# Draft National Policy Statement for Indigenous Biodiversity - Discussion Document

NZ Wind Energy Association Submission

March 2020

Ministry for the Environment

By email: indigenousbiodiversity@mfe.govt.nz

## Introduction

- 1. The New Zealand Wind Energy Association (NZWEA) welcomes the opportunity to provide a submission on the draft National Policy Statement for Indigenous Biodiversity (NPS-IB).
- 2. NZWEA recognises the need to for better management of indigenous biodiversity as a Government priority and the challenge that comes from competing interests such as combating climate change and the broader plan to build a productive, sustainable and inclusive low-emissions economy.
- 3. The Association's purpose is to promote the development of wind as a reliable, sustainable, clean and commercially viable energy source and in this submission our focus is on the effects of the draft NPS-IB on renewable energy development and in particular wind energy.
- 4. The intent of this submission is to detail issues with the draft NPS-IB and recommend changes to enable indigenous biodiversity objectives to be met whilst enabling responsible renewable electricity generation development to proceed.
- 5. NZWEA does not have expertise in the management of indigenous biodiversity and has therefore sought ecological advice on the impact of the draft NPS-IB on renewable electricity development. Based on the advice received NZWEA considers the NPS-IB represents a significant risk to new renewable electricity generation development and enabling transmission infrastructure.
- 6. In light of our concerns around the negative effects on renewable electricity generation and transmission the Association also sought advice as to whether the draft NPS-IB would meet the overall stated objective of maintaining indigenous biodiversity.
- 7. In this submission the Association also outlines the importance of enabling responsible renewable electricity development to achieve decarbonisation of the energy sector and meet climate change goals, the need for regulatory and policy alignment and outlines several amendments to the NPS to ensure a wider set of Government priorities are able to be delivered.

## **Executive Summary**

- 8. The Association acknowledges the findings of the Environment Aotearoa Report and recognises the imperative to improve management of indigenous biodiversity and supports the overall stated objective to maintain indigenous biodiversity.
- 9. NZWEA considers there is a key challenge of how to meet the NBS-IB objective while also enabling responsible renewable electricity development which is required for New Zealand to achieve its emissions reduction and climate change targets.



- 10. NZWEA considers the changes to the latest draft of the NPS-IB, from that originally proposed by Biodiversity Collaborative Group (BCG) have been significant. The changes create ambiguity and shift the balance so as to materially restrict sustainable and responsible electricity generation development, particularly wind energy, occurring.
- 11. The need for a precautionary approach by Councils (in consenting) triggered simply by "uncertainty" will mean considerable debate and a likely permeant "caution" due to the nature of proving bird strike (for example).
- 12. In the Associations view the draft NPS, will also negatively affect sustaining New Zealand's current AAA energy trilemma rating for energy security, energy equity and environmental outcomes as well as not meeting the stated IB objective.
- 13. Section 3.8 of the NPS and criteria in appendix 1 will result in most if not all indigenous features being recognised as "significant". In addition, the list of effects of activities which must be avoided in a Significant Natural Areas (SNA) will mean most if not all new wind farm design will need to avoid all indigenous features with no effect or offset potential.
- 14. While there is a carve out for nationally significant infrastructure under 3.9(2)(d), which includes grid connected renewable electricity generation, the nature of the attributes and the guidance for interpretation, listed in appendix 2, is likely to result in most SNA's being considered "high" and therefore the "must avoid" requirement will prevail without the ability to consider the mitigation/offset hierarchy.
- 15. Renewable electricity development can only occur where there are natural resources that make development commercially viable. It is noted that in wind farm and other renewable consents offsetting has been used to manage effects which cannot be avoided.
- 16. Section 3.9aiii, and the requirement to avoid any fragmentation or loss of buffering, also creates challenges for wind farm consents where this has previously been able to be addressed through offsetting.
- 17. Excluding distributed generation in the definition of nationally significant infrastructure, which is largely renewable and has considerable potential for community wind projects, is a missed opportunity to advance regional development and enhance electricity sector resilience.
- 18. As electricity demand increases through the implementation of decarbonisation strategies there will be a significant increase in renewable generation required, particularly wind energy. A lack of regulatory and policy alignment will restrict renewables development at a time when electricity demand is forecast to increase. The effect of restricting development will result in higher electricity costs and potentially adverse security of supply outcomes.
- 19. The Association therefore does not consider the draft NPS-IB is consistent with the Governments climate change agenda and energy sector strategy of supporting renewables development.
- 20. The Association has also received advice that the NPS-IB will fail to meet its stated primary objective to maintain indigenous biodiversity and that a premise of the draft NPS-IB that identifying indigenous vegetation and habitats of indigenous fauna and declaring it 'significant' will protect it is demonstrably not the case in the absence of significant on going management.
- 21. The Association considers that the wider review of IB strategy should be completed prior to finalising the NPS-IB so there is an integrated plan to ensure key biodiversity risks and issues are comprehensively managed and that all the "tools" (including the mitigation hierarchy including offsetting) are available to manage effects not simply an "avoid" focus.
- 22. NZWEA has sought advice on the changes required to balance interests including the need to enable significant new renewable electricity generation, to meet climate change goals, and achieve the desired IB objectives which are as follows:
  - Use appendix 2 after appendix 1 in all cases such that the mitigation hierarchy can be applied to any proposed activity, not just the "carve out group".

