

Via email: [TPM@ea.govt.nz](mailto:TPM@ea.govt.nz)

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## **Consultation Paper – Proposed Transmission Pricing Methodology**

Mercury welcomes the opportunity to provide feedback on the Proposed Transmission Pricing Methodology Consultation Paper October 2021 (TPM). No part of our submission is confidential. The TPM development has taken many years. Government policy has evolved towards a greater commitment to decarbonising the economy and rapidly. Electrification will be a key enabler for decarbonisation. It will be important that the TPM does not act as a barrier to the electricity market's transition to 100% renewable generation, particularly building new renewable generation. As noted in our previous submissions to both the Authority and Transpower, Mercury's concerns around the durability and predictability of the TPM remain. To that end, it is crucial that the workings of the TPM are understandable to all existing and future market participants.

### ***Avoid unnecessary complexity where the benefits are minimal***

There are a few instances where more than one option would give effect to the Guidelines and the difference in benefits and costs is relatively small and uncertain. In such cases Mercury would prefer the Authority to err on the side of the simplest option. We have identified these instances in our response to the consultation questions. One example is the allocation of Transpower overhead opex versus non-network capex.<sup>1</sup> The simpler option should be preferred in our view as it will be easier for market participants to understand and for Transpower to implement. Unnecessary complexity adds cost and concern over the effectiveness of the TPM.

We have highlighted our key concerns in this cover letter with more detail in our response to the consultation questions.

### ***Uncertainty around transmission charges will inhibit efficient investment***

Within reason, the TPM must be understandable, predictable, and easy to follow so investors can work out their likely transmission charges ahead of committing to build and so that existing customers can also work out their charges for future planning. Investments will be necessary on both the generation and load side for New Zealand's decarbonisation objectives to be achieved, and these will be more difficult without a reasonable degree of confidence around transmission charges. Currently, even large stakeholders like Mercury struggle to fully understand the workings of its proposed charges relating to existing transmission and generation assets, let alone estimating likely charges that may attach to future build. This adds risk to new generation and load developments, making it more difficult to attract capital investment needed to finance projects – the latter being a particular challenge for new entrants.

While it is possible to ask Transpower for clarification on TPM charge calculations, obtaining and providing assessments is resource intensive and time consuming for both Transpower and transmission customer. It will be important to ensure that Transpower is, in the transitional phase at least, able to provide appropriate advice to

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<sup>1</sup> See Consultation Paper discussion pg 36-41.



parties in a timely way. Over time, it will also be important for market participants to develop, or at least secure access to, capability to understand the complexities inherent in the TPM. There has been no scope to do so to date as the proposals have been in a constant state of flux. The Authority needs to consider how it can assist the industry to get up to speed; the Authority has previously spoken about the prospect of third-party consultants coming to the fore to assist industry participants with their TPM charge calculations, however we submit that this will take time to occur and even then will not be a panacea.

For large generator-retailers, merchant generators and large loads alike it will become harder to make a solid business case for investments if reasonable estimates of future transmission charges are not straightforward. While transmission charges are only one component of an investment proposal (resource availability, site suitability, consenting, wholesale pricing, offtake contracts, et cetera are more important), the degree of uncertainty around the quantum of transmission charges currently makes these a disproportionate risk. This may act as a barrier to investment in new generation and the electrification of load at a time when New Zealand is seeking to grow the range of electricity market players to assist with competition and flexibility around provision of generation and demand response and crucially, to accelerate investment in renewable electricity generation and the electrification of load to assist with decarbonisation across the economy.

We agree with the Authority that the TPM must be durable. Allocating charges in a fair and transparent way (and in a way that is also **perceived** as such) is fundamental to durability. All the concerns we have outlined above undermine the durability of the proposed TPM.

### **Connection charge**

In principle Mercury supports an option like the funded asset component (FAC) described in the paper for Type 1 first mover disadvantage. As the problem is described it is essentially a free-rider problem and conventional economic theory suggests a range of potential solutions with the best being a negotiation between individual parties (Coase Theorem). A FAC-style solution seems to be the most credible option available as it aims to simulate a commercial outcome.

Mercury believes that there is no scope for seeking to address Type 2 FMD for interconnection investments in the TPM. Mercury does not consider there is an efficient or fair way for Transpower to invest in capacity above what a connection customer needs and apportion that additional capacity's cost to any customer(s). We would be concerned if this resulted in inefficient overbuild without the same investment test and cost scrutiny of larger capex projects per the Commerce Commission regime.<sup>2</sup>

### **Benefit-based charges**

*Weighting of benefits between load and generation customers for low-value BBIs under the simple method (para 5.31-5.41)*

We note the Authority supports a 50/50 split between load and generation but acknowledges the arguments are finely balanced and could change with the first five yearly review. Mercury supports starting with a 75/25 weighting factor to load/generation which will be revisited at the time of the five-yearly review.

