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Dear Rob

Supporting reform to efficient distribution pricing

Thank you for the opportunity to provide feedback on the *Supporting reform to efficient distribution pricing: a refreshed Distribution Pricing Practice Note* consultation (**Distribution Pricing Consultation**). This response should be read with our feedback to the Electricity Authority's (**EA**) *Updating the Regulatory Settings for Distribution Networks* consultation (**Regulatory Settings Consultation**). Our response to the Regulatory Settings Consultation addressed many of the questions asked in this Distribution Pricing Consultation.

WELL supports reforming Distribution Pricing – cost reflective pricing is an important tool to help keep distribution prices low in the long term. Flexibility services and their associated cost reflective prices will also be an essential tool for distribution networks to deliver the Climate Change Commission's 2021 carbon emissions reduction programmes, specifically the electrification of transportation. As outlined in our response to the Regulatory Settings Consultation, unless demand can be shifted away from congested periods on the electricity network by using tools like flexibility services, distribution networks may not be able to expand their networks fast enough to meet the rapid demand increase. The development of prices that reflect the value of shifting demand from congested periods on the network, is an essential step in the development of flexibility services. For consumers to recognise the

full value stack¹ offered by flexibility services, distribution services must be priced correctly so that customers can choose what flexibility service they will participate in².

We have also developed a roadmap of the industry changes needed to support the introduction of Electric Vehicles (**EV's**), while keeping long term prices low and maintain a secure supply of electricity. The EV Connect Roadmap provides a robust set of actions that the industry can use to accommodate the EVs onto the electricity system. A key workstream is the continued development of distribution prices – prices that continue to develop to reflect:

1. New services that offer different value to consumers become available
2. New technology is developed that allows consumers to better respond to price signals.
3. As new information becomes available that will let distributions calculate more accurate prices.

The EV Connect Roadmap was described in our response to the Regulatory Settings Consultation. The Roadmap and the full set of consultation and workshop documents can be found at: <https://www.welectricity.co.nz/about-us/major-projects/ev-connect/>.

We are pleased that the EA recognises that there is not a single pricing solution for every Electricity Distribution Businesses (**EDB**) and that the best pricing structure and the speed that an EDB develops new prices will be different for each network. We are also pleased that the EA recognises that EDBs may need to make changes gradually over time to avoid price shocks – some of the changes will be significant and customers will need time to adjust their own budgets and energy use habits in response.

1. Questions 1: Do expectations laid out in the updated Practice Note on what 'good looks like' for efficient pricing provide a useful guide?

The Practice Note provides good guidance on what a 'Good Pricing Evolution' looks like. We thought that Part 4 of the Practice Note provided realistic pricing structures for different growth scenarios. These were presented in an easy-to-understand format.

¹ Flexibility services provide customers with a range of benefits generated from different parts of the electricity system. In most cases the benefits can be aggregated or 'stacked', rather than traded-off.

² Different buyers of flexibility services will value flexibility services differently. Accurate prices will allow consumers to choose the services that will provide them the most value for participating in those services.

While we note that the Practice Note acknowledges that more complex pricing structures are difficult to implement at this time, in terms of both granularity and application, the note is still recommending a level of pricing segmentation that retailers will find difficult to process and are unlikely to be passed through. If applied, this is likely to add unnecessary cost and complexity – EDBs will bear the higher cost of calculating and administering more complex prices that retailers won't be able to process and pass through. Our experience of first trying to apply demand pricing and then the simplest form of ToU pricing is that a large proportion of retailers aren't able to process and pass-through time segmented prices to consumers, let alone 28 different price sets for each of Wellington's zone substations. Retailers billing processes and billing systems take time to upgrade and adjust to price changes.

In practice, it's likely that EDBs will calculate zone substation level price signals and will then aggregate the price signals until retailers are in a position to pass through the prices and consumers are ready to respond to them. It could also be that EDBs offer aggregated price signals (e.g. rural/urban) for its general tariffs and then use zone substation level price signals for flexibility service to provide targeted pricing solutions.

