

Submission to the Transmission Pricing Methodology (TPM)

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Areas covered in this submission

This submission covers the way in which transmission pricing is relevant to the following areas:

- Climate change policy and the move towards a low-carbon economy.
- Efficient use of capital and infrastructure in the economy.
- Creating a positive environment for businesses to invest.

This submission covers the peak pricing aspects of the TPM as compared to HVDC charges and other matters covered by TPM.

Context: Increasing demand for electricity in New Zealand

According to Transpower and the Productivity Commission, electricity demand is set to increase significantly over the next few decades as “electricity becomes the new oil”. For example, the trend towards electrification of transport is well underway now with some 15% of the world’s bus fleet now battery electric and pure electric vehicles the #1 selling vehicle in 2019 in markets such as the Netherlands and Norway.

Impacts of proposed TPM on electricity demand profile

Electricity Authority staff have been clear in responses to questions at workshops that changes to the TPM will result in an increase in peak demand and an increase in the ratio between peak and minimum daily demand. Peak demand is a critical aspect of the electricity system in terms of costs of the overall system and the sources of generation needed to meet peak, particularly fossil fuel generation.

Impacts of the proposed TPM on carbon emissions

The TPM proposals will result in increased carbon emissions from the power system. The reason is that, as articulated by Electricity Authority staff at workshops:

- Peak demand will increase. There is a high degree of certainty that this increased peak will be met by thermal power plants, because;
- The Electricity Authority is opposed to the deployment of batteries on the power system to reduce transmission-level peaks. This point has been clearly articulated by Electricity Authority staff.

It seems, therefore, that the TPM policy is in direct conflict with the government’s stated policy of achieving a 100% renewable electricity system by 2035. We request that this conflict is specifically addressed in the summary of submissions or similar.

Efficient use of capital in the economy

The New Zealand economy has a well-know low productivity issue. Efficient use of capital, including infrastructure capital is widely known to be one part of the productivity puzzle. The EA proposals will result in a more expensive power system because peak demand will increase, as stated by EA staff.

As electricity demand increases as the nation moves towards a low carbon future we need to ensure that the electricity system is able to deliver the substantially increased demand as efficiently as possible, from a deployment of capital perspective. In that way we can help address a part of the productivity issue in the New Zealand economy.

As stated by the EA, the proposed TPM will result in an increase in peak demand. From a productivity of the economy perspective the proposed TPM is a step in the wrong direction and will have the effective of making the nation poorer.

Creating a positive environment for businesses to invest and innovate

We note that Transpower and the Electricity Authority are in strong disagreement on the direction of transmission pricing. Having major disagreement between two significant agencies with influence in the power system does not create a certain and positive investment environment for business. This disagreement must be resolved as a matter of priority.

Summary

Our concern is that this TPM proposal will lead to increased peak electricity demand and an increase in carbon emissions from the power system. Further, this TPM proposal will result in poorer use of capital in the electricity sector, reduced productivity in the economy and the nation, overall, becoming worse off financially.