From the Electricity Networks Association

# Submission on Transmission Pricing Methodology: Problem definition relating to interconnection and HVDC assets

Final

28 October 2014

The Electricity Networks Association makes this submission along with the explicit support of its members listed below.

Alpine Energy Ltd

Aurora Energy Ltd

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Westpower Ltd

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#### **Executive summary**

- 1. The ENA welcomes the decision by the Authority to prepare a problem definition working paper to clarify its views on the problems with the existing TPM charges and to seek further feedback. Clearly identifying and defining the problem is a crucial step in the regulatory process as the problem definition establishes the prima facie case for regulatory intervention and the reason for discussing options for change.
- 2. The Authority helpfully articulates its view of the 'crux of the problem'; its central proposition is that "under the current TPM some customers pay considerably more than the cost of transmission services to them while others pay considerably less." As a result, the Authority has formed the view that the current TPM results in:
  - (a) cross-subsidies; and
  - (b) prices for individual customers that are above or below the cost of supply to those customers
- 3. Neither of these conclusions are supported by the analysis or information presented in the Working Paper.
- 4. There are well established economic tests for cross-subsidy free prices and the Authority does not show that the current TPM leads to cross-subsidies either in concept or quantitatively. Nor does it demonstrate that the current TPM results in inefficient price signals either in theory or in practice.
- 5. Disappointingly, the Authority does not ground its analysis of the problem by reference to accepted literature there is a large body of international literature on transmission pricing which is not mentioned or referenced in the paper. More fundamentally, the Authority fails to establish that there are systemic adverse outcomes, or poor decisions, arising from the existing pricing methodology in a sector where substantial investments have and are being made if a material problem exists, there should be ample evidence and examples available to the Authority.
- 6. The ENA stresses that it is necessary for the Authority to show that a problem exists in practice before intervening to alter the amounts paid by firms in relation to multimillion dollar investments *after* those investments have been committed.
- 7. The Working Paper does suggest that incremental improvements can be made to the existing TPM, and the ENA supports Transpower's ongoing review. Transpower's operational review includes consideration of the appropriate number of peaks and other parameters for RCPD-based charging; and whether there can be modifications to the calculation methodologies for allocating HVDC charges to South Island generators to mitigate any adverse incentives caused by the current HAMI charges.
- 8. The ENA submits that the Working Paper has failed to identify whether there are, in fact or in theory, any material problems with the TPM or associated processes that are leading to fundamental inefficiencies in the electricity sector. As a result, this Working Paper has not advanced the process of establishing whether there are superior alternatives to the current transmission pricing methodology.
- 9. At some future point in this process, we submit that the Authority will need to address the limitations in the Working Paper with respect to analysis of the economics of transmission (network) pricing and investment decision-making within the context of

New Zealand's electricity market and regulatory processes, as well as the factual basis for whether any problems exist.

#### Introduction 1.

- 11. The Electricity Networks Association (ENA) appreciates the opportunity to submit on the Electricity Authority's (Authority's) working paper "Transmission Pricing Methodology: Problem definition relating to interconnection and HVDC assets" (Working Paper).
- 12. The ENA welcomes the decision by the Authority to prepare a problem definition working paper to clarify its views on the problems with the existing TPM charges and to seek further feedback. Clearly identifying and defining the problem is a crucial step in the regulatory process as the problem definition establishes the prima facie case for regulatory intervention and the reason for discussing options.
- 13. The ENA's contact person for this submission is:

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Defining the problem

### 2.

- 14. Both the New Zealand and Australian governments provide guidance to regulators on what is required of a problem definition. In summary form, the New Zealand Treasury advise that a problem definition should:1
  - identify the root cause of the problem (not just the symptoms)
  - explain the gap between the current situation and the outcome sought
  - discuss the size and importance of the gap, including:
    - the nature and probability of the adverse outcomes that will arise absent further regulatory intervention
    - who is likely to be affected by the adverse outcome and what harm or injury is likely to occur
    - quantifying the magnitude of the effects to the extent possible
- 15. The Australian Department of the Prime Minister and Cabinet specify the requirements for a problem definition in similar terms.<sup>2</sup>
- 16. In our view, the Authority's paper does not set out a robust definition of the problem. The Working Paper:

http://www.treasury.govt.nz/publications/guidance/regulatory/impactanalysis/13.htm

http://www.cuttingredtape.gov.au/handbook/australian-government-guide-regulation, see question 1, page

