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3 April 2025

Electricity Authority
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By email: distribution.pricing@ea.govt.nz

Horizon Energy Distribution Limited (Horizon Networks) submission on distributed generation pricing principles

1. Thank you for providing us with the opportunity to provide feedback on the distributed generation pricing principles.
2. Horizon Networks is a small trust-owned Electricity Distribution Business (EDB) serving over 25,000 consumers in the Eastern Bay of Plenty region. As a trust-owned EDB, we have a strong consumer focus and seek to benefit both our Shareholder Trust Horizon and the communities we serve.
3. Horizon Networks supports the Electricity Authority's review of the regulatory arrangements for distribution price signals for distributed generation and concerns that the code may no longer be fit for purpose.
4. Horizon Networks agrees that the 'incremental cost' limit in the distributed generation (DG) pricing principles is leading to poor consumer outcomes and may incentivise investment in distributed generation over grid-connected generation. This is occurring at both a distribution and transmission level.
5. In addition to our response in Appendix A, Horizon Networks would like to emphasise the following:
    - The incremental cost principle is not for the long-term benefit of consumers because:
        (a) It creates an uneven playing field.
        (b) It incentivises the connection of DG over grid connections.
        (c) It does not incentivise efficient use of network assets.
    - Contracting out of the regulated terms does not mean EBDs have contracted out of the incremental cost principle.

The incremental cost principle creates an uneven playing field

6. The 'incremental cost' distributed generation pricing principle means that the distributed generator only pays for additional costs they cause the EDB.
7. As a result, 'core' network costs that do not materially change due to the connection of DG (such as system operations, business support and Transpower connection charges) are funded by load customers.
8. This creates an uneven playing field, where shared costs that would normally be evenly allocated based on connection characteristics in accordance with the pricing methodology are only funded by a subset of connections.
9. The DG pricing principles need to apply the same logic, if a connection uses the network, they should receive an allocation of shared costs based on their use of the network, regardless of the direction of flow of electricity.
10. Horizon Network recommends: The 'incremental cost' principle be replaced with a 'network use' principle, where prices are set based on that connection's use of the network (regardless of if the connection generates and/or consumes electricity).

The incremental cost principle incentivises the connection of DG over the grid

11. The incremental cost principle prevents EDBs from allocating shared costs, including transmission connection charges to DG's.[1]
12. The transmission pricing methodology (TPM) has no such limitations.
13. When a grid-scale generator connects to the grid, it will be allocated:
    - Interconnection charges.
    - Connection charges, based on their use of the GXP/GIP they are connected to.
14. When a grid-scale generator connects via an EDB, the DG pricing principles prevent the EDB from allocating anything other than the incremental cost to the generator. Typically, incremental costs are limited to the Transpower-notified increase in benefit-based charges and costs associated with assets dedicated to the DG.
15. This means gird-scale generators can avoid paying a share of connection charges by connecting as a DG, rather than connecting directly to the grid. Even if the physical and engineering requirements of the generator are the same.
16. This is coming at a cost to consumers. Currently, Horizon Networks has two grid-scale generators connected to its network. As neither of these generators is driving an incremental cost in connection charges, we are unable to allocate these shared costs to the generators, so consumers pay for 100% of the transmission connection charges.
17. However, Horizon Networks has very recently been advised of a grid-scale generator that has connected directly to a GXP where the GXP was previously solely dedicated to Horizon Networks.
18. Transpower can allocate grid-connected generators a share of connection charges at the GXP. This fair allocation is based on each connected party's expected use of the connection assets.
19. This reallocation process (known as an 'adjustment event') has reduced Horizon Networks' annual transmission charges by 7% from what was notified in December 2024. These reduced costs will directly benefit consumers through lower transmission charges[2].
20. If the generator had chosen to connect via Horizon Networks, the DG pricing principles would prevent us from allocating the generator any share of the existing connection costs, and the generator would be avoiding Transpower connection charges.
21. Horizon Networks concludes that it is essential that EDBs be permitted to allocate grid-scale DG a share of connection charges, in a manner that is consistent with the connection charges that Transpower would allocate if they were directly connected to the grid. Until this happens, DGs are heavily incentivised to connect via the distribution network, and consumers end up paying for 100% of costs that should be fairly shared amongst consumers and generators.
22. **Horizon Networks recommends:** EDBs are permitted to allocate shared costs amongst the beneficiaries of those shared costs, including DGs.

