

# Accelerating Renewable Energy and Energy Efficiency – Discussion Document

New Zealand Wind Energy Association Submission

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Ministry of Business, Innovation and Employment

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## Introduction

1. The New Zealand Wind Energy Association (NZWEA) welcomes the opportunity to provide a submission on the Accelerating Renewable Energy and Energy Efficiency – Discussion Document (AREEE).
2. The NZWEA supports the government's focus on accelerating renewable electricity generation investment as substantial new renewables development is essential to decarbonising the energy sector and meeting New Zealand's climate change target of a net zero carbon economy by 2050.
3. The Association has submitted on most recent consultations that relate to the decarbonisation of the energy sector. This includes the Productivity Commission's Low-emissions Inquiry <sup>1</sup>, the Zero Carbon Bill and ETS Reform <sup>2</sup>. The Association also engaged with the Interim Climate Change Committee in relation to their review of the 100% renewable electricity target <sup>3</sup> and the Electricity Authority in their consultations on transmission and distribution pricing <sup>4</sup> and hedge market enhancements <sup>5</sup>.
4. The Climate Change Response (Zero Carbon) Amendment Act and the Climate Change Response (Emissions Trading Reform) Amendment Bill, along with proposed changes to ETS settings, represent a step change in approach to achieving a coherent and integrated way forward in achieving a meaningful reduction in emissions and a pathway that commences New Zealand's transition to a low carbon economy.
5. NZWEA has also submitted on the Electricity Price Review (EPR), the Ministry of Transport's discussion paper on moving the light vehicle fleet to low-emissions and the Ministry for the Environment's draft National Policy Statement for Freshwater Management (NPS-FM) and the Association will be lodging a submission on the National Policy Statement for Indigenous Biodiversity (NPS-IB) in March.
6. The Renewable Energy Strategy illustration <sup>6</sup> highlights the importance of integrated approach to decarbonising the energy system with multiple components. In this submission the Association focuses on accelerating renewable energy development and provides summary comments then considers the wider renewable energy strategy before specific comments on the discussion document.

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

<sup>2</sup> MfE Consultation – Reforming the NZ Emissions trading Scheme: Proposed Settings, December 2019.

<sup>3</sup> Interim Climate Change Committee, Accelerated Electrification Report, April 2019.

<sup>4</sup> Electricity Authority, Transmission Pricing Review, July 2019.

<sup>5</sup> Electricity Authority, Hedge Market Enhancements (market making), Discussion Paper, November 2019.

<sup>6</sup> MBIE Accelerating renewable energy discussion document page 12, figure 2.

## Summary

7. In addition to the AREEE discussion document there are many other initiatives already identified in previous reviews which will enhance the development of renewables that have yet to be implemented.
8. The Association considers that the recommendations of the Productivity Commission, the Interim Climate Change Committee and Electricity Price Review <sup>7</sup> collectively form a coherent strategic approach to reducing energy sector emissions and enhancing the ability of the electricity industry to innovate and support the growth in renewable generation.
9. The AREEE discussion document includes a number of recommendations from previous reports plus additional options. The challenge is to ensure an overall programme of work across all of government and regulatory agencies is developed that focuses on what best enables the objectives of the renewable energy strategy to be achieved.
10. The Association notes that while the EPR primarily focused on achieving a more consumer-oriented market their final report contained a number of recommendations that significantly improve the electricity sector to support the development of renewables.
11. It is recognised that New Zealand has the natural resources to significantly expand electricity generation to enable decarbonisation of the energy sector. During 2019 a total of \$740 million was committed to new wind energy generation that will provide enough electricity, on average, to power over 580,000 electric vehicles or 180,000 homes.
12. Sustaining future demand growth to support investment in generation is a key opportunity and necessary to maintain new build momentum.
13. The transition from fossil-fuelled generation and renewables growth requires a significantly more responsive electricity system than today's which is largely a one-way flow. New technologies and a focus on demand response and distributed energy resources offer approaches to manage the daily and seasonal peaks and the variability of renewables in a low-emissions way that minimise the cost of new transmission and distribution investment.
14. As a general principle the Association supports using the ETS as the key market mechanism to enable energy sector decarbonisation. The more complementary measures are introduced the greater opportunity there is for unintended consequences. In NZWEA's submission on Reforming the NZ Emissions Trading Scheme: Proposed Settings the Association has suggested refinements to the architecture to ensure the total emissions budget is not exceeded and a higher level of ambition around the price settings.
15. The less effective the ETS the more specific complimentary measures will be required in transport and industrial processes to encourage abatement.
16. The Association has identified what are the key initiatives that it considers necessary to support renewables growth from previous reviews and those proposed in the AREEE discussion document which are as follows:
  - Reforming the ETS to reduce emissions and lift the carbon cost to promote abatement.
  - Amend the National Policy Statement for Renewable Electricity Generation (NPS-REG) to provide stronger direction on the national importance of renewables (7.1).

