Submission to the Electricity Authority on TPM Review: CBA

15 October 2013

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INTRODUCTION AND OPENING COMMENTS

1. Vector welcomes the opportunity to submit on the Electricity Authority's (Authority) working paper "Transmission pricing methodology: CBA" (CBA Working Paper), dated 3 September 2013.

2. No part of this submission is confidential and Vector is happy for it to be made publicly available.

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Opening comments and the Authority's problem definition

4. Vector is pleased the Authority has decided to consult on the methodology it should adopt for the CBA before it is applied to any revised or new Transmission Pricing Methodology (TPM) proposals.

5. It was clear from submissions made in response to the consultation paper "Transmission Pricing Methodology: issues and proposal" (TPM Issues Paper) that the previous CBA was inadequate and failed to quantify costs and benefits as far as possible.

6. We note the current "working paper represents an initial step toward developing the CBA"[1] and urge the Authority to undertake further consultation and stakeholder engagement as it develops its proposed approach. An iterative approach through the Authority's development of the CBA may be useful.

7. A number of submissions in response to the first TPM Issues Paper, notably those from Castalia, Covec and Reunion, provided helpful guidance on how the Authority could undertake a robust CBA.

8. Vector continues to be concerned, however, by the Authority's ongoing failure to adequately specify the problem with the current TPM or the market failure the TPM review is trying to address. This is an issue we raised in relation to both the Transmission Pricing Advisory Group (TPAG) consultation paper and the Authority's TPM Issues Paper, and remains an issue with the CBA Working Paper. The discussion in section 6 of the CBA Working Paper on problem definition is entirely silent on what, if any, problems there are with the current TPM (the status quo).

9. One of our concerns with the Authority's top down CBA was that it was so generic it could be used for any policy initiative that purported to improve dynamic efficiency. Similar comments can be made about the Authority's "problem definition".

10. The CBA Working Paper's claim that [unspecified] "efficient transmission prices … could be expected to give rise to improved static efficiency … increase … productive efficiency …" and "In the longer run … contribute toward substantial efficiency gains"[2] is a tautological statement, not a problem definition. Such statements could just as equally be used as a commentary in relation to any transmission pricing methodology in place in any part of the world.

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[1] Paragraph 1.29, Electricity Authority, Working Paper, Transmission pricing methodology: CBA, 3 September 2013.

[2] Section 6, Electricity Authority, Working Paper, Transmission pricing methodology: CBA, 3 September 2013.

11. It appears that the Authority is continuing to muddle assessment of the benefits of its proposal with problem definition, treating the two as interchangeable. It is not adequate to say the problem is that the Authority believes an alternative TPM, or its preferred TPM, would result in more efficient outcomes. The Authority needs to identify what the problems/market failure is with the status quo and then determine how these could be addressed to the long-term benefit of consumers.

12. As the Biggar Report points out, good public policy analysis requires:

    a. An understanding of the market failure, as a first step;

    b. Then, identification of options for addressing the market failure; and

    c. Then, assessment of the net benefits (including efficiency gains) to consumers of the different policy options.[3]

13. The approach by the Authority, to date, has not adequately addressed each of these three steps and, in particular, has not properly established the size or nature of the problem. One of the clear messages Vector has taken from submissions in response to the TPM Issues Paper is that even those parties that consider there are problems with the current TPM do not necessarily believe they are of such a scale to justify a complete overhaul of the TPM of the magnitude the Authority is proposing.

14. Section 6 of the CBA Working Paper appears to try address c. above, with a high level discussion of efficiency gains from an [unspecified] "efficient transmission pricing" methodology, and skips the actual problem definition.

15. Without a proper problem definition, the Authority has no sound basis for identifying options for addressing the market failure (if any) or conducting a CBA to assess the net benefits (including efficiency gains) to consumers of the different options. The Authority risks regulatory failure and type II errors[4] where it determines there will be efficiency gains, when there actually will not be or there will be negative efficiency impacts.[5] It does not matter how robust the CBA method is if it is trying to assess the efficiency gains from a mis-specified problem.

16. The significance of this issue is such that Vector urges the Authority to develop a working paper on problem definition, and that this working paper be prioritised over other TPM review work. If the Authority releases a second Issues Paper which "use[s] the approach set out in [section 6] to identify and describe the problems with the current TPM and why the Authority considers it is inefficient …"[6] it will likely receive submissions on the problem definition in a similar vein to those made in relation to the first TPM Issues Paper.

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[3] Dr Darryl Biggar, Independent Review of "Transmission Pricing Advisory Group: Transmission Pricing Discussion Paper: 7 June 2011, 14 July 2011.

