

16 April 2009

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Energy & Communications Branch  
Ministry of Economic Development  
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*Sent via email only to [electricity@med.govt.nz](mailto:electricity@med.govt.nz)*

## **Submission on the Draft Government Policy Statement on Electricity Governance – February 2009**

1. Thank you for the opportunity to comment on the draft of the revised Government Policy Statement on Electricity Governance (**GPS**). The New Zealand Wind Energy Association (**NZWEA**) has the following comments with respect to this draft and requests that these be considered in the preparation of the final version of the new GPS.
2. While NZWEA has sought and received input into this submission from its members, the views of NZWEA may not necessarily reflect the views of each individual member.

### **General scope of revisions**

3. NZWEA supports the intent of the revisions to emphasise the high priority of security of supply and to facilitate small grid investments through the streamlining of the approval process.
4. NZWEA also recognises the new Government's intention to review the New Zealand Energy Strategy (**NZES**) and related documents, and so the related removal of references to the existing NZES from the GPS. The removal of these references from the GPS does not appear to have affected the alignment of the GPS with s172N of the Electricity Act 1992.

### **Section 2 - Security of supply**

5. Paragraphs 13 & 14 of the draft GPS identify the security of supply objective for the Electricity Commission as the achievement of a sufficient 'winter energy margin' (the amount by which forecast energy supply in a mean hydro year exceeds forecast demand), with this being 17% for New Zealand overall and 30% for the South Island.
6. This requirement is identified as being an issue primarily of energy supply (i.e. GWh) rather than capacity (i.e. MW) and on the timeframes related to hydro sequences (i.e. "hydro years") rather than shorter timeframes such as the instantaneous response to contingencies or the ability to meet daily demand fluctuations (both of which are essentially covered under section 7. 'Transmission').
7. Wind energy - especially over the timeframes envisaged in the 'winter energy margin' - is a much more reliable source of energy than hydro. While it is not unusual for catchments to go for weeks without rain, it is unusual for a wind farm site to go for more than a day without sufficient wind to generate electricity. This is demonstrated by

Transpower data that shows that the existing wind farms in the Manawatu are generating electricity for just over 94% of the time.<sup>1</sup>

8. Wind energy's contribution to energy margins will also increase with increasing geographic diversity, as wind generation expands beyond its existing concentration in the Manawatu.
9. In these respects, wind energy represents an important contribution to energy supplies, increasing energy margins and reducing the risks associated with dry years.
10. Accordingly NZWEA requests the following change in paragraph 11 of the draft GPS that discusses the "*key requirements for security of supply, and confidence in security of supply*" (or alternative changes with similar effect):
  - *The system has sufficient capacity (plant and fuel and/or demand response) to cope with extreme dry sequences, ~~periods of low wind speed~~ and other ~~unexpected supply disruptions~~ factors affecting winter energy margins.*

## Section 5. – Renewable Energy

11. We agree that the significance of renewable energy to New Zealand's electricity supply warrants its inclusion as a key objective of the GPS. However the removal of references to the NZES does mean that the GPS does not identify the likelihood that the majority of New Zealand's future generation will come from renewable sources (that had previously been identified by the "90% target" of the NZES). The MED's own analysis suggests that, "*on the basis of existing known gas reserves, a supply demand/gap is likely to emerge towards the end of the next decade*".<sup>2</sup> Modelling conducted by the MED (and a number of other parties) has also shown that coal-fired generation is expected to be significantly more expensive than generation from renewables.
12. We assume that there will be a further revision of this GPS following the completion of a new NZES later this year. There may however be some benefit in including a statement that identifies the significant contribution that renewable energy already makes to New Zealand's electricity supply and the expectation that this will continue to be the case (and will likely increase with the expected increases in demand growth).
13. We note that one of the barriers to renewables investment (paragraph 66) is that competing technologies that emit greenhouse gases do not currently have to pay the price for those emissions. These competing technologies do not bear the "*full costs of producing*" their electricity (as per s172N Electricity Act 1992) and so compete unequally in the market. We note that the Government is reviewing the emissions trading legislation but is expected to impose a price on carbon emissions in some form.
14. We also note the removal of the previous document's paragraph 78 discussing "*Integration issues*" and agree that the investigations conducted by the Electricity Commission have identified that significant amounts of wind generation can be integrated into the electricity system without risks to security of supply, system

