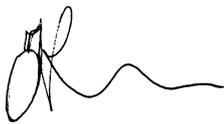


**SUBMISSION ON THE PROPOSED NATIONAL POLICY STATEMENT  
FOR RENEWABLE ELECTRICITY GENERATION  
BY THE NEW ZEALAND WIND ENERGY ASSOCIATION**  
*Pursuant to section 49, Resource Management Act 1991*

**To: Board of Inquiry**  
**C/o PO Box 10 362**  
**WELLINGTON 6143**

1. This is a submission on the Proposed National Policy Statement on Renewable Electricity Generation (*the Statement*) by the New Zealand Wind Energy Association (NZWEA).
2. NZWEA's submission relates to all provisions of the Statement.
3. NZWEA's submission is set out in Parts 1, 2, and 3 of this document
4. The changes sought by NZWEA are set out in Parts 2 and 3 of this document.
5. NZWEA wishes to be heard in support of this submission.
6. If others make a similar submission, NZWEA will not consider presenting a joint case with them at a hearing.

Signature of person authorised to sign on behalf of NZWEA:



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Date: 31 October 2008

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## Part 1 Background

### New Zealand Wind Energy Association

- 1.1 The New Zealand Wind Energy Association ('NZWEA') promotes the responsible, sustainable and significant uptake of New Zealand's abundant wind resource as a reliable, renewable, clean and commercially viable energy source.
- 1.2 NZWEA is a non-Governmental, non-profit organisation. Our activities are funded by our members and by industry events such as our annual conference.
- 1.3 NZWEA's main activities include:
  - (a) Policy advocacy with local and central government and regulatory bodies such as the Electricity Commission;
  - (b) Organising conferences, seminars and other educational events;
  - (c) Promoting the economic, environmental, social and other benefits of wind energy through, for example, the media and schools; and
  - (d) Providing a forum for external and internal networking and co-operation amongst the wind energy industry and its members.
- 1.4 NZWEA was formed in 1997 but its membership has grown most rapidly in recent years as the industry itself has expanded. Membership now includes around 80 companies and organisations that represent a wide range of interests.
- 1.5 NZWEA's members include:
  - (a) electricity generators and retailers
  - (b) international and local wind farm developers
  - (c) Transpower
  - (d) lines companies
  - (e) international and local turbine manufacturers
  - (f) engineering, planning and specialist wind energy consultancies
  - (g) law firms
  - (h) construction companies and engineering service providers
  - (i) Government (EECA) and local government bodies
- 1.6 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.

## Importance of Electricity to New Zealand

- 1.7 New Zealand's dependence on energy – and electricity generation in particular – is undisputed, as is illustrated in the following quotes:

*Energy is an essential part of almost all our industrial, commercial, transport and household activities. (Ministry for the Environment, "Environment 2007"<sup>1</sup>)*

*A secure and reliable system of electricity generation and transmission is a crucial component of a modern, prosperous society. ("National Policy Statement on Renewable Electricity Generation Section 32 Report"<sup>2</sup>)*

*Electricity is a vital resource for New Zealand. There can be no sustainable management of natural and physical resources without energy, of which electricity is a vital component. (Genesis Power Ltd and Anor v Franklin District Council (A148/05)<sup>3</sup>)*

*From a national level, electricity is an essential commodity to New Zealand households (directly they spend in excess of \$2 billion on it) and industry. It provides the basis for our economic prosperity and way of life. Unlike in some other countries, electricity cannot be imported, and for some purposes it has no practical alternatives. (Rotokawa Joint Venture Ltd and Mighty River Power Ltd v Waikato Regional Council (A41/07)<sup>4</sup> at paragraph 422)*

## Climate Change, Energy Security and Government Policy

- 1.8 It is now globally accepted that human activities are increasing the level of greenhouse gases in the atmosphere, and that these gases are in turn contributing to climate change. The Government has recognised this fact, and placed the energy sector at the forefront of the response to climate change issues through its early entry into the emissions trading scheme (through the Climate Change Response (Emission Trading) Amendment Act 2008 and its legislation to restrict non-renewable baseload generation (Electricity (Renewable Preference) Amendment Act 2008)).
- 1.9 Further actions to encourage the uptake of renewable energy in response to both the issue of climate change and the need for a secure electricity supply are identified in the New Zealand Energy Strategy (NZES)<sup>5</sup>, the New Zealand Energy Efficiency and Conservation Strategy (NZECS)<sup>6</sup>.
- 1.10 These two strategies place a strong emphasis on the importance of renewable energy, most significantly noting that "the government has set a target for **90 per cent of electricity to be generated from renewable sources by 2025** (based on an average hydrological year)" (Emphasis added)

<sup>1</sup> At page 104.

<sup>2</sup> At page 1.

<sup>3</sup> At paragraph [64].

<sup>4</sup> At paragraph[422]

<sup>5</sup> 'New Zealand Energy Strategy to 2050', Ministry of Economic Development, October 2007. Available at [http://www.med.govt.nz/templates/MultipageDocumentTOC\\_31948.aspx](http://www.med.govt.nz/templates/MultipageDocumentTOC_31948.aspx)

<sup>6</sup> New Zealand Government, 'New Zealand Energy Efficiency and Conservation Strategy (2007)', October 2007. <http://www.eeca.govt.nz/about/national-strategy/nzeecs-index.html>.

- 1.11 The seriousness of the issue of climate change is already identified in the RMA context through the addition of section 7(i), obliging those exercising RMA functions and powers to have particular regard to the effects of climate change.
- 1.12 The NZES identifies that increased use of renewable sources of electricity generation contributes to security of supply by reducing reliance on fossil fuels (which also provides insulation against rising fuel costs), and by increasing the diversity of sources and location of supply in the electricity system (and reducing our dependence on hydro generation, thus lowering dry year supply risks). The Section 32 Report recognises the need for a secure electricity supply.
- 1.13 It is crucial then that the Statement reflects the policy commitment to meeting the challenges of climate change and ensuring a secure electricity supply through the development of renewable electricity generation.

### **Existing recognition of renewable electricity in the RMA**

- 1.14 Recent amendments to the RMA has seen “the benefits to be derived from the use and development of renewable energy” added as section 7(j) as a matter that persons exercising powers and functions should have particular regard to. The amendment did not specify the benefits, and the subsequent case law has been inconsistent in recognising the benefits of renewable electricity generation. This is discussed further in Part 2 and Part 3 of this submission.

### **Future Electricity Demand**

- 1.15 Historically, New Zealand has experienced steady growth in electricity demand. This steady growth is expected to continue. Even factoring in significant energy efficiency gains as a result of the NZEECS, the NZES notes (for example on page 72) that electricity demand is expected to continue to grow at 1.3% per year (compounding) until 2025.
- 1.16 The Ministry of Economic Development’s “New Zealand Energy Quarterly” indicates that renewables provided around 65% of New Zealand’s total electricity generation of 42,393 GWh in 2007.<sup>7</sup>
- 1.17 This means that if New Zealand is to achieve the 90% renewables target by 2025, the average amount of new renewables generation required each year is approximately 1,150 GWh per year. Based on the average performance of all of New Zealand’s existing renewable generation, this would require the installation of approximately 250 MW of new renewable generation every year – a figure that highlights the need to enable projects of all scales, but especially large scale renewable generation projects, which make the greatest contribution to meeting this demand.<sup>8</sup>

<sup>7</sup> Ministry of Economic Development’s ‘New Zealand Energy Quarterly – December Quarter 2007’, available from [www.med.govt.nz/energy/data/electricity](http://www.med.govt.nz/energy/data/electricity)

<sup>8</sup> Both the 1150 GWh and 250 MW figures can be reached by relying on data from the Energy Quarterly, above note 7.

