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Committee Secretariat
Transport and Infrastructure Committee
Parliament Buildings
Wellington

Submission on Offshore Renewable Energy (ORE) Bill

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Release of information

Please let us know if you would like any part of your submission to be kept confidential.

☒ I would like to be contacted before the release or use of my submission in the summary of submissions that will be published by MBIE after the consultation.

☐ I would like my submission (or identified parts of my submission) to be kept confidential and **have stated below** my reasons and grounds under the Official Information Act that I believe apply for consideration by MBIE.

Thank you for the opportunity to provide a response to the Offshore Renewable Energy Bill.

The New Zealand Wind Energy Association, (NZWEA), is a membership-based industry organisation supporting the power of wind as a reliable, sustainable & commercially viable energy source. In Aotearoa New Zealand, wind energy is pivotal to shaping our energy future and helps to deliver a net-zero carbon economy by 2050.

NZWEA's membership is made up of almost 80 companies and over 600 individuals working in the domestic wind energy sector of Aotearoa. Our members include independent wind farm developers, generator-retailers, contractors, consultants, research organisations and many companies involved in the wind energy supply chain.

We recognise that wind energy (both onshore and offshore) plays a key role in the future of Aotearoa New Zealand's renewable electricity generation portfolio to ensure current and future energy demand can be met when needed, while also reducing our carbon emissions.

NZWEA welcomes the proposed legislation that will enable the development of offshore wind energy generation. We offer the following comments on the proposed Offshore Renewable Energy Bill (the Bill) draft for consideration.

I wish to appear before the committee to speak to our submission.

Submission Overview

NZWEA fully supports the introduction of the Bill with the following comments and caveats.

Offshore wind energy is needed to help electrify Aotearoa's economy to meet future energy demands, achieve the decarbonisation targets, and create new industrial opportunities (including Power-to-X), thereby growing and expanding our economy. Combined with onshore wind energy, large-scale offshore wind energy will be pivotal to meeting these objectives.

In recent years, there have been many studies that have assessed the future energy demand that the country will need by 2050. These studies traverse various demand growth scenarios as we embark on the energy transition. Such studies include the Transpower *Whakamana i Te Mauri Hiko* report, the BCG *The Future is Electric* report, and the PWC *National Impact Study for Offshore Wind Energy*, amongst others. While each report may differ in terms of the amount of electrical energy needed over the next 25 years, all the reports are united in that we need to build substantially more renewable electricity generation capacity over the next 25 years, than what was built over the last 25 years.

Conservatively, Transpower predict that we will need 68% more renewable generation by 2050 than we have at present. MBIE's demand & generation forecasts (July 2024) also assess similar demand growth predictions and estimate that 'new capacity' of between 9.4 GW (Reference Scenario) – 15.1 GW (Growth Scenario) will be needed over the next 25 years[1] from a total base peak capacity of approximately 10.5 GW today. This translates to a combined capacity requirement of approximately 20 GW – 25 GW by 2050. By comparison, new generation capacity of 2.9 GW was built over the last 25 years under current market conditions, meaning ***at least 3 times*** more electricity generation capacity will need to be built over the next 25 years.

Apart from some tactical geothermal generation new build opportunities, almost all of this new generation capacity build will come from solar PV and wind energy. Transpower predict that at least 6.5 GW will come from wind energy. These two technologies are the

1 Reference MBIE Electricity Demand and Generation Scenarios: Results summary – July 2024, Page 40

most economic new build solutions in the market[2] with the cost curve of these solutions consistently reducing over recent years, and likely to continue to decrease over the next decade, and beyond.

While offshore wind is approximately double the price of onshore wind, it was only 5-6 years ago that this price delta was over 3 times. The Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Australia carried out a refreshed generation cost study in 2024, that derived similar costs of generation to the US Lazard study but also predict a 44% reduction in CAPEX costs over the next 10 years for offshore fixed foundation wind generation. This compares to a CAPEX reduction of 31% for onshore wind over the same period.

