wellington electricity™

Submission to Joint letter to EDBs on non-network solutions

24 March 2026

1 Submission and contact details

Consultation	Submission on Joint letter to EDBs on non-network solutions
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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) appreciates the joint communication from the Commerce Commission, the Electricity Authority, and EECA on enabling nonnetwork solutions (NNS) to deliver least cost outcomes for consumers. We support the agencies' focus on aligning regulation and clarifying expectations to help ensure efficient, reliable, and consumer centric outcomes.

A key position in our response is that we believe there are opportunities for NNS where there are clear regulator defined rules to ensure fair, transparent, and scalable participation. The regulators must lead the design of a national market framework for flexibility, like there is for ancillary services in the wholesale market. Clear delivery obligations and expectations of providers are necessary so that NNS give confidence for network owners to mitigate risk.

4 Where Wellington Electricity is focusing NNS

WELL's role is to contribute insights, trials, and operational experience to inform the development of market rules. Our EV Connect & Resi-Flex projects are designed to help regulators understand the conditions needed for successful deployment. We continue to participate in industry coordination forums and develop internal processes to support future procurement of flexibility.

5 Value of NNS

Wellington Electricity are strongly supportive of leveraging pricing structures as the primary mechanism to encourage NNS where they are best suited. Cost reflective tariffs can effectively signal network constraints and incentivise customers and service providers to respond through demand flexibility, load shifting, or distributed energy resources.

NNS provide a bigger value stack to customers where they can be offered through the whole system and not just for network deferral. Retailers and flexibility providers can extract broader value streams from the same customer side flexibility across energy markets, time-of-use optimisation, wholesale price arbitrage, and demand response. This is because retailers (having the contractual relationship with customers/businesses/flex providers) are better positioned to negotiate in a dynamic environment, whereas EDBs have fixed allowances that are not suited to the nature of flexibility markets. In contrast, EDBs can then pass on the value of NNS to the network through price signals.

Because these retail level costs and incentives are more dynamic, NNS can produce greater combined system value when operating within a well-designed market framework. Efficient NNS require a market that can capture value across the whole system, not solely through EDB cost avoidance. A regulatory framework is therefore essential to ensure flexibility markets are structured to reflect total system benefits rather than relying only on the narrow portion of costs that EDBs can avoid.

6 Asset replacement

Network assets such as poles, lines, transformers, and substations are capital-intensive and have long economic lives, meaning the majority of expenditure is fixed once investments are made. As a result, NNS can only help EDBs avoid costs such as deferring a new transformer upgrade or postponing reinforcement in a constrained area. However, many network assets are approaching end of life, and must be replaced to maintain safety, reliability, and quality. These replacements are not discretionary and are not avoidable through NNS. While NNS may help defer new demand driven upgrades (EV not charging at winter peaks), they cannot substitute for renewal of core infrastructure where capacity headroom has been diminished, and poles, conductors, switchgear, or transformers require renewal or have reached end of useful life.

7 System growth opportunity

Where the Open letter refers to the $2 billion of forecasted EDB system growth capex, this is to accommodate further electrification to support a net carbon zero target for 2050. The size of this goal, taking cars away from petrol stations, converting hot water, central heat, and cooking to electric, are step changes beyond NNS capability.

While the avoided cost may appear substantial, system-growth investment typically occurs in large step-change blocks that the current, shallow market for NNS is not capable of offsetting. Attempting to defer these step-change investments through NNS alone could compromise network security and reliability. Such outcomes would fall outside the acceptable performance standards under Part 4, exposing the business to regulatory censure and financial penalties.

NNS is a timing tool to defer some investment but not completely eradicate it. This means that the actual cost avoidance is much less than the suggested $2 billion quoted. For example, a $10m upgrade that can be deferred for 2 years, does not provide $10m of cost reduction to customers. The NNS is worth around $1m. Shareholders make a return on their investment over several decades, so the cost of the full upgrade is low to consumers. While any cost reduction to customers is a positive outcome, when quantifying the value of a NNS, we must not overstate the opportunity, and all participants should be aware of the true value to make the solutions comparable.

8 Regulatory Direction

Distributors must assess network needs and communicate constraints, to make sure customers are the ones responsible for driving investment in the network. When considering NNS, EDBs need to be guaranteed that the solution will be effective, else they risk security of the supply risks to customers and degradation of supply quality and reliability performance (SAIDI/SAIFI limits).

