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SUBMISSION – REFORMING DISTRIBUTION GENERATION PRICING TO PROMOTE EFFICIENT INVESTMENT

1. Top Energy Limited (TEL) welcomes the opportunity to provide feedback on *Reforming network pricing for distributed generation to promote efficient investment*.
2. TEL is a consumer trust owned Electricity lines company serving 35,000 consumers in the Far North. As a consumer trust owned company, we have a strong focus on fair and equity outcomes for our consumers.
3. TEL endorses the Electricity Network Aotearoa (ENA) submission. This submission focuses on specific points that are particularly relevant to TEL and its consumers.
4. TEL is at the forefront of the deployment of Distribution Generation (DG) with 122MW of large-scale DG capacity (Solar 65MW solar and 57MW Geothermal) and 16MW of small solar embedded within our network (which is the third highest penetration in NZ). This exceeds our peak consumption on the network of 74MW.
5. For the year ending 31 March 2026, total generation on our network was 515GWh compared to consumption 360GWh, including losses. Consequently, TEL was a net exporter during 83% of HHR periods.
6. TEL is already experiencing congestion and other network management issues due to large scale DG. This congestion has been on the Transpower's network (KOE1101) and on our distribution network.
 - a. The Transpower transmission line from MPE1101 to KOE1101 had a capacity of 63MVA at n-1. TEL worked with Transpower to install a run back scheme which increased this to 120MVA to ease the constraint. This constraint still binds when the line is at n security. This is expected to hit capacity by 2030 based on applications already received.
 - b. In our Northern region the TEL 110kV transmission line from KOE1101 to KTA1101 is at capacity which has resulting in some congestion management of DG. An upgrade of the line will be required for anymore export from the region. Any further reduction in load, or growth in residential DG will increase export congestion.
7. This position and experience provide TEL with a unique insight to the current and future opportunities and issues with operating and optimising a network with two-way electricity flows. It also means that pricing decisions for DG will have a significant impact on our consumers.

Incremental Cost Methodology

8. TEL agrees that the distribution generation pricing principles (DGPPs) are no longer fit for purpose and the current outcomes are inefficient and not in the best interest of consumers.
9. TEL agrees with other submitter to the DGPP issues paper – February 2025, including the ENA, that there should be consistent pricing principles for injection and offtake connections.
10. Fundamentally, networks provide capacity to be used for transportation of electricity, regardless of whether the flow of electrons is to or from the grid. Therefore, DGPP and load pricing principles should be treated equally. This creates an unfair playing field and potential unintended consequences, as outlined in the ENA submission to this consultation.
11. TEL recommends that the incremental cost principle be replaced with a 'usage of network' principle, where prices are set based on that connection's use of the network (regardless of if the connection generates and/or consumes electricity). This will not result in doubling up of charging, as suggest in E.4, as consumers would only be charged based on the higher of injection or offtake on the network.
12. A key issue with the incremental approach, if it remains, is the appropriateness of it should generation become the primary driver of a network's activity and constraints. This is the position that TEL is starting to experience as outlined in points 4 to 6.
13. Section 2.7 states *The 'incremental cost rule' is the core component of the DGPPs. It prevents distributors from recovering more than the incremental cost of connecting a generator to the network. Residual costs are therefore recovered from other network customers*
14. Where Residual costs – *"costs remaining to be allocated after the primary allocation method(s). For distribution injection pricing, this refers to remaining costs after incremental costs are allocated"*
15. These residual costs, as defined above, are based on existing assets at the time of the DG connection. Overtime these assets will need replacing, primarily due to end of life. At the time of replacement, it is our view that these are no longer a residual cost as the DG now is an existing customer.
16. Therefore, they should contribute to that asset from that point, however under the proposed incremental cost rule the cost would fall on consumers. This could be the case even if generation is the primary driver of network activities. The provision to charge for accelerated asset wear does not address this.
17. Maintaining the incremental rule could also have unforeseen consequences for DG providers. For example, as assets require replacement, they may only be designed to meet the needs of consumers given DG have not contributed to the provision of these assets. At that point DGs would be required to pay a capital contribution for the extra capacity and future lines costs. If they were charged as proposed in 11 on network usage from the time of connection, then they maintain their current supply at no cost.
18. If the Authority does proceed with the incremental cost principal TEL does support the concept of recovering all the additional costs associated with DG.

Transmission Connection Charges

19. TEL's feedback is that further reform is required on Transmission connections charges 5.1 (b) and 5.1 (c).
20. Specifically, the Code needs to be changed to address the discrepancy in the treatment of generation connected to Transpower's grid or embedded within a network. This inconsistent treatment of transmission connection charges distorts investment decisions as it impacts the economic return of a project.
21. The incremental cost principle prevents TEL from allocating connection charges to embedded generation. For FY25, TEL's connection charges were \$1.96M, of which \$1.15M is charged for injection into the grid. Not being able to pass that through increases the cost to our consumers by \$33 each.
22. The allocation to injection into the grid is expected to increase as further geothermal generation is built. Ngāwhā Generation Limited has an application for 32MW baseload generation. It is estimated that this will result in consumers using the Transmission line only 83% of HHR while carrying the full costs of future replacement and maintenance while generators get the benefit. This could be up to \$56 per customer a year.

Non-Discriminatory Pricing

23. TEL agrees with the non-discriminatory pricing as our pricing already meets the proposed changes.

Application to Existing Injection Connections

24. TEL agrees that any updated injection pricing principles should be applied to any injection connections regardless of when it was built. This will ensure a fair and equitable outcome. This is particularly relevant on the TEL network given the high penetration of solar outlined in points 4-6. A transition period may be necessary if price shocks can be determined.



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