

## Transitioning to a low-emissions and climate-resilient future

NZ Wind Energy Association Submission

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By email: via Citizen Space at <https://consult.environment.govt.nz/climate/emissions-reduction-planmitigation@mfe.govt.nz>

### Introduction

1. The New Zealand Wind Energy Association (NZWEA) welcomes the opportunity to make a submission on the Transitioning to a low-emissions and climate resilient future discussion document.
2. As an introductory comment the Association acknowledges the importance of addressing the climate crisis with clear targets and plans. NZWEA's strategy focuses on three key areas:
  - Leveraging New Zealand's emissions reduction imperative to enable the energy transition to renewables, particularly wind energy.
  - Optimising wind energy's position and ensuring 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.
3. The Association has therefore submitted on most recent consultations relating to reducing emissions including the Productivity Commission's Low-emissions Inquiry<sup>1</sup>, the Electricity Price Review<sup>2</sup>, MBIE's Accelerated Renewable Energy and Energy Efficiency Discussion Document<sup>3</sup>, the Zero Carbon Bill<sup>4</sup>, and ETS Reform<sup>5</sup>, has engaged with the Interim Climate Change Committee and responded to the Climate Change Commission's draft advice<sup>6</sup>. Most recently the Association submitted on the Exposure Draft of the Natural and Built Environments Bill (NBA)<sup>7</sup>.
4. A consistent theme of the Association's submissions is the importance of ensuring policy and target alignment across the energy, environmental, and climate change domains if New Zealand is to achieve social, economic and environmental wellbeing whilst also being a responsible global citizen.
5. In this submission the Association focuses on responding to questions related to coordination across Government, development of an energy strategy and the

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<sup>1</sup> Productivity Commission, Low-emissions Economy Report, August 2018.

<sup>2</sup> Electricity Price Review Options Paper, February 2018 and First Report, August 2018.

<sup>3</sup> MBIE Accelerating renewable energy discussion document, December 2019.

<sup>4</sup> Climate Change Response (Zero Carbon) Amendment Bill, May 2019.

<sup>5</sup> MfE Consultation – Reforming the NZ Emissions trading Scheme: Proposed Settings, December 2019.

<sup>6</sup> Climate Change Commission 2021 Draft Advice for Consultation, January 2021.

<sup>7</sup> National and Built Environments Bill Exposure Draft, July 2021.

importance of enabling critical infrastructure development so that, for example, the electricity sector can best support achievement of successive emission reduction budgets and the net zero target.

## Summary

6. The Association acknowledges the foundations that have been put in place for a low-carbon Aotearoa New Zealand and recognises the strategic role renewable electricity generation and transmission and other infrastructure development will play in achieving the net-zero target.
7. While the Climate Change Commissions Final Report<sup>8</sup> and this discussion document cover many areas needed to deliver an emissions reduction plan the Association considers several of the new strategies / policies identified are essential to enable renewables development to support decarbonisation:

New Strategies and Priorities	Summary Comments
<p><b>Government accountability and coordination</b> - Improving coordination and monitoring across Government in order to implement the emissions reduction plan and respond to the climate emergency</p>	<p>Given the urgency to reduce emissions, ensuring coordination across Government is essential if the unintended consequences of decisions are not to cause delays in the achievement of emission reduction budgets.</p> <p>The Association is concerned the policy and target alignment across the climate change, environment and energy domains, and in particular recognising and providing for enabling infrastructure development such as renewable electricity generation is not occurring.</p> <p>NZWEA considers there is a lack of recognition of the requirement to enable the significant infrastructure necessary to deliver decarbonisation.</p> <p>It is therefore essential all government policy and investment decisions support the transition to low emissions.</p>
<p><b>Emissions pricing</b> - Encouraging gross emission reductions through the New Zealand Emissions Trading Scheme (NZ ETS).</p>	<p>The Association supports a focus on gross emissions reduction, as this represents a permanent reduction and does not have the risks associated with carbon sequestration.</p> <p>As the Parliamentary Commissioner for the Environment has stated, the climate benefit of forests cannot be guaranteed and may be at</p>

<sup>8</sup> Inaia tonu nei: a low emissions future for Aotearoa, May 2021.

	<p>risk from fire, disease and climate change itself<sup>9</sup>.</p>
<p><b>Planning</b> - Integrating emissions reduction into land-use planning and investments as part of the resource management reforms currently underway</p>	<p>The Association supports the objectives of the current resource management system reform. The NZWEA submission on the Exposure Draft of the NBA highlighted risks that we consider will prevent renewable electricity development thereby impacting the achievement of reduction budgets in the transport and energy sectors. The next section focuses on coordination and planning and attached to this submission is the Association’s submission on the NBA.</p>
<p><b>Energy and industry</b> – Developing an energy strategy</p>	<p>The Association supports the development of an energy strategy to decarbonise the energy system and ensure the electricity sector has a transition pathway to a higher level of renewables, that optimises the energy trilemma. An objective of the strategy would be to ensure a smooth and appropriately sequenced phase down of fossil fuels, and a scale up of renewable electricity generation and new low-emissions fuels in the context of changing supply and demand requirements. Specific areas the Association would like to see included are strategies to:</p> <ul style="list-style-type: none"> <li>▪ Efficiently manage peak demand and renewables variability.</li> <li>▪ Assess the opportunity to create economic growth from the energy sector.</li> <li>▪ Enable offshore wind and community energy development.</li> <li>▪ Further development of the wholesale market including risk management products and expansion of the PPA market.</li> </ul>
<p><b>Energy and industry</b> – Setting a renewable energy target</p>	<p>The Association supports setting a renewable energy target as this would signal the Government’s move away from petrol to electricity or other low-carbon fuels in transport as well as the transition away from fossil fuels in heat and electricity. A renewable energy target has also been widely</p>

<sup>9</sup> Farms, forests and fossil fuels: The next great landscape transformation, Parliamentary Commissioner for the Environment, March 2019.