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<sup>7</sup> Electricity Price Review, Final Report May 2019.

- Finalising transmission and distribution pricing to provide investment certainty and revise HVDC pricing so as not to disadvantage South Island renewables development.
  - Revise the draft NPS-IB to enable responsible renewables development.
  - Revising the draft NPS-FM to ensure the value of existing hydro generation to NZ's climate change objectives is given sufficient weight.
  - Improve the availability of wholesale market information.
  - Introduce mandatory market making obligations / improve wholesale markets.
  - Revise the interpretation of the EA's statutory objective.
  - Phase out low fixed charge tariff regulations.
  - Retail and distribution tariff reform.
  - Scope National Environmental Standards or National Planning Standards specific to renewable energy (7.2).
  - Review the legislative framework to give the EA more powers to regulate networks.
17. In respect of implementation the Association supports having an integrated work programme for the renewable energy strategy which includes transport and linkages to other RMA reforms. In particular the NPS-FM and NPS-IB, as both these have implications which will potentially limit existing renewable generation from hydro and significantly restrict new wind farm development.
18. The Association also supports the incorporation of the energy trilemma to achieve an affordable, secure and sustainable energy system across all agencies that are involved with the energy sector and that decisions specifically include consideration of climate change implications.

## **Renewable Energy Strategy**

19. The Renewable Energy Strategy illustration<sup>8</sup> highlights the interconnection of a number of significant work programmes to enable the transformation of and decarbonisation of the energy sector.
20. While acknowledging the discussion document focuses on accelerating renewable electricity and lowering emissions from process heat the Association considers, given the goal is a low emissions energy sector, transport and as well as RMA reform should be included in the figure.
21. The AREEE discussion document includes options to strengthen the NPS-REG and consideration of a National Environmental Standard however in respect of enabling and sustaining renewable electricity generation the impacts of the draft NPS-FM and NPS-IB and improvements to the transmission NPS and NES also need to be considered.
22. The Association has submitted on the NPS-FM and has outlined the importance of preserving hydro output and generation flexibility to support the variability of other renewables such as wind and solar. In the NZWEA submission we highlight the risk of councils being provided the discretion to set higher national bottom lines for hydro catchments and once again see local decision-making trump national importance.

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<sup>8</sup> MBIE discussion document page 12, figure 2.

23. NZWEA is also submitting on the NPS-IB and has received expert advice that under the proposed criteria most potential wind farm sites will be classified as a significant natural area (SNA). While there is a carve out for grid connected renewable electricity generation the nature of the attributes and guidance for interpretation listed in appendix 2 of the NPS is likely to result in most SNA's being considered "high" and therefore the "must avoid" requirement will prevail.
24. The ability to use offsetting and compensation, and often achieve a biological diversity gain, has been a key feature of wind farm consents given renewable development can only occur where there is a natural resource and the industry has an exceptional record of adhering to consent conditions.<sup>9</sup>
25. The Association also considers transport a key component of the renewable energy strategy and should therefore be included in figure 2. The opportunity and importance of decarbonising transport is well understood yet with the abandonment of the feebate scheme and the expected failure to meet the 64,000 electric vehicle target by 2021 highlight the advice of the Productivity Commission (PC) in their 2018 Report<sup>10</sup> and the Interim Climate Change Committee (ICCC) in their April 2019 Accelerated Electrification Report is not yet translating into policy that is delivering reducing transport emissions.
26. The Electricity Price Review (EPR) Final Report<sup>11</sup> contained a number of recommendations to ensure that the electricity market delivers efficient, fair and equitable prices as technology evolves and NZ transitions to a lower emissions future. While a number of the recommendations relate to strengthening the consumer voice and reducing energy hardship many relate to market improvements that support and enable the development of new renewables.
27. The Association notes that a number of recommendations contained in the PC and ICCC reports have been included in the Accelerating Renewable Energy and Energy Efficiency Discussion Document.
28. In developing the overall implementation plan NZWEA considers that the recommendations contained in the EPR Final Report addition work programme should be integrated and prioritised along with those selected from this consultation as many also support renewable electricity development.
29. In responding to the request for views on both sequencing and the optimal package the Association has considered recommendations from previous industry reports as well as the current consultation.