## New Zealand's Wind Electricity Resource

- 1.18 A number of recent studies have attempted to quantify the extent of the New Zealand wind energy resource. The most recent of these was conducted by Connell Wagner for the Electricity Commission as part of the Commission's Transmission to Enable Renewables project. The Connell Wagner study identified 50,780 GWh of viable generation potential based on available wind speeds. That study did not, however, consider all of the constraints that will affect the ability of that potential to be realised. As a reference, New Zealand's total electricity generation from all sources in 2007 was about 43,000 GWh.
- 1.19 There are no support mechanisms for wind energy in the electricity market and it competes directly in that market with all other sources of generation, both renewable and non-renewable. Wind energy's economics are subject to a wide range of variables and the presence of the extensive resource described in the Connell Wagner study does not translate into an equivalent scale of consentable and economic projects.
- 1.20 The Statement needs to allow those limited sites that can be advanced to do so.

## Public Support for Wind Energy Generation

- 1.21 In a survey conducted by AC Nielsen for EECA in 2008,<sup>9</sup> 89% of New Zealanders believed that wind electricity generation would have a positive impact on New Zealand's energy use in 5 years time. 88% supported wind farms in New Zealand, and 75% stated they would not object to wind farms being located within 2 kilometres of their homes.

## Conclusions

- 1.22 In a recent wind energy related decision, the High Court stated:<sup>10</sup>

*This Court recognises the notorious fact that there is an ongoing risk of the demand for electricity not being matched for supply. This past winter and previous winters there have been low levels of stored water in the hydroelectric systems. The Court also takes cognisance of the notorious fact that where supply cannot match demand in electrical systems there has to be a partial shutdown of the distribution networks. For these reasons it is in the public interests for power supply companies to increase generating capacity. The question is not whether generating capacity should be increased but rather by what means and where.*

- 1.23 This passage ties together the threads of the challenge the Statement must address. Electricity is crucial to our way of life, and to the sustainable management of our resources. For our economy to grow, electricity supply must increase. In order to avoid reliance on non-sustainable forms of generation, much of the increase in supply must be met by non-traditional forms of renewable electricity, such as wind. The key aim for the Statement must therefore be to encourage the expansion of renewable

<sup>9</sup> "Public Perceptions of Renewable Energy", EECA, May 2008, available at <http://www.eeca.govt.nz/renewable-energy/documents/renewable-energy-nielsen-research-report-may-08.pdf>.

<sup>10</sup> *Upland Landscape Protection Society Incorporated v Central Otago district Council* HC, CIV-2008-412-302, 16 September 2008, Fogarty J at [64].

electricity generation. The remainder of this submission provides suggestions as to how the final Statement might better achieve that goal.

## Part 2 General Issues

- 2.1 NZWEA has a number of general submissions that it would like to make before commenting on the specific objective and policies in the draft Statement. The reasoning behind these general submissions is then largely incorporated in the suggested changes to the specific policies in Part 3 of the submission.
- 2.2 NZWEA strongly supports developing a National Policy Statement to promote the development, upgrading, maintenance and operation renewable electricity generation activities throughout New Zealand. However, NZWEA does not consider that the Statement, as presently drafted, will achieve its objective.
- 2.3 The development of the Statement is a critical opportunity to show national leadership to efficiently and effectively guide the development of renewable electricity generation. The second key action included in the New Zealand Energy Strategy 2007 to promote renewable energy is “*using the RMA to provide greater leadership and guidance on consenting renewable energy generation.*”<sup>11</sup> NZWEA believes that the Statement as presently drafted fails to make the most of this important opportunity.
- 2.4 The key questions are why have the Statement and what is it trying to achieve? As already mentioned, New Zealand demand for electricity generation continues to grow. The issue, then, is whether this growth is to be met by new renewable generation or by fossil fuel generation. The Section 32 Report is clear that experience with the development of renewable energy projects to date is that consentability issues threaten the potential for the 90% renewable electricity generation target to be achieved.
- 2.5 As stated in the Section 32 Report,<sup>12</sup> from 1991 to mid 2006, only 17% of generation capacity consented was renewable. If this situation continues, the resulting increase in non-renewable electricity generation will have major negative implications for compliance with our international obligations to reduce greenhouse gas emissions, and lead to increasing exposure to rising costs and scarcity of non-renewable electricity generation fuel sources.
- 2.6 Once constructed, non-renewable generation is typically committed to operation for 20 or more years. Accordingly, enabling the uptake of renewable electricity today will have implications for New Zealand for many more years to come, well beyond the 2025 target.
- 2.7 If New Zealand is serious about achieving the objective contained in the Statement, then the Statement must:
- (a) enable increased levels of renewable electricity generation; and
  - (b) provide meaningful guidance to planners and decision-makers.
- 2.8 These steps must be taken urgently if the 2025 target in the Objective is to be achieved.

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<sup>11</sup> At page 24

<sup>12</sup> At page 2

## Issue One – Insufficient Guidance

### **Issue**

- 2.9 NZWEA submits that present nature of the Statement is too generic and provides insufficient guidance for both planners and decision-makers.

### **Comment**

- 2.10 NZWEA believes that the Statement is too broad to provide meaningful guidance to planners and decision-makers. As quoted above the NZES states that the RMA will be used to provide greater leadership and guidance. The NZES provides more detail on this issue when it states:<sup>13</sup>

*We need to balance the climate change benefits of increasing renewable energy generation against the potential impact on the local environment. We will support this balancing act by giving consent authorities guidance on the trade-offs involved. ....*

- 2.11 In *Motorimu Wind Farm Limited v Palmerston North City Council and Anor (W67/08)*, the Environment Court commented that it “assumed”<sup>14</sup> that the Statement would provide the guidance envisaged in the NZES. Earlier in the same decision, the Environment Court stated that:<sup>15</sup>

*Policy guidance would be helpful to consent authorities and this Court in resolving issues such as the conflict between (supposed) national interest on the one hand and adverse effects on neighbours of wind farms on the other.*

- 2.12 NZWEA considers that guidance to planners will provide for long term consistency within planning documents that will better enable the sustainable management or renewable energy resources. As the Section 32 Report states:<sup>16</sup>

*In short, perhaps due to the relative lack of government guidance, much of the country does not have an explicit policy framework to guide assessment of applications to use and develop renewable energy resources.*

- 2.13 The Executive Summary of the Section 32 Report shows that the focus of the Statement (which is clear from its content) is on decision-makers.<sup>17</sup> However, NZWEA considers the Statement to be so generic and high level that it gives no extra guidance beyond the generic principle that the benefits of renewable electricity generation are in the national interest. Accordingly, the policies provide little more guidance than the existing section 7(j), which is general in nature.

- 2.14 Plans and policy statements are the key day to day management documents of the RMA, yet the Statement lacks meaningful guidance for the planners who develop and utilise those documents. This Statement provides an opportunity to give direction on the inclusion of renewable electricity when these plans are developed.

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13 At page 23

14 At paragraph [350]

15 At paragraph [335]

16 At page 12

17 At page xii

### **Changes Sought**

- 2.15 The new policies and changes to draft policies suggested by NZWEA throughout this submission seek to provide the further guidance to planners and decision-makers NZWEA believes is necessary to address its concerns.

## **Issue Two – Need to Recognise each Type of Renewable Electricity Generation**

### **Issue**

- 2.16 The Statement contains only generic policies, broadly applicable to all forms of renewable electricity generation. NZWEA submits that the lack of policies specific to each form of renewable electricity generation, and the resource each form relies on, fails to recognise and provide for the unique circumstances and sustainable management of each individual resource.