We are pleased the Practice Note recognises that it will take time for networks to transition to the 'good' state due to the five year exit of low fixed charge restrictions and that time to transition is needed to avoid consumer price shocks. Other reasons that EDBs will need time to transition to new prices include:

- Retailers will need to also evolve their own billing systems and processes to enable prices to be correctly passed through. Feedback from retailers from our ToU implementation was that if retailers billing systems were not able to process more complex prices, they would have to estimate consumer bills - there would then be a risk that consumers would not see the benefits from any changes in their energy behaviours.
- Feedback on our EV Connect Roadmap shared what other EDBs have learned from their own research into consumer preferences for distribution services. The research showed that consumers did not want to actively manage how they used electricity but would be interested in using technology or service providers that did this for them. Time will be needed to develop flexibility services that manage energy use and technology that allow consumers to passively participate.
- Our own research, the ENA's Guidance on Pricing Reform and feedback on our EV Connect Roadmap all show that flexibility services that actively manage energy use are significantly better at moving energy away from peak demand periods than by price signals alone. As

highlighted in our EV Connect Roadmap and in our response to the Regulatory Settings Consultation, New Zealand is just starting in the development of these services and time is needed to trial and develop the capability.

We also agree with the Practice Note recognition that the 'good' state will change with time. New distribution services, technology changes and changing customer requirements may require new price structures. The 'live' Practice Note will allow the 'what good looks like' to be updated as distribution services are refined.

2. Questions 2: Do you consider any of the material to be incorrect, subjective or superfluous?

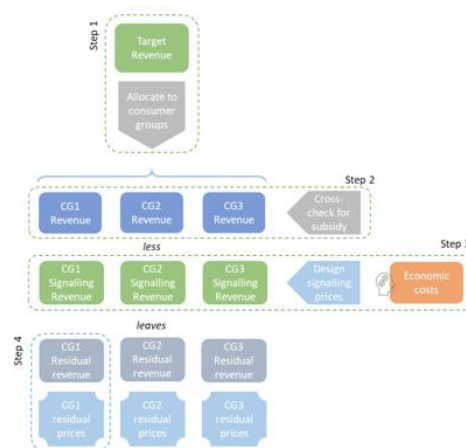
As highlighted above, at this stage zone substation level pricing would be unmanageable and it's unlikely that any retailers would (or in many cases, could) pass those prices through. We believe that doing this now would only add cost with no benefit.

We do support EDBs building a zone substation level segmentation model to understand the differences between the pricing segments and then waiting until the retailers are capable and willing to use the different price signals. Otherwise, customers will be funding a level of pricing granularity that provides no value.

3. Questions 3: Are there edits or further explanation that you'd suggest to improve clarity?

Figure 21 provides a good overview of the price setting process. We have started to work through how this process will be practically applied to our own pricing process. We found that step 2 (revenue forecast to be recovered via price signal) requires the 'target revenue' to be first allocated to each customer group before the price signals are calculated – this allows the target revenue for each group to be maintained at their total expected levels and allows for a consistent calculation of the standalone and avoidable costs (i.e. a sensible cross subsidisation test). Calculating the price signals before allocating target revenue to customer groups creates inconsistencies in the total revenue collected from a customer group once revenue from the price signals and residual prices were added back together i.e. a customer group with a strong price signals would collect more total revenue overall than if the revenue was first allocated to each customer group – the strength of a price signal would impact the standalone and avoidable cost cross subsidisation test. Figure 1 illustrates our refined price setting process.

Figure 1: WELL’s refined price setting process



4. Questions 4: Is there material missing that would also be useful?

There are also still some areas that are missing from the Practice Note – the consultation document has identified some of these areas and we assume feedback to this consultation will be used to update the ‘live’ document. Specific areas include:

- Information Disclosure examples. Templates that outline the EAs disclosure expectations would speed up the disclosure process.
- Contribution policy expectations – clarifying the EAs expectations about how they expect to see contribution policies aligned. This will have a direct impact on regulatory allowances calculated under Part 4 of the Commerce Act and any changes will need to be made as part of a price path reset.

