

20 December 2016

Electricity Networks Association  
Level 7/154 Featherston St  
Wellington 6011

By email: [submissions@electricity.org.nz](mailto:submissions@electricity.org.nz)

Dear Electricity Networks Association,

## **New Pricing Options for Electricity Distributors**

### **Introduction**

Thank you for the opportunity to comment on the Electricity Networks Association's (**ENA**) discussion paper: New Pricing Options for Electricity Distributors (**Discussion paper**).

The electricity industry is evolving quickly with the rise of distributed energy technologies and greater customer participation. These changes are positive for customers and the industry, and ENA is correct that reform to distribution pricing is a key step to enable customers to benefit from such changes.

We appreciate ENA's engagement with the industry on this topic, and the work undertaken to date to outline possible distribution pricing options. The question for the industry is: what is the best way to take this reform forward to maximise the benefits to customers?

### **Designing the reform process to maximise benefits for customers**

The goal of reform should be co-ordinated customer driven change that allows systems and customers to transition to the 'new normal' without bill shock. The change to distribution pricing requires more research, industry coordination, and consideration of wider industry reforms. In particular:

- The assessment of preferred options should be based on research into behavioural and economic outcomes;
- The process for reform should be conducted in a cross-industry coordinated way, including trials, standardised distribution pricing structures and aligned and agreed communications with customers; and
- The process for implementation should consider other appropriate industry reform measures, such as new localised demand response markets and the need for separation of regulated and competitive activities.

This will require all stakeholders to put aside conflicted positions to ensure customers achieve the best possible outcomes.

While the Discussion paper has laid out a positive starting point for this process, in order to take this forward and achieve target timelines a lot more work and coordination is required. We believe electricity distribution businesses (**EDBs**), retailers, the Electricity Authority (**Authority**), and the Ministry of Business, Innovation & Employment (**MBIE**) should act together now, rather than later, to make this happen.

## **The assessment of preferred options should be based on research into behavioural and economic outcomes**

The aim of distribution pricing reform should be to provide improved outcomes to customers and New Zealand. This is likely to come through appropriate economic signals for different electricity services (e.g. removing cross subsidies for some technologies through consumption-based (kwh) network pricing) and adjusting customer behaviour to reduce the need for future capital investment in networks. Behaviour change can be effected in multiple ways, depending on how engaged (or not) the customer is with electricity, and while price is one key lever for change it is important to note that it is not the only lever. For some customers, more effective methods may come through automation (e.g. set and forget devices or appliance energy disaggregation monitoring services, alternative meter set-ups behind or alongside current meters).

Contact's primary concern with the Discussion paper is the apparent lack of *assessment* of the pricing options. Industry and customer support for pricing reform is more likely to be achieved if stakeholders are guided by evidence or research. Evidence-based policy development may not guarantee a perfect outcome, but it does offer a valuable way to galvanise industry consensus, customer support, and a means for progressing distribution pricing reform issues. It should also result in better knowledge of potential trade-offs, which ultimately will result in a more durable outcome. To achieve this we see a clear need for economic and behavioural research of the pricing options in the context of the New Zealand market.

We also believe there are more learnings from overseas jurisdictions that could be used to help analyse options, including analysis of implementation and transitional issues, and potential foregone opportunities. There is an abundance of material available from Australia, Canada, and the United States that New Zealand can draw upon. We can see some material referred to in the Discussion paper, but it is difficult to see how this has been utilised in forming the suite of options and in assessment of the options.

## **The process for reform should be conducted in a cross-industry coordinated way, including trials, standardised distribution pricing structures and aligned and agreed communications with customers**

We are concerned that there appears to be little coordination between ENA and EDBs, and also between EDBs and retailers in the distribution pricing reform process. The two key areas in which this has emerged to date are through the uncoordinated approach by EDBs to trialling new network prices, and with EDBs directly engaging with customers without informing, or consulting with retailers.<sup>1</sup> While we support trialling new offerings and customer engagement, if this is done individually by each of the 29 EDBs without coordination with each other and retailers, this will result in significant cost, confusion and disruption for customers and retailers.

An industry wide approach should be adopted to distribution pricing reform, both to ensure an effective and efficient process and to ensure individual company incentives (which may not align with customer incentives) do not drive pricing outcomes. This process should include:

- Improving communications between EDBs and retailers, so that messaging is simple, clear and engaging for customers;
- A communication programme, developed in conjunction with retailers, before implementation;

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<sup>1</sup> See, for example: <https://www.vector.co.nz/hu/pricing-survey>.

