

2 December 2021

Submissions
Electricity Authority
PO Box 10041
WELLINGTON 6143

By email to TPM@ea.govt.nz

Refining NZ Submission on Proposed Transmission Pricing Methodology - Consultation Paper

Dear TPM Team,

Thank-you for the opportunity to comment on Transpower's consultation paper "Proposed Transmission Pricing Methodology" dated 8th October 2021.

Refining NZ, based at Marsden Point in Northland, currently operates the country's only oil refinery, and will continue to do so until April 2022. Currently, we refine and supply transport fuel (petrol, diesel and jet fuel) directly to Auckland via the Refinery to Auckland Pipeline (RAP) and fuel for distribution nationwide by coastal tanker or truck. We also supply bunker fuels for ships.

From April 2022, we will become Channel Infrastructure, New Zealand's leading independent fuel infrastructure company. The Company will utilise the deep-water harbour and jetty infrastructure at Marsden Point to receive and store refined fuel, imported by its customers. This will replace the crude oil that our customers import today for refining, and we will distribute this primarily to the Auckland and Northland markets.

As a general comment Refining NZ remains concerned that electricity costs in New Zealand are uncompetitive and unaffordable, and while the ambition remains to move to renewable sources, the current market is functioning ineffectively. Current regulation and industry structure are not incentivising market participants to deliver the affordable, reliable, and lower carbon energy that Aotearoa needs.

Current models of socialising these costs do not incentivise providers to drive the costs down. Large users face an unaffordable cost burden and over time this is likely to force their exit. In our case, we are investigating the development of our previously announced solar farm, Maranga Ra, which will mean that when we make our transition to Channel Infrastructure we could be completely self-sufficient with our electricity needs. Any self-supply of electricity will however only spread the proposed increase in transmission costs for the upper North Island across a smaller base of remaining users, which in Northland is predominantly local households and the community.

We further believe that whole of system planning is needed for the significant changes in electricity consumption and supply that must occur in the next decade; otherwise we will achieve inefficient outcomes and unintended consequences.

Refining NZ

Port Marsden Highway, Ruakaka, Northland 0171, Private Bag 9024, Whangarei 0148, New Zealand
Telephone: +64 9 432 8311 Email: corporate@refiningnz.com www.refiningnz.com



Energy costs remain our single largest operating cost and are likely to be even more challenging under a future import terminal operation, despite our usage decreasing significantly. The import terminal will use on average 5MW compared to around 33MW current refinery load and 39MW historic refinery load. In the absence of an equitable new TPM and fair distribution charge allocations the terminal business could be faced with the same charges as a full refinery, despite having only 15% of a refinery load (increasing transmission and distribution costs from \$17-20/MWh to \$130+/MWh).

We believe charges at this level are excessive for any business to sustain and signal unsustainable and inefficient market outcomes. As a result, we are actively considering an 'off-grid' option to meet our future energy needs.

We strongly support mechanisms within the proposed TPM that enable future transmission charges to be adjusted to better reflect large and sustained changes of an embedded or directly connected user's load; for example, in our case where we are transitioning from a full refinery operation with a much greater demand of electricity, to an import terminal. These adjustments are necessary to support the ongoing viability of our businesses and we thank the Authority for giving this matter due consideration within the proposed TPM.

Our specific further responses are outlined below.

Chapter 2 - A new TPM

Question: Do you have any comments on the content of this chapter?

We agree that the new TPM should align with and support the Authority's objective to promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers. This would include supporting an electricity market structure that incentivises increasing renewable supply and matching firming capacity that will be needed for the significant changes in electricity consumption and supply that must occur in the next decade. Also to provide the necessary regulatory incentives for efficient and affordable transmission and distribution charges for all users.

Chapter 3 - Grid asset classification

Question: 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?

Do you agree with the proposed reclassification power? Should there be any further conditions on Transpower's use of this discretion?

Do you have any other feedback on Grid Asset Classification in the proposed TPM?