[4] In the context of the Authority's work this could include presumption that a policy initiative will correct a market failure, on the basis of an incorrect calculation of efficiency gains.

[5] Paragraph 62, Vector, Submission to the Electricity Authority on the Decision-making and economic framework for transmission pricing methodology review, 24 February 2012.

[6] Paragraph 6.3, Electricity Authority, Working Paper, Transmission pricing methodology: CBA, 3 September 2013.

VECTOR SUPPORTS STARTING AGAIN ON CBA APPROACH

17. As outlined in our earlier submissions, Vector does not support the Authority's TPM Proposal; in particular, the adoption of the SPD method and socialising the costs of the HVDC link. We also do not believe the proposal is to the long-term benefit of consumers. The problems with the TPM Proposal were such that we believe qualitative assessment should have been sufficient to rule it out.

18. While the original CBA indicated the net benefits of the TPM Proposal were positive, this was because the CBA was unsound, and omitted various substantive negative impacts the proposal would have on consumers, including but not limited to: (i) wealth transfers from consumers to South Island generators; (ii) static inefficiency from the 'pay-as-bid' equivalent impact the SPD Method would have on bidding behaviour; and (iii) substantive dynamic inefficiency impacts from subsidising peak usage, and providing discriminatory incentives for use of pre/post 2004 transmission assets.

19. Vector was also concerned the top-down CBA was so abstract it was entirely independent of the proposal it was purported to assess and could be re-used for any policy proposal the Authority thought would promote dynamic efficiency. While the result was, inevitably, a positive net benefit, it actually provided no useful information on the merit of the TPM Proposal. We remain sceptical about the continued use of a top-down approach, albeit alongside a bottom-up approach, and don't believe it will help inform the review of whether changes should be made to the TPM.

20. It is difficult to comment much further, beyond previous submissions on this matter, in the absence of more detail on the methodology the Authority will apply to the top-down approach.

21. The efforts made by Castalia, Covec and Reunion to either undertake alternative CBA or to correct aspects of the Authority's CBA all resulted in net costs from the TPM Proposal and provided helpful guidance on how to conduct CBA.

DEVELOPING A USEFUL CBA

22. Regulatory stability, transparency, and certainty are important for ensuring regulated suppliers, and businesses more generally, are able to make long-term investments with confidence, can expect a reasonable return on their investment and their legitimate commercial interests will be protected.

23. An important aspect of ensuring a robust regulatory regime, underpinned by regulatory stability, transparency and certainty, is that any policy or regulatory changes are underpinned by a clear market failure and positive long-term benefits for end-users. Vector agrees with Mighty River Power that "Ensuring regulatory interventions are subject to a high burden of proof and are in response to clearly demonstrated market or regulatory failures as well as effective consultation will become increasingly important for the ongoing confidence in the market."[7]

Legal requirements to quantify detriments and benefits

24. The Courts have recognised the importance of quantified CBA as part of the operation of regulatory bodies' decision-making processes.

25. Richardson J observed, in the case of Telecom v Commerce Commission:[8]

> … the desirability of quantifying benefits and detriments where and to the extent that it is feasible to do so…there is in my view <u>a responsibility</u> on the regulatory body <u>to attempt so far as possible to quantify detriments and</u> benefits rather than rely on a purely intuitive judgment to justify a conclusion that detriments in fact exceed quantified benefits.

26. The passage from the Telecom v Commerce Commission case has been cited with approval in a number of subsequent cases including, for example, Ravensdown Corporation Ltd v Commerce Commission (High Court, Wellington, AP 168/96, 9 December 1996, Panckhurst J and Professor Lattimore) and Rugby Union Players ' Association Inc v Commerce Commission (No 2) [1997] 3 NZLR 301.

27. Most recently, in the High Court's decision in *Godfrey Hirst NZ Ltd v Commerce Commission* (2011) NZBLC 103,396 Mallon J cites the decision in *Telecom v Commerce Commission* as follows (emphasis added/footnotes removed):

> [52] Since the Act's inception the Commission and the Courts have discussed how the "such a benefit to the public" test should be approached. The leading case is *Telecom Corporation of New Zealand Ltd v Commerce Commission*. It is the first (and only) time the Court of Appeal has considered the s67(3)(b) test. In that case the Court of Appeal accepted that the test involved a "balancing" of likely public benefits from the acquisition and likely public detriments from (what would now be read as) the lessening of competition in a market as a result of the acquisition. It was accepted that the relevant benefits and detriments were almost entirely efficiency gains and losses. **Richardson J commented that the Commission had a "responsibility" to "attempt so far as possible to quantify detriments and benefits rather than rely on a purely intuitive judgment to justify a conclusion that detriments in fact exceed quantified benefits".**

28. The Commerce Commission has recognised this judgment in its regulatory proceedings, and has noted:[9]

> The Commission considers that it is required to attempt so far as possible to quantify detriments and benefits … This is not to say that only those detriments and benefits that can be measured in monetary terms are to be included in the Commission's analysis[.] Those of an intangible nature, which are not readily measured in monetary terms, must also be assessed.

