Submission to the Commerce Commission

Request for an amendment to the Commerce Act (Electricity Distribution Services Input Methodologies) Determination 2010

June 2012

Introduction

1. Vector Limited ("**Vector**") makes this submission to propose amendment and clarification of Part 4 Determinations.

2. Vector's contact person in relation to this submission is:

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Executive summary

3. The Commerce Act (Electricity Distribution Services Input Methodologies) Determination 2010 ("**IM**") provides for certain categories of costs incurred by electricity distribution businesses ("**EDBs**") to be fully recoverable from consumers ("**recoverable costs**"). Recoverable costs include transmission charges payable to Transpower under the Transmission Pricing Methodology ("**TPM**"), and also include transmission charges avoided by EDBs where an EDB purchases transmission assets from Transpower, and where a generator directly connects to an EDB, effectively bypassing the transmission network.

4. Allowing EDBs to recover avoided transmission charges in these circumstances reflects the Commission's policy of incentivising efficiency-enhancing business arrangements and investment (and, by extension, disincentivising inefficient business arrangements and investment). Vector, along with other submitters, supported this policy and the inclusion of avoided transmission charges as recoverable costs.

5. Prudent discount agreements ("**PDAs**") entered into between EDBs, generators, and Transpower, in accordance with the Prudent Discount Policy ("**PDP**") contained in the TPM, are premised on two key related concepts:

   (a) the physical embedding that PDAs seek to avoid would increase the economic costs to the nation as a whole; and

   (b) entering into a PDA to avoid the physical bypass is therefore efficiency enhancing (the criteria for entering PDAs requires due efficiency to be demonstrated).

6. However, avoided transmission charges from PDAs are not captured by the new definition of recoverable cost. This will undermine the financial benefits of PDAs, and will therefore render the PDP ineffective.

7. A PDA works by allowing the EDB to realise the financial benefit of bypass (ie reduced transmission charges) and distribute that benefit to the generator, without requiring the inefficient investment to be sunk – in effect, a notional bypass. To ensure the PDP is successful, it must offer the same financial benefits as physical bypass.

8. While the original definition of recoverable costs in the draft IM[1] would have captured transmission charges avoided under a PDA, the narrower definition that resulted from consultation does not. As a result:

(a) there is a disincentive for an EDB to enter a PDA as an alternative to physical bypass, as the EDB cannot pay the notionally embedded generator any reduction in transmission charges (ie the avoided transmission charges) pursuant to a PDA and recover this amount from its customers;

(b) in contrast, physical bypass in the context of the connection of distributed generation will allow the EDB to pay the distributed generator the avoided transmission charges pursuant to their connection and recover this amount from its customers under the IM. Therefore, parties will be incentivised to physically bypass the transmission network even where that bypass is inefficient; and

(c) accordingly, the IM incentivises the physical bypass that the PDP seeks to avoid.

9. Allowing an EDB to pay avoided transmission charges to the notionally embedded generator pursuant to a PDA and recover this amount from its customers is entirely consistent with the Commission's policy of incentivising efficiency-enhancing business arrangements (and, by extension, disincentivising inefficient business arrangements).

10. Vector therefore requests that the Commission amends the definition of recoverable costs in the IM to avoid this unintended consequence and to clarify the IM so that it accurately reflects the Commission's policy. This would also ensure regulatory consistency between the IM and the Electricity Industry Participation Code 2010 ("**Code**").

11. As this amendment does not require any change in the Commission's policy, Vector considers that the amendment is not a "material change" in terms of section 52X.

12. On a separate note, Vector has also identified what appears to be a drafting error in Schedule 6.4 of the Code, which has fed into the drafting of the IM. Clauses 2(a) and 3 of Schedule 6.4, and clause 3.1.3(f) of the IM refer to a "market operation service provider", as defined in the Code. However, the definition of "market operation service provider" does **not** include distributors, such as Vector. Absent an amendment to this defined term, there seems to be no requirement for a distributor to pay avoided transmission charges to the distributed generator, as appears to be intended by the Code, and there is also confusion as to how clause 3.1.3(f) should be properly applied. Vector has suggested an amendment to clarify the position (on the basis that amendments will also be made to the Code).

Background

13. The IM sets out a framework for the determination of a default price path ("**DPP**") for EDBs. The DPP allows EDBs to recover costs that are deemed to be largely outside their control as pass through costs, and costs over which the EDB has limited control as recoverable costs.

