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Mr Carl Hansen
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By email: submissions@ea.govt.nz

Dear Carl,

Second Issues Paper – Transmission Pricing Methodology: Issues and Proposals

1. This is Vector Limited's ("Vector") submission to the Electricity Authority's (Authority) Second Issues Paper Transmission Pricing Methodology – Issues and Proposals (TPM Second Issues Paper).

2. Vector has serious concerns over the TPM Second Issues Paper at both a principle and implementation level. We also have reservations about the process adopted for a regulatory decision of this magnitude, particularly given the very broad impact and cost of any flawed TPM proposal will have on consumers, business investment and public confidence in New Zealand's electricity supply chain.

3. We outline such concerns below.

Principle Level Concerns	Explanation
1. *If the policy objective is to avoid over-investment in transmission the proposal is poorly targeted*	Changing the recovery of already sunk grid assets does nothing for such forward looking incentives for either optimal grid usage or transmission investment.
2. *Rather, retrospective change introduces regulatory risk and erodes business confidence*	Retrospective changes over already built transmission assets threatens capital flight. Such fundamental changes in charging methodologies after investments have been sunk and partially recovered undermines investor confidence in the durability of regulation in New Zealand.

Principle Level Concerns	Explanation
3. *Radical change with no transition can be expected to deliver unintended consequences*	Such dramatic change to TPM also introduces significant risk of unintended consequences, including compromises to efficient asset utilisation and security of supply. Moving to a regime of "just in time (or too late) transmission investment" and one that discourages the 1000 MW of load control and DG that currently runs at peak appears to introduce a new risk "of the lights going out" with the security of supply for the electricity system becoming more precarious.
4. *A 91% : 9% consumer/generator percentage allocation of charges lacks foundation on either efficiency or "fairness" grounds*	The Authority's acknowledgement that were generators to face higher charges they would simply pass these on through wholesale energy market offers reveals an issue of far more significance than TPM. In a competitive wholesale electricity market the Authority could not make such an assumption; generators would be bidding their *marginal* cost of supply which ought to exclude *fixed* transmission charges. This is not an adequate reason for denying a fairer and broader split of transmission charges across consumers and generators. A wider base for the recovery of sunk assets will avoid distortional use of the transmission grid.
5. *Generators are clearly beneficiaries of the grid also*	In applying a disproportionate amount on consumers relative to generators, the Authority appears to be applying flawed logic to conclude that generators do not value security of supply as much as consumers. Generators value connection to the grid – for without connection there is no revenue for generators. It must also not be forgotten that generators argued strongly for the NI grid upgrades to benefit the wholesale market. To now suggest that generators are not equal beneficiaries is a highly selective recount of events. This also raises the interesting question of who decides, under the Authority's view of benefit, whether any future investment goes ahead. The proposal suggests that it will overwhelmingly be consumers <u>who should</u> have decision rights - having been deemed to be the beneficiaries. Generators should have limited decision rights – at most 9% of the vote in proportion to their cost allocation. Otherwise the Authority is encouraging "free-riding" behaviour from generators.

Principle Level Concerns	Explanation
6. Spreading sunk costs over fewer parties has no economic foundation and simply introduces distortions	The Authority's proposal involves seeking to recover charges for sunk assets from fewer parties. As discussed in Compass Lexicon's expert report[1] for Vector – levying sunk assets to a few parties will result in economic distortions such as users avoiding the grid and the underutilisation of existing assets. International experts caution regulators against mechanisms that concentrate sunk cost recovery on a limited number of users on the basis that it violates two basic principles: a) It does not improve dynamic efficiency because it cannot impact decisions on investments that have already been made. On the contrary, dynamic efficiency may worsen as it may impact future location decisions; b) It increases transmission prices for individual users, promoting inefficient consumption and investment choices, as well as grid bypass.[2]