### **Comment**

- 2.17 NZWEA readily accepts that some issues are sufficiently generic to apply to all renewable energy generation sources. For example, it is accepted that all renewable energy sources avoid, reduce or displace greenhouse gas emissions, as reflected in Policy 1(i) of the Statement. However, beyond this high level consistency, the factors and environments that planners and decision-makers need to address when considering, for example, wind, geothermal, hydro, and tidal or wave energy applications, vary greatly. To provide meaningful assistance to planners and decision-makers, the NPS must include specific policies that target each type of generation.
- 2.18 This approach would be consistent with the RMA definition of renewable energy, being:<sup>18</sup>

*Energy produced from solar, wind, hydro, geothermal, biomass, tidal, wave, and ocean current sources*

- 2.19 The differences between the various forms of renewable generation were noted in *Upland Landscape Protection Society v Clutha District Council and Ors (C85/2008)*, where the Environment Court commented that “*not all these issues [being the matters to consider for any renewable energy consent application] may be relevant to each type of generation facility.*”<sup>19</sup> In the *Motorimu* decision the Environment Court took this further when it commented:

*There is no national policy statement under the RMA which gives guidance in relation to the development of renewable energy in general, nor on the development of wind farms in particular.*<sup>20</sup>

### **Changes sought**

- 2.20 NZWEA therefore seeks that, where appropriate, the Statement contain both generic high level policies applicable to all forms of renewable electricity generation, and specific policies that apply to each individual resource. The new policies and changes to draft policies suggested by NZWEA throughout this submission seek to address this concern.

<sup>18</sup> Section 2

<sup>19</sup> At paragraph [63]

<sup>20</sup> At paragraph [335] (emphasis added)

## Issue Three – Enabling Renewable Energy Generation

### *Issue*

- 2.21 Sources of high quality renewable electricity generation are a finite resource: enabling the opportunities to harness that resource, through the development of renewable electricity generation activities, must be recognised as a matter of national significance.

### *Comment*

- 2.22 In order to achieve the objective, the Statement requires a clear expression that the development of renewable electricity generation activities themselves must be in the national interest. Draft Policy 1 only recognises the benefits of renewable electricity generation without enabling it, while Policy 5 seeks to enable only small and community generation when there is a clear need for large scale projects in order to meet both expected electricity demand growth and the replacement of existing non-renewable generation. For the reasons mentioned throughout this submission, the Statement must promote renewable energy generation activities as being of national significance in order to “enable people and communities to provide for their social, economic and cultural wellbeing”.<sup>21</sup>
- 2.23 One way of achieving this outcome would be to require the operational and locational requirements of renewable electricity generation and transmission facilities to be taken into account when considering applications for resource consent. NZWEA submits that planners and decision-makers should recognise that the usual thresholds may not be appropriate for those activities. This is discussed further in relation to Policy 2.

### *Changes Sought*

- 2.24 That a new policy is added to the NPS, replicating and giving weight to the statement as to the matter of significance to which the Statement applies (being the need to develop, upgrade, maintain and operate renewable electricity generation activities throughout New Zealand). Note that this new Policy forms part of NZWEA’s suggested Policy 2, which is discussed further in relation to Policy 1 under Part 3 of this submission.
- 2.25 The new and amended policies suggested by NZWEA throughout this submission aim to give further weight to the fact that renewable electricity generation activities are of national significance.

## Issue Four – Recognition that Renewable Electricity Generation can only occur where Natural Resources Exist

### *Issue*

- 2.26 NZWEA submits that, if New Zealand is serious about achieving the Objective in the Statement, then policy statements and plans, as well as decision-makers, must recognise that renewable electricity generation activities are location specific and can only occur where the resource exists.

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21 RMA, section 5

### ***Comment***

- 2.27 NZWEA considers that the Statement must recognise and enable renewable electricity generation activities in the environments where the natural resource exists. As already mentioned, the natural resources for renewable energy generation cannot be shifted. If the objective of the Statement is to be achieved, then planners and decision-makers must be provided with guidance as to the limitations imposed on renewable electricity generation activities by the location of the natural resource and how this limitation can be weighed in the overall assessment of sustainable management under section 5.

### ***Changes Sought***

- 2.28 The need to recognise the constrained nature of renewable electricity generation resources is further discussed in relation to Policy 2 in Part 3 of this submission.

## **Issue Five – Protection of Renewable Electricity Generation Resources**

### ***Issue***

- 2.29 NZWEA submits that the Statement needs to recognise that the natural resources that provide for renewable electricity generation are themselves nationally significant, and need to be protected against inappropriate development so that their potential to be harnessed can be retained.

### ***Comment***

- 2.30 The draft Statement does not contain any recognition that renewable electricity generation is not possible without access to the natural resource. With the ever growing intensification of use of the environment, and the sprawl of urbanisation, the potential for conflict over sites that contain significant renewable energy resources has grown, and will continue to do so.
- 2.31 It is also extremely important that we protect our existing renewable electricity generation and distribution facilities. These facilities are nationally important assets – their continued use and ensuring opportunities for their more efficient use should be the priority. The Statement needs to ensure that new activities nearby do not adversely affect their efficient operation.

### ***Changes Sought***

- 2.32 The need to protect existing renewable electricity generation facilities, and as yet unharnessed renewable generation resources, is discussed further in relation to Policy 2 in Part 3 of this submission.

## Issue Six – Lack of Guidance on Applying Section 7 Matters

### Issue

2.33 NZWEA is concerned that the draft Statement fails to provide any real guidance to planners and decision-makers on the matters set out in section 7 of the Act, particularly those of critical relevance to the common issues associated with renewable electricity generation development.

### Comment

2.34 The generic principles contained in section 7 of the Act form a high level decision-making framework for planning and decision-making across the country. However, applying these principles on a case-by-case basis in consenting renewable electricity generation projects on a consistent basis has proved problematic. It is essential, therefore, that the Statement provides more specific guidance as to the application of section 7 matters to renewable electricity generation.

2.35 A reading of the discussion of section 7 matters in wind energy case law confirms that the relevance of each individual section 7 matter to renewable electricity projects is constantly relitigated. This has resulted in a lack of consistency of application of section 7 matters by the Courts, which in turn results in a lack of certainty for all parties.

2.36 One particularly relevant example is the application of section 7(i). While all other wind energy cases accepted that section 7(i) is intended to encourage projects that will help reduce the impacts of climate change, such as renewable electricity generation, the Court in *Mahinerangi* held that “...this provision is aimed at considering the effects of climate change on the application itself”.<sup>22</sup>

2.37 Accordingly, NZWEA submits that the Statement would be the ideal format for providing guidance to planners and decision-makers as to the importance of having particular regard to each section 7 matter for renewable electricity generation activities as follows:

- (a) Section 7(aa): the promotion of renewable electricity generation is in line with the ethic of stewardship, as it promotes the long-term health of the wider environment – in other words, a national and global perspective of the stewardship of resources should be considered, and not simply the resources immediately affected by any specific proposal.
- (b) Section 7(b): the efficient use and development of natural and physical resources is particularly relevant for wind farms, in that such facilities not only allow for the efficient use of the otherwise untapped but renewable wind resource, but also represents the efficient use of the land resource in that it can be used for both wind energy and continued farming operations – indeed, farming activities are often further improved due to upgrades to far access roads, royalty payments etc.
- (c) Section 7(c): while the impact of proposed renewable electricity generation on amenity values is often perceived as local, and often significant adverse, effect, amenity is subjective, and decision-makers should recognise that not all persons perceive that renewable electricity generation facilities such as wind turbines have a negative amenity effect.