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<sup>1</sup> Taken from the output duration curve for the Manawatu wind farms that was included in the presentation 'Reviewing the effects of wind generation - three years on' by Graeme Ancell of Transpower at the New Zealand Wind Energy Conference, 9 April 2008. Available at <http://www.windenergy.org.nz/events/conferences/NZWEC08/conference08.html>

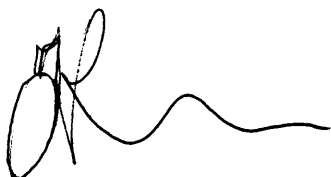
<sup>2</sup> MED, 'Vote Energy: Briefing for the Incoming Minister 2008', November 2008 at paragraph 37.

reliability and system costs, and that the Commission's current projects relating to wind generation are all now fully integrated into their general work programme.

## Section 7. – Transmission

15. NZWEA agrees with the intention to streamline the investment process for smaller grid upgrades, which could potentially help to facilitate new wind energy investment.
  16. We are unsure of the reasoning behind the \$20m threshold (which could conceivably be higher or lower) but will leave it to other parties with greater involvement in grid investment processes to identify if another threshold would be more appropriate.
  17. We also note that the Electricity Commission will still be required to approve the projects, while not 'assessing or evaluating their merits'. We presume the expectation is that the Commission and Transpower will agree a process that Transpower should follow in completing the application in order for it to be approved?
  18. NZWEA also remains concerned about the process and timing for completing investment in new, larger scale transmission projects that would help to unlock new renewable generation potential and suggests that further review and consideration is required of the investment process for these projects.
  19. NZWEA also believes that the "*Planning ahead*" section of this part of the GPS would also benefit from a reference to paragraph 66, that recognises that "*grid planning processes and approval criteria should allow grid upgrade plans to facilitate the efficient and timely development of renewable generation resources, taking into account any difference in lead times for transmission and generation investment*".
20. Please feel free to contact me if you would like to discuss any element of this submission further.

Yours sincerely,



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## Appendix - About the New Zealand Wind Energy Association ('NZWEA')

1. The New Zealand Wind Energy Association (**NZWEA**) is a membership-based industry association that works towards developing wind as a reliable, sustainable, clean and commercially viable energy source. Our membership includes 78 companies involved in the New Zealand wind energy sector, including:
  - all of the major electricity generator-retailers (Contact Energy, Genesis Energy, Meridian Energy, Mighty River Power & TrustPower);
  - a number of other local and international independent electricity generators;
  - Transpower and several lines companies;
  - a number of major international wind turbine manufacturers;
  - representatives of New Zealand's rapidly growing turbine manufacturing and wind farm operations and maintenance industries; and
  - a range of other companies with interests across the entire value chain from site evaluation through to operations.
  
2. NZWEA's Mission and Objects are set out in the Association's Rules under the Incorporated Societies Act 1908 as follows:

**Mission**  
The mission of the Association is to promote the uptake of New Zealand's abundant wind resource as a reliable, sustainable, clean and commercially viable energy source.

**Objects**  
The objects of the Association are to achieve its mission ... by means of:

  - (a) policy advocacy with local and central government officials and elected representatives, regulatory bodies, industry groups and other interested organisations to raise the awareness of, and develop the concept of Wind Energy in New Zealand;
  - (b) organising seminars, conferences and other promotional and educational events, and to distribute information, relating to Wind Energy in New Zealand;
  - (c) providing a forum for external and internal networking, discussion and co-operation amongst persons with an interest in Wind Energy in New Zealand;
  - (d) promoting the economic, environmental, social and other benefits of Wind Energy in New Zealand; and
  - (e) promoting research and development of Wind Energy technology in New Zealand.
  
3. Further information on NZWEA, its members and activities, and the New Zealand wind energy industry in general is available on the Association's website: [www.windenergy.org.nz](http://www.windenergy.org.nz).