Clear regulatory settings to define requirements for data access, interoperability, technical standards, procurement processes, verification of delivered services, and consumer protections are required before NNS can be scaled nationally. Regulatory direction prevents division in technical standards and engagement practices. It also ensures that consumers only pay for flexibility that is real, delivered when called, and genuinely substitutes for traditional investment. Traditional investment is available 24/7 so NNS needs to meet this service and availability requirement to be an equitable choice instead of capacity investment.

In our response to the Commerce Commission's 2021 open letter, we said that shifting demand to offpeak periods could reduce major capex but also reduce reliability if network headroom were consumed. We called for deeper consumer engagement to understand reliability vs. price tradeoffs. We also acknowledged that EDBs would increasingly rely on DER orchestration and demand management, but the regulatory model did not adequately enable or incentivise this. There have been some adjustments to the regulatory model, such as innovation allowances, to trial NNS, but the absence of a market framework will hold back further growth and why we remain in a prolonged trial period.

Wellington Electricity's EV Connect[1] paper, published as an open letter in 2019, clearly set out the prerequisites required from regulators and government agencies to establish a viable roadmap for electric vehicles to operate as a non-network solution (NNS). The paper identified the need for supportive policy settings, regulatory certainty, and market mechanisms that would enable EVs to participate effectively in demand-management services.

However, since the publication of the 2019 open letter, there has been negligible progress in developing the necessary policy or code framework to support this initiative. Consequently, Wellington now has around 13,000 light EVs charging across the region with no structured regulatory guidance or best practice tools that would allow them to contribute to an effective NNS market outcome. In the Market Development Advisory Group (MDAG) final report on Price discovery in a renewables-based electricity system, it is recommended to '*develop, design and trial tools to enable security constrained economic dispatch on the distribution network'*[2]. The report stresses that the electricity system needs more accurate and granular price signals so the wholesale market can function effectively as distributed energy resources grow. It highlights the need to strengthen market design to reflect real network conditions and support demand side- flexibility. This will allow distributors to use price signals more effectively to encourage consumers to adjust their electricity use and supply when networks are nearing capacity. Together, MDAG's recommendation and the expectations in this open letter point toward a system where clearer locational price information supports smarter investment, and better use of existing assets.

For the past five years, WELL has provided pricing roadmaps that signal clear congestion patterns, with higher time-of-use prices designed to encourage customers to shift demand. However, these signals have been diluted because retailers have not consistently passed

[1] Wellington Electricity, 2020. Available at https://www.welectricity.co.nz/major-projects/innovation-projects/ev-connect/document/322

[2] MDAG, *Final Report – Price discovery in a renewables based electricity system,* 2023. Available at https://www.ea.govt.nz/documents/4335/Appendix_A2_-_Final_recommendations_report.pdf

them through to customers. As a result, there has been little financial incentive for the development of new NNS aimed at reducing congestion. With the new regulatory requirements mandating retailers pass through network TOU pricing from July 2026, this change will finally ensure that customers receive accurate congestion signals, better supporting WELL's demand-management objectives and opportunities for NNS.

9 International Example – Victoria, Australia: Flexibility

Victoria offers a useful reference for how a regulator enabled flexibility market can work. There is an online marketplace where third-party providers register assets and offer flexibility services. Providers are paid only when services are delivered to relieve actual network constraints, ensuring dependability and value for consumers.

Victoria's largescale trials also demonstrate the importance of central coordination. Smart hot water control, rooftop solar export management, and other demand side initiatives are being tested across tens of thousands of customers. These trials verify that flexibility can be activated at the times it is required, such as during high demand or high export periods. They also ensure that technical standards, data access, and operational processes are aligned across networks.

The Victorian experience highlights three lessons:

- Flexibility must be dependable and available at the right time
- Regulators must provide the market architecture
- Government supported trials accelerate learning and help markets scale

Similarly, in New South Wales a more directive, price-based approach has been adopted, through tariff reforms, where congestion is explicitly priced into published peak-demand periods set out in distributor tariff structures. This approach forms a core component of the NSW non-network solutions framework, which uses cost-reflective tariffs to provide customers and market participants with the economic signals necessary to defer or avoid traditional network augmentation. Under these arrangements, customers can choose to avoid higher-priced congestion periods or, alternatively, continue consuming electricity during those times—effectively signalling their willingness to pay for network investment that supports higher demand during peak periods.

10 Closing Remarks

WELL supports the joint agencies' intention to promote reliable and affordable outcomes through efficient, least cost solutions. We emphasise that the creation and governance of NNS framework should be a focus for regulators. EDBs are ready to participate within those frameworks to integrate reliable flexibility services that benefit consumers.