

Electricity Authority
By email
connection.feedback@ea.govt.nz

9 January 2025

RE: Distribution Connection Pricing Proposed Code Amendment

Dear Sir/Madam,

The Embedded Network Company Limited (trading as Tenco) is New Zealand's leading provider of private utility network solutions. Since 1998, we have served the property sector by managing over 300 secondary networks, including multi-tenanted office buildings, shopping centres, apartments, retirement villages, airports, and industrial parks. Tenco also partners with property developers who are key stakeholders in the matters addressed within this consultation.

We appreciate the opportunity to provide feedback on the Electricity Authority's consultation on the proposed reforms to distribution connection pricing.

As an operator of embedded networks with 25 years of experience in managing network connections, we strongly support the Authority's efforts to create a more transparent, predictable, and equitable connection pricing framework. The proposed methodologies represent a critical step forward in addressing the inefficiencies and inequities of the current system while supporting New Zealand's broader electrification and decarbonisation goals.

Our submission reflects Tenco's commitment to advocating for fair and efficient network access for connection customers. Specifically, we have emphasised the importance of:

- Establishing robust mechanisms, such as warranties, to ensure connection applicants are financially protected and confident in the fairness of pricing
- Ensuring independent technical advice on enhancement schemes is reasonably considered to promote balanced negotiations between applicants and distributors
- Supporting the proposed network capacity costing requirements, which highlight the critical role of flexible load connections in optimising network utilisation

We have also highlighted opportunities to refine the proposed methodologies to further enhance transparency and efficiency. These include adjustments to incremental operating expenditure modelling and embedding explicit provisions for negative connection charges to ensure contestability and fair compensation for customers.

We commend the Electricity Authority for its consultative approach and commitment to long-term reform, and we look forward to the successful implementation of these critical measures. Should you require any clarification or further information regarding our submission, please do not hesitate to contact us.

Sincerely,

Nick Price

Nick Price

Managing Director
The Embedded Network Company Limited



Michael Peters



General Manager - Commercial
The Embedded Network Company Limited



Appendix A Format for Submissions

Submitter	The Embedded Network Company Limited (t/a Tenco)
Questions	Comments
Q1. Do you agree with the assessment of the current situation and context for connection pricing? What if any other significant factors should the Authority be considering?	Tenco agrees with the assessment of the current situation and context.
Q2. Do you agree with the problem statement for connection pricing?	Tenco agrees with the problem statement.
Q3. Do you have any comments on the Authority's proposed pathway to full reform?	The first stage of reforms is critical in laying the groundwork for the second stage by establishing sufficient transparency and providing meaningfully balanced commercial position for connection applicants. By ensuring that fast-track measures promote clear and consistent pricing methodologies subject to distributor warrant, connection applicants will have the confidence and incentive to engage in negotiations with networks to secure fair and cost-reflective pricing. This will not only drive immediate benefits for applicants but also generate valuable case studies and practical insights into the operation of the new framework to inform and refine the second stage of reforms. This iterative approach will help build a robust and equitable connection pricing regime that benefits both networks and connection applicants.
Q4. Do you consider the proposed connection enhancement cost requirements would improve connection pricing efficiency and deliver a net benefit?	Yes, the proposed connection enhancement cost requirements will improve connection pricing efficiency and deliver a net benefit. For the first time, connection applicants will have a structured framework against which they can assess what constitutes fair pricing, fostering trust and reducing uncertainty in the negotiation process. As a result, the process of negotiating contracts should become much simpler and more efficient, ultimately benefiting both parties and encouraging timely investments in network enhancements.
Q5. Are there variations to the proposed connection	To strengthen the proposed connection enhancement cost requirements, connection applicants should be able to provide distributors with applicant

<p>enhancement cost requirements you consider would materially improve the proposed Code amendment?</p>	<p>funded alternative schemes on a proposed enhancement knowing that distributor will consider this alternative in good faith.</p> <p>This adds an additional layer of accountability and fairness, addressing potential power imbalances between applicants and distributors ensuring that proposed enhancements are both technically sound and cost-efficient.</p>
<p>Q6. Do you consider the proposed network capacity costing requirements would improve connection pricing efficiency and deliver a net benefit?</p>	<p>We strongly support the proposed network capacity costing requirements as a critical component of the Electricity Authority's reforms.</p> <p>A particularly important feature of capacity costing is their explicit consideration of flexible load connections. By quantifying the value of capacity, the proposal acknowledges the role of demand-side flexibility in optimising network utilisation and minimising upgrade costs. This not only incentivises connection applicants to adopt flexible load connections but also supports broader network efficiency and cost management.</p>
<p>Q7. Are there variations to the proposed network capacity costing requirements you consider would materially improve the proposed Code amendment?</p>	<p>No. We think this is a good starting point.</p>
<p>Q8. Do you consider the pioneer scheme pricing methodology would improve connection pricing efficiency and deliver a net benefit?</p>	<p>Yes.</p> <p>Tenco customers have historically faced significant first-mover disadvantages, bearing the financial burden of network extensions that subsequently benefit other connections.</p> <p>We strongly support the introduction of a mandatory pioneer scheme pricing methodology as a significant improvement on the status quo. This approach not only promotes fairness but also supports efficient and proactive network development, particularly in areas requiring substantial upfront investment. Additionally, the transparency and predictability offered by pioneer schemes allow connection applicants to better assess financial implications, fostering confidence and enabling informed decision-making.</p>
<p>Q9. Are there variations to the proposed pioneer scheme pricing methodology you consider would materially improve</p>	