	supported by the sector as offering more potential to reduce fossil fuel use at a lower abatement cost than focusing on 100% renewable electricity generation.
<b>Energy and industry</b> – Outcomes and approach to developing a plan for managing the phase out of fossil gas and developing a plan to decarbonise the industrial sector	Gas is recognised as a key transition fuel to manage the variability of renewables and support dry year hydro sequences. Managing the orderly phase out of thermal fuels and generation and associated consequences for network infrastructure and workforce will be key to sustaining the energy trilemma during a period of transition.
<b>Energy and industry</b> – Developing a plan to decarbonise the industrial sector	Supported as a key opportunity to reduce industrial sector emissions.
<b>Energy and industry</b> - Identifying the level of support the Government could provide for the development of low-emissions fuels, such as bioenergy and hydrogen, to support decarbonisation of industrial heat, electricity and transport.	The Association supports the development of low emission fuel alternatives particularly those that enable the decarbonisation of sectors: <ul style="list-style-type: none"> <li>▪ where electrification does not provide an economic solution.</li> <li>▪ that create energy economic growth through encouraging demand growth or providing energy export opportunities.</li> </ul>

8. In summary, NZWEA considers progressing an energy strategy as essential to meeting known challenges and realising the significant economic opportunities arising from the sector wide transformation that is underway.
9. In addition, the Association considers climate change as a critical issue for the resource management system reform to address, with the reforms being at the intersection of preventing further environmental degradation while enabling responsible infrastructure development to mitigate the environmental impacts of climate change and support meeting emission reduction targets.
10. In respect of future actions NZWEA recommends:
  - Completion of the review of the NPS-REG to support existing generation capacity and increased renewables development.
  - Further engaging with the electricity sector to consider options to ensure that appropriate infrastructure development is enabled through resource management system reforms to support achievement of carbon reduction budgets and targets.

## Focus on Co-ordination and Planning

11. The Association supports the importance of 'ensuring every government decision is consistent with climate goals' which is included in the multi-sector strategy<sup>10</sup>. under the heading of aligning system settings and use cross-sector tools.
12. It is recognised the quantum of policy development in the domains of climate change, environmental and energy sectors is extraordinarily ambitious and reflects the urgency to reduce emissions and address environmental issues.
13. While the Association notes a number of Government leadership groups have been created around climate change and resource management reform, such a level of activity does create the risk of unintended consequences resulting in delays in the achievement of emission reduction budgets. Examples being the expected impact of the Draft National Policy Statement for Indigenous Biodiversity, the National Environmental Standard for Freshwater and most recently the Exposure Draft of the Natural and Built Environment Bill where the built environment was not referenced in the Bill's purpose.
14. As noted in para 7 the Association is concerned that the policy and target alignment across the climate change, environment and energy domains, and in particular recognising and providing for enabling infrastructure development such as renewable electricity generation is not occurring.
15. The Association considers there is a significant disconnection in respect of recognising the need to support enabling the extensive building of physical infrastructure required to deliver the proposed emission reduction targets.
16. In relation to wind energy specifically all energy sector forecasts are for significant growth. The following table is a summary of Climate Change Commission and Transpower forecasts.

Growth Forecast	Total MW		No. New Wind Farms	1 Farm Every (Mths)
	2035	2050		
CCC - Demonstration pathway	2,900		17	10
CCC - Tiwai stays scenario	3,900		27	6
Transpower - Te Mauri Hiko		6,500	53	7

17. The number of new wind farms is based on the current average size of 100 MW and represents a significant challenge with careful planning required to overcome material supply chain constraints and skills shortages. There will unquestionably be a limit to the number of wind farms able to be developed concurrently.
18. However, in terms of land area observations from the MBIE Wind Stack Report<sup>11</sup>, a total wind farm capacity of 6,690 MW would occupy a land area of 669 km<sup>2</sup> or just 0.25% of New Zealand's land area. An area in which other land use activities such as farming can also share.

<sup>10</sup> Aotearoa New Zealand's pathway to Carbon Zero, Getting to Carbon Zero, Figure 2 page 18.

<sup>11</sup> Ministry of Business Innovation and Employment Wind Generation Stack Update March 2020.

19. The ineffectiveness of the current national direction for renewable electricity development is widely recognised and the consultation notes the current work programme to review the National Policy Statement for Renewable Electricity Generation (NPS-REG) and the wider review of the resource management system.
20. While, the NPS Review has further clarified the key issues, the Association considers there is uncertainty as to how much further the Review can be progressed given the intention of the wider resource management reforms to develop a new national planning framework (NPF).
21. In both the NZWEA and joint industry submissions on the recent consultation on the NBA Exposure Draft, the risks to renewable electricity development were highlighted. Both submissions are attached to this submission which identified several risks to renewable electricity development with key themes being the need for:
  - better inclusion of the built environment in the purpose of the Act.
  - stronger and prioritised outcomes for electrification and renewable electricity use to achieve decarbonisation.
  - inclusion of climate system limits.
  - effective mechanisms and decision-making process to resolve outcome conflicts.
  - having a more workable approach to environmental limits.
22. The Association has reviewed the Environment Committee's Report<sup>12</sup> and, while there are several positive recommendations, such as the inclusion of the built environment in the Acts purpose, our overall position is that the Bill, in its recommended form, creates material risks for renewable electricity development.
23. Early consultation has been appreciated and in forming this view NZWEA recognises that significant aspects of the reform such as the form of the Strategic Planning Act and how spatial strategy may support development.
24. The essence of the concerns of the wind industry are that:
  - The industry is facing a significant increase in the number of new wind farms required to support decarbonisation of the energy and transport sectors.
  - Consenting of wind farms has been a lengthy and costly process in large part due to ineffective national direction.
  - The review of the NPS-REG may be delayed by uncertainty as to the form of the wider resource management reforms including the proposed national planning framework (NPF).
  - Developing and implementing the resource management reforms including the NPF will be a lengthy process probably taking a number of years based on the experience of developing individual national direction policy such as for freshwater and biodiversity.

