Major Electricity Users' Group

2 December 2021

Rob Bernau
Director, Network Pricing Directorate
Electricity Authority
By email to TPM@ea.govt.nz

Dear Rob

TPM: Submission on draft replacement Code

1. This is a submission from the Major Electricity Users' Group (MEUG) on the Electricity Authority consultation paper "Proposed Transmission Pricing Methodology" (TPM) dated 8th October 2021 and related materials including expert reports and models.[1]

2. MEUG members have been consulted in the preparation of this submission. This submission is not confidential. Members may lodge separate submissions.

3. This submission focusses on specific issues in the proposed draft TPM replacement Code and relevant rationale in the consultation material. Those issues are discussed in the following sections in the order of the relevant consultation paper chapter and question posed by the EA. The fact other issues are not mentioned in this submission does not mean that they are not of interest or concern to MEUG members. These have been commented on by MEUG or individual members in prior submissions.

Chapter 4 Connection charges: Do you have any comment on the proposed approaches to address first mover disadvantage (FMD) issues, including … alternative option of an upper limit on application of the benefit-based approach for Type 2 FMD?

4. In choosing a solution to Type 2 FMD concerns, that is potentially 'inefficient' sizing of connection investments, commercial practicalities and incentives are paramount. Type 2 FMD relates to connection assets only. Type 2 FMD does not apply to non-connection assets. This distinction is important because the latter non-connection asset decisions are complicated by many beneficiaries whereas connection asset beneficiaries are the connection contract counterparty(s). Decisions on connection investments are made within the standard public terms and conditions of a New Investment Contract. Unlike non-connection investments where decisions and cost recovery are formulaic and set in Commerce Commission and EA regulatory processes, the decision making for connection investments is executed through commercial contracts.

[1] Document https://www.ea.govt.nz/assets/dms-assets/28/Proposed-Transmission-Pricing-Methodology-Consultation-paper-v3.pdf at https://www.ea.govt.nz/development/work-programme/pricing-cost-allocation/transmission-pricing-review/consultations/?ct=t%28Special+Market+Brief+-+The+proposed+TPM%29#c18989

5. The parties with the most information and able to best weigh benefits and costs of the type, sizing and connection assets are the connecting parties and not Transpower. If Transpower thinks it has better knowledge and a view on retaining optionality by over-building a connection asset than merchant generators and end use businesses, then Transpower should put up risk capital for over-investment in that connection asset. A new greenfield connection asset will require land, consents and new assets. That should be a matter for commercial decisions by merchant generator(s) and or end consumer(s). Transpower should not be investing in new greenfield connection sites, consents and assets without an appropriate New Investment Contract.

6. In terms of brownfield investments there are two possibilities. Where the existing connection counterparty(s) own the land, have all relevant planning consents and own the assets or have contracted to pay Transpower for those, then those counterparty(s) should have the same decision rights as a greenfield connection discussed in the preceding paragraph.

7. Where Transpower either owns the land and or consents and or assets for an existing point of connection and in Transpower's view it can use those property rights to expand the connection service for other party(s), then ideally Transpower should bear the risk those new party(s) will not take up the new connection service. While this option is within the remit of the Commerce Commission rather than the EA, it does affect how we think about the incentives on Transpower in this case.

8. Absent Transpower bearing risks of over-building connection assets in the special case where Transpower has relevant decision rights for a brownfield connection investment, MEUG agrees with the proposal in the consultation paper benefit-based approach to allocating the cost of anticipatory connection investments to address the Type 2 FMD of "inefficient sizing" of connection investments. Paragraph [E.6] concisely summarises the rationale:

> "As explained in Chapter 4, the Authority prefers a benefit-based approach because it avoids spreading costs to parties who clearly don't benefit, and targets costs enough to motivate identified (regional) benefiting customers to engage with Transpower and the Commerce Commission (if applicable) on the merits of additional capacity. The Authority views temporary socialisation as the next best option."

9. MEUG agrees in this special case where Transpower has decision rights for an existing connection that there should be an upper limit on the application of a benefit-based approach for Type 2 FMD.

Chapter 7 Residual charges: Do you have any comment on how the proposed TPM implements the residual charge provided for in the Guidelines?

10. NZ Steel, a member of MEUG, asked why at the end of the 20km Glenbrook connection line where there are 2 GXP that work in tandem depending on maintenance and fault situations with one GXP servicing NZ Steel, Counties Energy and Alinta co-generation, and

the other GXP dedicated to NZ Steel, that the AMD that applies to NZ Steel is the sum of the AMD at each GXP rather than the summed coincident demands.[2] The EA replied:

> "… there is no perfect allocator. We recognise that arguments can be made for a non-coincident peak measure as well as a coincident peak measure. On balance, the Authority considered that a non-coincident peak measure of AMDR is a better proxy for the size of the customer base in a location and its ability to pay charges, and therefore a better allocator than a coincident peak measure."