- The adoption of uniform tariff design across all network regions (with minimal differentiation driven only by a particular EDB's characteristics (load shape, spare capacity, growth projections, etc.));
- The coordination of trials and implementation across EDBs and retailers, including sharing of relevant information from these;
- A mechanism for protecting the most vulnerable customers, including different 'classes' of customers;<sup>2</sup>
- Development and promotion of open source tools to enable customers to manage and see the effects of new tariff types, including those who may have limited ability to respond; and
- Providing clear road maps to allow time for design of new tariffs and/or other methods of engagement with customers.

Contact welcomes the opportunity to work with EDBs to improve coordination, collaboration and communication efforts.

**The process for implementation should consider other appropriate industry reform, such as new localised demand response markets and the need for separation of regulated and competitive activities**

Distribution pricing needs to be considered as part of a broader industry reform framework. It is somewhat artificial to consider one aspect of the value (or physical) chain in isolation, without analysis of possible implications in other parts of the chain. For example, assessing how changes to distribution pricing will align with the fixed sunk cost approach of the proposed transmission pricing methodology, Input Methodologies review, developments in data exchange/ use, and overall market structure issues are all relevant considerations.

As the electricity market evolves it will be increasingly important that monopoly and competitive components of the market are clearly defined and that parties are limited in their ability to leverage monopoly positions for competitive market outcomes. With regard to distribution pricing this is particularly relevant for how controlled load services, which are competitive market offerings, are structured alongside distribution pricing, which is for a monopoly service. Today the two are intertwined in controlled hot water tariffs. Looking forward this is neither a durable nor optimal solution for customers, as it eliminates competition in what should be competitive service offerings.

Our recommendation is that distribution pricing must clearly focus on the monopoly service provided by EDBs. It should also envisage the design and implementation of competitive markets for localised load control services, which could be provided by numerous parties and technologies, including hot-water.

Throughout the process we also expect wider system issues will emerge for consideration (e.g. data). Again, considering these issues in light of future reform will be important. While the current blurred lines between monopoly and competitive market operations are problematic for data sharing today, review of this area may bring improved structures and outcomes for customers in the future.

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<sup>2</sup> Under The Electricity (Low Fixed Charge Tariff Option for Domestic Consumers) Regulations 2004.

## Reflections on the pricing options

Contact considers not enough work has been undertaken to date to make an informed assessment of which pricing option would be most appropriate. At best, we may be in a position to identify options that could be removed from consideration, but without further research a pricing structure should not be chosen. From our review of international research, and our own analysis, we would be particularly concerned with the choice of the following without additional analysis to show how they deliver beneficial outcomes for customers:

1. Booked capacity; and
2. Installed capacity.

Both of the above options would appear to be more relevant where suppliers could schedule or manage customer capacity to ensure compliance with their elected service, such as in data/communications services. As yet, however, technology is not available on mass to allow electricity suppliers to do this without extremely poor outcomes for customers (e.g. power outages from a tripped fuse). Additionally, concepts such as penalties for overuse without incentives for underuse seem very one-sided, and draw into question why a design such as Time of Use (**ToU**) or demand charges were not used instead. For these reasons we are concerned the above would be seen as more of a fixed charge and as such would eliminate the behavioural benefits of reform. As mentioned, before passing any final judgement, research showing the implications on customers and the system should be produced on this topic.

Despite the reservations identified with lack of research above, our preference would be for further research to focus on ToU and network demand charge methods (where demand periods are pre-determined). We consider these best fit both the desired outcomes and align with international research findings in this area. Our preference to focus on these is due to the myriad of variations available within ToU (annual, winter/ summer, 2 part, 3 part, public holidays, etc.) and to a lesser extent demand charging. Conducting research with too many available options is likely to increase both cost and complexity of the exercise. It should also be noted that both of the above could be designed to accommodate a general, and a separate, controlled load market to sit alongside one another.

## Next steps

Contact is concerned that the industry is proceeding towards distribution pricing reform without proper process and consideration of the opportunities and risks. We therefore urge ENA, the Authority, and wider stakeholders to ensure the industry proceeds on a credible foundation to support a consistent outcome. Contact recommends the following next steps:

1. Formation of a pan-industry steering group for this work from EDBs, retailers, the Authority and MBIE;
2. ENA's current work is used as a starting point for further coordinated research and analysis of the long-term pricing reform target. This includes:
  - a. A review of overseas findings;<sup>3</sup>
  - b. New Zealand economic research;
  - c. New Zealand customer and behavioural research; and

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<sup>3</sup> We note the reference on page 41 of the Discussion paper to work conducted in 2011. Given the recent international advancements and changes in distribution pricing we believe an up to date review would be more appropriate for the basis for this reform.