5. Questions 5: Are the expectations laid out in the updated Practice Note on timing for reform achievable?

Yes, we believe they are. It’s likely that changes will be needed sooner than the five-year transition imposed by the LFC transition plan. Networks will have to work around the restrictions in the meantime i.e. develop alternative price structures or mechanisms to disincentivise customer investment in solar.

6. Questions 6: Do you believe it is useful for the Practice Note to become a ‘living document’ that is refreshed regularly to update for the Authority and industry’s understanding?

This will be particularly important given that the development of flexibility services is in the early stages. More complex prices will need time to develop and the EAs expectations about what 'good' looks like is likely to also evolve as these new services are developed.

7. Questions 7: Are there edits or further explanation that you'd suggest to improve clarity?

As outlined above.

8. Questions 8: Where questions of data access or use do not fall into the Updating regulatory settings for distribution networks consultation, is there any specific pricing-relating data concerns that the Authority should know, or be involved in?

We provided a detailed description of the data needed to support pricing in our response to the Regulatory Settings Consultation. In summary:

1. **No visibility of the location of DER being installed:** While networks have visibility of solar and other distributed generation installations, we do not have visibility of other large DERs like EV chargers. Without knowing where large customer devices are being installed, Electricity Distribution Businesses (**EDBs**) are not able to plan or prepare for the additional demand caused by these devices. For privacy reasons, the New Zealand Transport Authority will not provide when or where new EVs are registered.
2. **Sourcing consumption data:** We have had difficulty sourcing historic consumption data. We have had to enter into time consuming confidentiality agreements with each retailer for a set of 30-minute consumption data. While the new Data Template will streamline this, EDBs will still have to negotiate with each retailer. Feedback from other EDBs (via the ENA) is that negotiations are taking time and often include a parallel agreement with the meter provider. Some EDBs also commented that the cost charged for the data can also be unaffordable, noting that EDBs will not have allowances for new costs like this. At the time this submission was drafted, no agreement had been concluded for individual negotiations using the new agreement - the industry is still unsure whether the new mechanism will provide the data needed.

A central source of consumption data, either via a central registry or common APIs, would allow EDBs to provide more accurate price signals and to monitor how consumers are responding to those signals.

3. **Availability of real time consumption data:** Access to real time consumption data is needed to improve the timeliness of demand management responses. Retailers and MEPs cannot provide real time consumption data or customer power quality information. Discussions with meter providers suggest that more granular five-minute consumption data may be available in the future, but real time data is still a long way off.

Customer smart devices connected to the web could provide an easy to access and cost-effective alternative source of real time data. This information could be used by EDBs to provide visibility of the low voltage network, helping to assist networks to operate within the acceptable safety limits. The EA could help develop processes, guidelines and common communication protocols to allow easy and affordable access to this information.

4. **Congestion information:** Networks generally do not have visibility of their LV networks and do not collect a detailed record of congestion data, apart from a coarse maximum demand (20-minute averaging) indication on some distribution transformers. Significant investment is needed to allow networks to monitor the LV network. Our EV Connect Roadmap has identified this as an important step in accommodating EV's onto distribution networks. The use of communicating (via the cloud) smart EV charging devices needed to participate in flexibility services, could provide valuable network performance information in real time.

9. Questions 9: Engaged customers are more likely to respond and in a more predictable manner than disengaged customers. What role do you see the Authority has in supporting consumer engagement on pricing?