- (a) does not establish, by reference to accepted literature, that the current pricing arrangements are likely to give rise to problems or err materially from accepted best practice – there is a large body of international literature on transmission pricing which is not mentioned or referenced in the Working Paper
- (b) misstates important economic concepts, such that key inferences drawn in the Working Paper are not supported by accepted economic theory
- (c) fails to establish that there are systemic adverse outcomes, or poor decisions, arising from the existing pricing methodology in a sector where substantial investments have and are being made if a material problem exists, there should be ample evidence and examples available to the Authority.
- 17. The Authority organises its discussion of its perception of the problem under four broad categories:
  - (a) inefficient investment
  - (b) poor durability
  - (c) inefficient use of the grid
  - (d) prudent discount policy
- 18. We follow this structure in our comments below. The main focus of the Authority's paper is in relation to investment incentives, and this is likewise the main focus of our response.

#### 3. Inefficient investment

## 3.1 The crux of the problem perceived by the Authority

- 19. In its chapter, Main Findings, the Authority helpfully articulates its view of the 'crux of the problem' and illustrates this view in figure 2; the Authority's central proposition is that "under the current TPM some customers pay considerably more than the cost of transmission services to them while others pay considerably less".<sup>3</sup>
- 20. From this central proposition, the Authority draws several inferences (or assertions) including:
  - (a) as the interconnection charge only applies to load, the cost of supplying interconnection services to generators "is fully cross-subsidised by load"<sup>4</sup>
  - (b) where the price a party faces for transmission services is less (more) than the cost of meeting their demand they have an incentive to consume more (less) transmission services than is efficient.<sup>5</sup>

Electricity Authority, Problem definition, paragraph 8.4.

<sup>&</sup>lt;sup>4</sup> Electricity Authority, *Problem definition*, paragraph 8.5.

- (c) where price does not approximate the cost of meeting a consumer's demand for transmission services, the consequence is inefficient investment in and use of the grid.<sup>6</sup>
- 21. These propositions hinge on two conclusions; the current TPM results in:
  - (a) cross-subsidies
  - (b) prices for individual customers that are above or below the cost of supply to those customers.
- 22. The Authority places considerable weight on these propositions. It argues, on the basis of these propositions, that it is not necessary to rely on examples of the problem it perceives, because "it is well-established in economics that parties tend to respond to the incentives they face in order to maximise their self-interest".<sup>7</sup>
- 23. The ENA fundamentally disagrees that it is not necessary for the Authority to show that a problem exists in practice before intervening to alter the amounts paid by firms in relation to multi-million dollar investments after those investments have been committed. An economic analysis of incentives is an important analytical tool, but the analysis must be done well and tested against real world outcomes before conclusions can be drawn. The Authority's analysis of incentives, however, is not convincing and is not checked for its explanatory power of decisions actually made.

#### 3.2 Cross-subsidy not shown

- 24. The Authority's proposition that the current TPM leads to cross-subsidy is not shown either in concept or quantitatively.
- 25. The Authority appears to have not considered some foundation concepts for any economic analysis in concluding cross-subsidies exist under current TPM. The (brief) discussion provided by the Authority is limited to the legal incidence of the TPM charges and not their economic incidence. It is the economic incidence, and not the legal incidence, of a charge which determines its economic effects.<sup>8</sup>
- 26. Nor is it clear how the Authority has arrived at its conclusion that parties currently face charges for transmission services which are less or more than "the cost of meeting their demand." The Authority leaps from a statement that "it can be difficult to set charges based on service levels delivered to each customer" (a position the ENA does not dispute) to a conclusion that "some customers pay considerably more than the cost of transmission services to them while others pay considerably less". There is no
- <sup>5</sup> Electricity Authority, *Problem definition*, paragraph 8.5.
- 6 Electricity Authority, Problem definition, paragraph 8.8.
- Electricity Authority, *Problem definition*, paragraph 1.14.
- To illustrate the difference between legal and economic incidence with a neutral example, in 1979 the government imposed a 20% sales tax on boats and caravans. The tax was imposed because these items were viewed as luxuries consumed by the wealthy. The effect of the tax was to contract both industries and the economic impact was mostly felt by the workers who lost their jobs and the investors who had committed to plant and equipment prior to the tax change; the truly wealthy could holiday overseas or shift consumption to non-taxed items.
- <sup>9</sup> Electricity Authority, *Problem definition*, paragraphs 8.3 and 8.4