Global offshore wind capacity is growing at a rapid rate and competition for equipment and skilled resources is mounting. Across the world in 2023, the industry connected 11 GW of new offshore wind to international grids representing a 24% year-on-year (YoY) increase - the second highest growth year ever. Beyond the numbers it is important to note that the offshore wind industry and its partners in government, are now coalescing and driving momentum in anticipation of the industry's growth and importance as a clean energy technology. Membership of the Global Offshore Wind Alliance (GOWA), a diplomatic, multi-stakeholder initiative has swelled to over 20 countries which have pledged to collaborate towards installing 380 GW of additional offshore wind capacity by 2030 and 2000 GW by 2050. It is imperative Aotearoa be part of this journey so as not to be left behind.

Offshore wind capacity currently represents about 7.4% of all global wind capacity (75.2 GW). This growth is being fuelled by the global pressures to actively progress the energy transition and the significant scale of renewable energy that can be achieved.

Aotearoa New Zealand's offshore wind resource is ideal given our position in the 'roaring forties' latitudes. Our extensive coastline and exclusive economic zone (EEZ) are also the 9th largest in the world. Four key locations with high potential for offshore development have already been identified, i.e. South Taranaki, the west Auckland-Waikato coast, and potentially the Foveaux and Cook Straits.

South Taranaki and the Waikato areas are considered amongst the best offshore wind resources in the world which is attracting a number of large foreign company investors. However, given the global competition for offshore wind, it is crucial that New Zealand establishes the correct legislative and regulatory settings to maintain and increase this level of competitive attractiveness. BlueFloat Energy's recent departure from the NZ market is a clear signal that if these settings are not appropriately established and clearly conveyed, the foreign direct investment opportunity will be lost, and New Zealand will lose this unique opportunity.

The scale that offshore wind can be deployed is 3 to 5-fold that of onshore wind, where the historic average project size of onshore projects built in New Zealand is 148 MW. The largest onshore wind project currently being considered in Aotearoa is 350 MW compared to 800MW - 1,000 MW for offshore projects. This large-scale level of electricity deployment has many additional benefits such as the ability to provide significant amounts of reliable renewable energy, enabling the development of new industrialisation opportunities such as the production of ammonia and hydrogen, and the ability to supply energy intensive data centres driven by the growth in AI, amongst many others.

2 See Lazard LCOE Report 2024 version 17.0, page 9. Based on the latest Lazard study, the costs of new electricity generation, the current international Levelised Cost of Energy (LCOE) for new offshore wind energy is USD$74 to USD$139 MWh. This compares to onshore wind generation costs of between USD$27 – USD$73 MWh, with new gas peaking plants between USD$110 – USD$228 MWh, and coal at USD$69 – USD$168 MWh.

While the economic and energy transition benefits for offshore wind energy are apparent, the level of opportunity for iwi, hapū, Treaty settlement entities and local communities must also not be understated. The recent PWC *Offshore Impact Study* outlined that offshore wind farms are likely to make a substantive positive impact for iwi-Māori by stimulating economic activity and green energy related jobs. Commercial participation is therefore actively sought by iwi-Māori over the use of the moana and related economic opportunities, which most of the existing developers are fully embracing. These partnerships provide significant benefits for all iwi and local communities.

It is without doubt that offshore wind energy represents a substantive opportunity for Aotearoa to pursue as a viable long term cheap renewable energy source. Coupled with its onshore wind counterpart, wind energy is highly mature, scalable and a fully renewable energy source that will deliver significant benefits for decades to come.

This legislation must therefore be the key to unlock this opportunity.