[1] Draft Commerce Act (Electricity Distribution Services Input Methodologies) Determination 2010 ("**draft IM**").

The Prudent Discount Policy

14. The PDP is part of the TPM and is set out in Schedule 12.4 of the Code.

15. The purpose of the PDP is described in the Code as follows:[2]

> *The purpose of the prudent discount policy is to help ensure that the transmission pricing methodology does not provide incentives for the uneconomic bypass of existing grid assets. The prudent discount policy aims to deter investment in alternative projects which would allow a customer to reduce its own transmission charges while increasing the total economic costs to the nation as a whole.*

16. The PDP is intended to avoid physical bypass of the transmission network where this would not be in the best interests of the nation as a whole. This recognises that the TPM may incentivise such bypass investments.

17. In other words, the PDP recognises that it may be in the private interests of a generator and distributor to bypass the Transpower transmission network and reduce their own transmission charges, even when this would require the stranding of existing transmission assets, thereby increasing the total economic costs to the nation as a whole (referred to as "**inefficient bypass**").

18. The PDP guards against inefficient bypass by providing a framework under which parties are able to attain the same benefits as they would under physical bypass, without actually building the bypass (ie by continuing to use the existing Transpower transmission network).

19. In broad terms the PDP provides that Transpower will enter into a PDA if a transmission customer can demonstrate that the bypass project is:[3]

    (a) technically, operationally and commercially viable and has a reasonable prospect of being able to be successfully implemented; and

    (b) socially inefficient to implement given Transpower's economic costs of providing existing grid assets and the economic costs that would be incurred by the customer if it proceeded with the bypass project.

20. In other words, a PDA will only be entered if it promotes efficiency.

21. Under the PDA:[4]

    (a) the customer will pay Transpower an annuity determined by reference to the cost of funding, maintaining and operating the bypass project over the term of the PDA; and

    (b) Transpower will calculate the customer's transmission charges as if the bypass project had been implemented.

22. Accordingly, a PDA allows the financial benefit of bypass to be achieved, and for Transpower to benefit from an annuity equivalent to the cost of that bypass, without requiring the inefficient investment to be sunk – in effect, a notional bypass.

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[2] Electricity Industry Participation Code 2010, Part 12, Schedule 12.4, clause 36(1).
[3] Ibid, clause 36(2).
[4] Ibid, clause 41.

23. For this arrangement to be at least as attractive as the alternative of physical bypass, the EDB must be able to pay the avoided transmission charges to the notionally embedded generator and recover that amount from its customers on an equal basis with bypass actually occurring under the distributed generation provisions in Part 6 of the Code (discussed below).

Avoided transmission charges under the draft IM

24. The Commission's policy of incentivising efficiency-enhancing business arrangements and investment is demonstrated in the draft IM and accompanying draft reasons paper.

25. Clause 3.2.4(1) of the draft IM defined recoverable costs as including:

(a) charges for electricity lines services in respect of the transmission system and determined in accordance with the TPM ("**transmission charges**"); and

(b) avoided transmission charges.

26. An "avoided transmission charge" was defined in the draft IM as follows (clause 3.2.4(5)):

> *... an amount of a charge described in subclause 1(b) [transmission charges] payable to Transpower that the Commission is satisfied an EDB has avoided liability to pay as a result of reducing the overall cost of the supply of electricity lines services.*

27. The reason for defining a category of avoided transmission charges that could be treated as a recoverable cost was explained in the draft reasons paper as follows:[5]

> *If the lower transmission charges were simply passed through to consumers as a Recoverable Cost there would be little incentive for the EDB to undertake the efficiency-enhancing investment.*

28. In other words, the Commission recognised that allowing avoided transmission charges to be recovered from consumers was necessary to incentivise efficient outcomes.

29. In relation to PDAs, Vector notes that an 'efficiency analysis' is already carried out by Transpower, as discussed below. Therefore, inclusion of PDAs as a category of recoverable costs is appropriate, on the basis that an efficiency test has already been satisfied.

30. Vector, along with other submitters on the draft IM, supported the inclusion of avoided transmission charges as recoverable costs. However, submitters were concerned that the procedural requirement that EDBs provide evidence to satisfy the Commission of the efficiency of the arrangement (referred to as the "**efficiency test**") would be difficult to apply in practice, and was inconsistent with the requirement that the IM provide businesses with certainty of the material effects of the Commission's approach.[6]

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5 Commerce Commission *Input Methodologies (Electricity Distribution Services) Draft Reasons Paper*, June 2010, at para 8.4.26.