- Change the criteria (in appendix 2) so that they better define high ranking value / condition (more than "typical") which become the total avoid, a medium level value ("typical") / condition and a low ranked ecological value. These last two ranks have associated mitigation / offset parameters higher for medium and a more 1 for 1 for low.
- Ecological mitigation / offsets and mechanisms that are finically responsible that cause management, enrichment, spatial enlargement and physical protection of IB in exchange for effects to medium and low ranking IB, but also perhaps other types of effect too.
- A need for long term investment in these areas driven by finical gains and penalties for failure to carry out / maintain the appropriate mitigation / offset
- Councils (regulatory authority) to activity monitor, assist and penalise failure to comply.
- 23. NZWEA considers the draft NPS-IB represents a significant risk to new renewable electricity development and enabling transmission investment and will directly impact the achievement of the Government's climate change targets.
- 24. For new renewable electricity generation development, and particularly wind energy, to meet the projected growth trajectory for energy sector decarbonisation the Association considers it essential that the drafting of the NPS-IB be revised to improve policy alignment across key Government priority areas.

# The Importance of Renewable Electricity Generation and Transmission to Achieve a Low carbon Economy

- 25. New Zealand's annual and cumulative emissions have continued to increase and it is recognised there is a current shortfall of around 200 million tonnes of carbon dioxide equivalent <sup>1</sup> to meet the 2030 the Paris Agreement in accordance with the United Nations Framework Convention on Climate Change.
- 26. The Government has also set aspirational targets of net zero emissions target for greenhouse gases, other than biogenic methane (The Zero Carbon Act) by 2050 and having 100% of our electricity produced from renewable sources by 2035 in an average hydrology year.
- 27. The Productivity Commission's Low Emission's Economy Report <sup>2</sup> highlighted three clear pathways to a low emissions economy a transition from fossil fuels to electricity, substantial levels of afforestation and changes to the structure and methods of agricultural production.
- 28. The strategy proposed by the Productivity Commission of transitioning from fossil fuels to electricity results in an at least 50% increase in electricity demand by 2050 and, as the Report noted, an abundant supply of low-cost, low emissions electricity will be important.
- 29. The Interim Climate Change Committee (ICCC) in their April 2019 Report Accelerated Electrification Report recommendation to accelerate the electrification of transport and process heat over pursuing the 100% renewable target as this could result in greater greenhouse emissions savings while keeping electricity prices affordable.<sup>3</sup>
- 30. The ICCC noted the need to provide for the development of wind generation at scale:

New wind generation (and its associated transmission and distribution infrastructure) will play a vital role in achieving emissions reductions. The modelling indicates that around 2,600 MW would be built in an accelerated electrification future – four times more than is currently in the system.