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<sup>12</sup> Inquiry on the Natural and Built Environments Bill, Report of the Environment Committee, November 2021.

- Where possible The Environment Committee has recommended carrying over existing RMA definitions and types of provisions and functions currently provided for by national policy statements and national environmental standards<sup>13</sup>.
- Therefore, unless the NPS-REG is strengthened, the industry will face a lengthy period of time where there is ineffective national direction to support sustaining existing renewables capacity and a significant new build programme which is required to achieve the budgets to reduce emissions in the transport and energy sectors.

25. NZWEA would therefore submit that the following actions are required:

- Completion of the review of the NPS-REG as this should provide assistance to sustain existing capacity and the further development of renewables. A strengthened NPS will also best position the sector for when the NPF is developed.
- Ensure that climate change is addressed as a critical issue for the resource management system reform, being at the intersection of preventing environmental degradation resulting from inappropriate infrastructure development while enabling responsible development to mitigate the environmental impacts of climate change and support meeting emission reduction targets.
- Further engaging with the electricity sector to consider options to ensure appropriate infrastructure development is enabled to support achievement of carbon reduction budgets and targets.
- Consider whether there are additional processes and mechanisms to ensure alignment of climate change, environmental and energy sector policies and targets.

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<sup>13</sup> Inquiry on the Natural and Built Environments Bill, Report of the Environment Committee November 2021 recommendations 9 and 26a.

## Response to Specific Questions

### Meeting the net-zero challenge

1 Do you agree that the emissions reduction plan should be guided by a set of principles? If so, are the five principles set out above the correct ones? Please explain why or why

Yes.

In particular the Association notes the inclusion of 'the use of commercially available, low emissions technology' as providing a clear, ambitious and affordable path. In addition, NZWEA considers technologies such as wind energy provide social benefits beyond emissions reduction.

NZWEA also highlights the importance of predictable and stable policies and designing effective policies that recognise the connections and flow-on effects within systems. A key concern, as noted in the summary, is the ability of renewable electricity generation to contribute to reducing emissions under proposed resource management reforms. In particular new generation is expected to be materially impacted by biophysical limits that do not provide for mechanisms to achieve an overall net positive environmental outcome.

The Association would also like to see a principle added that enables flexibility to deliver overall positive outcomes across multiple domains such as for example of climate change, the environment and the energy sector.

2 How can we enable further private sector action to reduce emissions and help achieve a productive, sustainable and inclusive economy? In particular, what key barriers could we remove to support decarbonisation

Ensure that physical infrastructure such as responsible renewable electricity generation is recognised as an essential enabler of decarbonisation and thereby assists protecting the natural environment from the effects of climate change.

3 In addition to the actions already committed to and the proposed actions in this document, what further measures could be used to help close the gap

The Association supports the discussion documents focus on ensuring every government decision is consistent with climate goals and the importance of developing an energy strategy and progressing planning reforms.

The essence of the Association's submission is that there is a lack of recognition of the physical infrastructure development required to support carbon reduction budgets and this is an area requiring significant additional action including coordination across Government.



6 Which actions to reduce emissions can also best improve our ability to adapt to the effects of climate change

In respect of the electricity sector a focus on enabling DER plus a strong grid to support greater geographical dispersion of renewable electricity generation, including community solutions, will increase the resilience of the sector.

## Aligning systems and tools

21 In addition to the Climate Change Commission monitoring and reporting on progress, what other measures are needed to ensure government is held accountable?

Ensuring there is an integrated reporting system which tracks both lead input deliverables such as infrastructure investment along with output measures such as the reduction of emissions.

23 Is there anything else you wish to share in relation to government accountability and coordination

Please refer to para 11 to 25 on focus on Co-ordination and Planning.

24 What are the main barriers or gaps that affect the flow of private capital into low emissions investment in Aotearoa?

A key barrier for independent generators in New Zealand is the depth of the PPA market to secure offtake agreement.

30 Do you agree the treatment of forestry in the NZ ETS should not result in a delay, or reduction of effort, in reducing gross emissions in other sectors of the economy?

The Association supports a focus on gross emissions reduction as this represents a permanent reduction and does not have the risks associated with carbon sequestration.

As the Parliamentary Commissioner for the Environment has stated the climate benefit of forests cannot be guaranteed and may be at risk from fire, disease and climate change itself<sup>14</sup>.

32 Are there any other views you wish to share in relation to emissions pricing?

The Association supports the continued focus on improving the New Zealand Emissions Trading Scheme so it provides stronger commercial incentives to drive low emissions choices.

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<sup>14</sup> Farms, forests and fossil fuels: The next great landscape transformation, Parliamentary Commissioner for the Environment, March 2019.

33 In addition to resource management reform, what changes should we prioritise to ensure our planning system enables emissions reductions across sectors? This could include partnerships, emissions impact quantification for planning decisions, improving data and evidence, expectations for crown entities, enabling local government to make decisions to reduce emissions.

The ineffectiveness of the current national direction for renewable electricity development is widely recognised and the consultation notes the current work programme to review the National Policy Statement for Renewable Electricity Generation (NPS-REG).

Given the requirement to preserve existing capacity and significantly invest in new renewables development and the expected timeframe for the new planning system to be in place the Association recommends completing the NPS review to provide stronger national direction in support of renewables development.

58 In your view, what are the key priorities, challenges and opportunities that an energy strategy must address to enable a successful and equitable transition of the energy system?