Refining NZ believes that connection and interconnection asset classification criteria should be applied fairly and consistently across the network to ensure fair and efficient cost allocation to all consumers. This includes ensuring that distribution customer charges are passed through to final consumers in a fair and reasonable manner and in line with the intent of the TPM.

Refining NZ notes that the draft TPM proposes to provide Transpower with the ability to reclassify interconnection assets as connection assets if the asset in substance principally provides connection services. This raises the question if there may be examples of connection assets that could similarly need to be reclassified from connection assets to interconnection assets if they principally provide interconnection services.

We note by way of example that the Bream Bay transmission assets are currently classified as connection assets and yet appear to be an integral part of the interconnected 220kV grid network, providing additional electricity security to Northern consumers. The power flows associated with the Bream Bay “connection” asset suggest that the asset is significantly oversized for its connection only service. In other words, significantly more power flow is associated in supporting N-1 security to Northern users than in supplying the needs of its connection customers. We note that this significant oversizing and position in the interconnected grid may well have been due to historic government policy and future plans for the area at the time including support for the export of power from the now demolished Marsden A and B power stations. It does however represent a high cost burden for our business and could be analogous to the ‘white elephant’ concept that the consultation paper discusses for BBC investment reassessment, at least from a Bream Bay connection services only point of view.

As mentioned above Refining NZ potentially faces increasing transmission and distribution costs from \$17-20/MWh to \$130+/MWh. The connection element alone makes up some \$30/MWh of this charge under a future terminal operation load, which Refining NZ finds unacceptable especially given its level of oversizing. We believe that this is inconsistent with the Authority’s objective to provide efficient outcomes and so question the classification of this asset, or alternatively that consideration be given to its overcapacity. An adjustment mechanism should be applied similar to the reassignment concept being considered for ‘white elephant’ benefit-based investments, and/or a derating adjustment be enabled for connection charges in a similar fashion to benefit-based and residual charges. While Northpower could apply for a prudent discount application for this asset there is no guarantee of success as well as it being a potentially time consuming and costly process, complicated by the introduction of a new TPM. We also note that even if a prudent discount application is successful a reduction in costs may not be introduced until some years later, aligned to the hypothetical construction time of any proposed alternative. Given the uncertainty of prudent discount outcomes Northpower may well be better placed to actually implement an alternative connection that would result in a stranding of the Bream Bay asset. This would seem to be an inefficient outcome especially if new parties were to connect to the Bream Bay asset at some point in the future. Finally we also note that the very high connection charges at this location do little to support future load or generation investment in the area.

Chapter 4 - Connection charges

Question: Do you agree that the proposed TPM should specify that connection asset replacement values be regularly updated to promote cost-reflective charges and certainty?

Refining NZ generally supports the ongoing fair allocation of costs if changes are appropriately consulted and signalled to customers in advance, together with phase in of any significant cost increases to allow businesses to plan and adjust to any increase in cost base over time. However, Refining NZ does not support any recovery mechanisms that support continued escalation of costs to consumers without also considering a parallel drive for cost efficiencies to maintain energy costs at affordable and sustainable levels.



In terms of connection asset revaluations, Refining NZ also questions if there may be greater risks for consumers already linked to significantly oversized connection assets where revaluations may even more disproportionately disadvantage these customers given their actual connection load requirements. We also understand that revaluation of connection assets in this way may not align with depreciated historic cost methods used for regulatory asset valuations and as proposed for benefit-based charges in the proposed TPM, so appears inconsistent. We are also concerned that these revaluations could result in increased connection charges for an already oversized asset. As noted above, Refining NZ notes that the connection assets at Bream Bay have been significantly oversized for the load in the area. The current connection already represents a high-cost burden for our business and any further escalation of valuations and costs would be a cause for even greater concern.

We note that Clause 34 of the proposed TPM appears to enable a customer to apply for a derating of a connection asset and question why this should not also be enabled in the case of an embedded load. It would appear inequitable that a derating by a directly connected customer would be considered while a similar derating by an embedded load would not.