The incremental cost principles do not incentivise efficient use of network assets

23. The incremental cost principle prevents EDBs from allocating shared costs to DG.
24. Typically, these shared costs will be for the 'core network', and the costs of the 'core network' are recovered from all consumers on the network.
25. However, as grid-scale generation becomes more prevalent within networks, we have seen inquiries from potential generators where the most efficient way to connect the DG is via assets that are currently dedicated for use by some of our largest consumers.
26. If dedicated assets are shared between multiple customers, then customers will reasonably expect all parties using the assets to convey electricity to share in the costs associated with those assets.

[1] Except where there is an increase in connection charges that is directly attributable to the DG.

[2] The adjustment event notification was received after prices were finalised. As a result, we were unable to incorporate the transmission charge reduction into the 2025/26 pricing, however the reduction will be passed through via the wash-up process.

27. However, under the DG pricing principles, as there is no incremental cost to connect the DG or convey generation the original consumer will continue to pay 100% of the costs.
28. This is a poor outcome for consumers, which could be addressed by allowing the EDB to fairly share network costs between generators and consumers.
29. As noted above, Horizon Networks recommends that EDBs are permitted to fairly allocate shared costs amongst those benefitting from the use of network assets, including DGs.

Contracting out of the regulated terms does not mean EDBs have contracted out of the incremental cost principle.

30. Horizon Networks understands it is common for EDBs and large generators to operate under contracts that sit outside of the regulated terms.
31. Despite the fact these contracts sit outside of the regulated terms, Horizon Networks ensures that where practicable, the contract is consistent with the regulated terms and the variations only reflect needs that are specific to that generator and contract.
32. This creates a scenario where currently all generators have terms that are consistent with the DG pricing principles, including the incremental cost principle. However, if the DG pricing principles were to change this could create a situation where legacy contracts don't change, resulting in an uneven playing field.
33. If the Electricity Authority decides to address the issues with the DG pricing principles, the Electricity Authority should be mindful of the contractual arrangements in place that look to mirror the DG pricing principles and ensure there are regulatory provisions in place that support the transition of contracts onto terms that are consistent with any new DG pricing requirements.

In conclusion, Horizon Networks supports the move to review the distributed generation pricing principles and highlights the issues with the current incremental cost requirement.

34. Horizon Networks supports the Electricity Authority's proposal to review the distributed generation pricing principles. We see the current principles as favouring DGs and forcing only a subset of connections to cover shared costs.
35. This is an unintended outcome that is having a real impact on the price consumers pay for distribution services. We encourage the Electricity Authority to move forward with this review and amend the Code to allow EDBs to fairly allocate shared network costs to all connections that use the network, regardless of whether they generate or consume electricity.

Yours Sincerely

Jonathon Staite
Regulatory Manager

HORIZON ENERGY DISTRIBUTION LIMITED

APPENDIX A: FORMAT FOR SUBMISSIONS

Questions	Comment
Q1.Do you have a view on the definition of incremental cost that is contained in the Code? Should it be more tightly defined to include only network costs and to exclude consequential costs relating to factors such as frequency keeping and voltage support? Would this lead to more timely generation build and lower energy costs?	Horizon Networks interprets the incremental cost in the Code to mean the quantifiable increase in costs the EDB will face that are directly attributable to the connection of the DG. Horizon Networks does not consider that more tightly defining 'incremental costs' will provide any consumer benefit. Under the current incremental cost regime, DG does not contribute to the shared use of system costs. As a result, DG is currently being subsidised by consumers.
Q2. Do you agree with the problems with the incremental cost limit identified in this section? Why or why not? Do you have a view on the relative importance of the problems identified?	Horizon Networks agrees with many of the problems identified in this section, including: • *Distributed generators pay for fewer costs than grid-connected generators* – as noted in our cover letter large DGs avoid paying a share of transmission (connection) charges for what is essentially the same connection. • *Current incremental cost limit stands in the way of efficient arrangements* – as noted in our cover letter the incremental cost limit can result in assets historically dedicated to a single load consumer being shared with DG, but the costs for operating and maintaining those assets only being recovered from the load consumer. • *The incremental cost limit creates other impediments to efficient pricing* – as noted in our cover letter, the incremental cost limit means that ICPs with the same cost to serve have very different charges depending on if they are primarily load or primarily generation, despite requiring the same capacity and levels of service. Horizon Networks sees the incremental cost limit as the key problem. This can be resolved by amending the Code to allow EDBs to allocate shared costs to ICPs based on their network needs (such as connection capacity, level of service) and not based on the direction of flow of electricity.
Q3 Do you agree circumstances have changed significantly since the DGPPs were introduced, including that there are now far fewer impediments to distributed generation than in the early 2000s?	Yes. Prior to the introduction of global reconciliation in 2008, all distributed generators were required to have their own NSP code and to be reconciled using half-hour (HHR) metering. In 2008, the Electricity Governance Rules (EGR) (the precursor to the Code) were amended to allow DG to be switched and reconciled at an ICP level. This greatly reduced the barriers to injecting electricity onto the network and receiving payment for it. Horizon Networks understands that the distributed generation pricing principles, which were incorporated into the EGRs in 2007 intended to prevent EDBs from recovering shared costs from DG through charging for both load and generation. This makes sense for residential small-scale DG, where shared costs are already recovered via lines charges for the load, but does not make sense for large-scale DG, where there is no recovery of a fair share of shared costs via line charges for load.