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22 At paragraph 231

- (d) Section 7(d): in regard to the intrinsic value of ecosystems, decision-makers should recognise that renewable electricity generation projects often have significant environmental benefits, including the use of environmental offsets – for example, the fencing of areas of native bush, conservation covenants, and the monitoring of birdlife.
- (e) Section 7(f): in regard to the quality of the environment, again a broad perspective is required, in that additional renewable electricity generation will contribute to the quality of the environment.
- (f) Section 7(i): this provision is intended to ensure that the benefits of renewable electricity generation in addressing the effects of climate change is given particular regard
- (g) Section 7(j) – Planners and decision makers should consider all the benefits listed in [NZWEA’s proposed Policy 1] when having particular regard to section 7(j). An additional critical consideration for planners and decision-makers under section 7(j) is that any reduction in capacity imposed on projects (such as the reduction of turbines from a wind farm project) can have significant long-term reduction in the benefits derived from the total electricity generated by those projects, compared with the limited local benefits to be derived from the reduction in such capacity.

### ***Changes Sought***

- 2.38 NZWEA seeks the inclusion of a new policy that provides some clear direction on the key section 7 matters outlined above, taking into account case law to date. Such guidance would ensure that decision-makers took an appropriate wide perspective of section 7 matters, thus ensuring a more balanced weighting of considerations. This could be provided through the insertion of a new policy as follows (or to similar effect):

***Have particular regard to the benefits of renewable energy activities***

***Policy xxx***

*In undertaking their functions under the Act, decision-makers must have particular regard to the wider benefits associated with the development, upgrade, maintenance, and operation of renewable electricity generation activities, including the appropriate weighting of the following matters:*

- *the wider and longer term benefits of renewable electricity generation in the stewardship of natural and physical resources*
- *the benefits from renewable electricity generation for the efficient use and development of resources, including the continued ability to utilise land for a range of other uses and the need to maximise the efficient use of high value renewable resources*
- *the wider and subjective nature of amenity values, taking due regard of the positive visual and amenity benefits associated with renewable energy generation facilities*

- *the long-term benefits for ecosystems that may be provided through habitat protection and enhancement, biodiversity monitoring and biodiversity off-sets*
- *the wider benefits of renewable electricity generation for maintaining or enhancing environmental quality*
- *the benefits of renewable electricity generation for climate change over non-renewable energy activities*
- *the appropriate balancing of the numerous local, regional and national benefits of renewable energy generation with localised adverse effects*

## **Issue Seven – Recognition of the Need for Transmission**

### ***Issue***

2.39 NZWEA submits that the Statement needs to better recognise the importance of transmission to connect renewable electricity generation to the national grid or local distribution networks.

### ***Comment***

2.40 At present, “*the system of electricity conveyance required to convey electricity to the local electricity distribution and/or the national grid*” is included only in the Statement’s definition of renewable electricity generation activities. NZWEA submits that this fails to recognise the fundamental importance of transmission, particularly in terms of providing planners and decision-makers with a clear and overt direction on the importance to consider the transmission of the electricity generated by renewable sources as a critical component of the activity.

2.41 This issue again arises from the limitation imposed on generation by the location of the renewable electricity resource. To date, and due to the costs and consenting issues associated with transmission, the development of renewable electricity generation has occurred close to existing transmission infrastructure. This is also often a consequence of New Zealand’s generation historically being renewable (especially hydro) based.

2.42 However, sites that contain both an economically viable renewable electricity generation resource and are in close proximity to existing transmission infrastructure are few and have been the first to be developed. Further, there are parts of New Zealand where, due to our long thin geographic shape and the development of the transmission network, the national grid does not pass close to the location of the renewable electricity resources.

2.43 But there are many locations away from the national grid where there is significant potential for further renewable electricity generation. To meet the Objective of the Statement, renewable electricity generation will increasingly need to occur at sites further from existing transmission networks. To state the obvious, without transmission there is no point developing renewable generation.

2.44 To date, the routing and development of connecting transmission lines from renewable electricity generation facilities has been a critical consenting issue for a number of projects, including the environmental effects of such lines. As new renewable electricity generation facilities are located at further distance from the national grid or

other connection points, the issues associated with transmission are likely to become more important.

- 2.45 This is an issue that is not directly addressed by the National Policy Statement on Electricity Transmission, which only contains broad policies for the planning and development of the transmission network.
- 2.46 As such, NZWEA considers that the Statement should recognise that the need for transmission to the national grid or to the local distribution network is crucial in allowing the development of renewable electricity generation. Such a policy would be consistent with the intent of the Statement, which recognises the significance of the national grid in facilitating renewable energy generation from dispersed location and areas identified as having significant renewable electricity resources.

### ***Changes sought***

- 2.47 Insert the following (or words to like effect) as a new policy, as well as a new provision related to transmission as recommended in Policy 1 in Part 3 of this submission.

*In achieving the purpose of the Act, decision makers and planners must recognise and provide for the transmission of renewable electricity generation from dispersed locations and areas identified as having significant renewable electricity resources, to the national grid or local distribution network.*

## **Issue Eight – Need for Consistent Application of Technical Standards**

### ***Issue***

- 2.48 NZWEA strongly urges the National Policy Statement mandate the consistent use of standards to be applied to technical matters, as a key element of its overall purpose.

### ***Comment***

- 2.49 There are New Zealand Standards (NZS) in place for the assessment of various technical matters related to the development of renewable energy generation. However, it is not compulsory that an NZS be used as a benchmark, which means that there is, in practice, little certainty as to the standards to be applied by consent authorities and the Courts in assessing technical matters.
- 2.50 One clear example of the need for the consistent application of a single national standard is the assessment of the acceptable level of wind turbine noise. Although there is an NZS in place, its appropriateness is regularly litigated at length in wind energy cases.
- 2.51 In *Motorimu*, the most recent Environment Court decision on wind electricity generation, “*the matter of the noise (and related) effects of the additional turbines on the health and amenity of nearby residents was the subject of extensive evidence before the Court.*” The Court heard from 7 expert witnesses on noise issues, and over 25 pages of the judgment were dedicated to discussion of those issues.
- 2.52 The Court in *Motorimu* upheld the appropriateness of NZS 6808: 1998, subject to the proviso that such standards need to be updated.<sup>23</sup> Having a universally accepted and mandatory standard on wind turbine noise assessment would remove the scope for

<sup>23</sup> See paragraphs [328] to [329].

needless repetitive arguments over a technical matter that has largely been resolved, and will therefore provide certainty for all parties.

- 2.53 NZWEA notes that Policy 9 of the National Policy Statement on Electricity Transmission mandates the use of standards for “*provisions dealing with electric and magnetic fields associated with the electricity transmission network*”. NZWEA submits that the National Policy Statement on Renewable Electricity Generation should likewise mandate the use of recognised standards for assessing renewable electricity generation projects as relevant – in particular, the assessment of wind turbine noise should be required to be based on New Zealand’s 6808: 1998. As that NZS is currently being reviewed, the policy should also allow for it to be replaced by revisions, as is the case with Policy 9 of the NPS on Electricity Transmission.
- 2.54 NZWEA submits that, in addition to including a policy mandating the use of NZS 6808: 1998, the Board should recommend the development of binding National Environmental Standards for both the assessment of acceptable noise levels, and other relevant technical issues. This dual approach would allow the current NZS6808: 1998 to be the mandated standard (through a policy of the NPS) until an NES is developed. This process is the best way to provide certainty and consistency in the application of technical standards.

