

Submissions
Electricity Authority
Level 7, ASB Bank Tower,
2 Hunter Street
PO Box 10041
Wellington 6143

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By email to submissions@ea.govt.nz

Submission on the paper titled “Transmission pricing methodology: Problem definition relating to interconnection and HVDC assets”

We remain unconvinced that the Authority’s ongoing TPM campaign is an efficient use of anyone’s time and resources. Nevertheless we have no choice but to engage, or at least try to engage, in the Authority’s process.

We would really prefer if the Authority would provide feedback on submissions to date, and provide its reasons for accepting or rejecting participant’s views. To that end we are disappointed that the Authority has chosen to listen and ignore some of our views – especially when what we say is undeniably true (see our answer to question 15 for instance).

Question 1: Do you agree that, in relation to decisions around transmission pricing, the Authority should focus on overall efficiency of the electricity industry for the long-term benefit of electricity consumers? Why or why not?

Yes we do agree. However it seems to us that the Authority appears to believe that consumers don’t know what is best for them.

Question 2: Do you agree with the Authority’s view on what constitutes an efficient charge? What role do you consider durability plays in determining efficient charges? Please explain your answers.

We do not think the Authority has explained particularly well the purpose of investment in the grid, which is simply to meet peak transmission flows. Efficient prices should reflect this purpose.

We don’t think durability has much relevance to efficiency. Durability simply means lack of complaints. If a wealthy immigrant volunteered to pay transmission charges for everyone for evermore there would be no complaints from anyone – but this is unlikely to be an efficient outcome.

Question 3: Do you agree with the Authority’s revised position on the problem definition, described above? Please explain your answer.

No we do not. The Authority has not defined a problem. The Authority has simply provide a long list of opinions and assertions – most of which we disagree with. In fact the Authority has not persuaded us that there has been a material change in circumstances and therefore we do not believe that the Authority has due cause to conduct a review of the TPM.

Question 4: To supplement information already provided by Transpower, do you have any comments on the steps taken by Transpower or by other parties after approval of the NAaN, NIGU, and other investments such as the LSI Reliability Upgrade investments, to review whether it might have been efficient to postpone elements of them?

A number of years ago when the GIT was being developed our recommendation was for the GIT to utilise a stochastic optimisation programme. If we had not been ignored, some of the projects which now look to have been unwise investments may have been delayed, or may even have been abandoned.

Question 5: To what extent do current interconnection charges promote efficient timing of investments? Please explain your response.

The RCPD signals encourage peak demand management, which will promote delays in investments in transmission capacity.

Question 6: To what extent do you consider participant support for transmission investments takes into account the cost implications for them and for other parties? To what extent do you consider the efforts made by participants to provide relevant information on transmission investments take into account the cost implications for them and for other parties?

In our view almost all consumers are overwhelmed by the volume of material and complexity of any transmission investment proposal and are unable to respond in any meaningful way.

Question 7: Do you agree that the Kawerau investment proposal described is an example of an inefficient investment resulting from the TPM? Please explain your answer.

We are not sure where the Authority got this story from, but they seem to have the wrong end of the stick. The conspiracy the Authority suggests did not take place. What really happened at Kawerau was that the transmission studies were done when the design capacity of the MRP plant was around 68 MW. For various reasons the installed capacity was actually around 105 MW. Unfortunately the transmission studies were not revisited – which is an unfortunate oversight.

Subsequently after the commissioning of KAG when the hydro schemes injected large volumes at Kawerau, and our mill had a shut in the Refiner Mechanical Pulp mill, one of the interconnecting transformers was overloaded (or would have if not for an equation in SPD limiting the combined injection). The potential for this outcome stems back to 1987, when the earthquake destroyed one of the transformers and it was replaced with a misfit – leaving two transformers in parallel with different impedances. At the time injection at Kawerau would have been beyond the realms of possibility.

Anyhow since starting up in August 2008 the KAG plant has been ramped back reasonably often to avoid the constraint binding. The Authority should check with MRP but it would not surprise us if the overall cost of the lost production exceeded the incremental cost to connect to the 220 kV bus at Kawerau.

The \$9.5 million Grid upgrade at Kawerau was triggered by our company's investment in a 21 MW geothermal power station which commenced operation in December 2012 which is connected to our own mill network in order to most efficiently supply our pulp and paper mill with electricity. The new transformer avoids low cost renewable electricity being spilled at Kawerau, and replaced with thermal generation in the Waikato, with associated reduction in the spot price nation-wide.

Question 8: Do you consider that current TPM can incentivise parties to prefer interconnection assets over connection assets or building and owning their own assets (by which they will be required to pay a higher portion of transmission costs)? Please explain your answer and provide any examples you may have.

As we have explained the Authority's assertion about KAG is untrue. We do not know if there are any actual examples that support the Authority's position.

Question 9: Do you agree that the TPM can materially impact investment efficiency? Please explain why or why not.

Yes.

Question 10: Do you agree that cross-subsidisation of TPM costs between consumers may affect the durability of TPM charges?

Question 11: Do you consider that the current TPM is durable? Why or why not?

Question 12: Do you agree that the examples provided above are examples of a durability problem? Please explain your response.

Question 13: If you consider there to be a durability problem, do you know of any further examples of durability problems with the TPM? If so, please describe. Please also estimate the costs that you have incurred in relation to submissions on the TPM for as far in the past as you are able to provide (ie in relation to current and previous TPMs).