<sup>&</sup>lt;sup>1</sup> ICCC Accelerated Electrification Report, MBIE Accelerated Renewable Energy and Energy Efficiency – Discussion Document.

<sup>&</sup>lt;sup>2</sup> At a glance Low-emissions economy report, August 2018

<sup>&</sup>lt;sup>3</sup> ICCC Accelerated Electrification recommendation 1(a).

- 31. Other studies such as Transpower's Te Mauri Hiko Energy Futures White Paper also forecast that new renewable electricity generation over the next several decades is expected to be dominated by wind and solar.
- 32. In January 2019 Transpower published an addition to Te Mauri Hiko on solar energy.<sup>4</sup> In this report Transpower noted that solar produces the least energy when New Zealand needs it the most, such as during cold, dark winter months. The Report developed a "Roaring 40's" scenario which has wind generation doubling from the base estimate of 17 TWh's to around 30TWh's.
- 33. The cost of wind energy has significantly reduced due to the investment in technological improvements and economies of scale from wider deployment. New Zealand has clearly benefited from these trends. In addition, New Zealand has been uniquely advantaged in having an excellent wind resource and a high level of flexible hydro generation to lower the cost of supporting wind's variability.
- 34. Wind energy is generally regarded as having the lowest long run marginal cost of new generation in New Zealand and in most other geographies.
- 35. Wind generation, on a seasonal <sup>5</sup> and annual basis is consistent, but it does vary over short periods of time. As more wind farms are built in geographical locations subject to different weather patterns variability will further reduce. Wind is therefore ideally placed to work with existing hydro generation and contribute to meeting winter demand peaks.
- 36. The future replacement of thermal generation with renewables is expected to enable a significant growth in demand without price increases. As Credit Suisse noted in their 2018 Report: <sup>6</sup>

**Normally, prospective demand growth should elicit a boost in valuations – but in this case we believe risk may be skewing towards lower electricity prices**. On our assessment of cost for new wind projects, we see a strong risk the long run price outlook will decline even if carbon prices rise. Price will remain the most important driver of sector valuations (as opposed to generation volume growth or new project NPVs).

- 37. Wind energy also has the lowest lifecycle greenhouse gas emissions of any source of electricity generation at 4gCO2e/kWh compared with solar at 6g, coal 109g and gas 78g<sup>7</sup>. The carbon footprint of wind turbine manufacture can often be recovered within 2-5 months of operation depending upon percentage of renewable electricity used in the manufacturing process.
- 38. Wind energy is therefore widely regarded as key to meeting New Zealand's climate change aspirations as well as supporting the energy trifecta. As the ICCC stated: <sup>8</sup>

The modelling suggests wind will be the dominant form of new renewable generation out to 2035. This is because New Zealand has an abundance of quality wind-farm sites, and wind is the lowest-cost form of new generation.

39. The importance of electricity transmission given commercially viable renewable electricity generation relies on access to a fuel resource is well understood. For this reason the issues identified for renewable electricity generation also equally apply to transmission infrastructure.

## The Need for Regulatory Alignment and Balancing Interests

<sup>&</sup>lt;sup>4</sup> The sun rises on a solar future published January 2019.

<sup>&</sup>lt;sup>5</sup> Quarterly averages over 4 years to end 2018 – March 23%, June 26%, September 25%, December 26%.

<sup>&</sup>lt;sup>6</sup> Credit Suisse NZ Electricity Generators: Decarbonisation beckons – but at what price? August 2018 summary.

<sup>&</sup>lt;sup>7</sup> Understanding future emissions from low-carbon power systems by integration of life-cycle assessment and integrated

energy modelling, Nature Energy 939-945 published December 2017.

<sup>&</sup>lt;sup>8</sup> ICCC Accelerated Electrification Report, section 6.2.