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[7] Response to question 3, page 3, Electricity Authority, Strategic Directions for Market Development – Consultation Paper, 23 April 2013.

[8] Telecom Corporation of New Zealand Limited v Commerce Commission [1992] 3 NZLR 429 at 447.

[9] Paragraph 75 of the Commerce Commission's "Section 64 Review and Schedule 3 Investigation into Unbundling the Local Loop Network and the Fixed Public Data Network - FINAL REPORT", December 2003.

29. The comments made by Richardson J were not specific to the particular legislation the Commerce Commission administers. The Electricity Authority faces the same requirements.

Use of quantitative CBA to help avoid regulatory failure and to ensure regulatory changes are to the long-term benefit of end-users

30. Vector agrees with Mighty River Power that "Regardless of any legal requirements, a quantitative CBA is a desirable and beneficial part of regulatory decision making."[10]

31. CBA is a useful tool, coupled with qualitative assessment, for minimising the risk of regulatory failure and helping to ensure only policy initiatives with genuine long-term benefits for consumers are introduced. As the Commerce Commission has noted "In undertaking its role under the Act, the Commission will need to manage the risks associated with regulatory intervention. These risks can arise from … the Commission making decisions on the basis of imperfect information…"[11]

32. The value of the CBA is not just in whether it provides a yes/no answer to whether a proposal has positive long-term benefits, or even in the size of the net benefit it measures.

33. CBA can also provide a useful tool for making transparent the logic and assumptions (which may otherwise be implicit at best) that sit behind qualitative analysis, and can assist with testing the reasonableness of this assessment. This is articulated well by the Commerce Commission:[12]

> The Commission considers that quantitative modelling is useful to the degree that it focuses on key assumptions regarding characteristics of the market and the way in which participants are likely to act, with and without regulation. The Commission's view is that the value of a model is in its ability not to produce 'proof' of the net benefits of regulation, nor to supplant the Commission's exercise of judgment, but rather in providing support to the Commission's deliberations by:
>
> • focusing interested parties on verifiable economic arguments;
>
> • making transparent the values of key parameters and assumptions in the analysis; and
>
> • producing quantitative estimates of the results of proposed regulation.

34. These statements highlight the importance of attempting to capture all aspects of the costs and benefits "so far as possible" of a particular proposal.

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[10] Paragraph 56, Mighty River Power, Submission to the Electricity Commission in response to the Consultation Paper "Options for Enabling Transmission Alternatives", 22 July 2005.

[11] Paragraph 71 of the Commerce Commission's "A guide to the role of the Commerce Commission in making access determinations under the Telecommunications Act", 28 May 2002.

[12] Paragraph 315 of the Commerce Commission's "Schedule 3 investigation into regulation of mobile termination: Final Report", 9 June 2005.

SIZE OF THE BENEFITS REQUIRED TO JUSTIFY REGULATORY CHANGE

35. Vector is of the view that, in order to ensure regulatory stability, transparency, and certainty, the Authority should consider the burden of proof required to justify regulatory change. As Vector has previously stated:[13]

> Vector is strongly of the view that there should be a high threshold for change from the status quo. Any alternative options need to be tested thoroughly and rigorously, including a clear assessment of the market failures the changes are intended to address and empirical and quantitative testing. We caution the Authority that a stable and sustainable TPM is important, so changes should not be made unless clear and substantial (net) benefits to consumers can be demonstrated.

36. Further, a CBA showing net positive benefit is not, on its own, necessarily sufficient to justify change.

37. The Commerce Commission, for example, undertook quantitative CBA in 2003 of designation of Local Loop Bundling (LLU) under the Telecommunications Act, which indicated substantial net benefits to end-users, but recommended to the Minister of Communications that LLU not be regulated on the basis of concern about unquantified investment and dynamic efficiency risks.

