and its consultation, the Authority intends to bring any changes in by December 2023. Distribution companies have timeframes that they must meet to ensure they can make any pricing changes. These start in August/September, and are generally finalised by December the year prior to the new prices being introduced.

55. The proposed timings suggested by the Authority does not fit in with this timeframe required for distributors to make any further changes. How does the Authority intend to allow distributors the time to make any proposed changes to meet these timeframes?

Conclusion

56. Again, thank you for the opportunity to make a submission on the 'Targeted Reform of Distribution Pricing – Issues Paper'.

57. If you have further queries regarding this submission do not hesitate to contact Jane Budge, Regulatory and Compliance Manager, Northpower, on jane.budge@northpower.com or phone (021) 393-112, or Simon Bocock, Commercial and Pricing Manager, Top Energy, on simon.bocock@topenergy.co.nz or phone (027) 296 8347.

58. Also as mentioned earlier we are happy to host the Authority and if you are interested in taking up our offer do not hesitate to contact either Jane or Simon.

Yours faithfully,

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Chief Operating Officer (Network) Northpower Ltd	Chief Executive Top Energy Ltd