As the consultation paper notes in paragraphs 5.34 to 5.36, analysis can credibly support a higher weighting to load customers. The cost and benefit analysis scenario which assumes a weighting factor of 75% to load and 25% to generation from the outset indicates materially higher net benefits than a scenario in which the weighting remains at 50:50 over the full 28 years being assessed (\$2.4b vs \$1.25b). Given there will be a review in five years Mercury considers it is better to have a 75/25 split from the outset to realise these benefits and avoid deterring investment in generation.

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[https://www.transpower.co.nz/sites/default/files/uncontrolled\\_docs/Mercury%20Submission%20on%20TPM%20First%20Mover%20Disadvantage%20Consultation.pdf](https://www.transpower.co.nz/sites/default/files/uncontrolled_docs/Mercury%20Submission%20on%20TPM%20First%20Mover%20Disadvantage%20Consultation.pdf)



*Mercury opposes including additional pre-2019 investments in the benefit-based charge (para 5.50-5.53)*

Mercury has consistently opposed the reallocation of sunk costs in all our submissions to the Authority and Transpower. We do not support extending the application of benefit-charging to more pre-2019 grid investments. Such an approach is inconsistent with economic theory and any assessment is a modelling outcome rather than an objective exercise as evidenced by how the assessment of beneficiaries has shifted with various proposed TPM iterations. Extending the retrospective scope of benefit-based charges will not enhance the durability of the TPM rather it will create incentive to dispute TPM charges in future.<sup>3</sup>

### **Residual charges**

#### *Support partial exemption for batteries*

Mercury is keen to ensure that the market settings for batteries are right for New Zealand. Batteries are likely to provide core services to future grids and energy users ranging from energy arbitrage to voltage support, frequency keeping, reserves, and transmission congestion relief. The most important feature of the market for efficient roll out and investment in batteries is technology-neutral, stable regulatory settings. We strongly agree with the Authority that innovative services must be able to be provided on a non-discriminatory basis, noting that this also means favourable treatment should not be given to new technologies where possible.<sup>4</sup>

### **CBA is inadequate**

Overall, Mercury considers that the cost and benefit analysis overstates the benefits and understates the costs. As we have highlighted above, the proposed TPM comes with significant compliance costs and durability concerns. It will not be easy for parties to come to grips with how their transmission costs are calculated. Mercury is concerned that efficiencies ascribed to “reduced uncertainty for investors” will more likely than not be negative in the short to medium term.

We do not agree with the Authority’s assessment that with high expected demand growth, there are material gains from ensuring that investors consider the implications of investing in areas where they could exacerbate transmission capacity constraints. All investors have this consideration top of mind currently regardless of the TPM as transmission capacity constraints have a significant impact on whether a project is economic. We consider that Table 18 on investment efficiencies significantly overstates the benefits of the new TPM being proposed.

Yours sincerely



Buddhika Rajapakse  
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<sup>3</sup> For most recent views see Mercury submission to the Electricity Authority Consultation Paper – Transmission Pricing Review: 2019 Issues paper, 1 Oct 2019, and TPR Cross Submission, 31 Oct.

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[https://www.transpower.co.nz/sites/default/files/uncontrolled\\_docs/Mercury%20submission%20on%20TPM%20Residual%20Charges%20and%20the%20Treatment%20of%20Batteries%20Options%20Consultation.pdf](https://www.transpower.co.nz/sites/default/files/uncontrolled_docs/Mercury%20submission%20on%20TPM%20Residual%20Charges%20and%20the%20Treatment%20of%20Batteries%20Options%20Consultation.pdf)



