



Electricity Authority

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By email: [network.pricing@ea.govt.nz](mailto:network.pricing@ea.govt.nz)

## TPM amendments: a level playing field for emerging technologies

We appreciate the opportunity to submit to the Electricity Authority's (the Authority's) consultation *Transmission pricing methodology amendments: a level playing field for emerging technologies* published 5 August 2024.

### Connection charge amendment (for shared connection assets)

We agree with the Authority that, under the current pricing approach for shared connection assets, the owner of a Battery Energy Storage System (BESS) would receive a charge allocation both for anytime maximum demand (AMD) and anytime maximum injection (AMI).

We support the Authority's proposed change to have the pricing approach based on the higher of either AMD or AMI.

### Residual charge amendment proposal

We agree with the Authority that, under the current approach, the owner of a BESS would appear to receive a disproportionate increase in allocation of the residual charge compared to other load customer types (direct connects and EDBs).

However the Authority's proposed solution creates further complication to the TPM and introduces two "baseline" allocation approaches for customers depending on when they are connected to the grid. Complexity is a barrier to our communication of, and Customer's engagement with, residual charge pricing outcomes when applying the TPM.

Transpower considers an alternative and more straightforward adjustment approach to the annual residual charge allocation would be to base **all** existing and new customer's annual allocations on a lagged four-year gross AMD.

We consider gross AMD would be very difficult to manipulate with intent to shift costs to other parties because:

- the "anytime" aspect would require attention to managing one's own rates of change of energy use across all consuming periods

- the “gross” aspect would require understanding others’ co-incident production behaviours across all consuming periods (at the connection location / point of connection)
- co-ordination would be needed for both consumption and production to be minimised at the same time; and
- a customer’s resultant allocation depends on all others’ consumption behaviours across the entire grid and production behaviours in distribution networks.

The Authority recognised that demand that is “grossed up” for injection by distributed generation provides better assurance that load customers would not be encouraged to invest in distributed generation or batteries to avoid the residual charge.<sup>1</sup>

A MW allocator for costs passed through by distributors to consumers would also support the Authority’s intent to enable time-of-use pricing for distributors, and retain the Guideline policy that anytime maximum demand is a proxy for customers’ relative size and ability to pay.<sup>2</sup>

Moving to a single lagged allocator would make amendments to the TPM more straightforward and would support clear and consistent pricing communication across all existing and future customers.

For amending the TPM we agree the earliest that changes could be implemented would be for Pricing Year (PY) 2026/27. We would need to make system changes by August 2025 to produce prices for PY26/27.

We respond to the questions in the appendix.

Yours sincerely

**Joel Cook**

**Head of Regulation**

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<sup>1</sup> [TPM 2019 issues paper](#) paragraph G.99

<sup>2</sup> [Transmission pricing methodology 2020 Guidelines and process for development of a proposed TPM Decision](#) page i

## Appendix- Response to Questions

Questions	Comments
Q1. Do you agree with the proposed amendment for connection charges for shared connection assets?	Yes.
Q2. Will the proposed amendment have any unintended consequences for unusual connection arrangements, e.g. complex connections? [connection charge]	No comment.
Q3. Do you agree with the proposed amendment to the residual charge annual adjustment?	<p>Yes. We agree the proposal creates two approaches to calculating the residual charge allocation; one approach for those that were grid connected prior to the proposed change, and another approach for those after. Transpower can implement the two approaches, however it will create consequential frictions as Transpower has to communicate different rationales depending on when a customer connected and the way in which its consumption changes.</p> <p>We consider the more straightforward approach for all customers would be to move to a single allocator based on lagged gross AMD. All Customers would be adjusted on the same basis.</p>
Q4. The residual charge is intended to be non-distortionary and this proposed amendment is aimed at levelling the playing field and avoiding inefficient investment (irrespective of technology). Are there any other approaches the Authority should consider to address this issue?	<p>The Authority should consider a move to a single allocator based on lagged gross AMD. This would materially simplify the residual charge allocation method.</p> <p>We consider gross demand would be very difficult to manipulate with intent to reduce costs or shift costs to other parties because:</p> <ul style="list-style-type: none"> <li>• the “anytime” aspect would require attention to managing one’s own rates of change of energy use across all consuming periods</li> <li>• the “gross” aspect would require understanding others’ co-incident</li> </ul>