The Climate Change Commission<sup>15</sup> has highlighted a number of aspects that need to be considered which the Association supports including:

- Emissions reductions and removals
- System reliability and affordability
- Future energy developments
- Infrastructure
- Equitable industry transitions
- Regional and national economic development planning
- Supply chains
- Workforce and skill needs

Specific areas NZWEA would like to see a focus on include:

- A transitions pathway that ensures a smooth and sequenced phase down of fossil fuel generation alongside an increase in renewables.
- Affordable options to manage dry year risk.
- Options to efficiently manage peak demand and renewables variability, lowering the cost of electricity for consumers, including distributed energy resources and retail tariff reform.
- The opportunity to create energy economic growth through encouraging demand from new energy intensive sectors or providing energy export opportunities, utilising New Zealand's abundant renewables resources.
- Enabling offshore wind development by introducing a licensing and regulatory framework, providing rights to support investment.
- Strategies to enable community energy development to support regional growth and electricity sector resilience.
- The development of the wholesale market including new offerings such as new risk management products (capped pricing products etc) and mechanisms to expand the PPA market.

Developing an energy strategy that best supports the energy trilemma is the key challenge in a relatively small electricity system with aging thermal capability and significant yearly generation variability in hydro, its largest source of generation.

#### 59 What areas require clear signalling to set a pathway for transition?

The increase in carbon price is providing a clear signal to the energy sector, the challenge is to manage the transition.

#### 60 What level of ambition would you like to see Government adopt, as we consider the Commission's proposal for a renewable energy target?

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<sup>15</sup> A low emissions future for New Zealand Report, para 15.1.1.

The Association supports the target proposed by the Climate Change Commission - 50% of all energy consumed comes from renewable sources by 31 December 2035.

On a business-as-usual basis NZWEA also supports the CCC's view that the target for 100% renewable electricity should be replaced with achieving 95% - 98% renewable electricity by 2030.

The Association would like to see an assessment of a stretch target of 200% to 500% renewable electricity generation target based on the opportunity to export energy.

#### **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 the 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.

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## **Inquiry on the Natural and Built Environments Bill**

New Zealand Wind Energy Association Submission

4 August 2021



Committee Secretariat  
Environment Committee  
Parliament Buildings  
Wellington

By email: [en@parliament.govt.nz](mailto:en@parliament.govt.nz)

### **Introduction**

26. The New Zealand Wind Energy Association (NZWEA) welcomes the reform of the resource management system and appreciates the opportunity to make a submission on the exposure draft of the Natural and Built Environments Bill (the NBA) and the accompanying parliamentary paper.
27. The Association would like to present to the Environment Select Committee in support of its submission.
28. As an introductory comment, the Association acknowledges the importance of resource management system reform and the complexity of ensuring policy and target alignment across the energy, environmental, and climate change domains if New Zealand is to achieve social, economic and environmental wellbeing whilst also being a responsible global citizen.
29. In particular, the Association recognises that climate change is a critical issue for the resource management system reform to address, being at the intersection of preventing environmental degradation resulting from inappropriate infrastructure development while enabling responsible development to mitigate the environmental impacts of climate change.
30. The Association has therefore submitted on most recent consultations relating to these domains, including the Productivity Commission's Low-emissions Inquiry<sup>16</sup>, the Electricity Price Review<sup>17</sup>, MBIE's Accelerated Renewable Energy and Energy Efficiency Discussion Document<sup>18</sup>, the Zero Carbon Bill<sup>19</sup>, and ETS Reform<sup>20</sup>, and has engaged with the Interim Climate Change Committee and responded to the Climate Change Commission's draft advice<sup>21</sup>.

<sup>16</sup> Productivity Commission, Low-emissions Economy Report, August 2018.

<sup>17</sup> Electricity Price Review Options Paper, February 2018 and First Report, August 2018.

<sup>18</sup> MBIE Accelerating renewable energy discussion document, December 2019.

<sup>19</sup> Climate Change Response (Zero Carbon) Amendment Bill, May 2019.

<sup>20</sup> MfE Consultation – Reforming the NZ Emissions trading Scheme: Proposed Settings, December 2019.

<sup>21</sup> Climate Change Commission 2021 Draft Advice for Consultation, January 2021.

31. In recognition of the importance of the resource management system reform, the country’s principal electricity generators <sup>22</sup> and NZWEA (collectively referred to as the Electricity Sector Environment Group (ESEG)) has prepared a joint submission which is attached.
32. The joint submission notes support for the reform objectives and a number of key aspects of the Bill. The joint submission also recommends amendments relating to the built environment and critical infrastructure focused on renewable electricity generation (REG).
33. In addition to the joint ESEG submission, there are a number of aspects of the Bill that the Association wishes to comment on to provide context with a specific focus on wind energy and the forecast need to significantly build new generation.
34. While acknowledging and appreciating the early consultation the Association considers that there is a real risk if environmental limits are inappropriately set and absolute in their application, to the extent that they prevent the development of renewable electricity generation. Renewable generation is a cornerstone of decarbonising the economy to meet New Zealand’s international climate change commitments and mitigate climate change impacts.

### Executive Summary

35. The NZWEA has two priority areas that its work programme is focused on and which have influenced its responses to the Exposure Draft. These are:
  - Resource management system reform and ensuring the RMA’s replacement better enables the wind industry to consent new renewable electricity generation to support achievement of the 2050 net zero carbon emissions target.
  - Sustaining the energy trilemma<sup>23</sup> in the transition of the sector to a higher level of renewable electricity generation particularly in a dry year situation when combined with a projected significant growth in demand.
36. In supporting the joint ESEG submission, the Association makes the following key points:

<p>Recognition of, and addressing, Resource Management Act (RMA) issues as the basis for reform</p>	<ul style="list-style-type: none"> <li>▪ The Association does not consider that the issues with the current resource management system have been fully addressed in the draft Bill.</li> <li>▪ It is acknowledged significant aspects of the reform have yet to be developed: however, in this submission, the Association details its and ESEG’s concerns with the draft Bill.</li> </ul>
<p>Ensuring a strategic focus</p>	<ul style="list-style-type: none"> <li>▪ The Resource Management Review Panel has highlighted the importance of a long term and integrated strategic approach and clear national direction.</li> <li>▪ The Association notes that key strategic aspects of the</li> </ul>

<sup>22</sup> Meridian Energy, Mercury NZ, Contact Energy, Trustpower and Genesis Energy.