A key EV Connect Roadmap action is to understand consumer preferences and price points. This will enable flexibility services to be designed to match consumer preferences so that they have high levels of participation. For flexibility services to be a viable alternative to traditional wire solutions, they must have high consumer participation to provide the scale needed. Flexibility services must be offered in a form that consumers want to participate in. EDB's will need to become more engaged with consumers, or with flexibility providers on their behalf, so they understand how to best call on flexibility services from flexibility providers and what customer price points are. It would be useful if the EA could provide guidance around an EDB's ability to interact directly with consumers. Traditionally this has been the role of the retailers and EDBs have had limited interaction, unless there is a fault affecting customer supply.

EDBs may also have direct access to customer consumption data or DER location information data. It would be useful if the EA could provide guidance around customer privacy and protection expectations. This could help streamline the process.

10. Questions 10: Ensuring that targeted pricing signals impact decision makers is important in distribution pricing reform. What role do you see the Authority has in supporting an industry discussion on ensuring price signals reach consumers, taking into account the need to comply with the Commerce Act 1986?

A difficult balance is needed between not restricting retailers and flexibility service providers from developing and providing innovative services to consumers and helping to ensure consumers receive distribution price signals so that they have the choice to shift demand away from network peaks, allowing distribution prices to remain low, or pay the higher cost to re-enforce the network for increasing demand. To be effective, distribution price signals need to be visible to consumers.

Rather than mandating retailers and flexibility services to pass through distribution prices, a better approach is to make it difficult for retailers to remain competitive if they don't reflect the value of moving demand away from congested periods to consumers – retailers could then choose to do this by passing the price signal through or by offering services that provide similar value. Changes needed to do this are:

1. Distributors providing accurate price signals. In many cases this will mean much higher prices for using energy during peak periods.
2. Educating consumers about the cost savings they could make by selecting retailers that offer products that reflect lower off-peak prices. We believe that the EA should play a central role in this education – as a neutral consumer advocate. This should include providing price comparisons between retailers – a fact-based comparison that would not limit competition.
3. Continue to develop better tools to allow easy and fast consumer switching between retailers. The switching process should continue to be streamlined to the point that technology could automatically switch consumers to retail plans which provide the best value. We believe the EA could provide a leading role removing any administrative barriers for this type of tool.
4. Develop a government or community retailer of 'last resort' for consumers who do not have the credit rating to switch to more affordable retailers or price plans.
5. Increase the promotion of the switching service using trusted local community advocates. Our experience in Wellington is that central government promoted switching is not as effective as switching programmes run and offered by local Iwi, church groups or councils.

11. Questions 11: Complexity in pricing structures could slow reform efforts. How do you see the Authority working with the sector to strike the correct balance?

As highlighted in our response to the Regulatory Settings Consultation and in our own EV Connect Roadmap, the rapid uptake in DERs and delivering the increase in energy demand needed to meet the climate change carbon reduction targets will require the rapid development of flexibility services, and with it, the development of distribution price signals to call on the flexibility services. We do not believe that pricing reform will continue to be slow and that rapid change will be needed. EDBs will need to quickly develop flexibility services and peak demand pricing signals to enable it to meet the increasing demand for electricity.

We believe that it will be important for flexibility service providers and retailers to also quickly develop their own processes and systems to be able to process and offer more complex price signals. It is important that the EA continues to recognise that the development of more complex distribution prices should be aligned with retailers and consumers ability to pass on and responds to those price signals. To do this, EDBs and retailers/flexibility providers will need to work closely. The EA could help align evolving distribution pricing with retailers' ability to pass them on and consumers ability to respond:

- Facilitate the development of a common set of price codes and structures for EDB prices. This will help the development of retailer billing systems by limiting the need for retailers to develop bespoke billing for each EDB.
- Include retailers in the distribution pricing reform process. This will help ensure retailers are aware of future pricing changes.

12. Questions 12: Can you provide feedback on how bill shock can be managed by industry and the Authority, to support ongoing reform of prices and not unduly impact on groups of customers?