the proposed Code amendment?	
Q10. Do you consider the cost reconciliation methodology would improve connection pricing efficiency and deliver a net benefit?	<p>The cost reconciliation methodology has the potential to improve connection pricing efficiency and deliver a net benefit by promoting transparency and standardisation. It enhances understanding among all parties by ensuring that pricing aligns with the established methodologies and reflects the actual costs of providing the connection.</p> <p>However, to fully realise these benefits, it is critical that connection applicants have assurances that they will be offered pricing consistent with the approved methodologies. If material discrepancies arise, there must be a mechanism, such as a contractual warranty, to address the discrepancies. A warranty will ensure trust in the process and protects connection applicants from bearing undue financial risk, further reinforcing the efficiency and fairness of the pricing framework.</p>
Q11. Are there variations to the proposed cost reconciliation methodology you consider would materially improve the proposed Code amendment?	<p>Yes.</p> <p>While we think the proposed methodology has largely struck the right balance between complexity and accuracy, we think there are some minor changes to modeling incremental operating expenditure and setting revenue life that would materially improve the accuracy of the methodologies.</p> <p>We have set out our suggestions in our response to Q20.</p>
Q12. Do you consider the reliance limits would improve connection pricing efficiency and deliver a net benefit?	<p>Not necessarily.</p> <p>We like that reliance limits have the potential to improve connection pricing by creating reasonable and nationally consistent balance of costs between existing network customer and new connections. However, it is important that reliance limits do not unintentionally prevent connection applicants from providing additional capital to fund new connections in exchange for lower ongoing line charges.</p> <p>In cases where a customer's cost of capital is significantly lower than the network's, allowing such arrangements could deliver more efficient outcomes and reduce overall costs for both parties.</p> <p>Ensuring that the reliance limits framework retains flexibility for connection applicants to negotiate these arrangements is important for maximising the benefits of the reforms while maintaining fairness and efficiency in connection pricing.</p>
Q13. Are there any variations to the proposed reliance limits you consider would materially	<p>We suggest introducing a provision allowing connection applicants to voluntarily offer additional capital contributions in exchange for reduced ongoing line charges. This would ensure that reliance limits do not preclude mutually beneficial arrangements where customers with lower capital costs can fund connections more efficiently.</p>

improve the proposed Code amendment?	
Q14. Do you consider the exemption application process (together with guidelines) can be used to achieve the right balance between improving connection pricing efficiency and managing transitional impacts on non-exempt distributors?	<p>Yes – subject to warranties being regulated into connection agreements.</p> <p>Networks lodging exemptions to the overall process and facing lengthy resolution timelines can create significant uncertainty and delays for connection seekers, particularly for those undertaking projects dependent on timely access to the pricing methodologies.</p> <p>To address this, it is essential to include safeguards ensuring that connection applicants are not disadvantaged during the exemption process. A practical solution would be to require connection contracts to include regulated connection terms that warrant pricing is consistent with the pricing methodologies. This would mean that in the event an exemption is subsequently denied, the connection applicant will be entitled to achieve the benefit of the standard pricing methodologies. This approach would enable connection applicants to proceed with projects in parallel with consideration of a distributor’s exemption process, knowing that they would have the benefit of the pricing methodologies.</p>
Q15. Do you consider the dispute resolution arrangements proposed (for both participants and non-participants) will provide the right incentives on distributors and connection applicants to resolve disputes about the application of pricing methodologies to connection charges and improve connection pricing efficiency and deliver a net benefit?	<p>We think the proposed dispute resolution arrangements are fit for purpose as long as</p> <ul style="list-style-type: none"> • Non-participants can work with a participant to negotiate for a connection application. • There are regulated terms in connection contracts that mean connection customers can seek redress for breach of a pricing warranty. <p>We note that the Utility Disputes Energy Complaints Scheme will consider disputes with a limit of \$50K. The scheme does not provide a meaningful option to address any material connections disputes.</p>
Q16. Are there variations to the proposed dispute resolution arrangements you consider would materially improve	