- explanation of this logic leap the Authority appears to assume, but does not explain or establish, that interconnection transmission costs vary in accordance with the service levels experienced by customers.
- 27. It is not clear from the Working Paper what concept of cost the Authority has in mind: the regulated revenue approved for existing assets, some estimate of economic cost, incremental or marginal costs, or some other concept of cost. These concepts of cost may give very different estimates of cost in terms of quantum. No numerical evidence is presented to show that any particular user of the transmission grid faces charges that are above or below the cost of the services that a customer receives.
- 28. The circumstances described by the Authority do not result in cross-subsidies, as that term is accepted in the economics literature. In economics, a consumer receives a cross-subsidy from other consumers if the amount charged to that consumer is below the incremental cost of the service it receives. A consumer is said to cross-subsidise other consumers if the amount charged to them is higher than the standalone costs of the service provided.
- 29. The nodal pricing methodology ensures that the incremental costs of transmission are explicitly factored into wholesale prices. Connection costs are allocated, as far as possible, to reflect the costs associated with connections to the interconnection (shared) grid. Hence, all market participants face the incremental costs of transmission. There is no analysis that the ENA is aware of that shows any party is receiving transmission services for less than the incremental cost. Moreover, if there were situations identified where parties could be shown to be paying less than incremental cost, then it would be appropriate to re-examine the demarcation between connection and interconnection assets, rather than conclude that the interconnection charging regime is a "problem".
- 30. Nor is there any evidence that any party is paying more than the standalone cost of transmission. The prudent discount policy is designed to avoid such an outcome. The fact that only three prudent discount agreements have been made since the current TPM was implemented in 2008 would suggest that only in quite rare circumstances does the current TPM come close to breaching this pricing threshold.<sup>11</sup>
- 31. On an economic analysis, therefore, the current TPM is subsidy free. Hence, one of the main findings supporting the proposed problem definition cannot be sustained.

#### 3.3 No evidence of price distortions

32. The second main conclusion by the Authority is that the current TPM results in transmission customers paying more or less than the cost of meeting their demand, leading to poor economic incentives. In economic terms, this is a restatement of the proposition that the current TPM results in cross subsidies, which, as shown above, cannot be established.

Faulhaber, G.R. 1975. Cross-Subsidization: Pricing in Public Enterprise. American Economic Review, 65: 966-977.

Electricity Authority, *Problem definition*, paragraphs 6.19, cites the number of prudent discount agreements made since 2008, but the Authority appears not to draw the obvious implication that this low number suggests the current TPM is subsidy free.

- 33. It may be helpful to view the issue through an analytical approach the Authority set out in an earlier working paper.
- 34. Standard welfare economics provides economists with tests for (statically) efficient prices. A necessary condition for Pareto efficiency is that the *marginal willingness to pay* must equal *marginal cost*. As the Authority explained in its sunk cost working paper, the necessary condition for static efficiency that the price for the marginal unit equates marginal willingness to pay and marginal cost does not mean that every unit of the service must be sold at marginal cost.<sup>12</sup>
- 35. Under the nodal pricing regime, the Authority should be satisfied that this static efficiency requirement is met (whether nodal pricing can be improved is beyond the scope of this consultation).
- 36. However, the Authority (as it acknowledges) does not know what the costs are of supplying the infra-marginal units to each transmission customer. Nor is it obvious how this information would be used in setting charges were the information available.<sup>13</sup> As the Authority observed in its earlier work, economics does not provide the same definitive tests for pricing of infra-marginal decisions as it does for pricing marginal units:<sup>14</sup>

The economic efficiency implications for infra-marginal pricing may differ from those for marginal pricing, especially where the activities being priced involve commitments over extended periods. It is the infra-marginal decisions that often determine which activities are engaged in and whether or not to engage in an activity; marginal decisions tend to allocate resources within a pre-determined set of activities.

37. As long as the TPM allocates costs in a manner which is subsidy free (a test met by the current TPM), there is no a priori reason for concluding, as the Authority does, that the current TPM results in inefficient price signals.