### ***Changes sought***

- 2.55 Insert a new policy as follows (or to similar effect):

#### ***Consistent Application of Technical Standards***

##### ***Policy xxx***

*Where New Zealand Standards or other standards or codes have been developed and are applicable to renewable electricity generation activities, decision-makers shall give effect to these standards or any revisions thereof. This shall include, but not be limited to, ensuring compliance with the following or their revisions:*

- *NZS6808:1998 “Acoustics – The Assessment & Measurement of Sound From Wind Turbine Generators”*
- *the noise limits for construction activities set out in NZS6803:1999 “Acoustics – Construction Noise”*
- *the International Commission on Non-ionising Radiation Protection Guidelines for limiting exposure to time varying electric magnetic fields (up to 300 GHz) (Health Physics, 1998, 74(4): 494-522) and recommendations from the World Health Organisation monograph Environment Health Criteria (No 238, June 2007)*

- 2.56 That the Board of Inquiry comments in its Report on the desirability of the introduction of an NES (based on the current NZS 6808:1998 “Acoustics – The Assessment & Measurement of Sound From Wind Turbine Generators”, or revisions thereof) for the assessment of acceptable levels of wind turbine noise, and any other technical issues that the hearing process demonstrated would be similarly well served by an NES.

## **Issue Nine – the Need for Urgent Action to give Effect to the Statement**

### ***Issue***

- 2.57 In light of the 2025 deadline for achieving the Objective, steps should be taken to ensure that decision-makers give effect to the Statement as soon as it becomes operative, and that Plans give effect to the Statement as quickly as possible.

### ***Comment***

- 2.58 This Statement is unique in that there is a fixed timeframe for the achievement of the Objective. In light of that timeframe, and the urgent need for action to promote renewable energy generation it reflects, the Statement should be given effect to by decision-makers and planners as soon as possible. Based on NZWEA's projections, New Zealand will need 1000 MW of additional renewable generation by 2012 to be on track to meet the 90% target.<sup>24</sup>
- 2.59 To achieve this, NZWEA submits that, where existing Plans are inconsistent with, or silent on, the Policies contained in the Statement, the Statement should be given preference by decision-makers.
- 2.60 In addition, Plans should be required to be changed to reflect the Statement as soon as possible. As discussed further in light of Policies 4 and 5, NZWEA considers that allowing four years for the commencement of the plan change process would significantly harm the prospect of achieving the Objective: this timeframe should be reduced. However, to recognise the additional burden for Councils, and the need to avoid duplicative efforts among New Zealand's local authorities, NZWEA submits that the Ministry for the Environment should develop guidance notes for Councils on introducing plan changes as soon as possible. In order for this guidance to be effective, it must include be prepared with the direct involvement of the renewable electricity industry. NZWEA would be happy to assist in facilitating the preparation of such guidance notes.

### ***Changes Sought***

- 2.61 Where appropriate, and in particular in reference to draft Policy 4 and Policy 5, NZWEA's suggested policies reflect the desire to see the Statement given effect as soon as possible by decision-makers and in plans.
- 2.62 NZWEA also requests that the Board recommend the development of Ministry for the Environment guidelines on plan changes to implement the Statement, aided by the industry.

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<sup>24</sup> These projections are based on data from the Energy Quarterly, above note 7.

## Part 3 Specific Comments on Proposed Objective and Policies

### Objective

*To recognise the national significance of renewable electricity generation by promoting the development, upgrading, maintenance and operation of new and existing renewable electricity generation activities, such that 90 per cent of New Zealand's electricity will be generated from renewable sources by 2025 (based on delivered electricity in an average hydrological year).*

### Issue

- 3.1 As presently worded, the Objective could be read as only encouraging the development of renewable electricity generation until such time as the 90% target is achieved.

### Comment

- 3.2 NZWEA submits that, in addition to moving towards the 90% target, the overall aim should be to achieve the highest possible percentage of electricity generation is from renewable sources. The Objective should therefore be refined to promote renewable generation activities to allow for **at least** 90% of generation to be from renewable sources by 2025.
- 3.3 In addition, NZWEA considers that a specific policy should be introduced to require local authorities to commence changes to their policy statements and plans to give effect to the policies of the National Policy Statement on Renewable Electricity Generation in as soon as practicable timeframe – NZWEA suggests that, given early national guidance, the timeframe could be within two years of this National Policy Statement coming into effect. The wording of such a policy is outlined below, under NZWEAs' comments on Policy 1.

### Changes sought

*Reword Objective to achieve at least 90% of electricity generation from renewable sources by 2025*

### Policy 1

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

*The benefits of renewable electricity generation activities, at any scale, are of national significance. Decision-makers must have particular regard to the national, regional and local benefits relevant to renewable electricity generation activities. These benefits may include, but are not limited to:*

- i. maintaining or increasing electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions*

- ii *maintaining or increasing security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation.*

**Issue**

- 3.4 NZWEA supports the general approach of the policy, but considers that it needs to provide greater guidance to planners and decision-makers on the benefits of renewable energy generation, both in terms of the benefits applicable to all forms of renewable electricity generation, and benefits specific to each form of renewable energy generation.

**Comment**

- 3.5 Policy 1 of the Statement refers to “the national, regional and local benefits relevant to renewable electricity generation activities”, but then only goes on to recognise, broadly, climate change and security of supply related benefits. NZWEA submits that this approach fails to give beneficial guidance to planners and decisions makers when considering the benefits of both renewable energy generation generally, and each form of generation specifically.
- 3.6 Case law indicates that there are a myriad of national, regional and local benefits associated with the development of renewable energy generation (for example, employment and business and economic development opportunities). Most of these benefits occur regardless of the size of the development. Further, each form of renewable generation brings its own discrete set of benefits that need to be specifically recognised to ensure they form part of the overall consideration of the effects of new generation proposals.
- 3.7 The benefits of the development of wind electricity generation have been recognised by the Courts in all of the wind generation cases. A list of those benefits as recognised in each case is attached to this submission as Appendix 1.<sup>25</sup>
- 3.8 There are clear local benefits associated with the development of wind and other renewable wind energy generation. Policy 1 recognises this, but fails to elaborate. It is submitted that these local benefits must be recognised in the statement, in order to move past the current dichotomy, whereby national benefits are balanced against local detrimental effects, with little cognisance of the local benefits. Planners and decision-makers need to be directed to recognise that renewable electricity projects provide tangible local benefits.
- 3.9 The Statement needs to provide greater guidance so planners can prepare appropriate and consistent plans, and so that some benefits are recognised and not argued repetitively in every case.
- 3.10 Pursuant to NZWEA’s comments on the Objective, and on draft Policy 5 below, it is also recommended that a new policy be included immediately after the Objective to ensure that local authorities introduce such changes to policy statements and plans as necessary to provide for renewable electricity generation, in accordance with the direction provided by this National Policy Statement. The suggested Policy 2 combines this along with the desire to recognise the national significance of renewable electricity generation activities discussed at Issue Three in Part 2 of this submission.

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<sup>25</sup> Please note that this list is in note form: NZWEA intends to formalise this document in advance of the hearing.