the proposed Code amendment?	
<p>Q17. Do you consider the alternative contractual terms option would be better than the approach in the proposed drafting attached to this paper? Please give reasons.</p>	<p>Yes.</p> <p>We strongly support a requirement for distributors to warrant that connection charges have been calculated using the connection pricing methodologies. This would lower the cost of contracting for new capacity because connection applicants would have confidence that pricing was fair (in accordance with the methodologies) and that if it wasn't then the connection applicant would have the ability to recover over payments from the distributor later.</p> <p>We strongly support default use of the regulated disputes process. This process has been economic and effective for distributed generators seeking connections, will provide the Electricity Authority with detailed insights into connection pricing issues that will inform subsequent reform, supports building a consistent set of case law to guide participants' understanding of the application of the pricing methodologies and strongly incentivises distributors to consider and apply pricing principals in good faith.</p>
<p>Q18. Do you think a sinking lid approach to reliance limits would be preferable to the proposed static limits approach described in sections 7.80 – 7.105?</p>	<p>We strongly support the adoption of a sinking lid approach to reliance limits, particularly with gradual reductions over time. This approach provides a clearer and more sustainable pathway to achieving long-term connection pricing efficiency across the sector. By gradually reducing reliance on new connections to fund existing network costs, a sinking lid approach can facilitate the transition towards a more cost-reflective and equitable system.</p> <p>Unlike the proposed static limits, which may inadvertently create pricing distortions or inefficiencies, the sinking lid model encourages distributors to focus on efficient cost recovery strategies while maintaining a fair balance between existing and new customers. This incremental reduction allows both networks and connection applicants to adapt to the evolving pricing structure, minimizing abrupt financial impacts and enhancing predictability.</p> <p>Furthermore, the gradual nature of a sinking lid approach provides distributors with the flexibility to adjust their pricing models, ensuring that the reliability and financial stability of the network are not compromised during the transition period. By incorporating this approach into the reliance limits framework, the Authority can support a more dynamic, responsive, and efficient connection pricing system that aligns with long-term network investment and sustainability goals.</p> <p>In sum, a sinking lid approach offers greater flexibility, clearer transition pathways, and improved alignment with regulatory objectives. It would serve as a crucial tool in achieving equitable, transparent, and efficient pricing for both connection applicants and distributors over time.</p>

Q19. Do you think any element of the fast-track package should be omitted, or should begin later than the rest of the package?

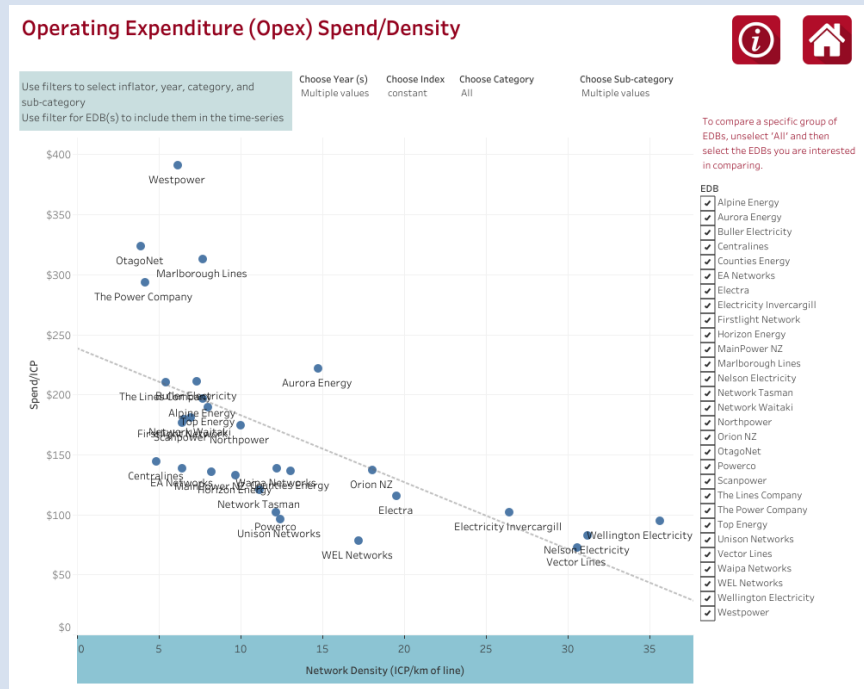
We strongly support implementation of all elements of the fast-track package simultaneously. Partial implementation risks undermining connection customers' ability to achieve meaningful transparency and any meaningful commercial negotiating position to achieve fair connection pricing.

Q20. Are there other parameters you think the Authority should consider for the proposed connection pricing methodologies? If so, which ones and why?

Incremental Operating Cost Adjustment

Using a percentage of line revenue to estimate incremental operating costs is simple but un-necessarily inaccurate and unfairly dis-advantages larger connections.

