GREAT SOUTH

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Submissions
Electricity Authority
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Transmission Pricing Methodology Review: 2019 Issues Paper

Great South, Invercargill City Council, Southland District Council, Gore District Council and Environment Southland appreciates the opportunity to provide a submission to the Electricity Authority on its consultation paper, *Transmission Pricing Methodology: Issues Paper 23 July 2019*.

Summary

- **Changes to the TPM are long overdue and should be implemented without delay.**
- **The Residual Charge masks the true cost of transmission and should be reduced to reflect the areas of benefit.**
- **The Price Cap should be removed as its existence means that consumers continue to pay for transmission assets that they do not receive any benefit from.**

This submission is made by Great South on behalf of the Mayors of Southland and Chairman of Environment Southland representing the views of the combined Councils as well as Southland businesses and consumers.

Great South is the Southland Regional Development Agency and acts independently to achieve its shareholders' aspirations contained within their annual letter of expectation. Great South works closely with regional businesses as part of its role in delivering the Regional Business Partners Network. Great South, formerly Venture Southland, has been actively involved in energy related matters since it published Southland's first Energy Strategy in 2003 and has since developed, in conjunction with industry and community, two further Energy Strategies. It has also made multiple submissions on Transmission Pricing Methodology (TPM), particularly in the last five years, each involving wide consultation. Accordingly, we believe Great South is qualified to reflect the views of the parties affected by the current Transmission Pricing Methodology.

The submitters acknowledge the Electricity Authorities role *to promote competition in, reliable supply by, and the efficient operation of, the electricity industry in New Zealand for the long-term benefit of consumers* and acknowledge the Authority's duty to ensure that the correct regulatory frameworks are in place to achieve a fair and equitable Transmission Pricing Methodology.

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Southland

1. Southland has a population of 97,500 and consistently punches above its economic weight producing or processing 15% of all of New Zealand's tradeable exports. The region is highly exposed to international commodity prices. Primary sector businesses, processors, exporters, dairy and aluminium production are particularly impacted. Business seek efficiencies in all aspects of their activities.
2. Currently South Island consumers have limited energy options and are specifically unable to access cost-effective, alternative energy such as reticulated natural gas and consumers rely heavily on electricity for space heating and cooking.
3. In terms of electricity infrastructure, Southland sits at the bottom of a long and thin electricity transmission grid, close to significant sources of renewable electricity generation; in fact around 22% of all electricity generated in New Zealand is generated south of Cromwell.
4. Despite the proximity to generation, under the current allocation of costs Southland must pay for the cost of transmitting electricity 1,600 kilometres to the upper North Island to supply by far this country's largest population centre and one that is experiencing rapid and significant growth. We note that nearly 40% of all New Zealanders live in Auckland, or Northland, distant from significant generation necessitating extensive transmission infrastructure.

Unfair investment subsidisation

5. Since 2004, $1.3 billion has been spent making sure Auckland and Northland have the transmission infrastructure required to keep their lights on. There is enough transmission capacity remaining in these investments to ensure that Auckland can keep growing and industry in Northland can develop and expand.
6. The financial effect of this investment, however, has added $220m to Transpower's revenue expectations, yet only 39% of this cost is paid by the upper North Island consumers, leaving the lower North Island and South Island consumers paying 61% for the grid investment in the Auckland area. The effect of this approach is that grid investment cost is socialised across consumers that do not receive any benefit from the investment.
7. Currently transmission costs show a strong bias against the South Island. Based on their book values, 80% of the transmission assets are located in the North Island and 20% in the South Island. However, South Island consumers pay 34% of the costs. This is an inequitable situation that needs to be remedied.

