

## Further Submissions of Powerco Limited regarding the Proposed National Policy Statement for Renewable Electricity Generation

### 1. Introduction

1.1 The Board of Inquiry posed a number of questions to Powerco in consideration of the proposed National Policy Statement for Renewable Electricity Generation (**NPS**). These were:

- (a) Was Powerco's suggested amendment to Policy 2 sufficient to address concerns that electricity distribution assets, other than those owned by Transpower, have no specific regulatory support under the Resource Management Act 1991 (**RMA**)?
- (b) What was Powerco's view of the 4 megawatt threshold for "small and community-scale distributed generation"?
- (c) What were Powerco's views on potential legal instruments to support "small and community-scale distributed generation"?

1.2 The Board had heard from Meridian on a number of related points and suggested Powerco consider Meridian's proposals. Powerco has looked at Meridian's proposal to revise Policies 2 and 4 and where relevant has aligned its suggestions with the approach put forward by Meridian. There are some small but important deviations from that approach which are explained below.

1.3 In addressing these matters Powerco has also considered a number of other points. These are:

- (d) Is it useful to distinguish between "small and community-scale distributed renewable generation" and other renewable generation?
- (e) Is it useful to include the word "distributed" in the description of small and community-scale distributed renewable generation?

1.4 Powerco appreciates the opportunity to comment on these points.

### 2. **Point (a) - Was Powerco's suggested amendment to Policy 2 sufficient to address concerns that electricity distribution assets, other than those owned by Transpower, have no specific regulatory support under the RMA?**

2.1 Powerco suggested an additional clause for Policy 2 to address the constraints around the nature and location of network connection assets. The wording below is an amalgamation of Meridian's proposed approach and Powerco's additional clause v. Meridian's wording is underlined and Powerco's additions are underlined and highlighted.

2.2 Proposed revision of Policy 2:

Recognising the national significance of the benefits of renewable electricity generation activities

When considering whether or not to grant consent to applications or to require measures to avoid, remedy or mitigate the adverse environmental

effects of renewable electricity generation activities, consent authorities must have particular regard to the technical and operational constraints of, and the physical constraints upon, renewable electricity generation activities and the associated connection assets, including, as arising from:

- (i) The nature and location of the renewable energy source
- (ii) Logistical or technical practicalities associated with development, upgrading, operating or maintaining the proposed or existing renewable electricity generation activity
- (iii) The nature and location of existing renewable electricity generation activities and any benefits in terms of efficiency and effectiveness of integrating new or upgraded renewable electricity generation with existing activities
- (iv) the location of existing structures and infrastructure including, but not limited to, roads, navigation and telecommunication structures and facilities, the local electricity distribution network, and the national grid
- (v) the nature and location of electricity distribution or transmission assets required to connect renewable electricity generation to the electricity network.

2.3 While considering Meridian's proposals relating to Policy 2 it is also necessary to comment on its proposals to Policy 4.

2.4 Meridian proposed changes to the NPS which ensure clearer guidance to council decision makers on how to enable renewable electricity generation. Powerco supports the general approach proposed by Meridian although it does not agree with the content of all of the proposed sub-clauses. Powerco does support clauses i and v and the content of clause vi, although it has proposed a redrafted version of clause vi for the sake of clarity. Meridian's suggested rewording does not distinguish between distribution, sub-transmission or transmission networks on Policy 4.

2.5 Proposed revision of Policy 4:

Enabling renewable electricity generation, through policy statements and plans.

In achieving the purpose of the Act, by 13 March 2012 local authorities are to notify, in accordance with Schedule 1 of the Act, a plan change, proposed plan or variation to policy statements and plans to provide for the following:

- (i) objectives, policies and rules to give effect to the objectives and policies of this NPS
- (ii) ..
- (iii) ..
- (iv) ..
- (v) Enabling activities associated with the development and operation of small and community-scale distributed renewable electricity generation

(vi) Facilitating the connection of renewable electricity generation activities to the electricity network.

(cf: Meridian proposing "...connection ... to the local electricity distribution network and/or the national grid")

3. **Point (b) - Is the 4 megawatt threshold for “small and community-scale distributed renewable generation” appropriate?**
  - 3.1 The definition of “small and community-scale distributed renewable electricity generation” refers to renewable generation projects with an installed capacity of less than four megawatts. The Board was interested to hear Powerco’s view on whether this was an appropriate threshold and/or whether it would be more appropriate to consider the environmental effects of generation as a threshold.
  - 3.2 Powerco prefers an objective prescribed threshold of megawatts to a definition described by reference to effects.
  - 3.3 Firstly, it would be no simple task identifying what are the various appropriate levels of environmental effects to constitute small and community-scale distributed renewable electricity generation. For instance there is significant variation of effects from different forms of generation, which would also vary in different receiving environments.
  - 3.4 Secondly, an effects based approach provides an opportunity for experts to disagree about the extent of effects and therefore application of the NPS could potentially depend on agreement or litigation around the acceptance of a particular threshold. The creation of such an additional litigious burden would not encourage the development of renewable energy.
  - 3.5 Thirdly, from a technical perspective the four megawatt threshold is appropriate. When connecting 4 megawatts or less of generation to a distribution network it is possible it could be connected to the local 11kV distribution network depending on how far from a source of load it was located. If the generation was some distance from the load it may need to connect at 33kV however this is still a distribution network asset and therefore would be considered embedded (distributed) within a local network and provide the benefits of small or community-scale distributed generation.
  - 3.6 Powerco notes that the Electricity Governance (Connection of Distributed Generation) Regulations 2007 (**DG Regulations**) distinguish between distributed generation (**DG**) of a value up to 10 kilowatts and DG above 10 kilowatts. However, the threshold of 10 kilowatts does not relate to a scale of environmental effects. It merely reflects increasing complexity involved in managing network connections as the capacity of DG increases. The process for connecting DG with less than 10 kilowatts capacity is simpler than the process for connecting DG with a greater capacity, hence the threshold for the purpose of DG regulations. In Powerco’s view there is no logical rationale to align the NPS threshold with the threshold in the DG Regulations.
4. **Point (c) - Is it useful to distinguish between “small and community-scale distributed renewable generation” and other generation?**
  - 4.1 Powerco has some experience with small-scale generation, through its interest in promoting remote access power systems but it has not undertaken

