2 December 2021

Submissions
Electricity Authority
PO Box 10041
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By E- Mail to TPM@ea.govt.nz

Re: Counties Energy Submission on "Proposed Transmission Pricing Methodology: Consultation Paper"

Counties Energy Limited (CEL) welcomes the Electricity Authority's (Authority) final step in implementing a new transmission pricing methodology (TPM). CEL's submission proposes some minor changes to the Proposed TPM Electricity Industry Participation Code (Proposed TPM Code) to improve the durability through ensuring that the Proposed TPM can achieve the Authority's stated goals.

CEL's advice is on the basis of its significant commercial experience of Transpower charges through passing transmission charges on to large industrial plants as well as ongoing Transpower GXP upgrade negotiations. In addition, CEL has experience in negotiating the connection of new generators and proposed new large-scale generation.

Proposed TPM Goals

CEL notes the Proposed TPM goal is to rectify the current situation whereby transmission pricing provides "poor incentives on participants to make sure grid investments are the best solution to improve the capacity or reliability of that part of the electricity system."[1] With the Proposed TPM, the underlying assumption by the Authority is that the participants will know the cost impact to them from Transpower grid investments before Transpower has finalised its consultation. CEL contends that under the Proposed TPM Code this will not be achievable because the transmission cost will not be known with any certainty by future investors. CEL's submission sets out the additional TPM Code that is required for this benefit to be realised.

CEL also notes that the consultation paper statement "Transmission charges give people important signals about the cost of using the grid. Prices … influence people's and businesses' use of electricity and the investments they, Transpower and others in the sector make"[2]. CEL contends that the Proposed TPM Code is too complex to provide pricing signals for investments. Furthermore, the Proposed TPM Code places all

[1] Consultation Paper, Page ii, Executive Summary.
[2] Consultation Paper, Page i, Executive Summary.

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the uncertainty on to investors to the benefit of Transpower despite Transpower being a natural monopoly with guaranteed revenue through the residual change as well as a guaranteed rate of return on assets. CEL sets our additional TPM Code to address this issue.

Investment cost uncertainty

Under the Proposed TPM Code, new major generation, or industrial plants will find calculating the benefit-based charges difficult and forecasting transmission charges near impossible. This will apply to both direct grid connection customers and major EDB load or generation customers where the EDB will pass this uncertainty through to the end customer. This cost uncertainty will negatively impact industrial investments for new industrial plants requiring significant amounts of power and for decarbonisation of industrial process heating. Generation investment will also be similarly negatively impacted.

This pricing uncertainty is complicated by the Proposed TPM Code enabling unpredictable binary decisions by Transpower. For instance, the price-quality standard to determine regional groups of beneficiaries "may use either quantities during periods of benefit, or both quantities and prices, to allocate between those groups"[3]. For a major new generator how are they able to determine their long-term returns if a major cost input is subject to future unpredictable decisions by Transpower at a future date when Transpower comes to decide who pays for a new transmission asset?

CEL notes the Proposed TPM Code seeks to address these concerns with an "Assumptions Book", however apart from the fact that it is not clear what is covered in the Assumptions Book the Proposed TPM Code states "the assumptions book is not binding on Transpower or any independent expert". This is evidence of the Proposed TPM Code being designed by Transpower to put all the transmission pricing risk on to their customers.

Consequently, CEL would request the following changes to the "Assumptions Book" Code:

- That clause 39 (1) be amended so that Transpower must publish the Assumptions Book within 6-months of the proposed Code being introduced;
- That clause 39 (5) be amended so that "Except as otherwise stated in this transmission pricing methodology, the Assumptions Book is binding on Transpower."; and
- That clause 39 (6) be amended so that "Transpower must consult on the content of the Assumptions Book and consider whether any of the content is appropriate for incorporation in this transmission pricing methodology by way of a review under clause 12.85 of this Code at no sooner than every 5-years and no later than every 8-years.

Information Reporting

While improving the "Assumptions Book" will providing some certainty on modelling inputs, to construct transmission charging forecasts will not be very difficult for all Transpower's customers and especially those customers with limited experience int this area such as major industrials. This is because to forecast

[3] Page iv of the Consultation Paper

transmission costs they will need to look at future Transpower investments and seek to model how these costs will be allocated.

Transpower is best placed to provide expertise on future transmission charges because they will be implementing the TPM Code and their planners developing Transpower's future transmission investments. Consequently, as a minimum, there should be a requirement under TPM Code for Transpower to provide annual 10-year benefit-based pricing ($/MW) for inject and load for every GXP.