3. Design of a process for coordination and collaboration for trialling, testing, research and customer communications.

Please see Appendix A for our specific responses to ENA's questions.

We look forward to further engagement with ENA, individual EDBs, and the Authority as the industry progresses distribution pricing reform. Should you wish to discuss any of the matters raised above please don't hesitate to contact me on 04 462 1017.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'D Gendall', with a stylized, cursive script.

David Gendall  
**Regulatory Affairs & Government Relations Advisor**

## Appendix A

### Contact's Response to ENA Questions

Responses to topic areas covered by ENA's questions 5-14, 16-21 and 24 are contained in the above letter. Please refer to the following pages:

- Coordination: pages 1, 2, 4;
- Communication: page 2;
- Research requirements: pages 1, 2, 4;
- Concerns on Booked and Installed capacity: page 4.

Question No.	Question	Response
1	<p>The following features of efficient and effective distribution pricing have been identified: (1) actionable; (2) compliant; (3) cost-reflective; (4) effective in the long term (durable); (5) service-based; (6) simple; (7) stable and predictable.</p> <p>a) Are there any features which you consider should be added, removed or changed in the above list? Please explain your reasons.</p> <p>b) Which of the above features are the most important in determining future distribution pricing</p>	<p>Any change to distribution pricing should always be designed to bring the highest value long term outcomes for customers. Within this context the features seem fine except "compliant". If best outcomes for customers would be reached by outcomes that are currently non-compliant then a wider discussion on the appropriateness of such compliance should be had.</p> <p>Note: Two definitions of actionable are contained in the document (see page 3 list vs page 4 diagram). It would be helpful if the intended definition was clarified as the two currently stated are not the same.</p>
2	<p>The ENA has identified five pricing types that it considers in detail in this paper: time of use consumption; customer demand; network demand; booked capacity and installed capacity. Do you agree that these are the five best types of pricing to consider now? Do you agree that other cutting edge pricing options (such as critical peak and real-time pricing) should be left for consideration later? Please provide your reasons.</p>	<p>Please refer to Contact's letter on concerns with Booked capacity and Installed capacity (page 4).</p> <p>An installed or booked capacity charge provides a poor signal to a customer about the long term cost of using the network, which is sub-optimal when networks can consider reducing investment in both growth capex and replacement capex (the later often being the majority of EDB investment). Further, installed capacity and booked capacity charges appear more fixed cost in nature, reducing appropriate incentives for consumers to respond or invest in lower cost energy technologies.</p>

Question No.	Question	Response
		<p>Contact agrees critical peak and real-time pricing are not appropriate at this stage, as the complexity is unsuitable for small consumers. However, more localised, dynamic network price signals are required to provide cost-reflective incentives for third-party non-network solutions where networks are faced with growth and replacement capex decisions. In the absence of introducing this complexity through tariffs, competitive demand response programs (like the Transpower program) are an essential component of overall system design – giving customers the opportunity to adopt and provide network services from energy storage and other demand response technologies where it provides the most efficient option for network investment. Distribution pricing must clearly focus on the monopoly service provided by EDBs, but it should also envisage the design and implementation of competitive markets for localised load control services, which could be provided by numerous parties and technologies, including hot-water.</p>
3	<p>Do you consider that retail competition can be relied upon to ensure consumers face appropriate distribution price signals? Please explain why or why not.</p>	<p>Yes, retailers will need to work with customers in different ways to influence behaviour. It is important to note that price signals are only one way in which to change customer behaviour. In addition, please refer to video of the EA distribution pricing conference (2016) for detail on this topic.</p>
4	<p>Do consumers see value in load control and ripple control, and is this likely to change in future?</p>	<p>See response to question 2 regarding future load control markets and page 3 of Contact’s letter for discussion of future load control markets and controlled load tariffs.</p> <p>We also note that separately metering network controlled load is a sub-optimal solution, as new technologies will be integrated with customer loads (for example solar generation may be utilised to heat a hot water cylinder with excess going into a battery – neither of which is possible without exporting and re-importing the power if the hot water cylinder and battery are on separately metered supplies). This area requires further consideration</p>