## Renewable Electricity Generation Priorities

30. The Association considers the key priorities to support renewable electricity generation are:

Initiative	Priority	Reference	Comment
Reforming the ETS	H	PC - R 5.1, 5.2, 5.3, 5.4,	The Association considers the ETS as the key market mechanism to enable energy

<sup>9</sup> Towards Robust Exchanges Evaluating Ecological Compensation in New Zealand, Thesis submitted by Marie Brown, University of Waikato, 2014. Abstract statement "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.

<sup>10</sup> Productivity Commission, Low-emissions Economy Report, August 2018.

<sup>11</sup> Electricity Price Review, final report May 2019 – at a glance section.

		13.2	sector decarbonisation based incentivising lowest cost emissions abatement. Introducing a cap and aligning prices with modelled pricing to driver a reduction in emissions is essential and overdue. The Association has suggested refinements to the architecture to ensure the total emissions budget is not exceeded and a higher level of ambition around the price settings. <sup>12</sup>
Amend the NPS REG to provide stronger direction on the national importance of renewables	H	AREEE 7.1 ICCC - R 5a PC – 13.3, 13.4	Stronger national direction can be provided by updating the wording of the NPS to be consistent with later policy statements for example changing “have regard to” to “enable” and “ensure”.  In parallel the work programme should include strengthening the NPS on Electricity Transmission and NES for Electricity Transmission as both are required to enable new renewable generation to be connected.
Finalising transmission and distribution pricing	H	EPR (E1 and 2) ICCC – R 6b	Delays in finalising the transmission pricing methodology has created unnecessary investment uncertainty. Current HVDC pricing is disadvantaging South Island renewables development which can support improved geographical spread and reduce short term variability. The Association considers an effective peak pricing signal is required to optimise the investment in grid / distribution assets and avoid unnecessary costs being passed to consumers. <sup>13</sup>  The Association also considers there remains an unresolved issue around the pricing of distributed generation connection costs. In particular whether the EA changes the rule book for distributed generation connection costs from incremental costs to including a share of common costs as originally proposed under the Distributed Generation Pricing Principles July 2016 Consultation Paper. A change to including common costs would create investment uncertainty and disadvantage distributed generation.
Revise the draft NPS-IB to enable responsible renewables development	H		Revise the NPS-IB to enable ecological mitigation / offsets that are finically responsible rather than an in effect “must avoid” requirement.
Revising the draft NPS-FM to ensure the value of	H	ICCC – R4	In the NZWEA submission on the NPS-FM the Association has highlighted the risk of

<sup>12</sup> NZWEA submission on Reforming the ETS: Proposed Settings.

<sup>13</sup> NZWEA submission on TPM consultation - <http://www.windenergy.org.nz/store/doc/NZWEA-Submission-on-2019-TPM-Consultation.pdf>.

existing hydro generation to NZ's climate change objectives is given sufficient weight.			councils being provided the discretion to set higher national bottom lines for hydro. <sup>14</sup>
Improve the availability of wholesale market information	M	EPR (D1)	This includes all fuel types including gas.
Introduce mandatory market making obligations / improve wholesale market	H	EPR (D2)	Wholesale market depth and product development is required to support merchant generation which requires a level of offtake certainty to secure investment. The Association would like to see the current market term extended from 3 to 5 years to provide a higher level of contract cover to support new investment and the introduction of a price cap product to enable retailers to manage risk and contract variable wind farm output.
Revise the interpretation of the EA's statutory objective	H	ICCC – R6a	The Association maintains the EA should be required to consider the “energy trilemma” of affordability, security and environmental sustainability as it is these factors that the World Energy Council and others use to assess sector performance.
Phase out low fixed charge tariff regulations	H	EPR (F4)	The Association supports the EPR's position that flat price structures do not support network optimisation and are inefficient. Unless revised pricing structures are introduced, in conjunction with retailers, avoidable investment will occur that will ultimately be reflected in higher electricity prices.
Retail and distribution tariff reform	H	PC – R13.5	NZWEA considers that a change in electricity price structures to reflect the production and delivery costs at different time periods is essential to reducing customer cross subsidisation, improving sector efficiency and optimising future investment. Effective price signals will encourage innovation, including demand side management and investment in distributed energy resources to reduce peak demand periods. The Electricity Authority (EA) has been working with the industry to introduce tariffs that are service based and cost reflective. <sup>15</sup>
Scope National Environmental Standards or National Planning Standards specific to renewable energy	H	AREEE7.2 ICCC – R5b	Current consenting requirements do not differentiate on size with cost and complexity a major barrier to smaller and community wind development. NZWEA considers a new National Environmental Standard for Renewable Electricity Generation should be issued to