Under the TPM Code the information reporting could be structured on the following basis:

> 18 Information about Transmission Charges
>
> (1) As part of Transpower's obligations under a transmission agreement to notify the relevant customer of annual charges, monthly charges and changes to them, Transpower must:
>
> (a) provide the customer with reasonable information that is sufficient for the customer to understand the basis on which the customer's annual charges and monthly charges have been calculated. For a load customer, this information must include, for the relevant pricing year—
>
> (i) the amount of otherwise unallocated operating costs included in residual revenue; and
>
> (ii) reassignment amounts included in residual revenue.
>
> (b) prepare an annual publication of forecast pricing based on the TPM Code methodology, Transpower's Assumption Book and Transpower's Asset Management Plant (AMP) of forecast investments. In its forecast pricing Transpower must provide the following:
>
> (i) A per $ per MW benefit-based price for load so that it can be used to obtain an estimate of the benefit-based charge through multiplying the $ per MW against a forecast MW load;
>
> (ii) A per $ per MW benefit-based price for injection so that it can be used to obtain an estimate of the benefit-based charge through multiplying the $ per MW against forecast MW injection; and
>
> (iii) An annual 10-year forecast of the residual price.

Fixed Transmission Pricing Offer

Ideally the TPM Code should require Transpower to behaviour like a commercial entity in a competitive market when offering a service to a new customer or for a customer upgrade. The first commercial requirement any new customer would expect is certainty from their supplier on pricing. Under the Proposed TPM Code there is no pricing certainty.

Therefore, CEL contends that Transpower should be required to provide pricing certainty for both new grid connecting customers and for EDBs that incur new benefit-based charges for new customers with greater than 10MW of capacity. Key aspects of the TPM Code should include the following:

- On request Transpower must provide a 5-year benefit-based price commitment for any new customer connecting to a GXP or where an EDB requests pricing in order that it be a pass-through to a new industrial customer greater than 10MW or new generator greater than 10MW;
- That these prices be locked in unless either party seeks a variation to the prices but only where the variation is to the benefit of the customer; and
- That this price offering includes EDBs that are looking to upgrade GXP transformers or require a new GXP.

This would provide the certainty that investors require. There is no risk to Transpower who can recover any forecast under-pricing error through the residual charge.

Simple TPM allocation

CEL disagrees with the proposed simple method TPM split allocation being 50:50 between generation and load. This is because this methodology is likely to be applied to local regional transmission investments and specific regional benefits from new transmission will be opposite for generation and load. For example, a transmission to increase transmission capacity into a region because of higher load will benefit load with lower prices while at the same time the lower prices will be a negative benefit to generators[4]. Another example is transmission reliability improvements that will again benefit load over generation because reliability improvements reduce the times when the System Operator has to offer very high nodal prices to ensure N-1 supply (actual transmission outages are rare).

CEL would recommend that a different logic be applied for the simple TPM allocations that are for a specific region. For example, where the GXP is for injection then allocate the costs to the generators and when for load then allocate to EDBs and directly connected industrial customers. For those few GXPs that are both injection and load, then allocate based on the percentage of GWh injection and load.

Conclusion

In conclusion, the Proposed TPM Code calculations for benefit-based charges are very complex and this introduces significant investment risk. This will reduce investments, particularly large new generation, and this comes at a time when decarbonisation will increase the demand for electricity. Furthermore, the Proposed TPM Code places all this risk on the end customer, which CEL believes reflects Transpower writing the Proposed TPM Code for its benefit rather than being required to provide a free marketplace perspective where a customer would expect greater price certainty. This is particularly vexing given that Transpower is a monopoly and can recover any lost revenue through the residual charge and so faces no commercial risk.

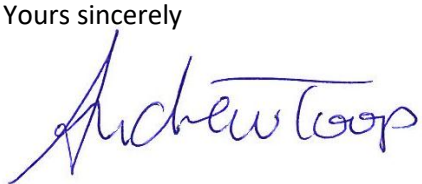
In CEL's opinion, the Authority needs to amend the Proposed TPM Code to rebalance the risk so that it better reflects a competitive market. As part of this rebalancing there has to be a requirement for Transpower to provide forward 10-year pricing forecasts by GXP that reflects their AMP investment plans, Assumptions Book and TPM methodology. In addition, the TPM Code needs to be modified to require Transpower to offer 5-year pricing for new large industrial plants and generators irrespective of them being

[4] The same logic would hold for a transmission capacity to increase injection on to the grid because this would increase the nodal prices at the GXP to the benefit of the generator and a negative load benefit.

a direct grid connection or connecting through an EDB. Similarly, Transpower should be required under the Code to offer fixed 5-year pricing for EDBs upgrading transformers at a GXP or seeking the construction of a new GXP. Without commercial rebalancing in the Proposed TPM Code benefits of the TPM changes won't be realised and the TPM Code will not be durable.

CEL would be happy to discuss any aspect of this submission.

Yours sincerely



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