

Submissions
Electricity Authority
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Transmission pricing methodology review submission

Thank you for the opportunity to submit on the proposed changes to the Transmission Pricing Methodology (TPM). This submission is my personal submission and does not represent the views of my employer.

Overview

It seems to me that the main justification for the proposed changes to the TPM will be an supposed efficiency gain due to parties no longer having an incentive to argue for uneconomic transmission upgrades that will benefit their private interests rather than New Zealand as a whole. This implies that parties have in the past successfully argued for uneconomic transmission upgrades. In my opinion this suggests a regulatory failure has occurred. If this is in fact the case, is not a regulatory response the appropriate response, rather than a pricing mechanism change?

I have concerns that while the proposed mechanism may well dis-incentivise parties to argue for future transmission upgrades which privately benefit them, but are not to the benefit of the country as a whole, it may also affect their behaviour with respect to the utilization of transmission assets whose costs are already sunk. I believe that these have the potential to outweigh the supposed efficiency gains. For example it is stated in the documentation provided that under the proposed mechanism there is the potential for south island generators to avoid the cost of the Pole 3 upgrade by structuring their bids in order to avoid using Pole 3. This has touted in the documentation as a good thing, but I have an alternative view. For example if this behaviour means that even half of the intended benefits of Pole 3 are not realized, this would be approximately \$300M of benefits that are not realized, which already exceeds the supposed net benefit of the proposed TPM.

The proposal to allocate 50% of the residual cost to generators according to their RCPI also has the potential to distort the energy market. Generators will have an incentive to reduce generation at times of system peaks in order to avoid the charge. Generators with market power will seek to increase their bids at times that there is a risk of the RCPI being reached in order to ensure their costs are covered. The likely losers will be generators without market power (e.g. wind generation forced to bid at \$0.01/MWh under the current rules) and consumers.

In summary I believe that if there has been a regulatory failure, there should be a regulatory response. In my view, the TPM should recover the cost of the sunk investments in the transmission system in the way that least distorts market participant's behaviour. I do not believe that the proposal put forward by the Authority achieves this,

and is instead is likely to increase distortions in the electricity market. To this end I support the majority TPAG view with respect to the allocation of the HVDC costs.

Loss and Constraints Rentals

I support codifying the current practice of utilizing the loss and constraints rentals to reduce transmission charges.

Reactive Power Charges

As a concept I support the proposed reactive power charge and the proposed 0.95 minimum power factor. However these should be only applied at times of peak demand, and care will need to be taken to design the rules so that distribution companies do not over-compensate, particularly at times of low demand. When the transmission system is lightly loaded it will itself generate reactive power, at such times, reactive power consumption by distribution may actually assist Transpower in controlling transmission system voltages.

SPD Charge

I do not support the proposed SPD charge and believe that it has a number of flaws.

The inclusion of every transmission project above \$2M will capture all reconductoring projects, including those that are like for like replacements. This will progressively capture larger and larger parts of the transmission system to be included in this but for analysis. I am not convinced that it is possible to break apart a system and analyse it in this way. To take an analogy consider a system like a car; while it may be possible to value certain items, such as a radio, roof rack, or towbar, certain parts are fundamental to the operation of the system, and if these are removed you don't have a car "system" anymore, you just have a collection of car parts that can't fulfil the car function.

Further, it is not clear what the counterfactual will be; demand nodes supplied by diesel generators, and generators stranded; or the 2004 transmission system frozen in time. If it is the former, then the counterfactual is a farce and will result in extremely high transmission charges for nodes that would otherwise be isolated if a project did not proceed (e.g. Mangamaire, Hawera and Waverley), if it is the later, then why include like for like transmission projects in the mechanism as these will have no benefits above the 2004 transmission assets. Either way, the mechanism will benefit consumers who, through an accident in time, are well served by assets that were approved prior to 2004, and relatively penalise those who transmission assets reached end of life after this date. Will the transmission price for small rural connections, such as Mangamaire or Waverley, who would lose connection to the system altogether were reconductoring projects not completed essentially be capped at the price of diesel generation?

I believe the proposed SPD mechanism will distort electricity market behaviour with respect to the utilisation of sunk transmission investments. This may mean that the

benefits of those transmission projects on which the investments have been predicated may not be realised. The proposed mechanism means that up to the regulatory return cap, a transmission user will be charged for \$1 of cost for every \$1 of benefit that a transmission project will provide (essentially a 100% marginal tax rate with a cap). This means that in many cases that the transmission user will have no incentive to utilise the asset, and without utilisation, these assets will not bring the intended benefits to New Zealand as a whole. One of the arguments against the existing mechanism is that it distorts the use of certain assets, and in particular the HVDC system. In my opinion the proposed SPD charge has the very real potential to make this distortion worse rather than better.

The SPD charge is complex and is likely to be volatile. Market participants will have to manage this volatility. For those offering fixed prices (e.g. retailers' offerings to consumers) there is likely to be a risk premium associated with this volatility.

Residuals Charge

I have concerns with the proposed allocation of the residuals charge and do not support the proposed allocation to generators. The 50/50 split between consumers and generators appears to be completely arbitrary and without justification (merely on the basis that generation more or less equals load). Considering the benefits of the transmission projects that have been analysed in the documentation, the vast majority of the benefits are gained by consumers. Thus if charges are going to be on a beneficiaries pay basis, it would seem to me that the majority of the charges should be borne by consumers – the proposed 50/50 split would appear to be no improvement in this respect to the current situation where consumers pay 100% of the cost.

Charging generators according to their RCPI, will likely lead to generators with market power increasing prices whenever there is a *risk* of the RCPI being triggered in order to cover the potential charge. This will likely be to the net cost of consumers as well as generators without market power, such as intermittent generators who must bid a \$0.01/MWh under the current rules. Over the system as a whole, the mechanism will also encourage generators to hold back generation at system peaks, which is exactly the behaviour that should be discouraged.

I consider that the residuals should be charged in a way that causes the least distortion in the electricity market, which I consider that the present mechanism largely achieves.

Wealth Transfer

It appears that the EA has paid little attention to the effects of wealth transfer on the basis that the charges to the industry as a whole do not change, and that any transition should be as quick as possible in order to maximise the supposed benefits. For example point 7 of Appendix F notes that “The proposals may also have wealth transfers, which are not losses to society”.

I submit that radical changes, and potential wealth transfers such as these require careful consideration. Although there may not be a significant change for the industry as viewed as a whole, the changes could potentially have significant effects on individual parties. The uncertainty raised has the potential to delay investment in certain projects, and raise the investment risk premium for those seeking investments. This is a potential which could affect investment in large electricity consumers as well as generation and retail.

Large wealth transfers are likely to increase the perception that the New Zealand electricity sector (and perhaps New Zealand as a whole) is a risky place to do business. The resulting risk premium is likely to be a cost to society as a whole.

Conclusion

I submit that the proposed TPM, and in particular the proposed SPD mechanism and allocating costs to generators according to their RCPI, is complex, ill conceived and will likely increase distortions in the electricity market. Wealth transfers are likely to result, which will create uncertainty for potential investors in the electricity system, and likely to delay projects and attach a risk premium to investments. It is far from clear that electricity consumers will be any better off as a result of the proposed TPM.

Regards,

Philip Wong Too