6 Vector *Submission in response to the Commerce Commission's Input Methodologies Draft Reasons and Determinations for Electricity Distribution Businesses and Gas Pipeline Businesses: Cost Allocation, Regulatory Tax, Pricing Methodology, Rules and Processes* (9 August 2010) at paras 265 and 267; Powerco

31. The definition of recoverable costs in the draft IM did not include avoided transmission charges payable to distributed generators under Part 6 of the Code, despite these avoided transmission charges being outside the distributor's control. This would have meant that, under the Code, Vector could be in the position of having to pay avoided transmission charges to the distributed generator, but not being able to recover those payments from consumers.

32. Vector acknowledges that the Commission remedied this in the final IM Determination. However, as explained below, Vector submits that the same remedy needs to be provided for notional embedding.

Application of the draft IM to avoided transmission charges under PDAs

33. The effect the draft IM would have on PDAs was not discussed by the Commission. Nor was it raised by submitters during the consultation process.

34. However, the reduction in transmission charges under PDAs would have nonetheless fallen within the category of avoided transmission charges under the draft IM, as:

(a) the EDB avoided liability to pay charges to Transpower as a result of reducing the economic costs to the nation as a whole, by agreement with Transpower;

(b) the efficiency of the arrangement is tested by Transpower, who is required to complete an 'efficiency analysis' of the proposed physical bypass (the PDP only allows a PDA to be entered into if the physical bypass is feasible, but would be inefficient); and

(c) the inefficient bypass is avoided, thereby promoting efficiency in the network (especially when compared to the counterfactual of physically embedding, which in accordance with the PDP criteria, is technically, operationally and commercially viable).

35. Therefore, permitting the recovery of avoided transmission charges resulting from a PDA is entirely consistent with the Commission's policy of incentivising efficiency-enhancing business arrangements (and, by extension, disincentivising inefficient business arrangements).

36. In other words, the Commission should be comfortable including avoided transmission charges payable to notional embedded generators under PDAs as an additional category of recoverable costs, as by definition they reduce the economic costs to the nation as a whole relative to a credible and incentivised counterfactual of physical embedding.

Avoided transmission charges under the finalised IM

37. Following consultation on the draft IM, the Commission agreed that requiring EDBs to provide evidence to satisfy the Commission of the efficiency of the arrangement was problematic and therefore removed that requirement. This was clearly appropriate.

Powerco Submission 1: In Response to Draft Input Methodology and Information Disclosure Determinations (9 August 2010) at paras 16.5, 90.2, 135 and 139-142; Electricity Networks Association *Submission 5: Processes and Rules Input Methodology* (9 August 2010) at paras 6, 11-12, 36-37 and 47; Wellington Electricity *Submission to the Commerce Commission on Draft Input Methodologies Decisions (Electricity Distribution)* (9 August 2010) at para 6.2(iii).

38. The Commission narrowed the definition of avoided transmission charges to include only those arising from the purchase of transmission assets from Transpower or from the connection of distributed generation under Part 6 of the Code.

39. The final IM therefore defined recoverable costs as follows:

> ***3.1.3 Recoverable costs***
>
> *(1) A recoverable cost is a cost that is*
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> *...*
>
> *(b) a charge payable to Transpower for electricity lines services provided to a non-exempt EDB in respect of the transmission system in accordance with the transmission pricing methodology Transpower uses to determine the prices it charges for its services, as specified in the Electricity Industry Participation Code;*
>
> *...*
>
> *(e) an amount of a charge described in paragraphs (b) or (c) that the Commission is satisfied an EDB has avoided liability to pay as a result of the EDB having purchased transmission assets from Transpower, subject to-*
>
> *(i) the requirement specified in subclause (2); and*
>
> *(ii) subclause (4);*
>
> *(f) an amount equal to transmission costs that an efficient market operation service provider (as 'market operation service provider' is defined in the Electricity Industry Participation Code) is able to avoid as a result of the connection of distributed generation determined in accordance with Schedule 6.4 of Part 6 of the Electricity Industry Participation Code;*
>
> *...*

40. The final reasons paper sets out the Commission's considerations for including payments to distributed generators under clause 3.1.3(f) as recoverable costs:[7]

> *Part 6 of the Electricity Industry Participation Code provides a framework to enable connection of distributed generation. Charges for such embedded generation (which may provide a substitute for use of the electricity transmission system) are likely to form part of that framework. Payments of avoided transmission charges to embedded generators have been treated as a distinct recoverable cost category, separate from any avoided transmission charges relating to the purchase of transmission assets. This recognises that*

[7] Final reasons paper, para J2.30.

those payments are an ongoing obligation, whereas the avoided transmission charges relating to transmission assets need only be treated as a recoverable cost for a finite period to provide appropriate incentives for the acquisition of such assets by EDBs.