Question 14: Do you agree that durability is a particularly difficult problem to measure? Please explain why or why not. Are you aware of an appropriate methodology for measuring durability? If so, please provide details of that methodology.

If durability means no threat of legal action then we do not think that a durable TPM exists. No matter what TPM is in place, someone somewhere won't like it.

Question 15: Do you consider that the RCPD allocation provides an efficient signal of the need for load shedding at coincident peak times? Do you agree with the Authority's estimate of the possible efficiency effects?

It is our view that a signal for load to manage peak demand is a good thing for a power system, regardless of whether new investment is being contemplated. Transpower appear to agree since they are paying consumers to manage demand in various part of the country.

We do not accept the Authority's estimate of possible efficiency effects. The Authority seems to be pulling numbers out of nowhere to suit its arguments. What evidence does the Authority have to support a 1.5% or a 5% reduction in coincident peak loads? How can demand reduction cost \$1000/MWh? If it is hot water circuits switched off for 2 hours a day then the cost would be minimal. We explained in a previous submission that load shed at coincident peak times at our mill incurs no costs – yet the Authority has still assigned a cost of \$5 million.

We suspect that distributors derive benefit from load shedding and controllable load due to avoiding investment in their own networks and revenue from interruptible load. The Authority appears to believe that this is not the case since it ascribes all of the costs to the TPM. In our view the Authority is in error.

Instead of hypothetical guesses the Authority should find out how much load is actually shed solely in response to the RCPD regime and what the cost of this really is.

Question 16: Do you agree that the interconnection charge may over-signal the need for overall reductions in consumption? Do you agree with the Authority's estimates of inefficiency? Which of the four scenarios, if any, do you consider the most plausible? Please explain your answer.

Since the elasticities, costs and values for X and Y are guesses, the Authority's estimates are not particularly meaningful.

Question 17: Do you agree that the interconnection charge may over-signal the cost of increasing Tiwai smelter production in summer? Do you agree with the Authority's inefficiency assessments? Please explain why or why not.

We understand that the electricity consumption of the Tiwai Point smelter is so large that it warrants special consideration.

Question 18: Do you agree that the interconnection charge and ACOT payments may over-signal the value of embedded generation? Please explain your answer.

We note that the Authority has not formed a view on the overall efficiency of ACOT payments, but thinks it is likely that ACOT payments over-signal the value of embedded generation.

We haven't formed a view either, but we think it is likely that ACOT payments do not over-signal the value of embedded generation.

Question 19: Do you agree with the Authority's assessment that, although the interconnection charge may over-signal the value of generation to direct-connect consumers, any resulting efficiency loss is likely to be relatively small? Please explain your answer.

We agree with the Authority's logic, except for one thing. The Authority seems to think that embedded generation is 100% reliable, and embedded generators would prefer 12 peaks to 100. What if it wasn't 100% reliable and tripped out on the coldest night of the year? With 12 peaks, that might mean the embedded generator pays the full interconnection charge. With 100 peaks, they would pay only 10%.

Question 20: Do you agree that the HAMI allocation may incentivise SI generators to withhold existing capacity? Do you agree with the Authority's estimate of inefficiency? Please explain your answer.

Question 21: Do you agree that the HAMI allocation may discourage upgrades to SI generation capacity? Do you think this is a material problem? Please explain your answer.

This might not be as bad a problem as the Authority has been led to believe. It would be interesting to know the water values at times when SI generators have withheld capacity due to HAMI. In any case if the HAMI allocation is such a big problem then why not change the allocation to annual injection?

Question 22: Do you agree that the HVDC charge may discourage investment in SI grid-connected generation? Do you agree with the Authority's inefficiency estimate? Please explain your answer.

We are not sure why MEUG is the "main exception". This seems to imply that the Authority listens only to a select group of submitters. With no disrespect to MEUG intended, we think we

are just as “main” as MEUG is and we recall having made various criticisms of the TPAG work and other papers dealing with the HVDC charge.

In previous submissions we have suggested several ways to solve this problem – with our preference being to limit charges to existing generation assets, and any new SI generation being exempt from the HVDC charge.

Question 23: Do you agree that the HVDC charge may bring forward the need for upper SI transmission investment? Do you agree with the Authority’s estimate of inefficiency? Please explain your answer.

We don’t know since we have not seen any transmission studies of the USI. However we are sceptical since we are not aware of the need for any new generation in New Zealand for the foreseeable future. However we would suggest that it may be much more efficient and more reliable for existing consumers to be incentivised to shed peak demand than for generators to build otherwise uneconomic power stations.

Question 24: Do you agree with the Authority’s view on prudent discount policy? Do you agree with Transpower’s view that a PDP for notional generation is not practically achievable because of the difficulties in valuing notional disconnection? Please explain your answer.

No. In any case the PDP is not a problem, so why is it being questioned in the Authority’s problem definition paper? Rather the PDP is a solution to possible inefficient bypass. We agree with prior submissions of Rio Tinto (now known as Pacific Aluminium) that the PDP is a good mechanism to retain in the absence of perfect foresight.

Question 25: Do you consider that there are any other material problems with the TPM (in particular, the HVDC charge, interconnection charge, and the prudent discount policy) that the Authority has not considered in this paper? If so, please provide details.

Any answer to this question implies agreement with the Authority that the HVDC charge, the interconnection charge and the PDP are material problems.

To be clear we do not agree that the HVDC charge, the interconnection charge and the PDP are material problems. Neither do we think there are any other material problems with the current TPM.

Regards

Graeme Everett

Energy Manager