

24 March 2017

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Dear Carl,

Transmission pricing methodology: second issues paper – supplementary consultation cross-submission

1. This is Vector's cross-submission submission on the Electricity Authority's (the Authority) Transmission Pricing Methodology (TPM) Second Issues Paper Supplementary Consultation (Supplementary Consultation) released on 13 December 2017 with submissions due 24 February.
2. The 13 December Supplementary Consultation provides an opportunity for the Authority to distinguish the transmission pricing methodology review (TPM review) from the unprincipled self-serving advocacy from parties forecasting to make windfall gains from TPM changes, namely Meridian Energy, Contact Energy and Pacific Aluminium. These parties are seeking to "lock in" an asset valuation approach in the Authority's TPM guideline for Transpower that maximises their windfall gains from TPM changes. However, the proposed prescriptive asset valuation approach advocated by these parties will undermine the Authority's reasons for initiating its TPM review and deliver perverse outcomes.
3. Vector continues to encourage the Authority not to make retrospective changes to the pricing of sunk assets. There is consensus among experts asked to opine on the Authority's TPM review that the proposed changes will not improve the efficiency of sunk investments.¹

¹ Stephen Littlechild, *Report on Electricity Authority's Transmission Pricing Review*, 26 July 2016, par 57 and Compass Lexicon (Pablo T Spiller and Marcelo A Schoeters), *Transmission Pricing Mechanism in New Zealand: An Analysis of the Electricity Authority's Proposed Options*, 11 August 2015

4. Given the Authority is minded to continue with its approach for the TPM review, Vector encourages the Authority to give serious regard to a non-prescriptive simplified TPM guideline. This will provide Transpower with an opportunity to deliver a TPM that is time neutral, avoids perverse outcomes and limits windfall gains. Time neutral, in this respect, refers to the risk arising from asset renewals causing a sudden, significant increase in customer transmission charges.

Executive summary

5. In this cross-submission Vector discusses:
 - a. Our significant concern with the Authority's flawed stakeholder engagement process for this particular cross-submission on the 13 December Supplementary Consultation.
 - b. The issue of valuing assets for the area-of-benefit charge (AoB) charge and our concerns with the self-serving submissions from Meridian, Contact Energy and Pacific Aluminium. These parties have promoted an approach that results in a TPM with multiple valuation methods, is unworkable with outcomes expected in competitive markets, conflates tariff regulation with Part 4 of the *Commerce Act 1986* and relies on selective asset specific analysis on the Cook Strait link without context to the wider grid.
 - c. Our concern with the flawed logic in Meridian's submission against expanding the coverage of the AoB charge.

Flawed stakeholder engagement process

6. While Vector supports the Authority calling for cross-submissions as part of the consultation process, the very late announcement for cross-submissions is prejudicial and very poor stakeholder engagement. The Authority called for cross-submissions on 9 March, nine working days after submissions on the 13 December Supplementary Consultation were due on 24 February. The due date for cross-submissions on 24 March provides stakeholders with only 10 working days to prepare their cross-submission. The late notice provides insufficient warning for stakeholders to be resourced for providing quality feedback as part of a cross-submission. Vector is also committed to responding to the Commerce Commission's gas pipeline business default price path cross-submission process also due on the same day. The Authority's failure to forewarn parties about the cross-submission process has put a significant resource constraint on Vector to provide meaningful input for cross-submissions. This is especially the case given there were over 200 submissions and expert reports to the Authority's Supplementary Consultation.
7. A greater use of cross-submissions throughout the Authority's consultations on TPM would have greatly enhanced the stakeholder engagement process. It may have averted some of the counter-intuitive conclusions reached by the Authority. Indeed this appears to be the first time the Authority has called for cross-submissions as part of its TPM review. Given the significant concerns being raised by affected stakeholders and preeminent experts asked to opine on the Authority's proposals, a cross-submission process would have allowed particular views to be subject to cross-examination.
8. At the same time, we find it extraordinary for the Authority to be seeking cross-submissions on a single issue – namely asset valuation for TPM. Given the Authority is undecided on this particular issue a better approach would have been to consult on the different considerations in a discussion document and seek stakeholder views. A single issue cross-submission undermines the cross-submission process away from its purpose to provide a right of reply or to correct the record on matters raised in the submissions of other parties neither of which Vector has had time to do for this cross-submission.
9. Asset valuation is a highly technical issue. It is a matter where expert opinions would have materially assisted with the Authority's deliberation. However, 10 working days' notice does not provide sufficient opportunity for parties to engage expert views.
10. Vector also notes our request for an extension to the cross-submission process was refused by the Authority. In denying Vector's request for an extension the Authority noted two weeks for cross-submissions is not an unusual duration and is typically the timeframe provided by the Commerce Commission.