#### 3.4 Focusing on symptoms not the source

- 38. The ENA agrees with the comment by the Authority in its sunk costs paper that for many economic activities, infra-marginal decisions are as important, if not more important, than marginal decisions.<sup>15</sup> In sectors such as the electricity industry, with long-life assets (in generation, networks, and consumption), it is infra-marginal decisions that primarily determine the allocation and use of society's resources over time.
- 39. With regard to transmission investment, infra-marginal decisions are made in a regulatory process; the investments are approved by the Commerce Commission after it

Electricity Authority, Transmission pricing methodology: sunk costs, working paper, 8 October 2013, paragraph 7.7.

<sup>13</sup> The ENA is not aware of any work programme by the Authority to either specify transmission services more precisely or to determine how costs vary in relation to different service levels for individual consumers.

Electricity Authority, Transmission pricing methodology: sunk costs, working paper, 8 October 2013, paragraph 7.11.

Electricity Authority, Transmission pricing methodology: sunk costs, working paper, 8 October 2013, paragraph 7.13.

- applies a form of net national benefit test.<sup>16</sup> The Authority expresses concern that the decisions made may not be as economically efficient as they could be.
- 40. However, the Authority does not establish that there is a problem with the Commerce Commission decision process. It does not identify *any* decision made in error by the Commission. For instance, the Authority questions whether some transmission upgrades should have been deferred following the global financial crisis, but does not establish whether any investment proceeded when it should have been deferred. The Authority simply asserts:17

"It might have been economic to defer some or all of the upgrade works, if it was feasible to do so."

- 41. An assertion that it might have been economic to defer some works does not establish that there is in fact a problem with the decisions made by the Commerce Commission.
- 42. The difficulty that arises when the problem has not been clearly identified (in this case, whether poor decisions are being made by the Commerce Commission) is illustrated in the analysis by the Authority of submissions made on a sample of transmission investment proposals. The Authority concludes that distributors did not submit in opposition to investments when the costs distributors would face would exceed the benefit (as calculated by the Authority, not the distributors) that they and their customers would receive.18
- 43. Putting to one side the possibility that the Authority may have calculated the regional benefits incorrectly, the analysis by the Authority misses the central issue. Under the current Commerce Commission process, the Commission approves investment applying a net national benefit test. It is not relevant whether any particular region would face net benefits, and hence not at all surprising that informed parties such as distribution networks engage in the process as intended, and submit only if they could contribute to the net national benefit calculation.
- 44. If the Authority believes that the decision process in relation to transmission investment should be made other than centrally, on a national benefit basis, then the Authority should explain the problem with this process. Altering the allocation of costs after investment decisions have been made in the hope that participants will engage differently in decisions yet to be made will not alter the existing decision process.
- 45. Of considerable concern to the ENA, is that the Authority appears somewhat isolated from the intense scrutiny of the factors influencing decision-making in relation to network investment. For example, the Commerce Commission and industry participants have, for the past 4 months, been reviewing the theory and evidence in relation to the asymmetric risk associated with network investments, as this is a key

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Reliability investments are tested as to whether they are the best means of meeting the reliability standard – a presumptive test of this nature is not unusual in complex decision-making as it avoids the very real economic costs of having to assess, in relation to each investment, whether consumers value reliability when the overwhelming evidence is that consumers do value reliability.

Electricity Authority, *Problem definition*, table 3, pages 51 - 53.

Electricity Authority, Problem definition, paragraph 9.31

determinant in setting the weighted average cost of capital.<sup>19</sup> The overwhelming weight of expert opinion – accepted by the Commission in its draft decision – is that the risk to consumers from under investment/late investment substantially exceeds the risk from over investment/investment too early.<sup>20</sup> This debate does not appear to have been considered by the Authority when it asserts "given the emphasis on reliable supply under instruments such as the grid reliability standards, this is likely to lead to transmission investments earlier than is efficient …"<sup>21</sup> The objective of the regulatory regime applying to network investments is that decisions should err on the side of being a little early, because this is in the long-term interest of consumers.