Unintended consequences of the IM

41. The Commission's decision to amend the definition of recoverable costs in the final IMs, while appropriate, has unintended consequences for PDAs.

42. Vector believes the payment of the annuity to Transpower under a PDA as determined under the TPM meets the definition of a "recoverable cost" pursuant to clause 3.1.3(1)(b) (although we have suggested an amendment at the end of this submission to clarify that this is the case).

43. However, the reduction in transmission charges following a PDA is not able to be recovered from consumers based on the definitions of recoverable costs in the IM. Although clause 3.1.3(f) of the IM relates to the transmission costs that an EDB is able to reduce pursuant to the connection of a distributed generator under Part 6 of the Code, this does not appear to consider PDA arrangements which arise under Part 12 of the Code, which relate to a notional rather than a physical connection. As a result:

    (a) there is a disincentive to enter into a PDA as an alternative to physical bypass, as there is no mechanism for an EDB to recover from its customers the payment of avoided transmission charges to the notionally embedded generator;

    (b) put another way, the Commission's revision was designed to mitigate the risk of incentivising inefficient bypass, however, excluding PDAs in fact **increases** the risk of inefficient physical bypass;

    (c) that is because physical bypass in the context of the connection of distributed generation does enable the EDB to recover from its customers the avoided transmission payments to distributed generators resulting from the bypass. Therefore parties will be incentivised to physically bypass the transmission network, even where that bypass is inefficient.

Proposed solution

44. We consider that it is clear from the drafting history that these consequences were unintended. Allowing the distributor to pay the notionally embedded generator the avoided transmission charges pursuant to a PDA and recover this amount from its customers, similar to the connection of distributed generation, is entirely consistent with the Commission's policy of incentivising efficiency-enhancing business arrangements (and, by extension, disincentivising inefficient business arrangements).

45. Vector proposes that this matter can be simply addressed by recognising avoided transmission charges under a PDA as a category of recoverable cost. In particular, PDAs should be treated similar to distributed generation, as PDAs are intended to disincentivise inefficient bypass by way of connection of distributed generation. Therefore, the benefits associated with PDAs should be equal, if not better, than the benefits associated with connection of distributed generation.

46. Addressing the drafting issue in clause 3.1.3(f) as opposed to any of the other recoverable cost categories is most appropriate, given that the PDP is intended to provide a comparable alternative to distributed generation. This ensures a PDA, under part 12 of the Code and in respect of a notional connection, has the same effect as physical connection of distributed generation under Part 6 of the Code.

47. This would also ensure regulatory consistency with the TPM and the Code, as:

(a) the PDP is set out in the TPM, in Part 12 of the Code;

(b) before a PDA is entered into, Transpower must first complete an 'efficiency analysis' of the proposed physical bypass to assess its commercial viability and determine whether it is in fact socially inefficient (as set out at paragraph 19 above); and

(c) if the key incentive of the PDP is negated by the IM (by preventing the payment and recovery of avoided transmission charges to notionally embedded generators), the effectiveness of the PDP will be severely undermined.

48. Vector proposes a drafting amendment that would achieve this, at the end of this submission.

Drafting error in definition of market operation services provider

49. Vector has also identified a separate drafting error in the Code, which is also carried through into the drafting of the IM.

50. Schedule 6.4 of the Code (pricing principles for the connection of distributed generation) references "market operation service provider" in clauses 2(a) and 3.

51. Clause 3.1.3(f) of the IM also refers to: "*costs that an* ***efficient market operation service provider (as 'market operation service provider' is defined in the Electricity Industry Participation Code)*** *is able to avoid*" (our emphasis).

52. However, the definition of market operation service provider in the Code is entirely irrelevant to the setting of a distributor's connection charges for distributed generation. It refers to specific market operator service provider roles (such as the clearing manager) rather than EDBs generally. In fact, EDBs are almost never Market Operation Service Providers.

53. Absent replacing or amending the definition of "market operation service provider" to refer to "distributor", there seems to be no requirement for the distributor to pay any avoided transmission charges, resulting from the connection of distributed generation, to the distributed generator. This is clearly inconsistent with policy objectives of distributed generation in the Code and the IM.