11. Vector notes the Commerce Commission's consultations rarely generate as much community concern as the Authority's TPM review. The number of submissions to Commerce Commission's consultations have not reached the volumes received by the Authority's TPM review and the cross-submission process is well signalled in advance. Given the level of community interest in the TPM (as evidenced by the number of submission to the Supplementary Consultation) a longer cross-submission time frame was warranted especially given the late notice to parties.

Valuation for the proposed area-of-benefit (AoB) charge

12. The Authority has sought cross-submissions on how to value the area-of-benefit (AoB) charge.

13. Vector has simply not been able to exhaustively review all submissions on asset valuation for setting the AoB charge. Nonetheless, we did not find significant community interest on this technical matter. Rather, a more common concern across submissions were the issues of regulatory certainty, retrospectivity and cherry-picking for the AoB charge.

14. However, our review discovered submissions from Meridian, Contact Energy and Pacific Aluminium all dedicating significant interest to asset valuation for the AoB charge. These parties have all advocated for the Authority to determine the AoB charge for the nominated sunk assets using depreciated accounting values (historic cost). This type of asset valuation for nominated sunk assets increases the windfall gains these parties are seeking to make from the TPM review. Vector does not support the approach advocated by these parties for the following reasons:

- a) It creates inconsistency between the AoB charge (and potentially within the AoB charge) and connection charge. The AoB charge should be designed to be consistent with the prevailing connection charge – which the Authority has previously described as being both service based and cost reflective.
- b) Historic cost based tariff pricing will not deliver outcomes consistent with competitive markets. We provide examples below as to how absurd outcomes would arise if such an approach was taken.
- c) It is a misnomer to conflate the requirements of Part 4 of the *Commerce Act 1986* with service tariffs.
- d) Discussion about Cook Strait assets in isolation does not provide any insight into the durability of the TPM.

15. For the reasons above Vector **cautions** the Authority applying the approach advocated by these parties as it will only serve to exacerbate the windfall gains these parties hope to make from TPM reform.
16. Vector again cautions the Authority from making retrospective changes for little efficiency benefit. We consider the “wide base” approach as the most efficient means of pricing sunk assets. Given the Authority appears committed to its approach for change, Vector **recommends** the Authority refrains from over-prescription in relation to asset valuation for its TPM guideline. This will provide a greater opportunity for the TPM to be time neutral and limits windfall gains.

Consistency between the AoB charge with the connection charge

17. Under the current TPM connection assets are charged to the connected party. The connection charge specified in the *Electricity Industry Participation Code 2010* (the Code). The Code requires the connection charge to be levied a replacement cost basis. The connection charge has never been considered an issue for the TPM review. Rather, the Authority has expressed concern about the prevailing interconnection charge and high-voltage direct current (HVDC) charges as being non-cost reflective. In fact the Authority previously described the connection charge as exhibiting the qualities it seeks for TPM reform. According to the Authority:

“The current connection charge is a market-like charge and consequently service-based and cost-reflective.”²

18. Currently, connection assets are levied on a replacement cost basis to connecting parties. Schedule 12.4 of the Code defines replacement cost as:

*The cost of replacing that asset (either separately or as part of a group of assets) with a **modern equivalent asset** with the same service potential.³*

19. For the AoB charge, the Authority was proposing different asset methodologies for nominated sunk assets and for future assets commissioned by Transpower. The Authority was proposing to value the AoB charge for the nominated sunk assets at depreciated historic cost and new assets at replacement cost.