- 40. The complexity and challenge of achieving regulatory and policy consistency when balancing ecological, environmental, economic and social interests and wellbeing is well understood and has been central to the RMA's purpose of the sustainable management of natural and physical resources.
- 41. The electricity industry's experience with the National Policy Statement for Renewable Electricity Generation (NPS-REG) is an example of excellent intent that has been disappointing with respect to its effectiveness. The NPS-REG has the objective of recognising the significance of renewable electricity generation by providing for the development, operation, maintenance and upgrading of new and existing renewable generation activities. In the Ministry for the Environment's Report on the Outcome Evaluation of the NPS-REG the Ministry commented: <sup>9</sup>

The NPSREG does not appear to have resulted in noticeably more certainty for resource consent applicants for REG projects. The NPS has not resulted in nationally consistent approaches to the drafting of regional and district plans.

42. The Productivity Commission in their Low Emission Report further stated: <sup>10</sup>

The National Policy Statement for Renewable Electricity Generation 2011 (NPS-REG) is not wellreflected in the planning documents of local authorities and has made no difference to the time, complexity and cost of obtaining consents for renewable electricity generation investments (particularly wind- and hydro-generation). The language of the NPS-REG is not sufficiently directive to give weight to the central role of renewable electricity generation in New Zealand's transition to a low-emissions economy over the next several decades.

43. The risk of unintended consequences from regulatory and policy actions was further highlighted in the Government's Electricity Price Review's (EPR) Final Report when commenting that energy affordability is a key issue in the electricity sector: <sup>11</sup>

Energy hardship emerged as one of the most pressing problems we uncovered. More than 100,000 households are in this situation. Worryingly, children live in many of these homes.

Looking ahead, a low-emissions economy will mean more demand for electricity, more gridconnected wind, hydro and geothermal power, widespread use of electric vehicles, and the emergence of a two-way flow of electricity as consumers install solar panels and sophisticated battery technology. Managed well, these changes, and the country's responses to climate change, should not necessarily lead to big price increases. But avoiding steep increases will require more co-ordinated planning and action among government agencies – not just energy regulators – than has been seen to date.

44. The ICCC also stated: 12

A responsive regulatory system must facilitate changes in the market, while ensuring that appropriate consumer protections are in place. The Committee recommends that regulators be required to take emissions reductions objectives into account, as well as facilitating and enabling new generation and both market and distribution innovation.

45. NZWEA recognises the primary driver of the changes proposed is the need to improve the management of indigenous biodiversity and supports this objective. However, as the following section outlines, the negative effects the draft NPS-IB is expected to have on renewable electricity development highlights an implementation alignment gap between the Government's low carbon economy and just transition objectives and those for indigenous biodiversity.

<sup>&</sup>lt;sup>9</sup> Report on the Outcome Evaluation of the National Policy Statement for Renewable Electricity Generation, December 2016, page 7.

<sup>&</sup>lt;sup>10</sup> Productivity Commission Low-Emissions Inquiry, Fact 13.4.

<sup>&</sup>lt;sup>11</sup> Electricity Price Review, Overview, page 1.

<sup>&</sup>lt;sup>12</sup> ICCC Accelerated Electrification Report, executive summary, page 7.