38. The Authority made a decision to regulate electricity distribution businesses' prudential requirements on the basis of a CBA that suggested benefits of 5 to 14¢ per customer per year. Vector does not believe such benefits provide a robust basis for regulation. The Authority's decision on this matter suggested it has an exceptionally low threshold for regulation, which we hope will not be repeated in the Authority's TPM decision.[14]

39. Vector has also noted "The TPM would be particularly unstable if the Authority adopted Meridian's view that any positive NPV should justify a change regardless of materiality."[15] "If the TPM is not perceived to be stable and durable, any medium/long-term pricing signals it conveys will not be effective. (Industry participants will not rationally make investment decisions on the basis of pricing signals they do not expect to remain in place.)"[16]

40. Vector agrees with Mighty River Power that a "High standard of proof should be required for regulatory intervention"[17] and "the burden of proof that is necessitated should be:

    a. Under all circumstances, no less than the civil standard.

    b. Higher than the level of uncertainty surrounding the potential costs and benefits. Every uncertainty should count directly and clearly against intervention …

    c. Higher where the regulatory intervention may (negatively) impact or interfere with the natural competitive operation of the affected market(s) ...

[13] Paragraph 22, Vector, Submission to the Electricity Authority on the Decision-making and economic framework for transmission pricing methodology review, 24 February 2012.

[14] Refer, for example, to Vector, 2012/13 Appropriations, 4 January 2012.

[15] Paragraph 51a, Vector, Submission to the Electricity Authority on Transmission Pricing Methodology: Issues and proposals, 1 March 2013.

[16] Paragraph 49, Vector, Submission to the Electricity Authority on Transmission Pricing Methodology: Issues and proposals, 1 March 2013.

[17] Section 5, Mighty River Power, Submission to the Electricity Commission in response to the Consultation Paper "Options for Enabling Transmission Alternatives", 22 July 2005.

d. Higher where there is an asymmetry of risk between the potential benefits and costs, ie where ‘bad’ regulation would have greater negative impact than the benefit of ‘good’ regulation.”[18]

41. To this, we would note the Productivity Commission’s observation “Regulatory failure is more likely where complexity is added to regulations …” Given the complexity of the TPM, Vector considers any proposed revision to the TPM Proposal, beyond incremental change and fine-tuning of the status quo, should be subject to a very high burden of proof that changes are justified.

[18] Paragraph 18, Mighty River Power, Submission to the Electricity Commission in response to the Consultation Paper "Options for Enabling Transmission Alternatives", 22 July 2005.

ADDITIONAL OBSERVATIONS ABOUT THE AUTHORITY'S CBA

42. Vector has the following additional observations specific to the CBA Working Paper:

43. ***When efficiency impacts will start to occur:*** The efficiency impact (positive or negative) of a new TPM can take effect before it is implemented. The current review and statements about the status quo by the Authority, for example, means generators will not necessarily assume the current TPM will remain in place when they make generation investment decisions.

44. ***Heightened dispute risk:*** The issue in relation to the impact of the TPM Proposal on the likelihood and scale of disputes was not so much whether it could be quantified or not. Rather the vast majority of submitters believed the TPM Proposal would increase the level of disputes rather than reduce them.

45. ***Treatment of wealth transfers:*** Vector agrees "consumer prices are clearly highly relevant to the Authority's statutory objective. Accordingly, estimating the impact of reform on consumer prices provides a direct means of testing the extent to which a given reform proposal does or does not promote the Authority's statutory objective."[19] The absence of any pricing impact assessment, or quantification of wealth transfers from consumers to generators, was one of Vector's substantial concerns with the Authority's first TPM Issues Paper. Vector reiterates its view that for a change to the TPM to be to the long-term benefit of end-users requires them to actually be made better off.[20] As propounded by the Treasury, "[w]here the decision is made not to specifically include or adjust for distributional effects, the reasons for this decision need to be clearly documented and explained".[21]

46. ***Ensuring all negative static and dynamic efficiency impacts of the proposal are assessed:*** The Authority states that "Potential adverse reform consequences were considered in the previous proposal and will be further addressed in reform design and in the CBA".[22] Vector does not agree with this statement. Substantial adverse impacts on static and dynamic efficiency of the TPM Proposal were absent from the Authority's assessment.

47. One example of a substantive static efficiency impact that was omitted from the previous CBA was the 'paid-as-offer' equivalent effect of the SPD method.

48. In terms of the current CBA consultation, the TPM Working Paper acknowledges some of the dis-benefits that should be assessed ("for example: inefficient trading and despatch decisions; deterrence of investment in peaking generation; higher prudential working capital requirements; higher retailer costs and entry barriers, and possible reduction in retail competition"[23]) but not all of them, and not the most significant in relation to dynamic inefficiency and higher transmission investment requirements. Disregarding other factors in the first instance could lead to a 'spotlight problem', which could exclude potential solutions/problems that are not as evident, e.g. the cost of protracted dispute/judicial reviews/litigation, but could have significant impact in the future.