<sup>23</sup> The ‘energy trilemma’ refers to a country’s ability to provide a secure supply of energy, that is affordable and environmentally sustainable.

	<p>reform such as the national planning framework (NPF) and Strategic Planning Act (SPA) are yet to be developed. These will be essential to the effective transformation of the resource management system.</p> <ul style="list-style-type: none"> <li>▪ However, as noted in the ESEG submission, key links to the broader strategic goals and purpose of the reform in the NBA are limited at this stage, with limits set to protect ecological integrity and human health rather than achieving the broader purpose of the reforms.</li> </ul>
<p>Ensuring climate change, electricity and environmental sector targets are aligned</p>	<ul style="list-style-type: none"> <li>▪ The Government has clear targets for climate change, growth of the electricity sector and, once the NPF is fully developed, for environmental targets.</li> <li>▪ The resource management system is key enabler of all three sectors and, as highlighted in the ESEG submission, unless there is clear policy direction in the NBA's purpose and reference in environmental limits to climate targets, there will be a lack of alignment.</li> </ul>
<p>Ensuring environmental limits do not have unintended consequences</p>	<ul style="list-style-type: none"> <li>▪ Recent consultations including the draft National Policy Statement for Indigenous Biodiversity (NPS-IB) have highlighted the risks of broadly defined absolute environmental limits.</li> <li>▪ Wind energy, given resources are location specific, invariably has an environmental impact which has historically been addressed with recourse to mitigation, compensation or offsetting.</li> <li>▪ As future projects are expected to come into conflict with environmental limits of the kind now proposed to be mandated, it would be critical for renewable energy projects to be able to achieve environmental outcomes on a net basis, assessed taking into account any environmental offsetting and/or compensation proposed.</li> </ul>
<p>Ensuring environmental outcomes are balanced</p>	<ul style="list-style-type: none"> <li>▪ The language used for the outcomes in the Bill is variable and there is a need to ensure climate change, decarbonisation and renewable energy outcomes are placed at least on equal footing with other environmental drivers.</li> <li>▪ NZWEA considers that the outcomes related to renewable energy and climate change (objectives "(o)" and "(p)") should be refocussed so that renewable generation is not simply an 'infrastructure' matter. Instead, there should be clear recognition of the role of renewable energy in achieving climate change outcomes.</li> </ul>

	<ul style="list-style-type: none"> <li>▪ For those reasons, the Association supports the ESEG submission’s proposal (part 19) to strengthen and use more directive language in support of climate change mitigation and the importance of increasing renewable electricity generation.</li> </ul>
An effective conflict resolution mechanism is key to meeting reform objectives	<ul style="list-style-type: none"> <li>▪ The Association references the ESEG submission’s comments (para 20) that further attention should be given to ensuring needed infrastructure services, particularly highly locational constrained infrastructure such as renewable electricity generation, can be provided.</li> </ul>
Ensuring regional spatial planning is an enabler	<ul style="list-style-type: none"> <li>▪ The potential for regional spatial strategies (RSS) to be an enabler of development is recognised, particularly if the consenting pathway is simplified for infrastructure development within identified areas.</li> <li>▪ However, given the complexity of renewables development and ever-changing technology, an overreliance on RSS to provide for renewable electricity generation would create a significant risk, particularly if areas are narrowly defined and generation development outside of identified areas was limited.</li> </ul>
Flexibility to adapt is paramount	<ul style="list-style-type: none"> <li>▪ The Association supports the proposed approach of having the NPF as secondary legislation.</li> <li>▪ New technologies will continue to be deployed such as offshore wind energy and the resource management system must have the flexibility to be able to adapt to both infrastructure and environmental developments.</li> </ul>

37. Without more information on the form or process for developing the NPF, the nature and extent of environmental limits or the impact of the SPA and RSSs, it is not possible for the Association to form a view as to extent to which the reform objectives, including the provision of infrastructure services, will be enabled by the reform. The ESEG submission does, however, based on available information, identify where risks and issues are apparent that will materially restrict the ability to develop new renewable electricity generation in support of climate change targets and recommends a number of amendments to the exposure draft.

38. What is paramount, given the importance of achieving climate change targets, is that the environmental statutory framework acknowledges the decarbonisation imperative. There is a recognised need to accelerate renewable electricity generation, and wind energy in particular, and a key measure of the reforms success is whether responsible development is enabled.



39. To achieve this, competing national policy directions – decarbonisation to address the environmental impacts of climate change and biophysical limits to address environmental degradation, must be balanced.

### **Recognition of Resource Management Act issues as the basis for reform**

40. Issues with the RMA have been well documented. In relation to the energy sector, a 2016 Ministry for the Environment Report on the effectiveness of the National Policy Statement for renewable Electricity Generation (NPS-REG) <sup>24</sup> concluded *‘the NPS-REG does not appear to have resulted in noticeably more certainty for resource consent applicants for REG projects’* and *‘the NPS-REG has not resulted in nationally consistent approaches to the drafting of regional and district plans’*.
41. Key challenges noted included *‘a lack of detailed direction and guidance’* and *‘the complexities in balancing and resolving interactions between the NPS-REG and other national policy statements and other competing RMA part 2 matters at a local level’*.
42. A number of influential reports on the electricity sector <sup>25</sup> and on addressing the impacts of climate change <sup>26</sup> have similarly highlighted the importance of resource management reform if the potential of renewable electricity generation to contribute to the decarbonisation of the energy sector and the 2050 net zero emissions target is to be achieved.
43. In response, the Government has, in addition to the wider review of the resource management system, in parallel commenced a review of national direction on renewable electricity.
44. The national direction project has reviewed existing RMA provisions relating to renewable electricity, national direction instruments and case law, and has identified a number of challenges in the current resource management system to achieving New Zealand’s climate change and renewable electricity targets. The key issues which have been identified include:
- Existing national direction on renewable electricity generation provides limited direction and weak policy wording. As such it has generally been ineffective.
  - There are gaps in the application of the National Policy Statement for Electricity Transmission and National Environmental Standard on Electricity Transmission Activities which mean that certain transmission and distribution are not as effectively enabled.
  - There is a lack of clear national direction on resolving key tensions between competing national and local interests and environmental/biophysical limits (e.g. extent of natural wetlands, significant natural areas high natural character, and outstanding natural landscapes and features).