Appendix One Consultation Questions

Consultation Question	Mercury View
<p>Chapter 2 A new TPM any comments?</p>	<p>See our cover letter.</p> <p>Mercury is pleased to see reference to the review of policy settings for the FTR market and the use of LCE that supports that market (section 2.21). We look forward to the discussion paper being released shortly and further consultation on how any LCE not used to support the FTR market should be allocated as well as its governance, principles and pass-through by distributors. As noted it will be relevant to the TPM, as LCE rebates offset transmission charges and may need to be considered by Transpower when fixing BBC allocations.</p>
<p>Chapter 3 Grid asset classification</p> <p>Do you agree with the proposed approach to treat connection assets as interconnection assets for a limited time if the assets will ultimately be interconnection assets when fully commissioned?</p> <p>Do you agree with the proposed reclassification power? Should there be any further conditions on Transpower's use of this discretion?</p>	<p>Mercury opposes Transpower being given the proposed reclassification power in the absence of a suitable process for reclassification as it undermines certainty for participants and could have potentially large impacts and unintended consequences for participants.</p> <p>As noted in para 3.18 of the consultation, customers seeking connection investments know that they can expect to pay for them and that they alone along with a small pool of other connection customers will be responsible for the cost whereas customers do not sign up for a grid connection with an expectation of being charged for interconnection investments, BBC and residual charges notwithstanding.</p>
<p>Chapter 4 Connection Charges</p> <p>Do you agree that the proposed TPM should specify that connection asset replacement values be regularly updated to promote cost-reflective charges and certainty?</p> <p>Do you have any comment on the proposed approaches to address first mover disadvantage issues including on:</p> <ul style="list-style-type: none"> <li>• The proposed FAC mechanism for Type 1 FMD</li> <li>• The alternative option of an upper limit on application of the benefit-based approach for Type 2 FMD</li> <li>• The approach to applying 'above-limit-costs' under this alternative option?</li> </ul>	<p>See the comments in our cover letter. Mercury does not support allowing Transpower to undertake Type 2 FMD as to permit it risks inefficient overbuild.</p>
<p>Chapter 5 Benefit-based charges: allocation</p> <p>Do you have any comment on the proposed standard and simple benefit-based allocation methods?</p> <p>Do you have any comment or additional evidence on the proposed weighting of benefits between load and generation customers under the simple method, or with respect to the proposed review of the allocation?</p>	<p>As discussed in our cover letter Mercury supports a 25/75 split tilted to load given there is a five-year review. As the consultation points out, although the allocation decision is finely balanced, analysis (cited in paragraphs 5.34 to 5.36) credibly supports a higher weighting to load customers. Costs to generation are likely to be passed through to consumers to some extent in any case, and it is important not to create barriers to investment in new renewable generation.</p> <p>Mercury accepts the BBC applying to all grid investments made from July 2019 and the remaining</p>



	<p>costs of seven recent major projects as per the Authority's 2020 Decision paper. We do not support extending the application of benefit-charging to more pre-2019 grid investments. Mercury has consistently opposed the reallocation of sunk costs in all our submissions to the Authority and Transpower. Such an approach is inconsistent with economic theory and any assessment is a modelling outcome rather than an objective exercise as evidenced by how the assessment of beneficiaries has shifted with various proposed TPM iterations.</p>
<p>Chapter 6 Benefit-based charges:covered costs</p> <p>Do you have any comment on the proposed approach to covered costs, including on”</p> <ul style="list-style-type: none"> <li>• Whether overhead opex should be recovered through the BBC or residual charge, and any evidence to support your view?</li> <li>• The recovery of opex on fully depreciated assets through the residual charge?</li> </ul>	<p>Mercury supports overhead opex being recovered through the residual charge. This approach is straightforward and as the total charge in question is relatively small, as noted in the graph on page 39. Any unnecessary complexity is not efficient. As the Authority notes in para 6.9 this approach could be implemented by modifying the definition of operating cost included in benefit-based charges (clause 41(3)). This approach is consistent with the Guidelines and the Authority's statutory objective.</p>
<p>Chapter 7 Residual Charges</p> <p>Do you have any comment on how the proposed TPM implements the residual charge provided for in the Guidelines?</p> <p>Do you agree with the application of the residual charge to generation with embedded load, or can you suggest a better way to mitigate charge avoidance incentives and risk of an uneven playing field?</p> <p>Do you have any comment on the proposed approach to application of the residual charge to battery storage to avoid double-counting of load?</p>	<p>Mercury supports the Authority's proposal to allocate the residual charge to battery storage based on final consumption (any load, plus battery storage losses). This means battery storage is exempted from the residual charge with respect to offtake and consumption of embedded electricity while charging, except as to losses during transformation. (Transpower's partial exemption option).</p>
<p>Chapter 8 Adjustments</p> <p>Do you agree with or have any other feedback on the proposed provisions for adjusting transmission charges?</p> <p>In particular whether:</p> <ul style="list-style-type: none"> <li>• The proposed TPM should provide more detail on the method for determining new entrants' benefits</li> <li>• The charges for a new entrant should be the same as an equivalent incumbent each year (as proposed), on a whole-of-life basis as in the Guidelines</li> <li>• The proposed thresholds for 'large' and 'substantial sustained' change in grid use are appropriate</li> <li>• The connection of a distributor to a new (and additional) GXP and the upgrading of a transformer at a distributor's GXP should be adjustment events</li> <li>• The plant disconnection provision should be</li> </ul>	<p>No comment.</p>