² Electricity Authority, *Transmission Pricing Methodology: Issues and Proposal – Second Issues Paper*, 17 May 2016, p.vii

³ Schedule 12.4 of the *Electricity Industry Participation Code*

20. As discussed in our earlier submission to the Authority's TPM Options Paper⁴ Vector's expert consultant Compass Lexicon noted sunk assets "should be recovered in a way that minimises distortions."⁵ Compass Lexicon cautioned against a beneficiary approach such as the AoB for sunk assets. Instead Compass Lexicon recommended a wide-base approach for sunk cost recovery and a beneficiary model for new grid investments. Under Compass Lexicon's reform proposal it forecasted reductions in retail electricity prices rather than the increases anticipated by the Authority's reform.
21. The Authority is undeterred by the risks of its proposed approach as identified by Compass Lexicon. Given the Authority appears committed to its proposed approach for TPM reform we encourage the Authority not to create distinctions between the asset valuation for sunk assets and newly commissioned assets for the AoB charge. We continue to have serious reservations about the inclusion of sunk assets within the AoB charge. Despite our reservations around the inclusion of sunk assets in the AoB charge we do support aligning the valuation of the AoB charge to the prevailing connection charge.

The approach advocated by Meridian, Contact Energy and Pacific Aluminium will not deliver outcomes consistent with competitive markets

22. Were the Authority to undertake a historic cost approach for the TPM as advocated by Meridian, Contact and Pacific Aluminium then it is unlikely the TPM will deliver outcomes consistent with competitive markets. This is best illustrated by an example of two different 220Kv links (consider Wairakei-Ohakuri and Manapouri-Invercargill). In this example both links are assumed to be providing the same transportation service with identical guaranteed service levels. However, under a depreciated historic cost approach they will have different charges largely due to the different commissioning date of the assets.
23. The older 220Kv link will have a lower per kilometre AoB charge as it will have a lower historic cost value. This is despite both assets delivering the same service to the same quality. The defining feature of the service becomes the commissioning date of the asset and not the service delivered.
24. The proposed valuation of the AoB charge advocated by Meridian, Pacific Aluminium and Contact would result in perverse outcomes. A consequence of Transpower replacing an end-of-life asset would mean customers may receive a sudden, significant increase in their transmission charges. This is despite the fact customers are being provided, in all functional respects, the same service as before.

⁴ Compass Lexicon (Pablo T Spiller and Marcelo A Schoeters), *Transmission Pricing Mechanism in New Zealand: An Analysis of the Electricity Authority's Proposed Options*, 11 August 2015

⁵ *Ibid* n4 p.5

25. The Authority has signalled its intention for the TPM review to deliver greater stakeholder engagement with Transpower grid-investment test cases. However, it would be highly contentious if greater input into grid-investment tests by consumers (wishing to avoid higher transmission charges as a result of the Authority's TPM reform being implemented) encourages the Commission to deny Transpower the opportunity to renew assets. This could leave Transpower with the burden of maintaining assets beyond their useful condition.
26. If the approach advocated by Meridian, Contact Energy and Pacific Aluminium was applied in other sectors of the economy then we would expect to see a greater degree of unusual tariff arrangements for services. For example the determining factor for air travel would be the age of the aeroplane rather than route while mobile telephony services would be inherently complicated as telephone calls and data services would vary by the age of the transmitting cellular towers.
27. Indeed, the closest analogous "utility type" service would be the Commerce Commission's regulation of telecommunications services under the *Telecommunications Act 2001*. In that sector the Commission determines the appropriate tariff for Chorus' regulated services such as the unbundled copper local loop (UCLL) and unbundled bit-stream services (UBA). The Commission's regulated tariffs for the UCLL and UBA were most recently determined by having regard to the modern equivalent asset for the service.⁶ Therefore, even using a narrow analogous market definition of utility type service delivered in a competitive market – the more likely prevailing tariff would not be defined by historic cost.

Misnomer to conflate TPM with Part 4 regulation

28. A common concern raised by the submissions from Meridian, Contact Energy and Pacific Aluminium is a need for the Authority to align TPM guidelines with Part 4 regulation. Meridian, in particular, discusses the importance of assessing recovery of the AoB charge on the basis of regulated asset base (RAB) value.