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<sup>24</sup> Ministry for the Environment, Report on the Outcome Evaluation of the National Policy Statement for Renewable Electricity generation, December 2016 Electricity Authority, Transmission Pricing Review, July 2019.

<sup>25</sup> Electricity Price Review Final Report October 2019 and MBIE Accelerating Renewable Energy discussion document, December 2019.

<sup>26</sup> Productivity Commission, Low-emissions Economy Report, August 2018. Interim Climate Change Committee Accelerated Electrification April 2019, He Pou a Rangi Climate Change Commission, 2021 Draft Advice for Consultation January 2021

- There are uncertainties relating to the consenting pathways for renewable electricity projects which trigger 'avoid policies', regardless of whether the project can demonstrate net environmental and economic benefits.
  - Acceptance of offsetting and compensation approaches, to avoid significant adverse effects, is limited.
  - The time, complexity and cost of consenting renewable projects under the current system is acting as a barrier to some renewable electricity projects and will not provide for the pace of development required to meet New Zealand's renewable electricity generation targets.
  - The re-consenting process is overly complex, inconsistent and creates significant uncertainty and costs.
  - Catch-all discretionary/non-complying activity rules do not reflect the variability of environmental effects for different types and scales of generation.
45. The Association also maintains that the current RMA consenting process is a major barrier to the development of community and other distributed renewable generation projects as it does not differentiate on the scale and complexity of projects.
46. Studies undertaken by the Parliamentary Commissioner for the Environment<sup>27</sup> confirm that large scale wind farms can only ever occupy a limited portion of a country's wind locations. Other locations with microclimates that have funnelling or hilltop attributes are very favourable for community wind projects.
47. Internationally, small-scale community-owned wind farms are a growing sector to utilise available wind resource and increase local energy independence while reducing carbon emissions. Denmark, Germany, Austria and the Netherlands have high levels of community ownership which have played a major role in the development of wind energy.
48. The current consenting process favours large-scale developments where the high cost of consenting has a relatively lower overall impact on commercial viability and generally is in the range of between \$25k and \$50k per MW. For small developments consenting costs can be significantly higher. As an example, it has been estimated the consenting cost of wind turbines on Stewart Island would be in the order of \$0.5m to \$1.0m per MW<sup>28</sup>.
49. The Association considers smaller scale wind projects a key opportunity to support regional growth and improve energy resilience. Resource management reform to simplify and reduce the cost and uncertainty of obtaining a consent is a necessary prerequisite to enabling such developments.
50. As detailed in the following sections the Association does not consider that the issues and risks with the current resource management system have been fully addressed in the draft NBA.

## Ensuring a strategic focus

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<sup>27</sup> PCE Report Wind Power, People and Place (2006b) Parliamentary Commissioner for the Environment, PCE Report (2006a) Get smart, think small. Wellington Parliamentary Commissioner for the Environment.

<sup>28</sup> Roaring40s Wind Power presentation to the 2021 Wind energy Conference – Wind Development Potential including Small Scale opportunities May 2021.

51. The Resource Management Review Panel highlighted the importance a long term and integrated strategic approach and clear national direction as a recommendation and essential if the known failings of the RMA are to be avoided.
52. While it is challenging to provide a comprehensive submission given the Bill is a partially completed draft, with key strategic aspects of the reform such as the form of the NPF not yet complete, and the SPA not yet available, the decision for early consultation is welcome.
53. As an exposure draft, a key consideration is whether the Bill achieves the balance between improving environmental outcomes and better enabling urban and other development.
54. In the Association's view there are risks that the necessary balance will not be achieved. The risk is that the infrastructure required to reduce emissions and address the impacts of climate change will not be able to proceed due to the definition of environmental outcomes and environmental limits that set bottom lines which will inevitably conflict with renewables development opportunities and / or insufficient national direction.
55. The risks may be addressed as further development of the resource management system occurs. In particular, the nature and form of the NPF and details of the SPA and RSSs may better enable essential infrastructure services to be developed.
56. However, as noted in the ESEG submission (para 19), key links to the broader government strategic goals relating to addressing the impacts of climate change and developing renewable electricity generation are absent. In particular, the Association considers that an inflexible focus on protecting ecological integrity and human health risks unintended consequences.
57. While not a focus of this submission, the Association wishes to note the third piece of legislation, the Managed Retreat and Climate Change Adaption Act, will require significant investment in infrastructure and will therefore have a dependency on getting an appropriate and enabling balance in the NBA and SPA.

### **Aligning Climate Change, Electricity Sector and Environmental Targets**

58. Climate change is undoubtedly the environmental issue of our time, with global warming expected to have a material negative impact even if global emission reduction targets are achieved.
59. The Government, in passing the Climate Change Response Act, has supported global ambition by setting a target of achieving a net zero emissions of greenhouse gases other than biogenic methane by January 2050. The recent Climate Change Commission (CCC) Final Advice has recommended targets for the first 3 budget periods as a pathway to achieving the net zero target.
60. The Commission recommends a 63% reduction in long lived gases by 2035 with key transition strategies including accelerating the uptake of electric and other zero emissions cars, buses and trucks and vehicles, phasing out fossil base-load generation and replacing coal (and eventually gas) with biomass and electricity in industrial heat processes.
61. Electrification of the energy sector with renewables is therefore a key plank of the CCC's recommendations.