Question: Do you have any comment on the proposed approaches to address first mover disadvantage issues, including on:

- *the proposed FAC mechanism for Type 1 FMD*
- *the alternative option of an upper limit on application of the benefit-based approach for Type 2 FMD*
- *the approach to applying 'above-limit costs' under this alternative option?*

Do you have any other feedback on the proposed TPM in relation to connection charges?

Refining NZ generally supports the First Mover Disadvantage (FMD) Type 1 proposal such that First Movers are not solely burdened with connection costs, thereby encouraging new generation and load development. We would expect future third parties using new connections to pay their fair share of connection costs. While Refining NZ recognises the issues raised in the paper, we have no other specific comments on Type 1 FMD.

In terms of FMD Type 2 proposals, Refining NZ recognises and supports the need to build 'right sized' additional anticipatory capacity for new connections such as to support Renewable Energy Zones where this would result in more efficient long-term outcomes. In terms of who would pay for this anticipatory capacity the paper notes a number of options including limiting the quantum of anticipatory capacity, limiting the impact on identified 'future' beneficiaries, making the First Mover pay, or socialising the costs across all load only customers via the residual charge. Refining NZ has concern that any significant anticipatory capacity such as that to support a Renewable Energy Zone has the potential to result in higher costs and uncertainty for a limited number of customers and consumers and proposes that such costs would be better absorbed by Transpower's shareholder especially if they are to support government renewable energy drives. This may be more aligned to other national infrastructure investment funding models. Refining NZ notes that even limiting an affected customer's anticipatory capacity BBI charges to a 10% increase in their overall transmission charges would still result in a significant cost increase for a business like ours for an uncertain future benefit.

Refining NZ



Refining NZs only further feedback on connection charges relates to our comments on connection charges discussed in our response to Chapter 3 Grid asset classification above and Chapter 8 Adjustments as discussed below.

Chapter 5 - Benefit-based charges: allocation

Question: Do you have any comment on the proposed standard and simple benefit-based allocation methods?

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?

Refining NZ notes that the paper raises complex issues around the allocation models and process to be used and as such we are not best placed to provide specific comments on this matter. We do note however that the process to allocate charges needs to be clear and transparent and supported by a simple overview to aid industry to understand the process and its impact on customers and consumers, rather than having to rely on the detailed TPM document alone. We further note that changes to benefit-based charges and other charges need to be signalled well in advance so that businesses can incorporate these into their business planning and budget cycles, and propose that where practical BBC charges need to be granular and transparent enough to allow a fair pass-through to customers beyond the GXP.

Chapter 6 - Benefit-based charges: covered costs

Question: Do you have any comment on the proposed approach to covered costs, including on:

- *whether overhead opex should be recovered through the BBC or residual charge, and any evidence to support your view?*
- *the recovery of opex on fully depreciated assets through the residual charge?*

In terms of what costs should be assigned to benefit-based charges Refining NZ supports the concept that where practical, costs associated with an asset should be assigned to that asset (funded by load and generation), rather than being socialised across all (load only) customers via residual charges. We believe that this will create greater transparency of the actual costs of interconnection assets that can then be clearly assessed and challenged as appropriate, especially for new investments. In terms of overhead opex that is more difficult to clearly attribute to an asset we rely on the Authority to make the most appropriate determination for the benefit of all consumers while recognising any additional cost burden it could have on businesses already paying high costs of transmission and distribution

Refining NZ's further feedback on benefit-based charges relates to Chapter 8 Adjustments as discussed below.

Chapter 7 - Residual charges

Question: Do you have any comment on how the proposed TPM implements the residual charge provided for in the Guidelines?



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?

Do you have any comment on the proposed approach to application of the residual charge to battery storage to avoid double-counting of load?

Refining NZ agrees that batteries will have an increasingly important role to play in terms of future grid support and firming in response to a future increase in renewable generation. We have no further specific comments on the issue of residual charges relating to batteries.

Refining NZ's further feedback on residual charges relates to Chapter 8 Adjustments as discussed below.

Chapter 8 - Adjustments

Question: Do you agree with or have any other feedback on the proposed provisions for adjusting transmission charges?