#### 4. Poor durability

- 46. The Authority suggests that the current TPM lacks durability "as the parties are likely to have incentives to continue to lobby and push for a change to the TPM".<sup>22</sup> The current TPM has been in place more or less unchanged since 1999 throughout extensive changes in the sector<sup>23</sup>; it is self-evidently a durable pricing methodology.
- 47. Under the regulatory decision-process for transmission investment (which the Authority does not challenge), investment decisions are made centrally and then the costs are allocated to parties who are legally required to make payment. Given the values at stake lobbying is to be expected and is an inevitable outcome of centralised decision-making in relation to transmission investment.
- 48. Changing the cost allocation mechanism, whether to a method based on SPD or on the basis of any other method, will not change the incentives for lobbying. Any party incurring the economic incidence of the cost allocation will continue to have strong financial incentives to convince the regulator to change that incidence.

#### 5. Inefficient use of the grid

- 49. The Authority presents an analysis of the RCPD periods and concludes that the existing definitions are now giving rise to some inefficient distortions in the use of the transmission grid. The operational review currently being undertaken by Transpower is the first in 10 years. After 10 years, it should not be surprising that the RCPD periods could be improved. An operational review is consistent with the rationale for the way the RCPD periods were set in the first place, as there has been a change in the strength of incentives required with the investment that has occurred.
- 50. Any adjustments to the RCPD period would best be characterised as refinements to the TPM so that the application of the current TPM meets its intent; a conclusion that the

The expert reports and submissions are available at http://www.comcom.govt.nz/regulated-industries/input-methodologies-2/further-work-on-wacc/

In simple terms, under investment risks the consumer surplus that would result from that investment, whereas over investment would likely give rise only to a small deadweight efficiency loss.

<sup>&</sup>lt;sup>21</sup> Electricity Authority, *Problem definition*, paragraph 8.3.

<sup>&</sup>lt;sup>22</sup> Electricity Authority, *Problem definition*, paragraph 8.7(b).

<sup>&</sup>lt;sup>23</sup> Some incremental improvements, including the RCPD allocator, were introduced in 2008.

RCPD periods could be defined better now that the transmission grid has been substantially upgraded is not evidence that the current TPM should be abandoned.

#### 6. Prudent discount policy

- 51. No transmission cost allocation methodology can anticipate all possible circumstances. A mechanism such as the prudent discount policy (PDP) is necessary to ensure the methodology does not cause inefficient by-pass. The current policy appears to have worked reasonably well. As the Authority observes, there is no evidence that uneconomic by-pass has occurred and hence the bar has not been set too high.<sup>24</sup> Equally, there have only been three applications approved since 2008, suggesting that the bar has not been set too low.<sup>25</sup>
- 52. The difficulty with the existing PDP is that is has a duration of only 15 years, substantially shorter than the life of the assets. This makes the policy difficult to apply at the end of the 15 year period, as it is not clear under the existing policy whether the relevant costs to consider are the costs the entity faced at the time the investment was made, or the costs the party would now face having made the investment 15 years earlier.
- 53. The ENA remains of the view (as previously submitted) that a prudent discount policy should be retained, that it should be extended in duration to the expected life of the assets, and that the scope of the PDP should be widened to include generation investments, subject to reviewing the way in which this wider scope would be implemented. Thought might also be given to extending the PDP to recognise investments that enhance consumer/ demand-side flexibility.

#### 7. Conclusion

- 54. Clearly identifying and defining the problem is a crucial step in the regulatory process. In the ENA's view, the Authority does not present a robust definition of the problem. The Working Paper:
  - (a) does not establish, by reference to accepted literature, that the current pricing arrangements are likely to give rise to problems or err materially from accepted best practice
  - (b) misstates important economic concepts, such that key inferences drawn in the Working Paper are not supported by accepted economic theory
  - (c) fails to establish that there are systemic adverse outcomes, or poor decisions, arising from the existing pricing methodology in a sector where substantial investments have and are being made if a material problem exists, there should be ample evidence and examples available to the Authority.

<sup>&</sup>lt;sup>24</sup> Electricity Authority, *Problem definition*, paragraph 12.3.

<sup>25</sup> Electricity Authority, Problem definition, paragraph 6.19.

55. The ENA submits that the Working Paper, because of these limitations, has failed to identify whether there are, in fact or in theory, any material problems with the TPM or associated processes that are leading to fundamental inefficiencies in the electricity sector. As a result, this Working Paper has not advanced the process of establishing whether there are superior alternatives to the current transmission pricing methodology. At some future point in this process, we submit that the Authority will need to address the limitations in the Working Paper with respect to analysis of the economics of transmission (network) pricing and investment decision-making within the context of New Zealand's electricity market and regulatory processes, as well as the factual basis for whether any problems exist.

