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16 March 2012

Submission on barriers facing small-scale distributed generation

1. Vector welcomes the opportunity to respond to the Retail Advisory Group's consultation paper entitled *Investigating barriers facing small-scale distributed generation: Discussion paper* (the "consultation paper").
2. Vector's contact person for this submission is:
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3. Appendix A contains Vector's responses to the specific questions asked in the consultation paper.

General comments

4. In this section, we set out our overall views regarding the issues discussed in the consultation paper. More detail is provided in Appendix A.
5. Vector supports the removal of barriers to entry to the small-scale distributed generation ("DG") market and we support any efficient proposals in that regard.
6. Vector considers that the consultation paper provides a useful contribution to the analysis of the commercial and regulatory environment in which current and potential DG owners must operate. The problem definition in the paper is reasonable and much of the analysis is well developed. However, we have some concerns with the proposed definition of barrier to entry and do not find

the discussion of an appropriate price for distributed generation output to be compelling.

7. While the consultation paper generally identifies and considers potential barriers to entry well, it would be useful if the Retail Advisory Group reached a clear view and recommendation of what (if any) the barriers to entry are and what could or should be done to remove any barriers. A rather broad recommendation to do further work is unlikely to be as helpful to the Electricity Authority ("Authority").
8. The discussion in section 6.3 of the consultation paper summarises various possible positive externalities that may be created by DG. The summary is useful but we note that some of the identified benefits are at best uncertain or difficult to quantify. Vector agrees with the consultation paper that at least some of the possible positive externalities fall outside of the Authority's responsibilities.
9. Vector also suggests that the Authority ensure that this workstream is co-ordinated with the broader review of Part 6 of the Electricity Industry Participation Code. There are crossovers between the two workstreams and we consider that a process which can take a comprehensive view of DG regulation would be preferable to two separate processes considering different aspects in isolation.

Yours sincerely,



Bruce Girdwood
Manager Regulatory Affairs

APPENDIX A: ANSWERS TO SPECIFIC QUESTIONS

Question	Response
<p>1. Is the scope referred of this paper broad enough to address the concerns associated with barriers facing small-scale DG reflected in the Ministerial Review Cabinet Paper taking into account the separate review of Part 6?</p>	<p>Vector considers the scope of the paper is appropriate, and more consistent with the Authority's statutory objective than the original Ministerial expectation.</p>
<p>2. Is a focus on small-scale solar PV adequate for the assessment of barriers facing all forms of small-scale DG?</p>	<p>Solar PV is the most prevalent form of small-scale DG in New Zealand so it is an appropriate focus for the paper.</p> <p>It would be useful to identify areas where the conclusions reached for solar PV do not apply to other types of known small-scale DG.</p>
<p>3. Are the questions set out in the problem definition in paragraph 3.1.1 the right questions for the purpose of addressing the given scope?</p>	<p>Yes.</p>
<p>4. Do you agree that the three markets defined in section 5.2 are the right approach to considering whether there are barriers to entry for small-scale DG?</p>	<p>Yes.</p>
<p>5. Do you agree with this definition of barriers to entry in the context of analysing the entry of small-scale DG to the market(s)?</p>	<p>Vector prefers the more established definition of barriers to entry, for example that used by the Commerce Commission in its Mergers and Acquisitions Guidelines and quoted in paragraph 3.3.3 of the consultation paper.</p> <p>We find the Retail Advisory Group's proposed definition rather confusing. For example, just because a cost may be able to be labelled a social cost does not mean it is a barrier to entry.</p> <p>Also, the example mentioned in paragraph 3.3.5 is not a good example of a barrier to entry. Connection standards should be applied in the same way to all DG operators (for example, where connection standards set safety requirements they must apply to all participants).</p>

	They therefore apply to both incumbents and new entrants.
6. Does any lines company charge a separate connection charge to a consumer that is also a micro-generator?	On the assumption that there is only a single point of connection, Vector does not do this. We cannot answer for other lines companies.
7. The review of Part 6 is being undertaken separately; do you agree that this will address relevant barriers to entry? Are there any residual issues that should be considered in the context of this paper?	<p>It is feasible that any other issues could be covered in the wider review of Part 6.</p> <p>However, as noted above Vector considers that the two workstreams should be co-ordinated so a broad view of DG regulation can be considered rather than two separate processes considering different aspects in isolation.</p>
8. Would it be possible to have two parties responsible for an ICP depending on the direction of flow?	Not in current Registry settings. There is no ability within the current Registry to allocate two retailers to an ICP.
9. Would it be possible to install a second ICP at a household to allow separation of imports and exports (or does the metering configuration not allow this)?	Yes. It is quite possible to have more than one ICP at a single address. There may be some costs in establishing a second ICP but these would presumably be outweighed by the benefits to any consumer who chooses to establish a second ICP at their premises.
10. Should the Authority consider whether the requirements for sale to the Clearing Manager create a barrier to entry for DG?	<p>In the context of considering barriers to entry for DG, there is no clear reason not to consider a possible barrier. It may well be concluded that the Clearing Manager arrangements are appropriate, but that is a view that should be reached after due consideration.</p> <p>Indeed, it seems that some of the necessary analysis has already been done in order to develop the consultation paper. There is no obvious harm that would be caused by considering the matter further.</p>
11. Should the visibility or lack of visibility, of contract terms be considered to be a barrier to entry?	An investment in distributed generation is a substantial step, involving research of the best option available, outlays of several thousand dollars and arrangements for installation that may involve some level of construction work on the property.
12. Should the variability of	