The Authority welcomes feedback on any aspect discussed or proposed in this chapter, including whether:

- the proposed TPM should provide more detail on the method for determining new entrants' benefits*
- the charges for a new entrant should be the same as an equivalent incumbent each year (as in the proposed TPM), on a whole-of-life basis as in the Guidelines*
- the proposed thresholds for 'large' and 'substantial sustained' change in grid use are appropriate*
- 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*
- 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*
- the plant disconnection provision should be extended to plant de-rating*
- 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*
- 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?*
- the residual charge for a new entrant and an expanding customer should adjust with a lag and a gradual ramp-up, as proposed*



- *the proposed TPM should include a specific provision for the adjustment of the residual charge of a large customer that closes a plant (either to allow its adjustment immediately or in some other way), or should the standard lagged adjustment of the residual charge apply? If the former, should the provision be extended to deratings? If the latter, should it apply to embedded parties and should there be a related entity provision?*
- *a new related entity provision should be provided for the residual charge.*

Refining NZ supports the TPM concept of adjustment events for both benefit-based and residual charges. This ensures that transmission charges are better aligned to businesses' actual transmission requirements over time thereby supporting business' long-term viability. We understand and support that under the proposed TPM an embedded customer derating event of greater than 10MW would qualify as an adjustment event for both BBC and residual charge via its applicable electricity distributor. In this case we believe that the distributor should be required:

- To progress an application for an adjustment on behalf of the embedded customer, or that the TPM provide for the embedded customer to make the application on its own behalf; and
- to ensure that any adjustments are accurately passed through to embedded customers in a fair and reasonable manner and in line with the intent of the TPM (and despite any other changes in their network loads).

We further believe that 10MW is an appropriate level to consider for derating adjustments.

Refining NZ also supports the concept of the residual charge reduction event and questions if a similar approach could also be applied to benefit-based charges as they do for adjustment events.

Refining NZ notes that para. 8.48 seems to imply that the current TPM does not apply residual charges adjustments to large deratings however believes this question was actually seeking comment on large and sustained load reductions.

Refining NZ also notes that Clause 73(1) of the proposed TPM states that Transpower **may** reduce a pre-existing load customer's AMDR baseline in response to a residual charge reduction event. We would propose that this should be reworded to state that Transpower **shall** reduce a pre-existing load customer's AMDR baseline to provide greater certainty to load customers on future TPM charges. We also note that clause 73(2) states that if Transpower reduces a pre-existing customer's AMDR baseline under subclause (1) it must also reduce the pre-existing customer's average total gross energy baseline "to the extent necessary". While we believe we understand what this is intended to do we do not believe it is made fully clear in the wording of the clause as to the intent of "to the extent necessary".

Chapter 9 - Prudent discounts

Question: Do you have any comments on the proposed PDP provisions? The Authority welcomes comment on any aspect of the proposal, including whether:

- *the proposed TPM adequately prescribes the fundamental aspects of the PDP*



- *Transpower should have to prepare a PD practice manual, and if so when, and should it be binding on Transpower*
- *15 years should be the default maximum period with a longer term possible on proof*
- *prudent discounts should be funded via the residual charge and as appropriate the benefit-based charge*
- *customers should be able to terminate a prudent discount agreement before the end date of the agreement?*

Refining NZ supports TPM provisions that provide customers with the ability to apply for prudent discounts to ensure that the costs of transmission services are not inefficient compared to other transmission alternatives. However, the level of detail required to support prudent discount applications even under the existing TPM, results in a significant time and cost burdens on applicants with no guarantee of success. While we recognise the need for an application to be of sufficient detail to make a fair and reasonable assessment, we question if there is not a more streamlined and reasonable approach that could be adopted to reduce the burden on applicants. We also refer back to our concerns raised in our response to Chapter 3 Grid asset classification. Any PDPs may well be complicated by the introduction of a new TPM in terms of the need to reapply for any PDPs, as well as the delayed benefit from any successful PDP application in having to align to the hypothetical construction time of any proposed alternative. Further that given the level of uncertainties associated with PDP applications and their limited lifetime of 15 years, customers may choose to actually implement the alternative which could potentially result in stranded assets and inefficient long-term outcomes.