Implementation Level Concerns

	Explanation
1. The proposal is not for the long-term benefit of consumers	Rather than reducing the burden on consumers, the Authority's proposal locks in structurally higher prices for consumers for the foreseeable future. The proposed changes are not zero-sum for consumers. The proposal results in a wealth transfer from consumers to generators and Tiwai Smelter of $100M per annum – a transfer considered by the Authority as irrelevant given its own interpretation of its "long-term benefit of consumers" statutory mandate. To contextualise the scale of such a wealth transfer, this reverses, by a magnitude of two, the annual consumer gains the Commerce Commission considers it has achieved for Auckland consumers through its price/quality regulation over the 2012-2015 regulatory period.
2. The Authority under-estimate the impact	The modelling the Authority has undertaken understates the impact on typical residential users by adopting a "flat-rate" kWh for all users. Vector's analysis of the actual cost

[1] Pablo T Spiller and Marcelo A Schoeters, *Transmission pricing in New Zealand: an Analysis of the Electricity Authority's Proposed Options*, 11 August 2015

[2] Pablo T Spiller and Marcelo A Schoeters, *Transmission pricing in New Zealand: an Analysis of the Electricity Authority's Proposed Options*, 11 August 2015, p. 25.

	Explanation
of changes for households	impact for a residential household in Auckland shows it will increase their power bill by $97 p.a - not the $58 the Authority suggests.
3. The proposal requires radical and drastic changes for miniscule efficiencies	The best example of this is the Authority's changes to the Cook Strait link. According to the Authority's own numbers, TPM changes will create a $13.7m PV efficiency benefit. However, this is to be achieved through a $590m PV cost increase to North Island mass market consumers. We cannot see how the Authority considers that such a large shifting of cost onto consumers can deliver a durable solution, particularly given the current methodology was settled only after lengthy litigation.[3]
4. We have serious reservations about the supporting cost-benefit analysis	Assumptions presumed by the Oakley-Greenwood study include a "punitive" benefit from tariffing sunk assets to beneficiary parties – an unheard of economic benefit. The study also presumes a 2% increase in electricity consumption for its modelled life-time benefits which has not been achieved regionally or nationally in recent history. Vector is aware of numerous other fundamental criticisms of the modelling which ought to be of serious concern to the Authority given it is the only supporting evidence published in support of such radical change.
5. *"Cherry picking" assets for the AoB charge is arbitrary*	The Authority's approach for identifying "existing" assets for its area-of-benefit (AoB) charge uses arbitrary criteria (when assets were commissioned and what they cost) with the effect of unnaturally skewing grid costs onto upper North-Island users. Furthermore selective use of valuation approaches (e.g. requiring replacement cost for selective new commissioned assets, but depreciated historical cost for the remainder of existing assets) further loads the cost burden on precisely the same customers. Not only does such selective asset identification and use of valuation approach have the appearance of "cherry-picking", it undermines the Authority's own principle for the TPM of delivering "service based pricing".
6. Prudent Discount Policy (PDP) will become a "secret subsidy" regime that	The expanded PDP will encourage parties to make applications to minimise their TPM exposure through any AoB charge. The shifting of costs from the AoB charge to the "residual" charge (and further onto consumers) under

[3] *Contact Energy Limited and Meridian Energy Limited v Electricity Commission and Transpower New Zealand Limited* CIV-2005-485-624