Renewable energy

8. The current practice of charging South Island generators for meeting the costs of the Cook Strait cable is supressing investment in new South Island renewable electricity generation, locking New Zealand into a future of meeting reserve generation with North Island fossil-fuelled generation. This method of transmission pricing seems to be out of step with New Zealand's wider commitment to meeting climate-change emission reduction targets. We acknowledge that emissions reduction is currently beyond the Electricity Authority's mandate, but an efficient electricity network and transmission system will be a significant enabler of decarbonising our economy

9. The dairy, meat and food processing industries, which predominate in Southland, are considering the introduction of high temperature heat pumps and contemplating low emissions processing, all of which will require greater investment in renewable electricity generation.
10. Regulatory certainty and the consistency of treatment of the South Island's HVDC and HVAC as proposed in the July 2019 TPM Issues Paper would go a long way towards stimulating renewable generation investment in the South Island by removing what is effectively a 10% tax on South Island generators. This approach is supported by the submitters.
11. There is a greater need for value-added processing as exporters move from commodity trade to higher value exports, which are less exposed to the vagaries of commodity price fluctuations. High value exports are less impacted by transport prices are expected to increase as the international shipping fleet transitions from heavy fuel oils to diesel from 2020 onwards, which will increase the fuel and carbon cost to transport. The investment required to support such initiatives and new processing opportunities requires regulator certainty and the availability of increasing amounts of electricity.

Tiwai Point Aluminium Smelter

12. The Tiwai Point aluminium smelter produces one of the world's lowest carbon emissions, aluminium. This lightweight metal is required by the emerging EV and alternative fuel transport fleets. The aluminium produced is an infinitely recyclable metal which meets the objective of product stewardship of a true circular economy. The Tiwai smelting process is also with one of the world's lowest carbon emitting processes at 1.9 tons of carbon per ton of metal produced as opposed to the industry standard at around 15 tons of carbon per ton of metal produced.
13. Historically, much has been made of energy consumed by large users such as Tiwai aluminium smelter. However, the smelter pays almost the total book value of the Manapouri to Tiwai Point transmission line annually. Indeed, the Tiwai Point aluminium smelter has used largely the same grid infrastructure since its operation began in 1971, but has faced huge increases in transmission costs since the implementation of the current TPM.
14. In the case of the Tiwai Point aluminium smelter, it has faced nearly $200 million in increased transmission costs since 2008. Much of this is to provide revenue to Transpower for assets in the north of the North Island. Overpayments will never be recouped by the smelter, and make it less commercially sustainable.
15. In 2014 Transpower's book value for the transmission lines connecting Manapouri power station with the Tiwai Point smelter was $72 million – this means that transmission charges have been recovering almost the entire book value of the main piece of infrastructure the smelter uses year on year. NZAS has estimated that the payback time for them to overbuild their own private transmission line from West Arm, Manapouri to the smelter is under two years.
16. The smelter provides the base load necessary to enable grid stability, a factor that is important as more intermittent renewable generation comes on stream. The smelter also assists with electricity demand management.

Benefits based charging

17. Southland strongly supports reform of the transmission pricing methodology (TPM) and agrees that reform is necessary and urgent. It believes that consumers should pay for the transmission assets they benefit from and not pay for those they do not use.
18. Consumers in the lower North Island and the South Island have for the most part been overcharged over the past eleven years while the upper North Islanders in particular have been undercharged. This situation has been driven by rapid growth and the need for substantial investments in the upper North Island grid, particularly since 2008.
19. We agree with the introduction of a benefits based charge to recover the cost of new grid investments, but believe that future charges should include recently constructed assets.
20. We believe the benefits based charge should be applied as widely as possible to all existing assets, as until it is, some consumers will continue to pay large amounts for transmission assets they don't benefit from.
21. We acknowledge that for consumers who are enjoying subsidised rates for the assets will not welcome increased costs; however, consumers now paying for assets that do not benefit them are currently unhappy with carrying an unfair burden.