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	<p>production behaviours across all consuming periods (at the connection location / point of connection)</p> <ul style="list-style-type: none"> <li>• co-ordination would be needed for both consumption and production to be minimised at the same time, and</li> <li>• a Customer's resultant allocation depends on all others' consumption behaviours across the entire grid, and production behaviours in distribution networks.</li> </ul>
<p>Q5. Do you agree with the objectives of the proposed amendment? If not, why not? [connection charge]</p>	<p>Yes.</p>
<p>Q6. Do you agree the benefits of the proposed amendment outweigh its costs? [connection charge]</p>	<p>Yes.</p>
<p>Q7. Do you agree the proposed amendment is preferable to the other options? If you disagree, please explain your preferred option in terms consistent with the Authority's main statutory objective in section 15 of the Electricity Industry Act 2010. [connection charge]</p>	<p>Yes.</p>
<p>Q8. Do you agree the Authority's proposed amendment complies with section 32(1) of the Act? [connection charge]</p>	<p>Yes.</p>
<p>Q9. Do you agree with the objectives of the proposed amendment? If not, why not? [residual charge]</p>	<p>Yes we agree with the objectives of the proposed amendment.</p> <p>We agree with the Authority that, under the current approach, the owner of a BESS would appear to receive a disproportionate increase in allocation of the residual charge compared to other load customer types (direct connects and EDBs).</p>

Questions	Comments
<p>Q10. Do you agree the benefits of the proposed amendment outweigh its costs?</p> <p>[residual charge]</p>	<p>Yes.</p>
<p>Q11. Do you agree the proposed amendment is preferable to the other option? If you disagree, please explain your preferred option in terms consistent with the Authority's main statutory objective in section 15 of the Electricity Industry Act 2010.</p> <p>[the other option is to apply a cap to the \$/MWh value]</p>	<p>Yes. However, we consider that there is a more preferable approach the Authority should investigate – shifting to a single allocator for all customers based on lagged gross AMD. This would significantly simplify the approach while still achieving the Authority's objectives.</p>
<p>Q12. Do you agree the Authority's proposed amendment complies with section 32(1) of the Act?</p>	<p>We consider compliance with this section should be tested by considering a further option to allocate the residual charge across customers all on the same basis, using lagged gross AMD.</p>
<p>Q13. Do you have any comments on the drafting of the proposed amendment in Appendix A?</p> <p>[connection charge]</p>	<p>No.</p>
<p>Q14. Do you have any comments on the drafting of the proposed amendment in Appendix B?</p> <p>[residual charge]</p>	<p>Yes. For clarity, the adjustment formulae could be written in two different ways to reflect their different constructions:</p> <ul style="list-style-type: none"> <li>• propose retain RCAF<sub>n</sub> for the ratio method (applied for an existing customer when energy use is below its energy baseline), unitless</li> <li>• introduce RCCF<sub>n</sub> for the new conversion formula for every other situation (C for conversion), units kW.</li> </ul> <p><b>Clause 70(2):</b></p> <p>[It would be better for clarity if the variable names in this clause were different to those in clause 71(1) because they relate to a different set of customers</p> <p><i>(e.g. <math>AMDR_{pre-existing\ baseline\ total}</math> and <math>AMDR_{pre-existing\ baseline\ total}</math>.)]</i></p>

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	<p><b>Clause 73(1A):</b> [Missing dash after "If" and before the list]</p> <p><b>Clause 32(1):</b> [Variable J not used in formula] AMDC<sub>j</sub> is customer j's AMDC or AMIC at the connection location for the pricing year, whichever is greater, where customer j is a customer at the connection location (including customer c).</p> <p><b>Clause 32(2):</b> [Variable J not used in formula] AMDC<sub>jl</sub> is customer j's AMDC or AMIC at connection location l for the pricing year, whichever is greater, where connection location l is a connection location in the set L and customer j is a customer at connection location l (including customer c).</p>