54. We have received legal advice on this matter, to the effect that the inclusion of 'market operation service provider' in Schedule 6.4 of the Code is a drafting error. The roles included in the definition of 'market operation service provider' are not relevant to the setting of connection charges for distributed generation. Logically, therefore, the reference should be a reference to the distributor in order for the relevant clauses to make sense. We note that this error goes back

some time, also appearing in the Code's predecessor, the Electricity Governance (Connection of Distributed Generation) Regulations 2007.

55. The EA has already identified this as an issue to be addressed in future changes to Part 6 of the Code:[8]

Ref. #	Relevant part, schedule or clause	Description of proposed change	Purpose of proposed change
23	Clause 2(a) and 3 of schedule 6.4	Consider whether "market operation service provider" is the right definition in this context.	It is not clear why an efficient service provider is a useful yardstick against which to assess distributor operations.

56. It is clear that clause 3.1.3(f) of the IM and Schedule 6.4 of the Code intended to refer to efficient "distributors". It is also clear that the Authority intends to remedy this drafting error in the Code. In any event, it is appropriate for the Commission to amend the IM now, so that clause 3.1.3(f) refers to "distributor". This is because the only way in which the Code could be amended in a way that flows through into the IM is if the Authority changed the definition of "market operation service provider" in Schedule 6.4 to include distributors. However this is very unlikely, given the term is properly used in other parts of the Code.

57. The drafting amendment proposed below would remedy this error.

Proposed drafting fix

58. Vector suggests that the issues identified in this paper can be remedied by the following amendments to clause 3.1.3 of the IM which deals with recoverable costs:

> *(b) a charge payable to Transpower for electricity lines services provided to a non exempt EDB in respect of the transmission system in accordance with the transmission pricing methodology Transpower uses to determine the prices it charges for its services <u>(including annuities payable under Transpower's Prudent Discount Policy)</u>, as specified in the Electricity Industry Participation Code;*
>
> ...
>
> *(f) any amount that does not exceed the transmission costs that <u>a non-exempt EDB</u> ~~an efficient market operation service provider (as 'market operation service provider' is defined in the Electricity Industry Participation Code)~~ is able to avoid as a result of<u>-</u>*
>
> *<u>(i)</u> the connection of distributed generation determined in accordance with Schedule 6.4 of Part 6 of the Electricity Industry Participation Code; <u>or</u>*
>
> *<u>(ii) entering into a Prudent Discount Agreement in accordance with the Prudent Discount Policy in Schedule</u>*

8 Electricity Authority, *Pre-consultation: Connection of distributed generation: An opportunity to submit issues for inclusion in formal consultation on Part 6 of the Code* (11 October 2011), page 14.

<u>*12.4 of the Electricity Industry Participation Code (but net of any annuity payment payable under that Policy).*</u>

<u>*but is equal to the charge payable by a non-exempt EDB to a generator under Schedule 6.4 of Part 6 of the Code or a Prudent Discount Agreement, as the case may be.*</u>

59. These amendments would:

(a) recognise the payments to notionally embedded generators pursuant to PDAs entered into in accordance with the PDP as a recoverable cost, consistent with the Commission's policy of incentivising efficiency-enhancing business arrangements and investment (and, by extension, disincentivising inefficient business arrangements and investment);

(b) ensure that the non-exempt EDB's consumers are no worse off than if there was no notional embedding;

(c) limit an EDB to recovering only those avoided transmission costs that are paid to the generator, effectively leaving the EDB neutral (this is already the requirement for distributed generation under the Code); and

(d) ensure that if payments to the generator are less than the relevant avoided transmission costs, then consumers will benefit from the lower transmission charges;

(e) remedy the drafting error identified above, by removing the reference to "market operation service provider".

60. We believe this proposed wording ensures a sensible and coherent regulatory framework under which the PDP flows through the IM.

61. The proposed amendment is sought to amend the IM so that it accurately reflects the Commission's policy as outlined above. It does not, therefore, require any change in the Commission's policy. Accordingly, Vector considers that this amendment to the IM is not a "material change" in the context of section 52X.

62. Vector does, however, consider that it would be appropriate for the Commission to consult with the Authority on this matter, given that the PDP is part of the Code, and that the Memorandum of Understanding between the Commission and the Authority encourages cooperation on such issues. For this reason Vector intends to approach the Authority for its views on this matter.