This issue has also been addressed by the Commerce Commission who have put limits on any price increases. WELL's working hypothesis is to apply a similar approach:

1. Develop a medium-term price structure – the final price structures that we propose to move to in the medium term.
2. Develop transition rules which outline how we will move to the end state overtime – this would include limits on average price increases for each customer groups. The transition rules would be flexible, allowing us to accelerate or slow changes depending on external factors like changes to the Part 4 price path, volume changes or wider economic conditions.

3. Consult once with retailers on the final price structures and transition rules
4. Update retailers each year on final prices and progress towards the final structures.

13. Are there aspects of LFC and its announced phase out that you see as an ongoing impediment to pricing reform?

The speed of the phase out will slow down pricing reform when faster reform maybe needed to support the development of flexibility services essential to meeting the climate change targets. The slow exit will also prolong EDB price signals that incorrectly incentivise investments in solar and other appliances that reduce overall energy use. Those investments may no longer be viable once the LFC is fully exited. The slow exit will also prolong the disincentives to invest in EV's – EV owners will not get the full benefits of charging their vehicles off peak.

14. We are interested to better understand what ongoing limitations LV visibility issues might have that could constrain future pricing reform, how industry can respond to them and what, if any, role you see for the Authority in addressing this area?

LV visibility provides EDBs and flexibility participants with a view of network congestion and when flexibility services might be needed. Specifically:

1. Monitor “voltage out of limits” events which indicate need to reassess hosting capacity (solar injection) or demand-side management services
2. Forecast capacity constraints on their networks and to facilitate any demand management response that is needed.
3. Calculate and plan for network re-enforcement to meet any residual capacity shortfalls.
4. To calculate price signals that reflect network capacity constraints and the cost of using congestion during peak periods. Accurate price signals will be used by EDBs to call on flexibility services.

Networks generally do not have visibility of their LV networks and do not collect a detailed record of congestion data, apart from a coarse maximum demand (20-minute averaging) indication on some distribution transformers. Significant investment (or significant co-ordination if visibility is provided by smart DER) is needed to allow networks to monitor the LV network. EDBs will need to develop business cases for the investment into LV monitoring and demand forecasting. Unless networks can fit the investment into the current capex allowances, additional capex will need to be included in allowances for the next regulatory period.

If LV visibility is provided by installing LV monitoring equipment, then this is a Part 4 regulatory question rather than something the EA can directly address. It would be useful if the EA supported an increase in the allowances needed to fund this investment.

If LV visibility is provided by smart DER connected to the web, then the EA would play a core role in setting standards to make it mandatory for large DER to be smart and able to communicate. The EA could also facilitate a registry of the location of large DER.

15. Currently, installation of energy intensive devices such as EV fast chargers are not required to be notified to distributors. Do you see this as an impediment to advancing pricing reform, and what role do you see the Authority having in this area, and how this could be done?

Without knowing where large customer devices are being installed, Electricity Distribution Businesses (EDBs) are not able to plan or prepare for the additional demand caused by these devices. For privacy reasons, the New Zealand Transport Authority will not provide when or where new EVs are registered.

On 29 August 2021, Wellington experienced a very cold evening which resulted in unusually high energy consumption. The high levels of electricity usage included areas of the network where new peaks were unexpected. We expect this maybe because of the installation of DER devices like EV chargers or customers preference to keep warm was more important than the higher cost price signal. Without knowing where large DER are installed, networks will have difficulty in matching capacity and demand on specific parts of their networks. Networks will also not be able to set price signals that reflect the correct network capacity constraints.

A central register of the location and details of large DERs could be included on the EA's Registry.

16. As we develop our thinking on further initiatives, tools, or regulation, we will engage appropriately with the sector. We welcome any immediate suggestions you have regarding how we could better promote faster pricing reform.

Our EV Connect Roadmap sets out the actions needed to accommodate EV's onto electricity networks and to implement flexibility services needed to help deliver the demand increase. The Roadmap highlighted the 'least regrets' actions which are needed immediately – many of these actions need direct intervention or indirect support from the EA. The 'least regrets' actions needing EA assistance and relate to pricing includes:

1. Encourage retailers and flexibility services to update their billing systems and process to allow more complex prices to be passed through to consumers.