## Appendix 1 : Comment on Working Paper assessment of options

Question	Comment
Question 1: Do you agree that, in relation to decisions around transmission pricing, the Authority should focus on overall efficiency of the electricity industry for the long-term benefit of electricity consumers? Why or why not?	The purpose of the transmission pricing methodology is to ensure that, subject to Part 4 of the Commerce Act 1986, the full economic costs of Transpower's services are allocated in accordance with the Authority's objective in section 15 of the Act (12.78). The Authority must therefore ensure the full economic costs are allocated and are done so in accordance with its statutory objective. The wording in question 1 is not the same as the wording of the statutory objective, nor a summary of the excerpt from its own interpretation of its statutory objective cited above question 1, nor does it refer to the allocation of the full economic cost.
Question 2: Do you agree with the Authority's view on what constitutes an efficient charge? What role do you consider durability plays in determining efficient charges? Please explain your answers.	No. Please see section 3.2 and 3.3.  We comment on durability in section 4.
Question 3: Do you agree with the Authority's revised position on the problem definition, described above? Please explain your answer.	No. The ENA's view is that the Working Paper does not establish that the TPM is likely to give rise to problems or materially err from best practice with reference to current literature on transmission pricing; nor does it establish that a systemic adverse outcome arises in practice from the existing methodology. The key argument in the paper that prices for individual customers are above or below cost, i.e. that cross-subsidies exist, is not substantiated with reference to accepted economic concepts.  Our submission expands on this view.
Question 4: To supplement information already provided by Transpower, do you have any comments on the steps taken by Transpower or by other parties after approval of the NAaN, NIGU, and	No. Please refer to our comments in section 3.4.

Question	Comment
other investments such as the LSI Reliability Upgrade investments, to review whether it might have been efficient to postpone elements of them?	
Question 5: To what extent do current interconnection charges promote efficient timing of investments? Please explain your response.	Please see section 3.3 and 3.4 of our submission.
Question 6: To what extent do you consider participant support for transmission investments takes into account the cost implications for them and for other parties? To what extent do you consider the efforts made by participants to provide relevant information on transmission investments take into account the cost implications for them and for other parties?	Under the existing regulatory decision process, transmission investment decisions are made on a net national benefit basis. Submissions would be drafted to inform that analysis – see section 3.4 of our submission.
Question 7: Do you agree that the Kawerau investment proposal described is an example of an inefficient investment resulting from the TPM? Please explain your answer.	The Authority has not concluded that the Kawerau investment proposal is an inefficient investment (para 9.36). The ENA agrees that the Authority has not provided evidence to show that the alternative the Authority suggests would have been more efficient than the investment approved by the Commerce Commission.  See section 3.4 of our submission for further comments on the Commerce Commission process.
Question 8: Do you consider that current TPM can incentivise parties to prefer interconnection assets over connection assets or building and owning their own assets (by which they will be required to pay a higher portion of transmission costs)? Please explain your answer and provide any examples you may have.	Yes. Where connection assets are charged using a different methodology than interconnection assets there will always be circumstances where some party prefers a particular asset to be classified under one category or another; this is an inevitable outcome under any pricing methodology.
Question 9: Do you agree that the	The TPM does not directly affect transmission

Question	Comment
TPM can materially impact investment efficiency? Please explain why or why not.	investment decisions. Investments proposed by Transpower are approved by the Commerce Commission after it applies a form of net national benefit test; transmission customers have no direct decision making ability in this process. The Authority does not establish that there is a problem with the Commerce Commission decision process: see section 3.4 of our submission.
Question 10: Do you agree that cross-subsidisation of TPM costs between consumers is an important consideration when considering the durability of TPM charges?	See comments in section 3.2; no cross subsidisation has been shown. The examples provided by the Authority illustrate that the transmission 'service' is not well defined (rather than a problem with the TPM). The examples also support Transpower's ongoing review into the appropriate number of peaks for RCPD-based charging.
Question 11: Do you consider that the current TPM is durable? Why or why not?	Yes. The methodology has been in place for 15 years.
Question 12: Do you agree that the examples provided above are examples of a durability problem? Please explain your response.	No. See answer to question 10.
Question 13: If you consider there to be a durability problem, do you know of any further examples of durability problems with the TPM? If so, please describe. Please also estimate the costs that you have incurred in relation to submissions on the TPM for as far in the past as you are able to provide (ie in relation to current and previous TPMs).	N/A
Question 14: Do you agree that durability is a particularly difficult problem to measure? Please explain why or why not. Are you aware of an appropriate methodology for measuring durability? If so, please provide details of that methodology.	The current TPM has been in place more or less unchanged since 1999; it is self-evidently a durable pricing methodology.