<sup>14</sup> NZWEA submission on healthy waterways - <http://www.windenergy.org.nz/store/doc/NZWEA-Submission-on-the-Healthy-Waterways.pdf>.

<sup>15</sup> EA distribution network pricing – principles and practice decision paper, June 2019.

			set out conditions for development which would have minor environmental and social impacts to lower the cost of obtaining an RMA consent (option d – standardising the consent process for small-scale renewable energy projects).
Review legislative framework to give the EA more powers to regulate networks	H	EPR– F1 PC – R13.6, 13.7	Will enable the EA to ensure open competition and support innovation.

## Comments on other Renewable Electricity Generation Options

31. Comments on other options identified as follows:

Option	Comment
8.1 - PPA Platform	The Association supports reform of the wholesale market as the key initiative to enable retailers and independent generators to purchase / sell contracts. The Government should consider supporting new renewables development by offering PPA's for its electricity demand.
8.2 - Demand side participation / response market	The Association considers demand response and encouraging distributed energy resources as important to the low emissions management of peak demand with increasing renewable generation and avoiding transmission / distribution investment. NZWEA favours retail tariff reform and revised market rules as the best mechanisms to encourage investment in these areas. The Association notes that the proposed EA transmission pricing methodology significantly dilutes peak pricing signals.
8.3 – Energy Efficiency Obligations	Not supported as an intervention that is costly and may have unintended consequences.
8.4 – Offshore wind	NZWEA does not consider offshore wind a priority given the large potential onshore resource, cost premium and lack of infrastructure to develop.
8.5 - REC and portfolio standards	Not supported.
8.6 - Phase down baseload	Not supported as a market intervention with significant risk. The ETS should be used to drive commercial decisions around decarbonisation.
9.1 - Community energy	The Parliamentary Commission for the Environment <sup>16</sup> has identified a significant opportunity for small scale community wind projects. Community wind projects are unlikely to proceed without Government support with planning and process information and advice. RMA reform to simplify and reduce the cost and uncertainty of obtaining a consent is a prerequisite to new development. The Association considers smaller scale wind projects a key opportunity to support regional growth and improve energy resilience.
10.1 - Include the economic benefits of climate change	The Association considers there is merit in ensuring alignment across the electricity industry in considering the economic impact of climate change.
10.2 and 10.3 -	The Association notes the current Transpower project to enable network

<sup>16</sup> PCE Report Wind power, people and place (2006b).

Connecting to the national grid	<p>connections (ENC) in preparing for a significant increase in demand for grid connections.</p> <p>The ability of Transpower to increase capacity and simplify the new connection process is supported by the Association.</p> <p>The Association acknowledges the first mover disadvantage and the risk of suboptimal transmission infrastructure investments in areas where there is potential for multiple new generation projects. Individual members are best placed to respond to the options identified.</p>
10.4 - Independent geospatial data	Industry participants will undertake their own analysis and view new generation locations as a source of competitive advantage.
10.5 - Expand EDGS	EDGS compliments industry participants own analysis and the frequency of publication is appropriate.
10.6 - User guide	This should be covered by Transpower's ENC Project.
10.7 - Database of potential sources	Existing information including current EDGS content is sufficient.
10.8 - Co-ordination replacement of wind farms	Investors will take locational factors into consideration when assessing the commercial viability of wind farms.
11 - Local connections	<p>The Association supports the recommendations of the EPR in relation to clarifying the EA's role in regulating electricity distribution.</p> <p>NZWEA notes the unresolved issue around the pricing of distributed generation connection costs. In particular whether the EA changes the rule book for distributed generation connection costs from incremental costs to including a share of common costs as originally proposed under the Distributed Generation Pricing Principles July 2016 Consultation Paper. A change to including common costs would create investment uncertainty and disadvantage distributed generation.</p>



### **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 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.

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