

12 December 2024

Submission to the Electricity Authority: Network connections project: stage one amendments

About Rewiring Aotearoa

Rewiring Aotearoa¹ is a non-partisan non-profit organisation that believes electrification has major economic, social, climate and environmental benefits. Rewiring Aotearoa represents everyday New Zealanders in the energy system. We advocate for an equitable energy transition that does not leave anyone behind. Our mission is to rapidly reduce New Zealand's emissions, improve cost-of-living outcomes, and increase energy security and resilience by electrifying the millions of fossil fuel machines in our homes, communities, businesses and on-farm. Our responsibility is to advocate for the systems change and policy settings that enable electrification and reduce distributional inequity.

Our submission

Rewiring is supportive of the work the Electricity Authority (the Authority) is doing on distribution pricing to ensure connection costs for new and expanded connections are fair and reflective of the underlying cost to connect customers. We consider this will support electrification and distributed generation uptake by providing fairer, more transparent and consistent pricing for customers electrifying fossil fuel use and investing in renewable generation and batteries. It is great to see the Authority practicing their statutory objective of protecting the interests of consumers.

We regularly hear examples of the challenges businesses and farms face with seemingly unfair charges for connections, and a lack of transparency over where all the costs come from. Too often these costs stop businesses and farms from electrifying their fossil fuel use or investing in renewable generation and storage that could benefit their local communities and the wider network. Examples include:

- Forest Lodge Orchard, where significant upgrade costs were almost entirely borne by the owners. This is despite the ability for certain neighbours to also take advantage of the upgrades.
- An Otago orchard wanting to electrify their irrigation system. However, due to the current connection pricing scheme it is much cheaper for them to continue to burn diesel.

It is necessary to safeguard against inefficiently high upfront connection charges to make sure electrification investment is not hampered. Enabling more connections means distribution costs can be shared across more parties which can help to reduce each customer's cost. Enabling connections to distributed generation and batteries also has the potential to reduce the need for network and transmission upgrades, lowering total bills. It can provide greater local supply, improving local resilience.

Rewiring is also keen to see existing consumers protected and ensure the balance is right in all regions across the country when allocating costs. It is imperative that regulators require EDBs to disclose information that allows the Authority to assess and report publicly how

¹ <https://www.rewiring.nz/>

existing homes and businesses are affected by the implementation of the Authority's proposals. This would allow the Authority to test if ongoing distribution prices are affordable and to make sure safe guards are in place for existing customers as we electrify our economy.

It is also important to ensure regulation encourages better utilisation of existing network infrastructure so customers aren't required to pay for unnecessary network upgrades and as a country we do more with what we have. Internationally there is increasing use of regulated network utilisation targets. We recommend network utilisation targets be introduced as an urgent priority in New Zealand to help avoid unnecessary network investment. There is no technical reason network utilisation should not be rising, lowering customer energy bills each year. With adequate regulatory approaches, electricity costs per unit (kWh) for New Zealanders should be going down over the next decade, not up. Generation costs are falling, rooftop solar is roughly half the cost of grid electricity, and batteries are lower priced than ever, enabling homes to reduce their peak (and therefore increase utilisation and reduce infrastructure requirements). Initially utilisation targets could use existing data, for example substation utilisation targets and improve over time as networks gain greater visibility of their low voltage network. Utilisation metrics could also be designed to reflect increasing two-way energy flows and self-consumption.

Consumer energy resources like roof-top solar and batteries, smart EV chargers and smart hot water cylinders can either export electricity or reduce demand at peak times to avoid network congestion. This helps to offset network upgrades which saves New Zealanders money. To unlock this consumer flexibility requires a suite of regulatory changes and it is great to see the Electricity Authority's Energy Competition Taskforce investigating Symmetrical Export Tariffs². It's really important to pay customers for the value they provide networks when they export electricity back during peak times. Symmetrical Export Tariffs for distribution pricing will provide a fair and efficient way to signal to customers when there is value from exporting.

But more will be needed to help networks utilise this kind of consumer flexibility. For example regulators should ensure EDBs have timely access to smart meter data at the incremental cost of providing this data. This will improve the ability for EDBs to understand and manage two-way flows on their networks near homes and businesses and use flexibility from consumer devices.

² <https://www.rewiring.nz/symmetrical-export-tariffs>