Offshore Renewable Bill Specific Recommendations

Part 1 - Preliminary provisions

No comments

Part 2 - Regime for offshore renewable energy permits and infrastructure protection

Subpart 1—Preliminary provisions

No comments

Subpart 2—Feasibility Permit

1. Feasibility Permit Exclusivity - A feasibility permit gives the holder certainty that no other ORE developers will be awarded a feasibility permit or consents for the construction and operation of ORE infrastructure for the same area while their permit is valid but **does not prevent other non-ORE-related authorised activities from being undertaken within the relevant permit area.**

   NZWEA Response: Offshore wind energy projects are large complex projects to construct, and to operate & maintain. The assets not only sit above the sea level but also exist on the seabed, i.e. high voltage power cables and turbine tie-lines. The potential conflicts with other non-ORE activities in the same area as the feasibility permit area, are likely to be substantive and introduce significant health & safety issues if multi-use industrial activities are permitted in the same area. The draft bill does not prevent other non-ORE activities to be granted within the same area, which introduces unsustainable risks to the offshore wind farm developer. The bill also appears to contradict other parts of the legislation, i.e. Subpart 5—Protection of infrastructure. The very nature of the construction and operations of the offshore wind farm requires that the seabed and surrounding oceans are duly protected from any other activity for the duration of the commercial permit. Similar protections should therefore be adopted as that of the Cook Strait Cable Protection Zone (CPZ) under the Submarine Cables and Pipelines Protection Act 1996.

2. Clause 18 (1a) - The Minister may grant an application for a feasibility permit, in whole ***or in part***, may render the application uneconomic. The applicant should have the right to be consulted on the potential outcome that their application will only be granted 'in part', prior to the final outcome, allowing the applicant an

opportunity to outline any respective concerns resulting from a reduced feasibility permit scope.

3. Clause 19 (2b) – Replace the statement that states "*the applicant's compliance record in New Zealand and**/or** internationally*". Most ORE developers do not currently have existing NZ operations or compliance records but will have substantive international compliance record experience.

Subpart 3—Commercial permits

4. Clause 26 (a) - A Commercial permit "*area that is a reasonable size for the proposed development*" is a generic term with little meaning. This clause should be deleted or defined to describe the intent behind its inclusion, i.e. consistent with the area granted in the feasibility permit area.

5. Clause 28 (1a) – See same comment in clause 2 above.

Subpart 4—Provisions relating to both feasibility permits and commercial permits

Revocation of permits

6. Clause 53 - As drafted, the revocation provisions provide the Minister with discretion to revoke permits without sufficient consultation or process. In particular, the open-ended powers in (53c) and (53f). Given the investment size associated with ORE developments, the unilateral revocation power appears onerous and may discourage investment. The current draft seems out of step with the scale of any non-compliance as revocation applies to any form of non-compliance. Given the significant commercial consequences, permits should only be revoked following a robust enforcement and consultation process for significant offences. We also note that clause 53 is likely based on section 39 of the Crown Minerals Act 1991, however, as this is a new regime it must take into account current expectations around investment certainty and avoid provisions such as this which are likely to prevent and hinder ORE investment in New Zealand.

7. Clause 53 (c) – Further to point 6 above, the Minister may revoke a permit if the Minister is satisfied that "in the case of a commercial permit, the permit holder has failed to begin ORE generation infrastructure activities **within a reasonable time** following the permit start date". The term 'reasonable time' is not clearly defined so guidance on this term should be provided in the Bill, similar to the feasibility permit definition.

Surrender of permits

8. The Bill is silent on any financial liabilities or commercial consequences resulting from the surrender of a permit (at any stage of the feasibility or commercial permit duration), other than the provisions set out in the decommissioning activities. The Bill should clarify that there are no additional financial liabilities associated with a permit surrender.

Subpart 5—Protection of infrastructure

9. Clause 63 (2c) - The Minister may, by notice, declare a safety zone in relation to an ORE development which may be up to 500 metres from any point on the outer edge of the ORE infrastructure to which the ORE infrastructure activity relates. The safety zone in relation to the undersea high voltage power cables connecting the wind farm to shoreline must also be protected in a similar manner as that outlined in the Cook Strait Cable Protection Zone (CPZ) under the Submarine Cables and Pipelines Protection Act 1996. We note that the Cook Strait cable protection zone

is mostly 7 kilometres wide. While this level of protection may not be warranted for wind farm high voltage cables in some cases, consideration should be given to individual developer assessments that outline the specific risks and levels of protection levels that may be necessary. The underlying principle should be the safety to all users of the surrounding ocean and the protections to these critical assets.