Residual charge and price cap

22. Our concern is that the benefit of transmission efficiency gains achieved by consuming energy close to the point of generation will be lost unless the 'residual charge' reflects the true cost of transmission. Should this situation be left unaddressed then there is likely to be perverse consequences that in effect incentivises investment which is inefficient in areas distant from generation and potentially within areas that already have overloaded or weak transmission infrastructure. As it stands, any new electricity-intensive industry contemplating starting up in New Zealand would find its electricity costs to be lowest if it were to establish itself near Auckland, in spite of incurring the highest energy loss in transmission, rather than in Southland adjacent to a renewable power station incurring almost no transmission losses.
23. We believe the residual charge is too large and does not deliver relief for the consumers who have been overcharged for a decade and who, under this proposal, will continue to be overcharged for many years after it is implemented, which is estimated to be 2024 at the earliest. Accordingly, Transpower should be required to implement systems that give effect to a revised TPM well within 5 years and it is suggested that a reasonable implementation time be 2½ to 3 years, following a final decision on the TPM.
24. The introduction of a price cap to soften the effect of price increases to consumers who have been not been paying for the assets they benefit from and in some instances avoiding interconnection charges altogether, will need to be effectively subsidised by other customers. This would be unacceptable to consumers who have faced large and unchecked increases over the past decade.
25. Tiwai Point aluminium smelter, who would contribute over $1 million per annum to pay for the cap to other customers' prices, did not enjoy the comfort of a price cap to soften their annual increases since 2008 of between $3 and $30 million dollars per annum. As a trade-exposed

commodities business, the Tiwai Point smelter cannot pass those costs on to its customers and has no option but to absorb them. This makes achieving commercial sustainability very difficult.

Transition period

26. Southland industry and consumers have been overpaying for transmission assets for over a decade. The currently proposed reform does not deliver the deserved relief from these over payments and, with expected implementation, not until 2024. This situation is further exacerbated because a large amount of assets will still be deemed to fit within the residual charge: South Island business will continue to pay for grid assets they do not derive benefit from and will continue to make these overpayments for many years to come.
27. We do not believe a transitioning of the TPM is consistent with the Authority's statutory objective as it would allow inefficient prices to persist. Southland is already paying for infrastructure, from which it gets no benefit, and has been doing so for the past eleven years. While we understand that some economically disadvantaged customers might find it hard to face higher prices, there are already disadvantaged customers paying prices that are inefficiently high, and any transition would mean they have to keep on paying them until a new TPM is fully implemented. Energy poverty is often raised as a reason for not effecting changes. Fortunately it is not within the very specific mandate set for the Authority to prioritise one party's private wealth impacts over another's; accordingly, the TPM Review is not the appropriate place to address social policy issues of energy poverty. However, the establishment of an efficient TPM will stimulate much needed change providing the confidence to invest in a greater range of renewable energy and value added decarbonising investment. Therefore the submitters request that the proposed TPM reforms be implemented without delay.

Other matters

28. There are a number of historic transmission investments made by Transpower that have failed to meet the returns anticipated in their respective investment business cases. These investments should be written off and Southland urges the Electricity Authority to recommend this action to ensure that these poor investments do not continue to be funded by consumers.
29. We also urge the Electricity Authority to look closely at transmission losses caused by over -heating high voltage transmission lines, power factor and harmonics, as these losses contribute to inefficient transmission and distribution and should be progressively identified and mitigated. Such an approach may reduce the level of new generation required and ensure that more of the electricity entering the grid is available to consumers
30. The cost of the national grid is beyond the control of businesses and residential consumers. Whatever price is set by the Commerce Commission for Transpower to collect must be met by consumers; it is therefore imperative that the method of allocating costs is economically efficient, service-based and, accordingly, cost-reflective.
31. There have been calls for the EA to consider the need for a wider review of the transmission system and wider grid capability in the light of increased electricity demand. While this may be needed, it is important that additional stream of work such as this, should not delay the TPM decision-making process.

It is unfortunate that the current TPM is neither fair, nor cost reflective and adversely impacts on business competitiveness in the South by imposing unreasonable and unjustified costs on southern industry and consumers. It is expected that a fairer TPM will go some significant way towards addressing these issues and we urge that this should be implemented with some urgency.

Finally we would like to thank the Authority for its comprehensive consultation on the Issues Paper.

Should any further information be required, please do not hesitate to contact Mr Stephen Canny on (03) 211 1400 or by emailing steve@greatsouth.nz.

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