<p>extended to plant de-rating</p> <ul style="list-style-type: none"> <li>• The relevant provision should be further extended to cover a substantial sustained decrease in grid use not related to a plant disconnection or de-rating</li> <li>• The residual charge for a new entrant and an expanding customer should adjust with a lag and a gradual ramp-up, as proposed</li> <li>• The proposed 'related entity' provisions deal appropriately with avoidance concerns, and whether there is a case for a broader or more general 'related entity' provision to deal with other, potentially unforeseen, avoidance opportunities?</li> </ul>	
<p>Chapter 9 Prudent discounts</p> <p>Do you have any comments on the proposed PDP provisions? Including whether:</p> <ul style="list-style-type: none"> <li>• Transpower should have to prepare a PD practice manual, and if so when, and should it be binding on Transpower</li> <li>• 15 years should be the default maximum period with a longer term possible on proof</li> <li>• Prudent discounts should be funded via the residual charge and as appropriate the benefit-based charge</li> <li>• Customers should be able to terminate a prudent discount agreement before the end date of the agreement</li> </ul>	<p>Mercury doesn't support customers being able to terminate a prudent discount agreement before the end date of that agreement. We agree with the Authority that the commercial discipline on a customer applying for a prudent discount should reflect reality as closely as possible. A customer should be committed to the agreement for its full term and this is largely consistent with how a real-world alternative transmission project would be sunk. If customers can terminate SACPDs there is a risk they may choose to enter into them for frivolous reasons.</p>
<p>Chapter 10 Transitional congestion charge</p> <p>Do you have any feedback on the proposal not to include TCC in the proposed TPM, for the reason that widespread risk of congestion from removing the RCPD charge is unlikely and that, if necessary, the grid owner and system operator have effective tools to manage the power system quickly and efficiently?</p> <p>If not, how should a TCC be designed to be consistent with the Guidelines? Under what situations should it be applied and how should its size and allocation be determined?</p>	<p>No comment.</p>
<p>Chapter 11 kvar charge</p>	<p>No comment.</p>
<p>Chapter 12 Indicative prices</p> <p>Any comments on indicative pricing or the application of the transitional cap?</p>	<p>See our cover letter for our concerns around calculating existing and future transmission charges.</p>
<p>Chapter 13 Other provisions of the proposed TPM</p> <p>Any comment on or suggestions for the preliminary provisions cl 1-18?</p>	



<p>Chapter 14 Regulatory statement</p> <p>Any comments on regulatory statement, or the assessment of wider factors?</p>	<p>Mercury is concerned that the benefits of the proposed TPM are overstated.</p> <p>We do not agree that the proposed TPM delivers durability and reduced uncertainty for investors, at least in the short to medium term. Even as a large market participant, we are finding it difficult to calculate or forecast transmission costs under the proposed TPM. We consider it will be at least as difficult for smaller players and load customers to accurately estimate their transmission charges, leaving all participants having to deal with significant risk and uncertainty which may chill investment in renewable generation and new electricity loads at a time when more is needed for the country to achieve its decarbonisation objectives. Mercury is concerned that efficiencies ascribed to “reduced uncertainty for investors” will more likely than not be negative in the short to medium term.</p> <p>We do not agree with the Authority’s assessment in para D.109 that with high expected demand growth, there are material gains from ensuring that investors consider the implications of investing in areas where they could exacerbate transmission capacity constraints. All investors have this consideration top of mind currently regardless of the TPM as transmission capacity constraints have a significant impact on whether a project is economic.</p>
<p>Chapter 15 Next steps</p> <p>Do you agree that 1 April 2023 is an appropriate commencement date for the proposed TPM?</p> <p>Do you agree with the proposed transitional measure for any standard method investments for which allocation is not completed?</p>	<p>Currently, even large stakeholders like Mercury struggle to fully understand the workings of its proposed charges relating to existing transmission and generation assets, let alone estimating likely charges that may attach to future build.</p> <p>While it is possible to ask Transpower for clarification on TPM charge calculations, obtaining and providing assessments is resource intensive and time consuming for both Transpower and transmission customer. It will be important to ensure that Transpower is, in the transitional phase to 1 April 2023 at least, able to provide appropriate advice to parties in a timely way. Over time, it will also be important for market participants to develop, or at least secure access to, capability to understand the complexities inherent in the TPM. There has been no scope to do so to date as the proposals have been in a constant state of flux.</p> <p>The Authority needs to consider how it can assist the industry to get up to speed.</p>
<p>Appendix: Proposed TPM</p> <p>Any feedback on drafting?</p>	<p>No comment.</p>
<p>Appendix: Cost benefit analysis</p> <p>Any comment?</p>	<p>Refer response to Chapter 14 above.</p>