<p>terms and conditions for small-scale DG be considered a barrier to entry?</p>	<p>It seems improbable that a party who is willing to undertake such steps would be significantly dissuaded from making a DG investment by variability in retailers' terms, or the need to actively contact a retailer whose terms were not available on their website to find out what their terms are.</p> <p>Further, given the impact on the consumer's energy use that would be created by a DG installation, it seems likely that the consumer would re-assess its electricity retail offerings in the light of the new investments and seek a retailer that can offer the best terms for DG. In that sense, there is a competitive market in offerings for DG-generated electricity that retailers can use as a means of attracting niche customers by offering better prices and/or clearer information. It is unclear why this would be a barrier to entry.</p>
<p>13. Should required metering arrangements for DG be considered a barrier to entry?</p>	<p>We note that there are a number of retailers that offer a service that includes smart meters and that the smart meter roll-out is progressing well.</p> <p>If a consumer does not have a smart meter installed when they install the DG, they may either pay for a meter to be installed or switch to a retailer that can provide a smart meter.</p> <p>It is also necessary for the operation of the market for the output of a DG installation to be accurately measured.</p> <p>On that basis, we do not consider the metering requirements to be a barrier to entry.</p>
<p>14. Is it useful to compare the liability under the regulated terms for a consumer's connection with the provisions for connection of DG as per Schedule 6.2?</p>	<p>This seems to be an obvious comparison to make.</p>
<p>15. What is the likely scope of events to which unlimited liability would apply?</p>	<p>No comment.</p>
<p>16. Is this the appropriate handling of the tax issue with respect to the question of barriers</p>	<p>Vector sees no reason why income from selling DG-generated electricity should be exempt from income tax.</p>

facing investment in small-scale DG?	We agree that this is not an issue for the review of barriers to small-scale DG.
17. Should contract length be considered a barrier to entry as defined?	<p>No.</p> <p>Just because some DG operators would like a type of contract which is not currently available in the market, that does not create a barrier to entry.</p> <p>The lack of long-term contracts would presumably apply to both new entrants and incumbents and is therefore not a barrier to entry.</p>
18. Is the description of the system costs that small-scale DG faces correct?	<p>Vector is unclear what the question refers to as the discussion preceding this question focuses on the potential impact on the costs of other market participants from small-scale DG installation and the price that should be paid for DG-generated electricity, rather than the costs faced by small-scale DG itself. We therefore respond to this question in line with the discussion preceding it in the consultation paper.</p> <p>Paragraph 4.13.2 seems to be saying that the transmission and distribution components of the electricity bill make up around 60% of the retail price. This is not correct (and may be due to a typographical error). The generation and transmission components generally comprise around 45% of the retail price.</p> <p>However, the analysis in the paper that suggests paying a large proportion of the retail price to distributed generators may not be socially optimal is reasonable.</p> <p>Vector agrees it would in many instances be inefficient for the small-scale DG operator to be paid for avoided transmission or distribution costs "as there is no avoided cost".¹</p> <p>The suggestion that it may be inefficient for a retailer to pay a DG operator more than the generation price is in our view correct, but for different reasons than those expressed in the consultation paper.</p> <p>If there is no regulation of the price retailers pay for electricity supplied by small-scale DG, then the price would be set by the market. As the consultation paper identifies, there is a range of</p>

¹ Consultation paper, paragraphs 4.13.6 and 4.13.7.

	<p>prices that are offered by retailers for exported DG electricity and this presumably reflects the different values placed on the product by the retailers.</p> <p>If retailers were refusing to purchase DG-generated electricity then that could create an access problem in the market that would justify the setting of regulated terms. However, this does not appear to be occurring.</p> <p>If a DG operator could offer electricity to retailers at a price that is below the generation price, that offer would presumably be attractive to retailers.</p> <p>However, any attempt to require retailers to pay more for DG-generated electricity than they would pay for grid supplied electricity would create a subsidy for DG. While a subsidy would be likely to increase the amount of small-scale DG that is installed, any such subsidy would need to be clearly justified as necessary to deliver a public good.</p>
<p>19. Do you agree with this explanation of the market for delivered energy?</p>	<p>No comment.</p>
<p>20. Do you consider there are any additional elements that should be considered?</p>	<p>No. The range of issues considered by the Retail Advisory Group appears to be comprehensive.</p>
<p>21. Should the EA investigate barriers for larger scale DG especially where there is a high potential for net generation back into the distribution network?</p>	<p>If this is considered, it should be in the context of the wider Part 6 review.</p>