wellington electricity

Submission – Working Together to ensure our electricity systems meets the future needs of all New Zealanders

25 June 2025

1 Submission and contact details

Consultation	Working Together to ensure our electricity systems meets the future needs of all New Zealanders
Submitted to	Electricity Authority
Submission address	decentralisation@ea.govt.nz
Date submitted	25 June 2025
Submitter	Greg Skelton, CEO
Contact	Andrew Smaill, Commercial and Regulatory Manager
Email	[redacted]

2 Confidential information

There is no confidential information provided in this submission. This submission can be publicly disclosed.

3 Introduction

Wellington Electricity Lines Limited (**WELL**) welcomes the opportunity to provide a submission on the Electricity Authority's (**EA**) consultation 'Working Together to ensure our electricity systems meets the future needs of all New Zealanders' (**the paper**).

In general terms we agree with the future view presented by the EA in the paper, including the three trends of decentralisation and that consumer trust and engagement is a critical success factor. In our view balance is required in the paper to recognise the realities of operating a stable, reliable, and affordable energy system in the context of growing decentralised energy sources. While the growth in distributed energy resources (DERs), democratised energy planning, digitisation and consumer trust and engagement are all important factors, they are in themselves insufficient to ensure the potential outcomes and benefits described by the EA in the paper. The intermittency, low energy density and low engagement potential will mean decentralised sources will be insufficient to avoid network investment.

In our view realisation of the potential outcomes and benefits needs consideration from more of whole of system view, including distribution, that has been presented. For example, we note in Figure 4 of the paper that the EA describes decentralisation as involving "A network of localised energy

systems connected by a strong central spine". We note that while the paper does briefly discuss grid and system operations complexity, it is very light in terms of what a "strong central spine" means in practice. We agree that in practice decentralised energy markets will require a "strong central spine" to operate successfully. This will require a clear understanding and accounting for a physical reality of stable operating conditions to be precedent for an interconnected DG embedded distribution network and the costs involved and imposed as a result. In our view these aspects are fundamental and as such shouldn't be ignored or assumed away in the conversation. The fundamental premise is a physical platform that can receive power flows and remain stable to transact an energy market has a key hierarchy of infrastructure, operational standards and market for it to work successfully.

Our responses to the consultation questions are set out below.

4 Consultation Questions

Questions	Comments
Question 1 Do you agree with the description of decentralisation? If not, why not?	• We agree with the three trends of decentralisation presented by the EA in the paper and that engagement is a critical success factor. However, we note that these in themselves are not sufficient to ensure the potential outcomes described and a more balanced and holistic conversation is required.
Question 2 Do you agree with the articulation of the potential outcomes and benefits from decentralisation for consumers? If not, why not?	• We consider that decentralization components described by the EA are not in themselves sufficient to ensure the potential outcomes described. • It is also far from clear whether the decentralisiation will result in lower costs. It is almost certain that additional devices connected at a low voltage household level (within the meter) can create additional costs in to provide a strong central spine to support localized energy systems. • We also note the terminology used in Figure 4 of the paper, which describes access and affordability as equity and fairness. While access and affordability are

Questions	Comments
	important outcomes, these are not necessarily the same as equity and fairness. As such we would recommend the terminology used by the EA is clarified. • A point missing relates to the impact on consumers who are unable to purchase and operate decentralized devices and therefore face the costs that are avoided but created by others. Subsidy free principles should also guide decentralization for all connected parties.
Question 3 Do you agree with the articulation of the possible challenges to unlocking the benefits of decentralisation? If not, why not?	• We generally agree with the challenges presented. However, as noted the EA needs to also consider the practical impact of operating the supply chain, including distribution. A system view is required for the outcomes being sought to be realised by consumers in practice. • In some cases, remaining centralised (which could be framed as "interconnected decentralisation") provides access to wider markets and reconciliation opportunities for distributed devices.
Question 4 Do you agree with the articulated opportunity statement for a more decentralised electricity system? If not, why not?	• In general terms while we agree that the shift towards a decentralised system will occur, there are a number of practical unknowns that need to be considered. These include: o The speed and the timing of the shift to DER o The net value of the shift to consumers. The shift to DER will result in both additional benefits and additional costs. i.e. it is important to recognise the shift is not costless. o The costs to consumers not shifting to DER

Questions	Comments
	• In practice, the system will certainly be more complex than described by the EA in the paper.
Question 5 What other feedback would you like to provide to input into the discussion on, for example: a) what a more decentralised electricity system might look like, b) how this might benefit consumers, and c) what might be needed to unlock these benefits.	As noted above, we consider that the EA will need to consider decentralisation from a balanced whole of system context, rather than take a narrow "energy only" perspective on what is involved. Not calculating the whole cost impact for all energy situations may see network reconnection as a battery having quite a different price than current value levels.
Question 6 What are other emerging case studies we could learn from?	We consider there are many learnings from the likes of Australia and the United Kingdon that can be referenced. Many of Wellington Electricity's sister companies have experience ahead of where the New Zealand market is currently at, and as such may be a good reference point of the practical realities of what the growth in decentralisation may involve. (UKPN, SAPN, VPN, UE)

5 Closing

WELL appreciates the opportunity to provide a submission on the Electricity Authority's consultation paper. If you have further questions regarding any aspect of our submission please contact Andrew Smaill, Commercial and Regulatory Manager, at [redacted].