⁶ Commerce Commission, *Final Pricing review determination for Chorus' unbundled copper local loop service* [2015] NZCC 37

29. The Commission sets Transpower's revenues by reference to Input Methodologies (IMs) which specifies building block parameters from which to determine revenues for Transpower's grid service. The Commission uses the RAB to determine the appropriate capital return to be included in the regulated revenue. The RAB ensures suppliers have confidence the regulated revenue accurately reflects the investments by the supplier. The register of assets and depreciation values in the RAB was never intended to be used for setting tariffs. Parties seeking to make this connection are intentionally conflating regulation designed to limit suppliers from earning excessive returns to being relevant to tariff setting.
30. However, the *Electricity Industry Participation Code 2010* (the Code) clearly states the purpose of the TPM is to ensure the recovery of the full economic costs of Transpower's services. The Code is also clear that the full economic costs of Transpower's services includes costs relating to investments which are not subject to approval by the Commission under section 54R of the Commerce Act. There is no requirement to set tariffs for customers on the basis of RAB values for assets. Rather, the only requirement on Transpower is to operate as a successful business. In further defining this obligation, the Code requires Transpower's pricing to recover the costs of providing its transmission service including capital maintenance, operating and overhead costs.
31. The obligation on Transpower is to make sure it recovers the full cost for its grid service. There is no obligation from whom it should recover this cost from. Rather, implicit in this obligation is an understanding that Transpower would know (better than anyone) the least distortionary way to recover its costs including mitigating the consequence of under-recovery.
32. Applying a historic cost approach for sunk investments in the AoB charge will result in vastly different values for assets delivering similar services. We understand the value of Transpower's RAB is disproportionately skewed to a small number of lines accounting for a small proportion of the overall grid. There is also a real risk the historic cost values for AoB assets concentrates the costs of assets on a small number of grid users. This is unlikely to be durable and is likely to increase the risk of under-recovery.

33. Meridian cautioned that “switching methodologies part way through the asset’s life will result in excessive returns and will not be cost reflective.”⁷ This statement suggests there is a risk of Transpower earning excessive returns as a result of changes to the TPM. However, Transpower’s revenue is limited by its individual price path administered by the Commission. There is no risk of excessive return or windfall gain.
34. Nonetheless, the self-serving flexible nature of Meridian’s argument is borne out when it also suggests it “is broadly comfortable with such an approach for new assets.”⁸ There is no reason why the argument it raises about historic commissioned assets within the AoB charge would not apply to assets commissioned in the future. Presumably any future commissioned assets would also be included within Transpower’s RAB. Given the historic assets nominated for the AoB charge are well away from Meridian’s generation interests it is comfortable with such assets being levied on a historic cost basis. This outcome also ensures Meridian pays the minimum amount for transmission charges given the grid assets used to serve its generation assets are relatively older and well depreciated. This is despite Meridian not even contributing to the costs of the AC interconnected grid serving its generation business.

Assessing recovery in relation to Cook Strait assets in isolation does not provide insight into the durability of the TPM

35. Both Meridian and Contact Energy noted in relation to Cook Strait assets there may result in over-recovery from beneficiaries of such assets if the value of the asset is not related to its historic value. Under the current TPM Cook Strait assets are recovered from South Island generators under the high voltage direct current (HVDC) charge.
36. While Meridian and Contact Energy, as South Island generators, have contributed to the costs for Cook Strait as part of the HVDC charge neither party has historically paid any cost for the interconnected alternating current (AC) grid. These costs have all been borne by load customers. Yet both these parties have clearly benefited and used the interconnected AC grid for transportation. Accordingly, any discussion about over-recovery needs to be considered in context of the whole grid and not in isolation to particular assets. Indeed, concerns by Meridian and Contact Energy about over-recovery in relation to Cook Strait assets must also be considered against the free-riding by these parties on the interconnected AC grid. Vector has consistently recommended a “wide base” approach for sunk assets should require generators contributing more for the interconnected AC grid.

⁷ Meridian Energy, *Meridian Energy Submission to Transmission Pricing Methodology: Second Issues Paper – Supplementary ‘Refinements’ Consultation*, 24 February 2017 p. 3

⁸ *Ibid* n7 p. 12

37. The removal of the HVDC charge is expected to result in windfall gains for both Meridian and Contact Energy as significant South Island generators on the basis of historical cost. Meridian and Contact Energy both forecasted savings in the order of \$400 million from the application of this approach. As discussed in our submission, the current HVDC charge was subject to lengthy argument and only resolved after litigation which found South Island generators to be the primary beneficiary of Cook Strait assets.
38. At the same time the Authority's own expert could only identify \$13 million worth of public benefit from the radical change to the HVDC charge. This benefit has been identified as an error by Trustpower's expert review of the cost-benefit analysis which suggested the benefit should have been treated as a "net" cost.⁹ Indeed the radical recrafting of the HVDC charge is expected to yield no public benefit but provide windfall gains, which would be exacerbated by adopting a deprecated historic cost for the AoB tariff.