### **Changes Sought**

- 3.11 NZWEA recommends that Policy 1 be reworded to provide more expanded direction on the benefits of all renewable energy generation, including, as appropriate, specific reference to the significant benefits from particular forms of renewable electricity generation.
- 3.12 NZWEA also recommends a new Policy should be inserted immediately after Policy 1 to ensure decision-makers introduce changes to policy statements and plans to provide for benefits of renewable electricity generation as a matter of national significance. The following policies should be renumbered accordingly.
- 3.13 These policies could be worded as follows (or to like effect):

#### ***Recognising and providing for the national significance of the benefits of renewable electricity generation activities***

##### ***Policy 1***

*The benefits of renewable electricity generation activities, at any scale, are of national significance. In achieving the purpose of the Act, decision-makers must recognise and provide for the national, regional and local benefits of renewable electricity generation activities. These benefits may include, but are not limited to:*

- maintaining or increasing electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions*
- maintaining or increasing security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation*
- utilising a renewable resource (as opposed to extractive non-renewable resources)*
- the ability to implement conditions to ensure the protection and enhancement of areas of ecological value*
- ongoing economic and community benefits*
- Wind generation activities bring increased efficiency of land use (by allowing existing land uses to continue largely unaffected)*
- Wind generation activities do not foreclose future utilisation of the site by other activities*
- Specific local benefits, including employment creation, business development opportunities, specific land/environmental enhancement opportunities (such as covenanting), increased local/regional self-sufficiency and security of local supply, and increased recreational opportunities*

*Where a particular renewable electricity generation activity is able to demonstrate any additional benefits beyond those listed, those benefits should be recognised and provided for.*

*The above list of benefits is not intended to be exhaustive and where those districts or regions have been identified as having nationally significant [or similar wording] renewable energy resources in accordance with policy xxx, other benefits of each*

particular renewable energy resource should be recognised and provided for (e.g. wind, tidal, hydro etc.). The absence of any of these benefits for a specific project should not be weighted against the project.

## **Policy 2**

In undertaking their functions under the Act decision-makers are to recognise that the development, upgrade, maintenance, and operation of renewable electricity generation activities throughout New Zealand is a matter of national significance. As such, local authorities are to notify, in accordance with Schedule 1 of the Act, within two years of this National Policy Statement coming into effect, a change or variation to policy statements and plans to provide for the following:

- objectives, policies and rules to enable renewable electricity generation in accordance with this National Policy Statement
- recognition that localised adverse effects from renewable energy generation activities are likely to be more than minor but that these effects may be appropriate where they have significant local, regional and national benefits.
- Recognition of the requirement for renewable electricity generation activities to have a connection to a suitable electricity distribution network or the local grid.
- Recognition that the short-term or temporary nature of most of the adverse effects associated with the development of renewable electricity activities during the construction period can be avoided, remedied or mitigated by best practice in construction and environmental management
- Provision for decision-makers to consider methods other than direct avoidance or on-site mitigation of adverse effects on the environment, such as by way of indirect environmental off-sets or financial contributions
- Provision for minor upgrades to, and the renewal of resource consents for, existing renewable electricity generation activities as a controlled activity.

## **Policy 2**

### ***Acknowledging the practical constraints associated with the development, upgrading, maintenance and operation of new and existing renewable electricity generation activities***

*When considering measures to avoid, remedy or mitigate the adverse environmental effects of renewable electricity generation activities, consent authorities must have particular regard to the constraints imposed on achieving those measures by:*

- i. the nature and location of the renewable energy source*
- ii. logistical or technical practicalities associated with developing, operating or maintaining the proposed renewable electricity generation activity*
- iii. the nature and location of existing renewable electricity generation 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.*

### **Issue**

- 3.14 While NZWEA supports the general intent behind this policy, it considers the present drafting of the policy is open to misinterpretation and is too generic in its application, and that specific mitigation policies for each individual renewable electricity resource are required.

### **Comment**

- 3.15 As already mentioned in relation to General Issue 4, the Statement needs policies that recognise that the location of renewable electricity resources cannot be relocated. This becomes particularly important when considering what steps need to be taken to avoid, mitigate and remedy adverse effects. It is crucial that the imposition of such measures does not unduly diminish the effective harnessing of our finite and renewable electricity generation resources. Again, greater guidance is required to achieve the Objective of the Statement.
- 3.16 In particular, three key issues arise in respect of acknowledging practical constraints: location, mitigation and protection. These issues are discussed in turn below.

### *Location*

- 3.17 As noted in the Parliamentary Commissioner for the Environment's report "Wind Power, People and Place" *"wind farms are likely to have a considerably greater impact when located on prominent topography, and in landscapes that are open and exposed."*<sup>26</sup> While this statement is correct, the Report, and its subsequent (mis)use in consenting hearings, fails to recognise that economically viable wind resources are most likely to be present at prominent, and therefore open and exposed, places. In the case of *Genesis Power*, for example, the environment was described as a *"plateau characterised by exposed hills which are predominantly under pasture"* (paragraph 23).<sup>27</sup>
- 3.18 Allowing the most economically viable, and efficient, wind resources to be harnessed will mean that, overall, fewer turbines will be needed to reach the Objective: more efficient turbines generate more power. So, allowing the most efficient use of our wind resources will arguably lead to a lower overall impact on the environment.
- 3.19 In some cases, that will extend to allowing multiple generation activities to harness a single broad resource. An example is the wind resource of the Tararua Ranges, described by an expert to the Court in *Motorimu* as being of "national significance".<sup>28</sup> It is important that any cumulative effects of such projects are considered in light of the desire to harness crucial electricity generation resources.
- 3.20 To make the most of renewable electricity resources, clusters of renewable electricity generation activities will be necessary. While consideration of the potential cumulative effects of such clusters is important, it is equally necessary for decision-makers to recognise the importance of enabling the efficient use of such valuable resources.

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26 Page 54

27 Para 23

28 Mr S A Faulkner, as cited by the Court in *Motorimu* at 57

3.21 Presently, despite the objective of the Statement, there is no policy promoting renewable electricity generation within the environment of the resource and as a matter of national interest.

3.22 The need to recognise restraints on location was demonstrated most clearly at *West Wind* where the Court concluded in its overall findings that noted:<sup>29</sup>

*“Project West Wind is a very large project on sensitive and difficult terrain. The development has significant aspects:*

- *It is appropriate in its location;*
- *The site was chosen because it has the best wind resource on an international scale;*
- *It is a very efficient use of this particularly valuable resource because it is sited adjacent to the Wilton-Central Park transmission facilities;..”*

#### *Mitigation*

3.23 Unfortunately, wind generation cannot be located in valleys, screened from view by planting, or be subject to other mitigation techniques that could otherwise be utilised for major infrastructure projects.

3.24 Landscape, natural character and amenity effects are therefore significant issues in the consenting process. The protection of landscape, natural character and amenity are matters that are amply provided for by the RMA under sections 6 and 7. However, there needs to be a corollary recognition that renewable electricity resources cannot be shifted. The Court in *Meridian Energy Limited and Ors v Wellington City Council and Anor (W31/07) (West Wind)* recognised that “A high quality wind resource is a finite and valuable characteristic”. If our high quality resources are to be utilised, then the generation must be allowed to occur within the environment where the resource exists.

#### *Protection*

3.25 Case law confirms that if competing uses are located on, adjacent to, or even in the vicinity of land that contains renewable electricity resources, gaining consent to harness those resources becomes difficult. If we are to protect existing renewable electricity generation, and allow the development of renewable electricity generation resources in the future, then planning to prevent other uses from interfering with that development is crucial.

- *NZWEA is not seeking to “ring fence” all potential renewable electricity resources from any other development. Rather, what is sought is a recognition that planners and decision-makers need to take the location and importance of these resources, just as the location of other key resources (for example, habitats of native flora and fauna) would be taken into account. This is a key element to the purpose of sustainable management under the Act in terms of “sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations” under section 5.*

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<sup>29</sup> At paragraph [582].

3.26 NZWEA submits that the practical constraints associated with renewing consents or making changes to existing renewable electricity generation facilities presents a significant potential obstacle to achieving the 90% target. There should also be an explicit recognition that achieving the 90% target is dependent on the continued operation of existing renewable generation activities: we cannot afford to lose any of our current renewable generation.