	Explanation
further undermines durability	the PDP will create a TPM that has similar characteristics to the current interconnection charge but at the cost of the existing grid being underutilised. The potential shifting of charges highlights the inherent durability challenges the Authority's proposal will create, particularly given the lack of transparency that can be anticipated over such discounts given commercially sensitive supporting information (or even the existence of an application being made given competition/regional economy implications of declaring imminent exit from the market).
7. Inconsistent adherence to principle "peak demand"	The Authority is giving industry inconsistent messaging on "cost-reflective" pricing by advocating for peak demand pricing for distribution network pricing at the same time as removing it from TPM. The removal of the peak demand signal for transmission services will limit a significant lever the market has used and invested in to limit the case for future transmission investment. The gradual decline of peak demand response levers such as "hot water load control" will mean there is less ability for the market to avoid future grid upgrades which undermines the Authority's overall case for reviewing the current TPM.
8. Inconsistent adherence to the "guiding principle" of service based pricing	The Authority's proposed hybrid approach of using a mixture of depreciated historical cost and replacement cost for assets also highlights an extremely flexible approach to principle. Having a guiding principle of "service based pricing" would require that all assets that comprise the national grid are providing a locational signal on their service value. It appears that the Authority has presumed recent upgrades to the upper North Island resulted in its consumers receiving a superior service to other grid users. However, recent upgrades have not changed the reliability or security of supply service levels, but simply ensured the region receives the same reliability as other grid users.
9. Consumer value of lost load overstated relative to generators	The Authority's beneficiary modelling for the AoB charge overstates the reliability value of the grid for consumers through an exaggerated high value of lost load (VOLL) estimate for consumers. This has the effect of significantly increasing the consumer share for AoB investments and, relative to consumers, seeing generators paying much less.
10. Inconsistent with government direction on other	The Authority's direction on providing a more "locational" signal for transmission pricing is inconsistent with the government's direction for other infrastructure services such as telecommunications copper wires and ultra-fast

		Explanation
	infrastructure access pricing	fibre broadband where national averaging for access pricing is prescribed. This national approach been reaffirmed this month in the recent Ministry of Business Innovation and Employment consultation on telecommunications access.

Process Level Concerns

		Explanation
1.	*Evidential basis*	Given the TPM involves reallocating over $900m p.a in a statutory setting where no merit appeal exists, Vector is concerned about the absence of any evidence that the Authority has sought to have its views tested by independent (and hopefully internationally credentialed) experts. We also note the Authority's failure to consider and respond to expert views provided to it. Such engagement would have alerted the Authority to a number of the above failings. Best-regulatory practice ought to require the obtaining independent advice and testing such views with stakeholders as a minimum ingredient toward seeking a correct regulatory decision.
2.	*Lack of engagement with expert views by the Authority*	The level of engagement the Authority has been prepared to have with experts throughout the TPM process is of concern. We note that Vector engaged leading global experts (Prof. Pablo Spiller of Compass Lexecon) in the last round of submissions, only to have the Authority ignore such views (with no attempt to rebut, or even acknowledge, their views in the latest proposal).
3.	*Guidelines with a high level of detail expressed in mandatory terms*	Vector's understanding of the Code is that it is Transpower's role to consider and propose the detail of any new TPM. Descriptions by the Authority such as "main components" that Transpower "must implement" in the case of most of them or as "additional components" that Transpower "must implement if practicable and consistent with the Authority's statutory objectives", make it hard to interpret the Authority's proposals truly as guidelines when they are expressed in such mandatory terms.
4.	*Inappropriate for the EA to propose subsidy schemes*	We have reservations around the Authority's intention to propose a mechanism that allows large customers to seek *ad hoc* price relief (and at the expense of small, household consumers). It is not the Authority's role to design these blatant subsidy mechanisms. Vector questions the statutory basis upon which such a mechanism has even been

	Explanation
	proposed – it fails to deliver on any of the requirements of section 15 of the Electricity Industry Act.

Conclusion

1. The Authority's TPM Second Issues Paper has fundamental flaws that simply cannot deliver durability for transmission pricing.
2. This is a regulatory decision with broad impact, particularly in respect of the costs any flawed proposal for TPM will have on consumers, business investment and public confidence in New Zealand's electricity supply chain.
3. Some of these fundamental impacts are beyond what the Authority itself believes that it:
   a) can consider - such as wealth transfers, impact on regional development/employment; or
   b) has elected not to consider- such as risk to security of supply or the economic distortions arising from recovering charges for sunk assets over fewer parties.
4. There is too much at stake for the New Zealand economy with a poorly defined TPM. We strongly encourage the Authority to pause and cooperate with the Government to seek independent expert peer review of such proposals before proceeding further.

Yours sincerely
For and on behalf of Vector Limited

Andre Botha
Chief Networks Officer