2. Provide on-going and easy access to consumption data.
3. Provide a central registry of large DER's.
4. Understand consumer preferences for flexibility services. This would include developing pricing structures that consumers would use and would encourage high participation in flexibility services (high participation will be needed before flexibility services to have the scale to provide a meaningful alternative to traditional network infrastructure).
5. Support EDBs in securing adjustments to their allowances so that they have the funding to develop new prices and to participate in flexibility services. This includes:
 - a. Internal pricing resources to develop distribution prices
 - b. Funding to develop an LV monitoring and management capability
 - c. Funding to purchase consumption data or real time smart charger or inverter data
 - d. Funding to purchase flexibility services
 - e. Tools to forecast future network congestion and prices to reflect that congestion

17. Do you consider that the Authority has not properly understood any of the constraints listed in this paper, or has missed other issues that constrain efficient pricing reform progress and how they could be addressed?

See our submission in response to the Regulatory Settings Consultation and our responses above.

WELL would like visibility on the future of gas as an energy source. Wellington relies on one in three homes using gas as a substitute fuel. The current thinking appears to suggest that additional network capacity will be needed to cover its removal as an energy source. This is a significant investment in Wellington. Visibility of future energy plans will be important to help make any transition from gas as smooth as possible.

18. Please do not limit your feedback to the above questions - we also welcome feedback on any other ways the Authority could work constructively with industry and consumers to support and drive accelerated pricing reform.

See our submission in response to the Regulatory Settings Consultation.

19. Please consider the role that you see appropriate for the Authority to be proactively involved in pricing evolution.

We think the EA is playing the correct role in supporting distribution pricing reform – providing guidance and benchmarking rather than direct regulation. The development of the flexibility services (and their associated prices) which are needed to move demand away from congestion periods is still

in its infancy. We believe that care is needed to avoid a regulatory framework that is too prescriptive. Regulatory flexibility is needed to allow stakeholders to test and develop prices to support new services without adding barriers that restrict or slows progress.

We also believe that the EA should also support networks to lobby the Commerce Commission for the additional allowances and changes to the Part 4 regulatory model needed for networks to deliver their part in New Zealand's carbon reduction programme. WELL is already seeing a shortfall in the DPP3 allowances needed to deliver early transport electrification investments. Specifically, the electrification of some public transport elements may have to be delayed until the next price path, customers may have to fund the programmes directly outside of the regulatory model or WELL will have to accept IRIS penalties. We are already seeing growth out stripping the 'business as usual' regulatory model.

20. How the Authority could engage more with industry, either individually or through structured channels, and in formal and informal ways.

Our EV Connect programme has identified industry leadership as a key driver for the accommodation of DER resources onto the electricity network. Many of the EV Connect Roadmap items are outside of the scope of distribution networks and required co-ordinated action from the industry. We believe the EA is well placed to partner with the industry to ensure the actions identified in this Consultation Document and the EV Connect Roadmap are completed. This would also require MBIE's involvement to set the policy and mandate for the EA to implement the work programme.

21. Closing

Thank you for the opportunity to comment on the Practice Note and wider pricing issues. We support the practice note and believe it provides useful guidance to help EDBs evolve our prices. We especially liked the practical examples of different price structures that could apply under different growth scenarios – pricing can become very theoretical and difficult to apply without these types of tools.

If you have any questions or there are aspects you would like to discuss, please don't hesitate to contact Scott Scrimgeour, Commercial and Regulatory Manager, at scott.scrimgeour@welectricity.co.nz. We appreciated the opportunity to talk through some aspects of the consultation with you earlier in the month and we would like to continue discussing the pricing framework as it evolves.

Yours sincerely



Greg Skelton

Chief Executive Officer

Wellington Electricity Lines Limited