- 46. The Association also notes that the draft NPS-IB was issued prior to the completion of the New Zealand Biodiversity Strategy (it has since been completed). The strategy in force when the draft was published is 20 years old, and while the draft NPS-IB is an expected necessary key outcome of the strategy, NZWEA considers the strategy should guide the finalisation of the NPS IB. The strategy should clearly articulate the reasons for the loss of biodiversity (it records pests and management issues not habitat loss) and how the NPS fits into a range of strategies and actions to address all the key reasons for declining habitat conditions.
- 47. NZWEA considers the changes to latest draft of the NPS-IB, from that originally proposed by Collaborative Group, have significantly and materially shifted outcomes for indigenous biodiversity protection and enabling sustainable and responsible electricity generation development.
- 48. NZWEA notes that the World Energy Council's definition of energy sustainability has three core dimensions (the energy trilemma): energy security, energy equity and environmental sustainability with New Zealand being one of countries achieving a top 10 result of a AAA balance across all three areas. Maintaining the trilemma is a key plank of the Government's energy sector policies.
- 49. In the Associations view, for the reasons outlined in the following sections, the proposed NPS will not meet the stated objective, and will materially impact the ability for renewables, particularly wind energy, to be developed. The draft NPS will also impact the achievement of the Government's climate change targets and energy sector policies including sustaining a AAA energy trilemma rating.
- 50. In effect NZWEA considers the NPS-IB represents a significant risk to new renewable electricity generation development and enabling transmission infrastructure.

### **Effects on Renewables Development**

- 51. NZWEA considers the changes to latest draft of the NPS-IB, from that originally proposed by Collaborative Group, have materially shifted the balance between indigenous biodiversity protection and enabling sustainable and responsible renewable electricity generation development.
- 52. The need for consents in any new landscape for development will require ecological assessments to identify ecological values in the landscape, and likely before Councils complete their own required (section 3.8) SNA identification process, but also in addition to Councils completed SNA process.
- 53. The NPS-IB doesn't specifically state it, but all ecological assessments after gazettal will likely need to use the criteria in Appendix 1. The ecological advice the Association has received is that this set of criteria will likely cause most, if not all indigenous features, to be recognised as "Significant".
- 54. The Association understands the criteria have been modified from the Collaborative Group, which were modified significantly from the advising ecologists' recommendations. The current set have removed clarity and added ambiguity and lowered the bar substantially.
- 55. Under 3.9 of the draft the list of effects of activities which must be avoided in an SNA, where most / all things indigenous are significant, this effectively means that all effects to extent and condition must be avoided and not after an offset but as a primary requirement.
- 56. The avoid all SNA features approach means all new windfarm design will need to avoid all indigenous features with no effect and offset potential, especially where it is not considered "national infrastructure" (see below).
- 57. Section 3.9(1)a)iii and the need to avoid any fragmentation or loss of buffering also creates challenges for wind farm consents where this has previously been able to be addressed through offsetting.

- 58. Section 3.9 (2)(d) references nationally significant infrastructure. Under the definitions in Section 1.8 for renewable electricity generation facilities this only includes connections to the national grid and excludes distributed generation.
- 59. Distributed generation currently meets around 10% of New Zealand's electricity demand largely from renewable sources, primarily hydro and wind. Studies undertaken by the Parliamentary Commissioner for the Environment <sup>13</sup> confirm that large scale wind farms can only ever occupy a small portion of the country's wind locations. Small microclimates which have funnelling or hilltop attributes are very favourable for community wind projects.
- 60. While the Association has issues with the effectiveness of the national infrastructure carveout (refer next para) the exclusion of distributed renewable generation is a missed opportunity to enhance regional development and enhance electricity sector resilience.
- 61. For those developments considered "national infrastructure" while it appears that section 3.9 (2)(d) has a carve out allowing this important infrastructure to continue to be developed, again a change from the BCG recommendations means that effects (and the mitigation hierarchy) can only be employed where the SNA to be affected is of medium rank, not high ranking. Appendix 2, which establishes the rank, is set such that currently most SNA can be found to be high as the criteria are ambiguous and relatively low threshold and only one (of 29) needs to be meet.
- 62. Our advice is that most SNA will / can be made to be high, and so the activity is back to avoid. This inability to affect and offset SNA has a significant impact for wind farm development.
- 63. In addition to avoiding effects on SNA and all features likely to be found SNA and high ranking, section 3.15 addresses habitat of highly mobile at risk and threatened species. This "policy" is also expected to be problematic for windfarms. The NPS IB requires Regional Councils and TA's to recognise areas outside of SNA's where highly mobile fauna (an undefined term) have been or might be present and to manage adverse effects on these habitats, using best practice techniques (one must assume "avoidance" is a good technique).
- 64. One technique the Association considers likely to be used in addressing mobile species is to decline consents particularly given the requirement of section 3.6 that Councils follow a precautionary approach.
- 65. Also, in developing the roading network and transmission line routes for a new windfarm it may be required to clear pasture reversion areas. Section 3.12 addresses this and it largely appears that much pasture reversion may be significant, and that generally clearance will be difficult, or must be avoided.
- 66. Section 3.12 (4)(b) requirements may result in farmers and other landowners being in a difficult position when they have allowed paddocks to revert, especially for over 5 years and where the reversion is with manuka and kanuka and where they do not have good records of cyclic clearing. This section may preclude seral vegetation clearance, thereby affecting the optimisation of windfarm layout, and again there appears to be no offset balance.
- 67. An unintended consequence of Section 3.12 (4)(b) may be that landowners clear redeveloping indigenous vegetation to prevent a SNA classification.
- 68. There is further risk to existing windfarms should there is a need to clear under transmission lines which are through indigenous vegetation that may be problematic or impossible.
- 69. It is acknowledged re-powering may not be of issue where the footprint is similar but, as with a new development, if the re powering requires new access roading and new turbine locations then the same limits apply as above.