Commerce Commission data shows that the incremental operating costs per ICP reduce as network density increases. This indicates that on average adding ICPs to a network (increasing ICP density) increases operating cost less than the average operating cost for the network but will increase network revenue by a standard amount.



This means calculating incremental operating costs based on revenue will overestimate costs.

We believe incremental operating costs can be more accurately modelled (without adding significant complexity) using a combination of a percentage of revenue and fixed per ICP charge for the incremental cost of vegetation management and service interruptions and a percentage of revenue for routine and corrective maintenance and inspections.

By way of example, using the same data as set out in the consultation we would suggest a revenue discount of 96% and an annual fixed charge of \$66 per ICP per year.

Predictor of Opex			
	5 years to 2023 (\$M)	Revenue	ICPs
Service Interruptions and Emergencies	\$ 436		\$ 436
Vegetation Management	\$ 307		\$ 307
Routine and Corrective Maintenance	\$ 585	\$ 585	
Total	\$ 1,328	\$ 585	\$ 742
Line Charges \$M	\$ 13,907	\$ 13,907	
ICPs	2,257,000		2,257,000
Revenue discount	90%	96%	
Opex per ICP per year	\$ -		\$ 65.79

Embedded Network Connection Revenue Life Should be 30 years

Embedded networks typically have one large connection to a private network that supplies many smaller connections.

Where all the connections are residential, the revenue life risk is less than a residential home because the risk on a portfolio of residential homes is diversified and therefore lower than a single home and is further reduced by credit support from the private network owner.

Where connections are a mix of commercial and residential there is no material change in risk because increased risk on commercial connections is offset by the additional diversity in customer type and the credit support from the private network owner remains.

Our market experience is consistent with 30 years plus revenue life. Tenco currently operates over 300 private networks and in its 25 years of experience has not seen any instances where a distributor has had assets stranded due to the discontinued operation of an embedded network.

Logic and empirical data support a revenue life at least as long as residential connections.

We recommend adding a revenue life category for embedded networks at 30 years.

Q21. Do you agree pricing methodologies should apply to LCC contracts? If not, please explain your rationale.

Yes.

It is important for connection applicants to have access to standard pricing methodologies for negotiating connection contracts, as they provide a critical baseline and serve as the primary basis for commercial negotiations that ensuring transparency and fairness in pricing. These methodologies create a clear reference point, enabling connection applicants to understand and compare the costs they face.

However, it is equally important to allow flexibility by providing applicants the option to negotiate terms outside the standardised framework. This ensures that unique or complex connection projects, such as those under Large Connection Contracts (LCCs), can be tailored to specific needs while

	maintaining an equitable balance between regulatory oversight and commercial negotiations.
Q22. Do you agree the proposed requirements, other than reliance limits, can be applied satisfactorily to connections with vested assets? If not, please explain your rationale.	
Q23. Do you have any comments on the impact of reliance limits on incentives to increase prevalence of asset vesting?	<p>We do not anticipate reliance limits creating significant issues regarding the prevalence of asset vesting, provided there is no compulsion on connection applicants to vest assets back to the distributor.</p> <p>If connection applicants retain the flexibility to maintain ownership of the assets they construct or to sell them to a suitably qualified third party, this prevents potential gaming of the reliance limits and ensures that asset ownership decisions remain commercially driven and not unduly influenced by regulatory frameworks.</p> <p>This type of flexibility supports fairness and promotes contestability, ensuring connection applicants are not disadvantaged while still allowing for efficient network development. Clear guidelines within the reliance limits framework to preserve these rights would further reinforce trust and balance in the connection process.</p>
Q24. Do you agree the proposed methodologies are compatible with contestable connection works? If not, please explain your rationale.	<p>Yes – subject to explicit recognition in the Code that negative connection costs would result in a payment to the connection applicant.</p> <p>As reliance limits decrease, networks will have greater incentives to encourage customers to build assets and subsequently vest those assets to the network. This approach could lead to an increase in the number of situations where negative connection charges arise, as the incremental revenue from the vested assets may exceed the incremental costs. To ensure fairness and transparency, the code must explicitly state that negative connection charges will be paid to the connection applicant or the party funding the asset construction. This clarity is essential to maintain trust, support contestability, and ensure that customers receive appropriate compensation for their contributions to the network.</p>
Q25. Do you agree that fast-track methodologies should not apply to embedded networks?	<p>We agree that fast-track methodologies should not apply to embedded networks.</p> <p>The issues that these regulatory changes are trying to address don't exist in embedded networks.</p>

If not, please explain your rationale.	Implementing fast-track methodologies for embedded networks would add unnecessary complexity without delivering any benefits.
Q26. Do you have any comments on the Authority's anticipated solution for longer-term reform?	
Q27. Are there other alternative means of achieving the objective you think the Authority should consider?	