11. MEUG has concerns at the inconsistency of how the AMD allocator for setting initial residual charges for the 2 GXP supplying NZ Steel do not consider coincident demand whereas an equivalent load embedded in a distribution network would have the benefit of diversity downstream of the GXP. It seems there is one rule for grid connected end consumers with multiple GXP where there are multiple points of connection versus end consumers embedded in distribution networks with multiple ICP's.

12. The disparity between grid connected consumers and consumers embedded with networks does not end there. MEUG notes that the best allocator for residual charges in terms of mitigating incentives to avoid the charge is ability or willingness to pay. The size of a consumer in terms of a physical peak measure, and whether it is a Transpower customer at a GXP or a customer for line services of a distributor have never, that we are aware, been proven as having a higher correlation with ability or willingness to pay compared to say the AMD at the ICP for every customer. MEUG raises this issue to reinforce the case NZ Steel makes for its issue with how adjacent GXP as part of a suite of related connection assets should be reviewed.

Chapter 7 Residual charges: Do you have any comment on the proposed approach to application of the residual charge to battery storage to avoid double-counting of load?

13. The double-counting issue was not canvassed in the Transpower consultation paper in March 2021. The EA's consultation paper is helpful in highlighting that there is a double-counting issue that needs to be considered. The proposed solution is acceptable when a battery is being charged from the electricity-energy market and discharged into the same market.

14. The proposed solution does not work when a battery is being charged in the electricity-energy market and discharged into non-electrical-energy services markets. The latter includes frequency keeping, reserves, avoidance of line charges, mitigating line constraints, and in the future possible other yet to be designed ancillary services and alternatives to line services markets.

15. Competitors to batteries in these non-electrical-energy services markets include large users that have an ability to shed load. These large users may be existing companies or potentially new entrant businesses with innovations in technology, processes or business models. Both existing and new entrant businesses will have initial residual charges set based on gross Any Time Maximum (AMD) whereas batteries competing in those non-

[2] EA web site Q&A refer https://www.ea.govt.nz/development/work-programme/pricing-cost-allocation/transmission-pricing-review/development/questions-and-answers-tpm-consultation/

electrical-energy services markets will have initial residual charges set based on the AMD of losses only, and not gross AMD including losses.

16. To overcome this bias in favour of batteries, MEUG suggests batteries that are used to provide services to non-electrical-energy services markets should have initial residual charges based on gross AMD when being charged and a credit be given when energy is discharged into the electrical-energy market. That way any sales for non-electrical-energy services will not receive a credit and thereby retain competitive neutrality with other non-electrical-energy service providers. As noted in paragraph 13 above, batteries that are being used solely in the electricity-energy market can have initial residual charges based on the AMD of energy losses.

17. On a separate and final comment on residual charges, it is worth remembering that residual charges are a catch-all including an unknown quantum of costs due to past inefficient decision making by Transpower as noted in the extract below from MEUG's submission to Transpower on 12th April 2021[3]:

> **A common problem is the initial quantum of residual charges**
>
> 13. Over the long-term the residual will vanish. Between now and then residual charges will decrease in both absolute values (as assets depreciate), and provided nationwide Anytime Maximum Demand increases, in dollar per unit terms. Two common problems for all load consumers of transmission services including battery owners are that first, the opening value of the aggregate residual charges from 2022 when the new TPM comes into effect will be disproportionately high compared to benefit-based charges. Second there is an unknown fraction of residual charges for assets and services that no end consumer benefits from. If government wishes to consider a "fix" for the distortionary effects of residual charges that affect all load consumers and battery owners, then government has the power to write down the value of assets recovered by residual charges.

Next steps

18. Please contact me if there is any elaboration required on the points in this submission. The next step is the cross-submission process. MEUG will make comments if appropriate.

19. MEUG appreciated the notice given to the market of when this current consultation was going to start, and reasonable times for submissions and cross-submissions. MEUG requests similar reasonable notice and time for submissions and cross-submissions for the four related subjects lists in paragraph 2.18 of the consultation paper. MEUG is particularly interested in 2.18(b) and (c), being "… availability of data on activity behind the GXP to better support the effective working of the TPM (specifically the allocation of the residual charge)" and avoided cost of transmission (ACOT) respectively.

Yours sincerely

Ralph Matthes
Executive Director

[3] Refer http://www.meug.co.nz/node/1127