an extensive exercise to identify the methods that could be used to streamline the consenting process for small and community-scale generation. Similarly it has not canvassed the range of consenting issues likely to arise for small-scale renewable generation. It is however aware that environmental planning and consenting issues can be a barrier to people looking to invest in small-scale generation.

4.2 In Powerco's view it is useful for the NPS to recognise and provide for the more limited environmental effects associated with smaller scale generation.

4.3 The suggested revision to Policy 4 set out above makes the distinction between small and community-scale renewable electricity generation and larger scale renewable generation less significant. Policy 5 of the NPS would no longer be required as it would be encompassed in Policy 4. Councils would be required to amend policy statements and plans to provide for all of the objectives and policies of the NPS. This contrasts with the current position where Policy 5 of the NPS only requires local authorities to amend policy statements and plans: "to enable activities associated with the development and operation of small and community-scale distributed renewable generation".

4.4 On the basis that environmental effects from small-scale renewable generation are significantly smaller than the effects of larger developments, Powerco submits there is merit in distinguishing between small and community-scale renewable generation and other renewable generation within the RMA context. This justifies an RMA instrument which goes beyond amending regional policy statements and plans to facilitate a faster take-up of small-scale renewable generation. The development of a National Environmental Standard (**NES**) for small and community-scale generation is considered below.

5. **Point (d) - What are Powerco's views on potential legal instruments to support "small and community-scale distributed renewable generation"?**

5.1 A NES which prescribed acceptable standards for particular activities associated with small and community-scale renewable generation would be one way of providing assistance to developers of small-scale renewable generation. However, the range and scale of effects from renewable generation varies greatly for different forms of renewable energy and different locations. This would make it difficult for a NES to be overly prescriptive. That said, a NES could be a vehicle to provide nation wide rules on a range of matters relevant to small-scale renewable generation.

5.2 Despite the comments made above the appropriate threshold for generation captured by a NES may be lower than 4 megawatts. Powerco considers the 10 kilowatt threshold included in the DG Regulations would be appropriate in that it would represent truly small and community-scale generation with a very different scale of the effects from a 4 megawatt generation plant. A 10 kilowatt threshold for a NES would also overcome concerns that developers could use more lenient environmental planning provisions for small and community-scale generation to create a number of different projects (say three hydro generation projects of 4 megawatts each rather than one 12 megawatt project) to avoid the environmental planning provisions that would apply to larger projects.

5.3 Some of the issues which could be considered in preparing a NES include (but are by no means limited to) the following:

- (a) An acceptable threshold for water takes, diversion and abstraction in a range of different receiving environments.
- (b) Acceptable distances for diversion as micro-hydro diverts small amounts of water over relatively short distances.
- (c) Management of fish barriers.
- (d) Acceptable thresholds for effect on amenity values of micro-wind turbines.
- (e) Consideration of a new consent category(ies) for small-scale renewable generation to reduce the need for multiple consenting for small projects. For example three consents are often required for a micro-hydro generator (diversion, structure at intake, structure at return point). This would require a fundamental reconsideration of the activities listed in the RMA requiring consent.
- (f) Recognition of the limited role of thermal back up generation. Renewable generation is often (if not usually) intermittent and requires some form of thermal backup, for example from a diesel generator in order to ensure stable and ongoing levels of quality and security. The use of thermal generation is clearly not anticipated by the NPS but to make small and community-scale renewable generation viable it may form part of the generation mix.

6. **Point (e) - Is it useful to include the word “distributed” in the description of small and community-scale distributed renewable generation?**

6.1 As a further point of interest Powerco questions the value of including the word “distributed” the description of small and community-scale generation. It is Powerco’s understanding that the term distributed generation refers to generation connected to distribution networks rather than connected directly to the national grid. The generation of four megawatts or less is unlikely to be directly connected to the national grid, meaning small and community-scale generation will by its very nature be distributed.

6.2 The term is not defined in the NPS. There may be an unintended consequence of using the term “distributed”. Potentially stand-alone, small and community-scale generation (i.e. generation that is not connected to any network) would not be captured by Policy 5 or any other policy seeking to promote small and community-scale renewable generation. That result would not be consistent with the understood intentions of the NPS. Accordingly, Powerco submits that deleting the word “distributed” from description of small and community-scale generation would address this anomaly and would not detract from the meaning of Policy 5.

7. **Conclusion**

- 7.1 The NPS has an important role to play in the development of renewable energy in New Zealand. Powerco appreciates the thoughtful consideration that the Board of Inquiry is giving the issue. It trusts that the above assists, however, if Board would like any further clarification Powerco would be pleased to assist.



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For and on behalf of Powerco Limited  
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