Question No.	Question	Response
		<p>and discussion, technologies are available that remove the requirement for separate metering on controlled and non-controlled load.</p> <p>Further, as part of a reform towards cost-reflective tariffs, the use of controlled load tariffs should be reviewed. Currently the same tariff discount is provided to all customers for hot water control regardless of the amount of load control being provided at peak times, and the available capacity in the network. This is resulting in some customers paying higher lines charges to subsidise discounts to other customers who are providing no service to the EDB. Network load control could be more efficiently managed through demand response programs which are location specific and take into account the actual load control being provided – which could include energy storage, EVs and other technologies which are not suited to a “one size fits all” tariff approach. As discussed in our letter as part of this submission, demand response can be provided by numerous parties and technologies, and demand response markets can provide a competitively neutral approach rather than network controlled load tariffs creating a monopoly service.</p>
15	What tools might consumers need access to be aware of Network Demand pricing signals?	See Contact’s letter. The question seems to assume that all customers will want strong engagement with the price signals which is an unproven assumption, we expect this will vary widely and therefore methods for engagement will also vary widely.
22	Do you agree with the list of pricing assessment criteria presented in Section 9.2? If not, what criteria should be considered? What are the most important assessment criteria and why	No. We believe research and analysis is required to determine what structure(s) are likely to provide the highest long term benefit to customers and NZ. Such a table provides little insight into which option will be in the long term best interest of customers and/or NZ.
23	Do you agree with the ENA’s high level assessment of each pricing option against the assessment criteria (presented in Section 9.2)? What in your view are the relative benefits, costs, or challenges associated with each pricing option?	See Contact’s letter, this assessment should be based on research and analysis. We also believe booked capacity and installed capacity are not appropriate.



Question No.	Question	Response
25	Do you foresee any challenges to obtain and supply required data for implementation of preferred price structures? Please provide your reasons.	See Contact's letter for the need to consider this in line with wider industry reform. Customer privacy issues must always be top of mind when dealing with customer data.
26	What is your view on the use of data estimates / profiles for implementation of preferred price structures? How should gaps in information in half hour data be addressed?	Estimates and estimation methods will always be needed as smart meter penetration will be below 100% and sometimes half hour data will not be perfect. Pricing therefore needs to be planned/designed with this in mind.
27	What are the potential changes that could be required by Registry because of moving to service-based price structures?	We see this as a secondary implementation question once a preferred option is selected.
28	What are the potential challenges to Electricity Information Exchange Protocols (EIEPs) because of moving to service-based price structures?	We see this as a secondary implementation question once a preferred option is selected.
29	What are the potential challenges for your data management and billing systems in implementing service-based price structures?	This is difficult to respond to in general, each change will require systems changes. It will be very important that we have as much standardisation as possible between networks to avoid unnecessary costs to the industry and confusion for customers.
30	What other technical implementation challenges do you foresee that can impact on implementation of service-based price structures?	This is difficult to respond to in general, each change will require different changes. It will be very important that we have as much standardisation as possible between networks to avoid unnecessary costs to the industry and confusion for customers.
31	How can distributors encourage greater uptake of cost reflective types of pricing? Do you prefer mandatory or voluntary adoption approaches, or a combination of both (e.g. see figures 43 and 44)? What other matters do distributors need to consider under each?	See letter for proposed next steps.
32	What is a reasonable timeframe over which to shift to cost reflective pricing?	Some pricing options can be implemented sooner rather than later, but if the pricing option requires a system change by the retailers (e.g. demand pricing), then this is likely to take longer. Standardisation of pricing will also help improve implementation timing. We welcome the opportunity to work with ENA further on this topic.

Question No.	Question	Response
33	What are your preferred approaches to managing adverse price changes (e.g. see types of pricing presented in pages 72 to 74) and why? What other approaches should be considered?	See Contact's letter for comments of requirements for research on this topic to help define the problem here and give context for possible solutions.
34	What transition issues or challenges do consumers face in the move to cost reflective pricing?	See Contact's letter for comments on communication with customers. Transition will be difficult if there is a lack of standardisation and coordination across New Zealand.
35	What can distributors do to effectively communicate and engage with consumers during the transition period? What information is most important to provide to consumers during this transition period?	See Contact's letter for comments on communication with customers. In particular, distributors communicating directly without retailer coordination is confusing for many customers.
36	What issues or challenges arise for other stakeholders (i.e. non-consumers) during the transition period? How would you prefer for distributors to communicate and engage with you during the transition period? What information would you like distributors to provide you during this transition period?	<p>ENA should invite feedback from all groups that could be potentially impacted</p> <p>See Contact's letter for discussions on communications.</p>
37	Are there any matters not covered in this paper that the industry needs to consider in relation to distribution pricing?	See Contact's letter for more details on this.