Questions	Comment
	The DG pricing principles were introduced over 18 years ago. The number and types of DG we see now are very different from what existed 18 years ago. A review of the distributed generation pricing principles is overdue.
Q4 Do you agree with the assessment of the current situation and implications of incremental cost pricing? If not, why not? What if any other significant factors should the Authority be considering?	We agree that the current situation is resulting in unintended consequences that increase costs to consumers and incentivise inefficient behaviour.
Q5. Do you agree these are the appropriate options to consider?	Horizon Networks understands the options are to: • Retain the DGPPs. • Modify the DGPPs. • Remove the DGPPs and rely on contracting. • Comprehensive overhaul of the DGPPs. Horizon Networks supports these options and the underlying principle that there should be no price discrimination based on the direction of flow of electricity if the cost to serve (including shared costs) and level of service is the same.
Q6. Are there other options the Authority should consider for improving rules about costs that can be recovered from distributed generators?	To address the immediate, ongoing consumer impact, the Electricity Authority should consider temporary measures, such as: • allowing EDBs to allocate transmission (connection) charges to large DG in a manner consistent with what they would pay if connected directly to the grid; or • providing an exemption process from the DG pricing principles The Electricity Authority should also consider combining the DG pricing principles and distribution pricing principles so that regardless of whether the connection has generation, pricing is consistent and fair. Horizon Networks also notes that some EDBs may have individual contacts that mimic the DG pricing principles. If the DG pricing principles were to change, there would need to be a regulated provision to amend these contracts to ensure legacy arrangements do not hamper the efficient recovery of shared costs.
Q7. Will new aggregator business models emerge to solve the problem?	Horizon Networks does not believe that aggregator business models will solve the problem that the DG pricing principles prevent shared costs from being borne by DGs, and as a result, incentivise inefficient behaviour and inefficient pricing.
Q8. Are distribution price signals alternative to, or complementary to contracting?	Within the context of the consultation paper, distribution price signals are a way of signalling where DG is providing a benefit to the network. Similar to how contracting for demand response is an alternative to TOU pricing, both incentivise behaviour but contracting provides a guaranteed level of service.
Q9. Which, if any of the above options, do you consider would best support efficient pricing for recovery of distribution costs from DG?	Horizon Networks supports a comprehensive overhaul of the DGPPs.

Questions	Comment
Q10. Do you agree with the Authority's tentative view on a solution? In particular: • Should efficient price signals be sent through a revised set of pricing principles? • Would voluntary guidelines or mandating through the Code be the best approach? • Should we rely on the distribution pricing principles outside the Code or codified new pricing principles for DG? Why?	Horizon Networks agrees with the Electricity Authority's tentative view. Aligning the DG and standard pricing principles will ensure there is a single approach to setting prices across the network, rather than the current two-tier approach. Consistent with the distribution pricing principles, these should be voluntary but supported by guidance and a 'scorecard' monitoring regime. EDBs continue to work to align with the Electricity Authority's expectations regarding distribution pricing without the need for prescriptive regulation, and through the ENA distribution pricing working group, EDBs learn from one another and continually improve the cost-reflectiveness of prices.
Q11. Are there any unintended consequences from removing the existing DGPPs? • Do you agree with the risks we have identified, and our assessment of them? • Do you think there are any other risks we should consider associated with the removal of the DGPPs? • Do you have any information that would allow the Authority to better assess such risks?	Horizon Networks does not believe that the risks identified are material and does not see removing the DG pricing principles as something that would result in reduced payments to DG or undermine the reliability of the network. Horizon Networks considers the biggest risk is that EDBs may seek to recover costs from small-scale DG that are already paying for shared costs via their load charges. This risk can be addressed by applying the distribution pricing principles, where charges need to signal the economic cost of service provision (regardless of flow direction). Additionally, increasing the proportion of costs recovered via fixed charges means distribution charges are less reliant on the volume of electricity conveyed.
Q12. Do you agree market and regulatory settings provide efficient incentives for DG reducing or avoiding transmission costs? What, if any, other significant factors or options should the Authority consider?	From a network perspective, DG does not appear to reduce or avoid transmission charges. Transmission charges are fixed and do not reduce when DG is connected.