### ***Changes Sought***

3.27 The recommended changes (or words to like effect) are as follows:

#### ***Acknowledging the practical constraints associated with the development, upgrading, maintenance and operation of new and existing renewable electricity generation activities***

##### ***Policy 23***

*When considering measures to avoid, remedy or mitigate the adverse environmental effects of renewable electricity generation activities, ~~consent authorities~~ decision-makers must have particular regard to:*

- the nature and location of the renewable electricity source*
- logistical or technical practicalities and resource location-related constraints associated with developing, upgrading, operating or maintaining the proposed or existing renewable electricity generation activity*
- the nature and location of existing renewable electricity generation activities*
- 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*
- the need to take into account a range of off-site mitigation measures for renewable energy activities, including, but not limited to, financial off-sets or contributions, off-site mitigation and/or environmental off-sets or enhancements.*

3.28 In addition, NZWEA seeks to include a new policy along the following lines:

#### ***Protecting renewable electricity generation resources***

##### ***Policy 4***

*In achieving the purpose of the Act, decision-makers must, as far as practicable, recognise and provide for the protection of significant resources for renewable electricity generation, including the following:*

- When undertaking plan reviews or changes to plans in relation to land use activities in or near areas with known significant renewable electricity resources, consideration be given to the potential of such changes to reduce future opportunities to develop such resources for renewable electricity generation*
- Requiring environmental buffer zones around existing significant renewable energy facilities, particularly those with the potential to raise reverse sensitivity issues*

- Requiring mitigation of any surrounding subdivision or land development proposals or changing land uses in areas surrounding existing significant renewable electricity generation activities where those proposals have the potential to adversely affect the operation of renewable electricity generation activities.

3.29 NZWEA also seeks that the Board recommend that additional guidance be developed to further assist with the protection of these areas, and to educate and inform landowners.

### Policy 3

#### ***Having regard to the relative reversibility of adverse effects associated with particular generation types***

*When considering proposals to develop new renewable electricity generation activities, decision-makers must have particular regard to the relative degree of reversibility of the adverse environmental effects associated with proposed generation technologies.*

#### ***Issue***

- 3.30 NZWEA opposes the proposal to include a policy on the relative reversibility of the effects of renewable generation activities.

#### ***Comment***

- 3.31 The implication of draft Policy 3 is that renewable energy generation proposals that are not reversible will be penalised. This is consistent neither with the general enabling approach under the RMA, nor with the desire to achieve the objective of the Statement.
- 3.32 Furthermore, on practical terms, where there are high quality renewable electricity generation resources, those resources will need to be harnessed over the long-term, and it is therefore likely that existing generation facilities will be replaced rather than removed.

#### ***Changes Sought***

<i>Delete Policy 3.</i>
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### Policy 4

#### ***Enabling identification of renewable electricity generation possibilities***

*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 introduce objectives, policies and, where appropriate, methods, into policy statements and plans to enable activities associated with:*

- i. the identification and assessment by generators of potential sites and energy sources for renewable electricity generation*
- ii. research-scale investigation into emerging renewable electricity generation technologies and methods.*

#### ***Issue***

- 3.33 NZWEA considers that allowing local authorities to wait until 2012 to notify plan changes is not consistent with the goal of enabling 90% renewable generation by 2025.

#### ***Comment***

- 3.34 The time needed to investigate, identify, consent and develop renewable electricity generation means local authorities should be required to act more quickly to facilitate

this process. If New Zealand wants to develop our natural resources and create new technologies to enable 90% renewable generation by 2025, then we can not afford to wait until 2012 for the local authority planning process to formally commence, as this would only provide 18 years to achieve the target (or even less if 2012 is only the commencement of notification, rather than enactment).

- 3.35 NZWEA recognises that local authorities have limited resources, and many are focused on large and pressing environment and growth management issues. NZWEA is also concerned about the potential for duplication of effort as local authorities attempt to develop provisions to give effect to the NPS.
- 3.36 Accordingly, NZWEA strongly urges the Board to recommend that national guidance be prepared in conjunction with the industry and other relevant stakeholders and issued as soon as practicable to support the implementation of the National Policy Statement. Such guidance should enable a shorter deadline to be imposed.

### **Changes Sought**

- 3.37 The recommended changes (or words to like effect) are as follows:

#### ***Enabling identification of renewable electricity generation possibilities***

##### ***Policy 4***

*Within two years of this National Policy Statement coming into effect, local authorities are to notify, in accordance with Schedule 1 of the Act, a plan change, proposed plan or variation to introduce objectives, policies and, where appropriate, methods, into policy statements and plans to provide for the following:*

- *Enable the identification and assessment of potential sites and energy sources for renewable electricity generation*
- *Enable research-scale investigation into emerging renewable electricity generation technologies and methods.*

#### **Policy 5**

##### ***Supporting small and community-scale renewable electricity generation***

*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 introduce objectives, policies and, where appropriate, methods, into policy statements and plans to enable activities associated with the development and operation of small and community-scale distributed renewable electricity generation.*

##### **Issue**

- 3.38 Subject to the comments on Policy 4 above, NZWEA supports the development of small and community-scale distributed renewable energy generation within a specified period: however, NZWEA strongly recommends that enabling provisions for developing large-scale renewable electricity generation be given the same urgency.

### **Comment**

- 3.39 While it supports this policy (subject to a shorter timeframe being imposed on local authorities giving effect to it), NZWEA would like to emphasise that the development of small-scale renewable electricity generation facilities is unlikely to make any significant contribution to the total amount of electricity generated by renewable sources (i.e. the requirement for 250 MW per year of new generation will require a significant number of projects of up to 4 MW in scale). Major advances in our rates of renewable electricity generation will only occur through large-scale generation facilities being established, particularly if the timeframe of 2025 is to be met.
- 3.40 It is therefore of fundamental importance that large-scale renewable electricity generation receives the same urgent attention as small scale generation. The reality is that current economic and technological factors dictate that it is large scale generation that will play the major role in achieving the 90% target. If the focus of the Statement is the achievement of the Objective, then there should be a Policy that directs planners to facilitate large scale renewable electricity generation projects. NZWEA's suggested Policy 2, discussed in relation to the draft Policy 1, is intended to direct planners and decision-makers in this way.
- 3.41 In terms of small-scale renewable electricity generation, NZWEA submits that the definition of "*small and community scale distributed renewable electricity generation*" used in the National Policy Statement be amended from a maximum of 4 megawatts to 10 megawatts to be consistent with other legislation (such as the Electricity Act). This issue was recognised as one to be considered by the Section 32 Report.<sup>30</sup>

### **Changes Sought**

- 3.42 In terms of providing for large-scale renewable electricity generation, the recommended new policy is set out in NZWEA's suggested new Policy 2.
- 3.43 In terms of small scale renewable electricity generation, the recommended changes (or words to like effect) to Policy 5 are as follows:

#### ***Supporting small and community-scale renewable electricity generation***

##### ***Policy 5***

*~~By 13 March 2012,~~ Within 2 years of this NPS becoming operative, local authorities are to notify, in accordance with Schedule 1 of the Act, a plan change, proposed plan or variation to introduce objectives, policies and, where appropriate, methods, into policy statements and plans to enable activities associated with the development and operation of small and community-scale distributed renewable electricity generation.*

- 3.44 Change the definition of 'small and community-scale distributed renewable electricity generation' as follows:

*"Small and community-scale distributed renewable electricity generation" means renewable electricity generation projects with an installed electricity generation capacity of less than ~~four~~ ten megawatts and excludes offshore wind, tidal and wave generation.*

- 3.45 In addition to the above policy, NZWEA seeks that the Board recommend the Ministry for the Environment develop a guidance framework for planners and decision-makers

<sup>30</sup> At page 47.

to facilitate greater understanding of the appropriate balancing of renewable energy generation activities with other Part II matters. This framework should be undertaken immediately to coincide with the current suite of second generation plan reviews.