Question	Comment
Question 15: Do you consider that the RCPD allocation provides an efficient signal of the need for load shedding at coincident peak times? Do you agree with the Authority's estimate of the possible efficiency effects?	The ENA supports Transpower's ongoing review into the appropriate number of peaks and other parameters for RCPD-based charges.
Question 16: Do you agree that the interconnection charge may oversignal the need for overall reductions in consumption? Do you agree with the Authority's estimates of inefficiency? Which of the four scenarios, if any, do you consider the most plausible? Please explain your answer.	As long as the TPM allocates costs in a manner which is subsidy free (a test met by the current TPM), there is no a priori reason for concluding that the current TPM results in inefficient price signals. Refer to section 3.3 for further discussion of this point.
Question 17: Do you agree that the interconnection charge may oversignal the cost of increasing Tiwai smelter production in summer? Do you agree with the Authority's inefficiency assessments? Please explain why or why not.	The ENA supports Transpower's ongoing operational review, which includes consideration of the parameters for RCPD-based charges.
Question 18: Do you agree that the interconnection charge and ACOT payments may over-signal the value of embedded generation? Please explain your answer.	The ENA believes that the ACOT paper identifies the need for a review of the Schedule 6.4 distributed generation (DG) pricing principles, and may provide a basis for some modification to the transmission pricing methodology (TPM). For the avoidance of doubt, however, the ENA does not consider that DG pricing issues require or support changes to the TPM of the scale or nature of those reflected in the Authority's October 2012 TPM proposal. <sup>26</sup>
Question 19: Do you agree with the Authority's assessment that, although the interconnection charge may over-signal the value of	The ENA supports Transpower's ongoing review into the parameters for RCPD-based charging. See response to question 18 in relation to the ACOT.

Refer to Electricity Networks Association, Submission on Transmission Pricing Methodology: ACOT payments for distributed generation, 29 January 2014

Question	Comment
generation to direct-connect consumers, any resulting efficiency loss is likely to be relatively small? Please explain your answer.	
Question 20: Do you agree that the HAMI allocation may incentivise SI generators to withhold existing capacity? Do you agree with the Authority's estimate of inefficiency? Please explain your answer.	The ENA supports Transpower's ongoing operational review. This includes consideration of whether there can be modifications to the calculation methodologies for allocating HVDC charges to South Island generators to mitigate any adverse incentives caused by the current HAMI charges.
Question 21: Do you agree that the HAMI allocation may discourage upgrades to SI generation capacity? Do you think this is a material problem? Please explain your answer.	The ENA supports Transpower's ongoing operational review. This includes consideration of whether there can be modifications to the calculation methodologies for allocating HVDC charges to South Island generators to mitigate any adverse incentives caused by the current HAMI charges.
Question 22: Do you agree that the HVDC charge may discourage investment in SI grid-connected generation? Do you agree with the Authority's inefficiency estimate? Please explain your answer.	The ENA supports Transpower's ongoing operational review. This includes consideration of whether there can be modifications to the calculation methodologies for allocating HVDC charges to South Island generators to mitigate any adverse incentives caused by the current HAMI charges.
Question 23: Do you agree that the HVDC charge may bring forward the need for upper SI transmission investment? Do you agree with the Authority's estimate of inefficiency? Please explain your answer.	The ENA supports Transpower's ongoing operational review. This includes consideration of whether there can be modifications to the calculation methodologies for allocating HVDC charges to South Island generators to mitigate any adverse incentives caused by the current HAMI charges.
Question 24: Do you agree with the Authority's view on prudent discount policy? Do you agree with Transpower's view that a PDP for notional generation is not practically achievable because of the difficulties in valuing notional disconnection? Please explain your answer.	No. See comments in section 6.

Question	Comment
Question 25: Do you consider that there are any other material problems with the TPM (in particular, the HVDC charge, interconnection charge, and the prudent discount policy) that the Authority has not considered in this paper? If so, please provide details.	Please see the body of our submission