<sup>&</sup>lt;sup>13</sup>PCE Report Wind Power, people and Place (2006b) .

## The Electricity Industry is a Responsible Developer

- 70. Appendix 3: principles for biodiversity offsetting has also be modified from that discussed by the BCG. The proposed framework is now extremely restrictive for considering offsets and compensation.
- 71. The development of commercially viable renewable electricity generation relies on access to a fuel resource. Historically wind farms have been built where the wind resource supports a high output reducing the long run marginal cost of generation.
- 72. Where the development of a wind farm has been consented in areas that have ecological value offsetting and compensation has been used to achieve overall net positive indigenous biodiversity outcomes.
- 73. A thesis completed by Marie Brown evaluating ecological compensation in New Zealand concluded an overall regulatory compliance level of 64.8% with energy generation at 100% highlighting the rigour with which the energy sector adheres to consent conditions:

#### Compliance

The levels of regulatory compliance were assessed in 81 consents and 245 conditions with an overall compliance level of 64.8%. Public organisations (75.5%) were more likely to comply than private companies (65.5%), followed by private individuals (54.7%). Administrative conditions (paper-based) were much more likely to be complied with (82.6%) than non-administrative (action based) conditions (49.6%). There were significant differences in compliance rates across different activities from Agriculture (4.8%) through to Energy Generation (100%), demonstrating the importance of understanding the nature of non-compliance in improving regulatory compliance and enforcement.

74. With the expected outcome that most new wind farm development will be caught under Section 3.9 with a must avoid requirement the ability to negotiate an improved overall environmental outcome through agreed consent conditions will no longer be possible.

## The NPS- IB fails to Meet the Overall Stated Objective

- 75. The Association has received advice that the NPS-IB will fail to meet its stated primary objective to maintain indigenous biodiversity.
- 76. The NPS IB currently addresses habitat loss and not the primary cause of current loss invasive pest species and other management issues. A premise of the draft NPS-IB is that identifying indigenous vegetation and habitats of indigenous fauna and declaring it 'significant' ("securing the habitat area") will protect it. Advice received is that this is demonstrably not the case.
- 77. True protection of sites of ecological value requires investment and management. Often (currently) that investment and management is achieved on private land by allowing some effects (through a consent process) resulting in offset requirements especially where those effects are to parts of attributes of the area that do not take away the sites value, viability, significance.
- 78. Currently the NPS IB does not allow an offset path even under 3.9 (2)(d) carves outs, the opportunity to undertake an activity and offset that activity's effects is limited to only

<sup>&</sup>lt;sup>14</sup> Towards Robust Exchanges Evaluating Ecological Compensation in New Zealand ICCC Accelerated Electrification Report. Abstract published 2014.