Coverage of the AoB charge

39. Transpower has suggested the "entire cost of the interconnected grid to be allocated via a simplified AoB charge."¹⁰ This suggestion by Transpower has been met with strong criticism by Meridian.
40. Meridian's submission vigorously argued against any expansion of the AoB charge. Meridian noted:

*"In reality it will be a pseudo-residual charge (or a series of pseudo –residual charges for a number of assets) and would essentially result in a smearing of the (likely disputed) "costs" of each of these assets across a limited number of participants."*¹¹

41. Nonetheless, Meridian's argument equally applies to the sunk asset investment projects selected in clause 8(b) of the proposed TPM guideline. Parties identified as beneficiaries to these nominated sunk AoB assets have contested their beneficiary status to such projects. Indeed, Westpower contested their beneficiary status to the West Coast Grid Upgrade which involved upgrading of an interconnector and the installation of a new 110Kv interconnector at Dobson:

⁹ Houston Kemp, *Memo to Trustpower on modelling of the net benefits of removing the HVDC charge*, 2 March 2017

¹⁰ Transpower, *Transpower submission – Transmission Pricing Methodology Second Issues and Proposals Paper*, 26 July 2016 p. 5

¹¹ *Ibid* n7 p.7

“While it is true that current Westpower customers are beneficiaries of the increased security of supply the West Coast Upgrade has provide, it is also true that the transmission investment was, generally, not carried out to meet their needs.”¹²

42. In that instance, Westpower was successful with persuading the Authority to have the West Coast Grid Upgrade removed from being recovered from either the “deeper connection” charge or the AoB charge. However, they are not alone in questioning their status to supposed beneficiaries of grid investments. The “arbitrariness” of the Authority’s nominated beneficiaries for AoB charge sunk investments has been called out by Counties Power¹³ and Top Energy¹⁴ in submissions. For some nominated sunk AoB charge incurring investments, the beneficiaries required to pay the charge are simply “all loads north of Bombay”. Meridian appears to conveniently ignore these objections from supposed beneficiaries. This may be due to the fact that the sunk investments attracting the AoB charge are conveniently located away from Meridian’s generation interests.

43. However, where the proposed AoB approach begins to encroach closer to parts of the grid near Meridian’s generation business it begins to raise concerns about costs being allocated

“to an arbitrary set of participants who dispute being deemed beneficiaries.”¹⁵

44. Meridian’s concern about an expanded AoB charge equally applies to the AoB charge in its current form. Parties who have been nominated beneficiaries of the cherry-picked sunk investments attracting the AoB charge are contesting whether they are a beneficiary of the asset. Accordingly, Meridian’s argument against a wider application of the AoB charge is a critique of the AoB concept itself - especially in relation to sunk assets.

Conclusion

45. Vector strongly encourages the Authority to avoid the pitfalls of over-prescribing its TPM guideline on matters such as asset valuation for the AoB charge. The parties advocating for a “locked in” asset valuation for the AoB charge have no interest in the durability of the TPM to deliver service based pricing but merely wish to engineer an outcome to deliver windfall gains.

¹² Westpower, *Submission to TPM Options Working Paper*, 18 August 2015, p.5

¹³ Counties Power, *Submission to Transmission Pricing Methodology Second Issues Paper Supplementary Consultation*, 24 February, p.1

¹⁴ Top Energy, *Top Energy submission to Transmission Pricing Methodology Review Second Issues Paper and Distributed Generation Pricing Principles*, 26 July 2016

¹⁵ *Ibid* n7 p.7

46. We continue to recommend the Authority refrain from including sunk assets in the AoB charge which cannot deliver any efficiency benefit. Given the Authority appears to be steadfast with its own approach for reform, we encourage its TPM guideline to give Transpower with an opportunity to formulate a new TPM that is time neutral and avoids windfall gains.

Regards

For and behalf of Vector Limited

A handwritten signature in blue ink, appearing to read "Richard Sharp".

Richard Sharp
Head of Regulatory and Pricing