62. From a 2020 baseline, the CCC has wind generation increasing by 7.6 TWh (308%) by 2035 under their demonstration pathway. Should Tiwai stay, wind generation would need to increase by 10.9 TWh (479%). Wind generation is forecast to increase from 5% of total generation to 18% (demonstration pathway) or 26% if Tiwai stays by 2035.
63. Transpower is forecasting a wind capacity of 6,500 MW and generation of 19.6 TWh by 2050 to comprise 28% of total generation<sup>29</sup>. The Waipipi Wind Farm, commissioned in 2021, and Turitea and Harapaki Wind Farms which are under construction, will see wind capacity double to 1,200 MW. An additional 5,300 MW of wind will be required to meet Transpower's forecast, this is an increase of over 430% and represents an additional 53 wind farms at 100MW each that will need to be consented and built.
64. The Government has set a target of 100% renewable electricity generation by 2030. Renewable generation averaged 81% in 2020 and whether 100% (or near that value) can be achieved in the timeframe will depend on sustaining existing capacity and enabling new build activity.
65. Under the Bill, environmental limits will be prescribed in the NPF or plans, with the intention that the limits are absolute bottom lines in their application.
66. Given the resource management system will determine whether and where infrastructure can be built, for renewable electricity generation, which has a dependency on the availability of natural resources, the definition of environmental limits will be key.
67. NZWEA considers there is a high likelihood of wind energy coming into conflict with biophysical limits and, if limits are to be enforced without recourse to mitigation including compensation or offsetting, it will be essential to test whether proposed environmental limits prevent the achievement of the Government's climate change and electricity targets.
68. Without ensuring alignment and having a supportive resource management system there is a material risk that the significant renewable electricity generation build required to enable decarbonisation of the energy sector will not be possible.
69. In addition, enabling the re consenting of current renewable generation, and hydro generation in particular, will be essential to sustaining capacity and being available to support the short-term variability of wind and solar generation.
70. Part 2 of the NBA therefore needs to provide clear policy direction that enables responsible new and existing renewable electricity generation assisted also by direction that ensures climate change targets and specific environmental limits are balanced.

### **Environmental limits – the risk of unintended consequences**

71. While acknowledging environmental limits are yet to be set, the Association considers there is a risk that they may be developed in such a way as to prevent the full electrification of our society.
72. This is so for all renewable generation and wind energy in particular as the resource is 'where it is', usually affecting the natural environment, and therefore there is an inherently higher risk of conflicting with environmental limits.

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<sup>29</sup> Transpower Whakamania i Te Mauri Hiko, Empowering our Energy Future, March 2020.

73. Recent consultations have highlighted the risk of broadly defined absolute environmental limits. While recognising the imperative to improve indigenous biodiversity when responding to the 2019 consultation on indigenous biodiversity<sup>30</sup>, in NZWEA's view, the draft National Policy Statement on Indigenous Biodiversity demonstrated this risk when it proposed to set a very low bar on triggering the 'significance' test. The Association accepts that meeting an environmental objective while also enabling infrastructure development, and specifically responsible renewable electricity development, will be challenging. However, it does not consider that making environmental limits immutable is the solution, particularly if such thresholds are to be qualitatively defined, and therefore subject to interpretation.
74. NZWEA submitted that the draft National Policy Statement – Indigenous Biodiversity (NPS-IB) represents a significant risk to new renewable electricity generation development and its enabling transmission infrastructure, particularly given the very broad and inclusive environmental limits and criteria contained in the draft:
- 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 Area (SNA) will mean most if not all new wind farm design will need to avoid all indigenous features with no effects mitigation or offset potential.
  - 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 SNAs being considered “high” and therefore the “must avoid” requirement will prevail without the ability to consider the mitigation/offset hierarchy.
  - 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.
  - Section 3.9aiii, and the requirement to avoid any fragmentation or loss of buffering, also creates challenges for wind farm consents whereas this has previously been able to be addressed through offsetting.
75. The Association sought changes to balance interests such as better defining high ranking / conditions and enabling ecological mitigation / offsets and mechanisms that are financially 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. This would be an important ability for the new legislation to enable.
76. To illustrate difficulties that environmental limits could create, the Association references the new National Environmental Standard (NES) for Freshwater (NES-F)<sup>31</sup> and, in particular, section 53 Prohibited Activities which defines any earthworks or taking, use, damming, diversion or discharge of water within a natural wetland as a prohibited activity.

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<sup>30</sup> He Kura Koiora i hokia Discussion document on a proposed National policy Statement for Indigenous Biodiversity November 2019.

<sup>31</sup> Resource Management (National Environmental Standards for Freshwater) August 2020.

77. While problematic for the wind industry, particularly as definition of a wetland is likely to be interpreted extremely broadly (which recent experience indicates it has), the Association understands the NES-F already had a significant impact on aggregate extraction and that options are being considered to address the restriction.
78. The draft NPS-IB and NES-F are examples where if environmental limits are broadly defined and absolute, they can create an impassable barrier in planning and consenting (including re-consenting) of existing and new renewable generation projects.
79. Wind energy consents invariably have an environmental impact which has historically been addressed with recourse to mitigation, compensation or offsetting. It is highly likely that future projects will come into conflict with environmental limits of the kind now being mandated under clause 7 of the Bill.
80. NZWEA considers that the NBA can provide a better balance to navigate between absolute limits for the majority of projects, if it enables a more nuanced approach to the way in which limits are set. This would include enabling limits to be set on a locationally-specific basis and/or for different limits to apply to different activities. For example, it would be useful for an environmental limit to be set for all activities but with a recognition that renewable energy projects were entitled to achieve the limit on a net basis assessed when considering any environmental offsetting and/or compensation proposed. That result would ensure that the environmental limit was effective, while not precluding activities that were in keeping with that limit.
81. Inserting a climate specific environmental target in clause 7 would assist achieving balance and ensure the overall intent and outcomes of the NBA are achieved.