## **APPENDIX**

### **Benefits of wind electricity generation recognised in each wind energy case**

#### ***Genesis Power Ltd and Anor v Franklin District Council (A148/05)***

The following benefits were discussed by the Court at para 64:

- Electricity a vital resource to NZ, required for sustainable management;
- Adds diversity to generating base and reduces reliance on hydro, especially helpful given dry years and limited new large hydro options;
- Avoids adverse effects of thermal generation;
- Accords with national policy to pursue renewables;
- Wind is a source of renewable energy which is plentiful but which is best able to be utilised only in certain locations;
- Security of supply;
- Reduction in greenhouse gas emissions;
- Reduction in dependence on the national grid – can be installed close to demand centres, particularly relevant for this proposal as close to Auckland;
- Reduction of transmission losses (again as close to demand);
- Reliability – wind as reliability, with little annual variation of output;
- Development benefits – for industry and business in terms of research, manufacturing, installation and distribution, and maintenance of facilities.
- Contribution to the 90% renewables target.

Also discussed, in the section on Part 2:

- Efficient use of wind resource (s7(b)).
- Efficient supply due to fewer transmission losses (s7(ba)).
- Help sustain and enhance the NZ environment by moving away from greenhouse gases (s7(f)).

#### ***Unison Networks Limited and Ors v The Hastings District Council (W/58/06)***

- At para 39: The Court considered the proposal to be in accordance with plan because an efficient, innovative, diverse land use complementary to rural resources, with continued farming on site. Also no long term adverse impact – reversibility;
- At para 69: the Court mentions “the undoubted view that many people find modern turbines attractive and fascinating”;

Section 7 related matters: discussed at para 74:

- Kaitiakitanga and stewardship: one way to look at this is that slowing climate change amounts to kaitiakitanga/stewardship;
- Efficient use of resources: farming can continue as before, and will be tapping wind resource: efficient use of the land and the wind resource. Also, generation close to load centres is an efficient use of generating and transmission resources;
- Maintenance/enhancement of environment: same as for stewardship – can take a broad view here;
- Finite characteristics of resources: will slow the rate of use of fossil fuels, a finite resource;
- Effects of climate change: will help slow climate change, even if only in a minor way;
- Benefits of renewables: security of supply, especially by adding wind to hydro mix;

At para 81: Help safeguard the life-supporting capacity of the planet’s resources.

***The Outstanding Landscape Protection Society Inc and Ors v The Hastings District Council and Anor (W24/07) (Te Waka)***

At paras 31-36, the Court discussed the following:

- Sizeable source of electricity, in terms of number of households and percentage of national demand and national annual growth in demand;
- Even more significant regionally – achieving balance between regional demand and regional supply a positive;
- Commendable availability factor (of that particular wind farm – actual generation likely to be around 40% of theoretical maximum).

At paras 88-101 the Court discussed, in relation to s7 matters:

- Stewardship: one way to see is that slowing climate change amounts to stewardship;
- Efficient use of resources: allow continued farming, and tapping the wind energy resource, which will otherwise be wasted;

- Amenity: acknowledges some find turbines attractive;
- Ecology: notes mitigation/environmental compensation;
- Maintenance/enhancement of environment: same as for stewardship;
- Finite characteristics of resources: utilises wind, and avoids use of fossil fuels, both finite resources ;
- Climate change: helps slow/avoid.

***Meridian Energy Limited and Ors v Wellington City Council and Anor (W31/07) (West Wind)***

- Para 98 – in relation to Quartz Hill, Meridian is to make available research areas;
- Para 310 – proposal may allow retirement of some steep land, so it may revert to native bush cover. Meridian proposing fencing covenants;

Section 7 related benefits:

- Stewardship: one way to see is that slowing climate change amounts to stewardship;
- Efficient use of resources: as with other cases. Also recognises improved roading and royalty payments to farmers;
- Maintenance/enhancement of environment: same as for stewardship;
- Finite characteristics of resources: fossil fuels and wind are finite resources;
- Climate change: Wind farms a positive;
- Benefits of renewables: significant source of powers, adding to security of supply through diversification; also opportunity cost: no need to spend money on fuel to power the turbines.

***Upland Landscape Protection Society Inc v Clutha District Council and Ors (C185/2008) (Mahinerangi)***

- At para 72: “We accept a significant benefit of this form of energy production compared even with other renewable sources such as hydro-electricity is that it does not result in any significant loss of productive land.” In addition, at 73, the Court stated that fencing of an area to allow to revert to tussock is a positive effect- at para 225 adds this will result in a net benefit in terms of section 6(c), 6(d), 6(e), 6(f) and 6(g);
- At para 77: possibility of significant further return from land, in addition to farming income;
- At para 79: local job benefits;

- At para 81: will meet most of one year's power demand increase;
- At para 177: beneficial traffic effects – upgrades to district roads;
- A para 207: creation of a further energy source in the South Island which may enable business and community activities;
- At para 212: other benefits restated, then adds that the project includes payment to a local community conservation group, which will be of long term benefit to the district, regional and wider communities;
- 220: synergy of renewable sources – balance with hydro;

Section 7 matters – Discussed at paras 228-239

- Efficiency: as with other cases – also adds efficiencies of scale with large wind farms;
- Climate change and renewable generation – note rejects climate change point as not relevant. But s7(j) benefits:
  - No permanent alteration of the site;
  - No utilisation of a finite resource other than the site (note this goes against idea that wind resource is finite);
  - No carbon emissions;
  - Supplies need for power;
  - Minimal displacement of other productive uses of land;
  - Subject to limited exposure to supply disruptions
  - Uses the wind resource without affecting it in any meaningful way.

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- At para 32 – for this project, no need for further transmission to connect to national grid;
- Benefits of wind farming generally discussed at paras 55 to 86:
  - Taranaki Ranges site – wind resource of national significance;
  - The extra turbines will be more efficient than those already consented (will produce proportionally more power);
  - Witness for NZWEA, who was not cross examined, said (para 63):

*“New Zealand needs to consider seriously every opportunity available to reduce emissions...Motorimu...is an excellent project as it contributes to meeting climate change goals without any associated economic growth trade-off, and with considerable cost management benefits and lower national risk.”*

- Alternative is between using and not using the substantial economic renewable energy resources at Motorimu;
- “Wind energy is an environmentally sound form of generation which is complementary to other forms of electricity generation and provides diversity to the generation mix” (para 69);
- Manawatu a major demand centre – so meets local demand;
- The Court then listed a series of benefits that were raised by a witness, and not challenged:
  - 150 construction jobs for 18 to 24 months;
  - Up to 4 permanent jobs for 25 years of operation;
  - Investment of over \$200 million, including \$100 million to be spent locally;
  - Provision of funding for protection of the natural habitat of the giant Taranui land snail;
  - Provision of funding for research on the behaviour of the NZ Falcon;
  - Protection of remnant native bush by fencing off a substantial area and protecting it from stock intrusion;
  - Provision of regular annual funds to a Motorimu Wind Farm Foundation sponsoring community projects on the locality;
  - Improvement of supply security for the local distribution network
  - Roading upgrades
- Implied recognition at para 190 that some see wind turbines as a feature of the Taranui landscape, and a symbol of the Manawatu;
- In relation to section 7 matters, discussed at para 357:
  - The Court noted that the *West Wind* decision favoured seeing stewardship as being in line with promoting renewable energy projects;
  - No doubt would be an efficient use of Manawatu’s wind resource;
  - Would make use of wind as a finite resource in terms of s 7(g);

- Will contribute to meeting Kyoto obligations and the 90% target.