For embedded customers we believe that distributors should be required to consider prudent discount applications against their own charges and, where appropriate, make an equivalent application to Transpower. Further, that distributors should pass-through these prudent discounts if successful in a fair and reasonable manner consistent and in line with the intent of the TPM.

We agree that an alternative project life may often exceed the current 15 year maximum and as such some flexibility to negotiate longer prudent discounts should be considered within the proposed TPM.

In terms of the annuity calculation for prudent discounts where the alternative project's economic life is longer than the prudent discount period, we believe that any such annuity calculation should recognise the residual value of the alternative project at the end of the prudent discount period. To not do so would appear to incorrectly inflate annual costs for the alternative project economic assessment.

It is also our understanding that the standalone prudent discount application within the proposed TPM only appears to consider Optimised Depreciated Replacement Cost (ODRC) type assessments and also appears to hold connection assets constant as part of this analysis, potentially contrary to the intent of the TPM guideline that discounts should be applied to all transmission charges. Similarly, the requirement that standalone cost prudent discounts are only applied to residual and benefits-based charges should be changed such that they apply to all transmission charges.

We believe there are other methods of assessing standalone cost apart from ODRC where the TPM provides no guidance on how these would be assessed. The conceptual framework for standalone cost prudent discounts

Refining NZ



seems to be incomplete and, therefore, may not achieve the intended efficiency in transmission pricing. We note, in particular, that it appears that no consideration has been given to the assessment of transmission alternatives such as local generation, for either inefficient bypass or standalone cost. As transmission alternatives may also avoid energy costs better guidance is needed for their assessment.

Finally in terms of funding prudent discounts, Refining NZ believes that this is an example where the designed transmission system is not providing efficient and competitive outcomes and that the cost of this inefficiency should not have to be borne by Transpower's transmission customers but by Transpower's shareholder.

Chapter 10 - Transitional congestion charge

Question: Do you have any feedback on the proposal not to include a 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?

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?

Refining NZ has no comments on this chapter at this time.

Chapter 11 - KVAR charge

Question: Do you have any comment on the proposal not to include a kVAR charge in the proposed TPM?

Refining NZ has no comments on this chapter at this time.

Chapter 12 - Indicative prices (and transitional cap and impact on typical household bills)

Question: Do you have any comments on indicative pricing or the application of the transitional cap?

Refining NZ's comment is that distributors should be required to pass on the impact of any transitional cap benefit they receive to end customers in a fair and equitable manner and in line with the intent of the TPM.

Chapter 13 - Other provisions of the proposed TPM

Question: Do you have any comment on or suggestions for the preliminary provisions cl 1-18?

Refining NZ notes that the TPM is a complex document and not easily interpreted. The TPM and Guidelines appear overly complicated and are thus a barrier to engagement with some customers. We believe that an overview document outlining the operational principles of the TPM would be of value going forward and would have been of assistance to this consultation process.

Chapter 14 - Regulatory statement

Question: Do you have any comments on the regulatory statement, or the assessment of wider factors?

Refining NZ



We reiterate our belief that a whole of system planning approach is needed for the significant changes in electricity consumption and supply that must occur in the next decade; otherwise we will achieve inefficient outcomes and unintended consequences.

Chapter 15 – Next Steps

Question: Do you agree that 1 April 2023 is an appropriate commencement date for the proposed TPM?

Do you agree with the proposed transitional measure for any standard method investments for which allocation is not completed?

Refining NZ has no comments on this chapter at this time.

We thank the Authority for the opportunity to offer submissions on the proposed TPM and are willing to discuss our submission further as required. It is important that our business has certainty as to what transmission and distribution charges will be applied after we transition from a refinery to terminal operation. It is also vital that we are able to utilise appropriate derating adjustment and/or reduction clauses to ensure that interconnection charges (BBC and residual charge) be reset to a more reasonable level, commensurate with our reduced future load, before the TPM comes into force. In addition, we require a solution to the high connection charges and a mechanism to have these also reset to a more equitable cost.

Yours sincerely

Naomi Humbles

Commercial Manager