### **Environmental outcomes need to be balanced**

82. One of the key issues with the RMA is the relative higher weighting of Part 2 purpose and principle matters of national importance (section 6) over other matters (section 7) which included the benefits derived from the use and development of renewable energy (7(j)).
83. The number and nature of the outcomes proposed in the Bill create a natural tension between protecting, restoring or improving the natural environmental and infrastructure services. In addition, the overlay of a prescribed minimum biophysical state or maximum amount of harm or stress permitted by environmental limits provides absolute direction with the effect of creating a hierarchy of importance.
84. NZWEA therefore considers that, under the current resource management system, the outcomes for the use of renewable energy, greenhouse gas removal and resilience to the effects of climate change is significantly less directive than for other outcomes which perpetuates existing RMA purpose and principles issues.
85. The Association considers that greater internal balance is required in the direction applicable to each outcome and in the clarity over how competing outcomes are to be balanced and supports the joint ESEG submission's proposal to strengthen and use more directive language in support of climate change mitigation and the importance of increasing renewable electricity generation.
86. NZWEA suggests that the outcomes related to renewable energy and climate change (objectives "(o)" and "(p)") should be refocussed so that renewable generation is not

simply an 'infrastructure' matter. Instead, there should be clear recognition of the role of renewable energy in achieving climate change outcomes.

### **Conflict Resolution**

87. The Association notes the comments in the Parliamentary Paper on conflict resolution and that where possible the NPF will resolve conflicts or give direction.
88. The Association references the ESEG submission's comments (para 20) that, given the effective weighting of outcomes towards environmental considerations, with specific environmental limits, further attention should be given to ensuring needed infrastructure services can be provided: in particular, for renewable electricity generation given its enablement of decarbonisation.

### **Spatial Planning – potential enabler or restriction**

89. The intent of the Strategic Planning Act to promote social, economic, environmental and cultural wellbeing through a strategic approach to the integration of environmental management, land use and infrastructure is acknowledged and supported.
90. The potential for regional spatial strategies (RSS) to be an enabler of development is recognised, particularly if the consenting pathway is simplified for infrastructure development within identified areas.
91. As noted in the ESEG submission (para 26) , there is considerable complexity around the selection of locations for renewable electricity generation including availability of resources, competitive market positioning and futureproofing for technological development.
92. A decision to seek a wind farm consent in a particular location involves balancing a large number of considerations and factors including available wind resource, a detailed environmental impact and expected consentability, transmission availability, market and generator portfolio impacts, construction risks and an overall commercial assessment.
93. It is difficult to see how decision makers developing regional spatial strategies would have access to the complex technical and commercial information needed to fully assess the factors that enable lowest cost renewables development, particularly as RSS are intentionally high level in nature.
94. A key risk to future renewables development would be an overreliance on regional spatial strategies particularly if narrowly defined. There would need to be an allowance that generation development outside of identified areas should be permissible albeit with a more demanding consenting process.

### **Flexibility to adapt is paramount**

95. The Association notes the complexity of amending primary legislation and supports an approach of having the NPF as secondary legislation.
96. Decarbonisation of the economy is at an early stage and the effects of climate change along with mitigation and adaptation strategies will continue to develop.
97. New technologies will continue to be deployed such as offshore wind energy and the resource management system must have the flexibility to be able to adapt to both infrastructural and environmental opportunities.

## **Considerable uncertainty remains on the extent to which the NBA exposure draft meets the resource management reform objectives**

98. The intent and objectives of the Resource Management Review Panel for active planning rather than managing adverse impacts is reflected in the Parliamentary Paper on the exposure draft at para 85:

*Good planning can raise environmental standards as well as ensure there is sufficient housing and infrastructure to service a growing population. The system needs to recognise and encourage synergies between development and environmental protection. For example, more renewable electricity generation requires new infrastructure such as wind farms.*

99. The ESEG submission has focused on the specific reform objectives of:
- Better enabling development within environmental biophysical limits including a significant improvement in housing supply, affordability and choice, and timely provision of appropriate infrastructure, including social infrastructure.
  - Better preparation for adapting to climate change and risks from natural hazards, and better mitigate emissions contributing to climate change.
  - Improving system efficiency and effectiveness, and reduce complexity, while retaining appropriate local democratic input.

100. The Parliamentary Paper highlights the difficulty of trying to form a view on the implications and effectiveness of the draft Bill particularly as the importance of the, yet to be defined, National Planning Framework and environmental limits:

*Para 114 - The NBA outcomes are to be long-term and enduring. The detail on how this will be achieved will be set out in the NPF and regional plans.*

*Para 118 - The role of the environmental outcomes in guiding decision-making about resource consents, designations and other approvals under the NBA is yet to be decided and is not addressed in the exposure draft.*

*Para 122 - Conflicts between outcomes will inevitably arise in consenting decisions, including in ways that plans do not cover. It will not be feasible for the NPF and NBA plans to foresee and conclusively resolve all tensions in advance, but the full Bill will provide mechanisms for decision-makers to resolve conflicts at the consenting stage.*

*Para 125 - While the NBA outcomes include the reduction of greenhouse gas emissions, further work is underway to explore how the NBA can be used to make progress towards achieving New Zealand's emissions reduction goals under the CCRA .*

*Para 131 - The Panel recognised the important role of direction from central government on matters of national importance and recommended that the set of national direction be integrated, with conflicts between instruments resolved.*

101. The ESEG's submission (para 21 and 22) highlights the risks and concerns given key NBA content is yet to be developed and the numerous references to a precautionary



approach included in clauses 16 (application of a precautionary approach), 18 (Implementation principles) and 24 (Considerations relevant to planning committee decisions).

102. Without more information on the form or process for developing the NPF, the nature and extent of environmental limits or the impact of the SPA and regional spatial plans, it is not possible for the Association to form a view as to extent to which the reform objectives, including the provision of infrastructure services, are enabled. The ESEG submission does, however, based on available information, identify where risks and issues are apparent that will materially restrict the ability to develop new renewable electricity generation in support of climate change targets.

#### **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 the 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 ensuring 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.

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