Part 3 - Decommissioning of ORE infrastructure

Subpart 1—Preliminary provisions

No comments

Subpart 2—Decommissioning obligation

Requirements connected to decommissioning obligation

10. Clause 76 (2a) – The estimated costs to the Crown to decommission the ORE may be substantially different to that of an experienced ORE owner/operator. The costs should therefore be based on estimates and quotes received from reputable 3rd parties that are appropriately skilled to carry out such works. In addition, the costs to decommission the ORE infrastructure may change over time due to new innovations or changes in the market. The Bill must therefore be flexible to allow the permit holder to proactively submit a revised decommissioning plan, and cost estimate which may have the effect of reducing the decommissioning liability to the permit holder.

11. Clause 76 (2b) – In some circumstances where it may be more beneficial to the seabed environment if parts of the ORE infrastructure is not 'totally removed'. Examples include the formation of a natural reef around the base of the wind turbine towers that are fixed to the seabed floor. Over time, natural reefs and new sea life are established, having many environmental benefits such as reducing coastal erosion. To remove this new biodiversity, would therefore potentially result in a reduction in the natural environment. The Bill should make allowances for a study to be carried by a reputable organisation to validate the environmental benefit, therefore amending the requirement for 'total removal'.

Part 4 - Administration and enforcement

No comments

Part 5 - Amendments to other Acts

No comments

Additional Comments

The clear absence of a risk support mechanism in the draft Bill, while well-known, is of concern if implementation of *large-scale* renewable energy projects (both onshore and offshore) from *domestic and foreign direct investors* is to be progressed.

The winter of 2024 and energy crisis demonstrates that Aotearoa requires a greater mix of technological and geographical renewable energy build options. With the occurrence of these events increasing year on year, it is vital that we build more large-scale renewable generation rapidly, to which offshore and onshore wind plays a key role.

These types of renewable generation projects require large capital investments to construct and to maintain. To ensure New Zealand has enough renewable electricity to meet future needs, we must build an *additional* 10 GW – 15 GW in new generation capacity over the next 25 years, equivalent to building 10 – 15 'Huntly Power Stations'.

To compare, over the last 25 years NZ only built 2.9 GW in new electricity generation capacity under the current regulatory settings and market structures. If we want to build 3 to 5 times this generation capacity over the next 25 years, we must actively incentivise the domestic and foreign commercial market to make these large investments a reality.

Building offshore wind energy projects require specialist expertise and experience, which will predominantly come from international investors. Given the unprecedented international demand for offshore renewable energy, New Zealand must attract this expertise to our shores. Presently, there are only 3-4 remaining '*experienced*' offshore wind energy developers investigating projects in Aotearoa. It is likely that this will reduce further due to the absence of any price stabilisation mechanism, as without any form of risk support, these international investors will turn to other markets that do have them, i.e. Australia, the UK and Asia, where support mechanisms for large scale renewable energy (onshore and offshore) projects are already established.

For example, the UK and Australia have robust and attractive schemes that provide suitable models for New Zealand to consider. The Australian model was introduced in 2023 to expand and actively encourage investors to build an additional 32 GW of new renewable electricity generation by 2030. The scheme is known as the *Capacity Investment Scheme.* It is now proven in the market and is openly attracting numerous international investors to build these critical assets. See https://www.dcceew.gov.au/energy/renewable/capacity-investment-scheme. In addition, Victoria will offer a Contract for Difference, with Supplementary 'availability payments' to reduce the revenue-cost gap.

NZWEA recommends that the draft ORE Bill be amended to allow for a similar (or same) scheme, however the scheme should be agnostic to the renewable technology of the project and apply to both terrestrial and offshore projects. It is also important that the wholesale market not be distorted by favouring one technology over another. Equally, It should be structured to attract only *large-scale* renewable energy projects.

Yours sincerely,

Kevin Hart
Chief Executive Officer
New Zealand Wind Energy Association