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[19] Paragraph 10.6, Electricity Authority, Working Paper, Transmission pricing methodology: CBA, 3 September 2013.

[20] Refer, for example, to Appendix II: Interpretation of Statutory Objective, Vector, Submission to the Electricity Authority on Transmission Pricing Methodology: Issues and proposals, 1 March 2013.

[21] http://www.treasury.govt.nz/publications/guidance/planning/costbenefitanalysis/primer/cba-primer-v12.pdf, page 24

[22] Page 7, MC8, Electricity Authority, Working Paper, Transmission pricing methodology: CBA, 3 September 2013.

[23] Paragraph 1.26, Electricity Authority, Working Paper, Transmission pricing methodology: CBA, 3 September 2013.

49. ***Comparator data:*** The value of comparator data from "previous reforms including locational and time of use/congestion pricing reform"[24] depends on the type of TPM changes that are being proposed. Based on the previous TPM Proposal, which Vector considers would send negative locational and congestion signals, the data could be used to help measure the efficiency costs of the proposals.

[24] Paragraph 10.2, Electricity Authority, Working Paper, Transmission pricing methodology: CBA, 3 September 2013.

ALTERNATIVE TPM OPTIONS

50. Vector agrees more TPM options should be considered as part of the TPM review. Submissions on the Issues Paper contained a wide range of alternative pricing options.

51. Vector's submission, for example, advocated consideration of locational pricing and an enhanced status quo, which adopts parts of the Authority's TPM Proposal, but not changes to allocation of the HVDC away from South Island generators or the Authority's SPD method.

52. Both of these options provide a genuine alternative to the Authority's TPM Proposal that would place "more emphasis on recovering transmission costs from the competitive sector (i.e. generators and retailers)".[25]

53. Regardless of whether locational pricing is to the long-term benefit of consumers, a question Vector does not believe has been adequately tested, it is unambiguously the option that best satisfies the Authority's Decision Making & Economic Framework.

54. While the Authority has stated it agrees more options should be considered, Vector is concerned the Authority's emphasis appears to be predominantly on the application of beneficiaries' pays charges. Vector would be concerned if the Authority limited consideration of alternative options to variations on its initial TPM Proposal and the SPD method.

[25] Row 2, Table 4, Electricity Authority, Working Paper, Transmission pricing methodology: CBA, 3 September 2013.

CONCLUDING REMARKS

55. Vector believes the Authority has again failed to properly identify a problem with the current TPM. The claim that [unspecified] "efficient transmission prices" will result in static and dynamic efficiency is not a problem definition. It does not matter how robust the CBA method is if it is trying to assess the efficiency gains from a mis-specified problem definition. The results will likely be flawed. The significance of this issue is such that Vector urges the Authority to include a working paper on problem definition, and that this working paper be prioritised over other TPM review work.

56. The discussion on the CBA approach in the CBA Working Paper is at a relatively high level with a large number of matters "To be determined". The detail is important, and the CBA the Authority eventually adopts will need to be carefully scrutinised to ensure it provides a robust basis to support the Authority's decisions. We note the current "working paper represents an initial step toward developing the CBA"[26] and urge the Authority to undertake further consultation and stakeholder engagement as it develops its proposed approach.

57. In order for the quantified CBA the Authority uses for its next set of TPM proposals to be robust enough to be relied on, a number of substantial matters, absent from the first TPM Issues Paper, would need to be addressed, including but not limited to:

    a. Pricing impacts for end-users (including wealth transfers between generators and consumers);

    b. The static inefficiency impact the SPD Method would have on bidding behaviour, equivalent to that from a 'pay-as-bid' wholesale market (these detriments are well articulated in the Authority's publication, "The Economics of Electricity", 4 July 2013);

    c. The dynamic inefficiency impacts, particularly on future transmission investment requirements, and the SPD price cap resulting in lower charges for market participants if their benefits arise predominantly during peak periods (potentially higher transmission capacity and investment requirements);

    d. The dynamic inefficiency impacts created by perverse locational signals for generators to avoid use of post-2004 assets; and

    e. The extent to which the TPM Proposal would create pricing complexity and uncertainty, particularly for smaller market participants and new entrants, and what this would mean for competition.

[26] Paragraph 1.29, Electricity Authority, Working Paper, Transmission pricing methodology: CBA, 3 September 2013.