SNA of medium rank – Under Appendix 2 criteria and process we suggest very few SNA will register as medium, most will be High.

- 79. Effectively for most applications the requirement will be to avoid effects, to cause "no reduction in" ..... That approach will not result in revegetation, pest management, physical protection, or legal protection (covenants) other than a line on a planning map. It is these things (as well as new habitat creation) that are required to "turn the tide".
- 80. If no offset (mitigation hierarchy) can be enacted then the landscape wide protection activities needed on private land must be funded (and driven) through Councils (rates / levies) and/or private landowners (money and agreements) and the abilities of ether to do this at effective levels, for long term (effectively for ever) is considered low.
- 81. Again, NZWEA has been advised that the principal issue for NZ IB today is declining habitat condition, brought about by invasive pests causing species loss through predation and attrition from competition, not area loss.
- 82. Area loss has diminished in the last three decades to very small (<1%) levels largely due to the RMA and to public recognition of the value. The NPS IB remains focused on that part of the issue and fails to address the more important current issue and currently does nothing to address these factors it actually prevents processes that occur today under the RMA that do address these issues.

#### **Recommended Enhancements to the Draft NPS-IB**

- 83. The Association has outlined its preference for the draft NPS-IB to be considered as part of the wider review of IB strategy to ensure key biodiversity risks and issues are comprehensively managed.
- 84. The tightening from BCG drafts and layering of appendix 1,2 and 3 criteria combined with the section 3.6 precautionary approach requirement is expected to result in most new wind developments confronting a must avoid requirement.
- 85. To address the concerns identified with the draft NBS-IB first and foremost the Association considers the drafting of the NPS-IB should be revised so as to achieve an improved policy balance by reviewing identification criteria, especially the tolerance of appendix 2, revising 3.9 so as to allow all effects to be considered through the "carve out" Appendix 2 path, and better support enabling of mitigation and offset options. In the Association's view doing so will not adversely impact objective 1 of maintaining indigenous biodiversity.
- 86. NZWEA has sought advice on what changes are required to balance interests which are as follows:
  - An ability for all activities (not just those of the "carve out") to proceed through appendix 2 to enable the mitigation / offset hierarchy to manage effects.
  - A set of criteria in Appendix 2 that define high (more than "typical") ranking value / condition which become the total avoid, a medium level ("typical") value / condition and a low ranked ecological value. These last two ranks have associated mitigation / offset parameters higher for medium and a more 1 for 1 for low.
  - Ecological mitigation / offsets and mechanisms that are finically responsible that cause management, enrichment, spatial enlargement and physical protection of IB in exchange for effects to medium and low ranking IB, but also perhaps other types of effect too.
  - A need for long term investment in these areas driven by finical gains and penalties for failure to carry out / maintain the appropriate mitigation / offset
  - Councils (regulatory authority) to activity monitor, assist and penalise failure to comply.

## About the NZ Wind Energy Association (NZWEA)

- The NZWEA is an industry association that promotes the development of wind as a reliable, sustainable, clean and commercially viable energy source
- We aim to fairly represent wind energy to the public, Government and energy sector
- Our members are involved in the wind energy sector and include electricity generators, wind farm developers, lines companies, turbine manufacturers, consulting organisations and other providers of services to the wind sector
- By being a member of NZWEA you are assisting the development of wind energy in New Zealand and helping to reduce our greenhouse gas emissions to meet climate change targets.

#### The Association's strategy focuses on three key areas:

- Leveraging NZ's emission reduction imperative to enable the energy transition to renewables, particularly wind energy.
- Optimising wind energy's position and ensure the regulatory environment supports wind farm development.
- Expanding the opportunity for wind energy development to enable community and industrial projects including wind's integration with other technologies.

#### Contact details in relation to this submission:

Grenville Gaskell Chief Executive New Zealand Wind Energy Association PO Box 553 Wellington 6140

grenville@nzwea.org.nz