



02 November 2023

Energy Resources Markets Branch
Ministry of Business, Innovation and Employment
15 Stout Street
PO Box 1473, Wellington 6140
Attention: Offshore Renewable Energy Submissions

Dear Justine Cannon

Thank you for the opportunity to submit our feedback on the Developing a Regulatory Framework for Offshore Renewable Energy - Second Discussion Document.

Introduction and NIWA's credentials

NIWA is pleased to see this discussion document to support the development of Offshore Renewable Energy in New Zealand. We agree that we need greater levels of renewables in our energy mix, and that while wind is proven commercial technology, other forms such as wave, tidal and floating solar should continue to be explored.

NIWA's Statement of Core Purpose states that we will grow renewable energy production, and defines us as the lead Crown Research Institute (CRI) in oceans, aquatic resources and environments, and marine fisheries. NIWA is also the lead CRI for climate and atmosphere and has a role in climate change adaptation and mitigation. The resources for offshore renewable energy, the potential environmental effects of new infrastructure, what the best renewable energy mix is, implications of energy development for multiple outcomes (e.g., water security), and the context of how this will contribute to net zero carbon goals, are at the core of our business.

With close to 500 staff working on climate and ocean related science NIWA is in an unrivalled position to understand the challenges and issues related to offshore developments from resources to managing and mitigating environmental impacts. We have undertaken extensive research on the impacts and recovery trajectories from natural and anthropogenic disturbance in the marine environment.

NIWA works closely with iwi and hapu across Aotearoa and Te Kuawaha is the only dedicated Māori research centre within a CRI. We have worked closely with DOC to develop legislation for managing offshore activities (e.g., Marine Mammal Protected Areas and Seismic Code of Conduct), with MfE to develop indicators of marine environmental change and assess state of the marine environment, and with MPI to assess marine biosecurity, marine biodiversity, and impacts from a wide range of threats to and from fisheries and the marine environment.

This submission has drawn upon the expertise of scientists from across NIWA's Oceans, Climate, Coasts and Estuaries, and Māori environmental research centres.

We agree that there is a need for a legislative framework to manage New Zealand's emerging Offshore Renewable Energy sector. Getting something in place soon to enable de-risking for prospective projects from the feasibility through to development stage and will give the industry confidence to proceed.

We are highly supportive of the Crown, and future developers, working alongside iwi, hapū, and whānau from through the feasibility and development stages. Ideally offshore renewable energy developments will involve partnerships with Māori.

Overall, we are highly supportive of the direction of this discussion document and offer the recommendations and specific comments below for your consideration, to help create an even stronger legislative framework.

Further details on feasibility permits: The additional information on the feasibility stage is welcomed and we consider that the environment should be explicitly safeguarded, and that regional baseline and monitoring data be collected collaboratively and made public. Setting a maximum size for a feasibility permit seems reasonable, however allowance should be made for staged developments where a single developer may wish to have two adjacent permit blocks to allow a connected sequenced development of, for example, fixed and floating wind farms.

We agree that permit holders should be expected to continue to meet criteria through all stages of their project. One scenario that might make this harder to regulate is onselling of a development. Safeguards need to be in place to ensure potential new owners continue to meet the requirements laid out in Chapter 5.

Single consent authority (Q17): We support a single consent authority responsible for environmental consents for developments that span the Territorial Sea and Exclusive Economic Zone (EEZ). Many of the environmental considerations, (e.g., impacts on marine, benthic and avian fauna) are not different within and outside of the 12 NM limit and therefore it makes sense for them to be considered together. There may be elements of the Resource Management Act (RMA), and any successor(s) and the EEZ Act such as Notification processes where it might be appropriate to require some consistency.

Environmental consenting processes (Q18-19): We consider that the consenting authorities responsible for the assessing applications under the EEZ and RMA acts are appropriate for assessing environmental effects within a permitting regime. The ability of the developers to fund and submit an appropriate Environmental Impact Assessment should be part of the assessment criteria.

Sequencing of permits and environmental consents (Q20): We support Option 1: feasibility permit – relevant environmental consent(s) – commercial permit.

Optimal location of offshore renewable energy developments (Q22): The list of factors that may drive development in the EEZ versus the Territorial Sea should be expanded to include (but not limited to) consideration of the following.

1. Environmental Impact: Effects on marine ecosystems, including wildlife disruption and habitat degradation. Potential impacts on migratory patterns of marine species. Water quality and sedimentation issues in the vicinity of offshore structures. Strategies for minimizing impacts, such as site selection and environmental monitoring. Cumulative effects from multiple windfarm developments, and other marine users.

2. **Grid Integration and Infrastructure:** Challenges related to integrating offshore renewable energy into the existing energy grid. The need for grid upgrades and expanded transmission infrastructure. Strategies for managing grid stability and accommodating fluctuating energy production.
3. **Māori values and perspectives.** Presence and migratory pathways of taonga species may be of particular concern. Wāhi tapu sites need to be identified and accounted for. Customary fisheries areas may require specific considerations.
4. **Resource Variability and Predictability:** Variability in wind and wave patterns and its impact on energy production. The importance of accurate resource assessment and forecasting for project planning. Solutions for improving resource predictability and reducing risks for investors.
5. **Social Acceptance and Community Engagement:** Public perceptions of offshore renewable energy and potential opposition. Strategies for effective community engagement and stakeholder consultation. Addressing concerns about visual impacts, noise, navigation safety, recreational impacts.
6. **Regulatory and Permitting Challenges:** Complex regulatory frameworks and permitting processes. Streamlining permitting to reduce delays and uncertainties. Ensuring that regulations align with environmental and safety standards.
7. **Infrastructure and Maintenance Costs:** High upfront capital costs associated with infrastructure further offshore. Ongoing maintenance and repair costs, including underwater maintenance. Strategies for reducing costs and enhancing the lifespan of offshore facilities.
8. **Technological Advancements and Innovation:** Readiness of floating technology required in much of the EEZ. The need for ongoing research and development to improve technology efficiency. Innovation in design and materials to reduce the environmental impact and costs. The role of public-private partnerships in advancing technology.
9. **Financing and Investment:** Challenges in securing financing for offshore renewable energy projects. Attracting private investment and fostering a favourable investment climate. Government incentives and financial mechanisms to support projects.
10. **End-of-Life Decommissioning:** Different permitting regimes for decommissioning of offshore facilities. Cost challenges and strategies for managing the removal and disposal of equipment and structures.

Decommissioning (Q28-): We agree that developers need to be legally obligated to meet the entire cost of full removal decommissioning. Projects should be required to provide a detailed decommissioning plan including an environmental effects monitoring plan at the commercial permit stage.

Offer of support

We would like to take this opportunity to offer to help with the refinement of the framework and are available for further discussion regarding any of our recommendations and comments. We note that the Government has previously involved technical experts in similar policy development.

NIWA also looks forward to contributing our marine and climate science expertise and capabilities to support feasibility studies for offshore renewable energy developments.

We hope these suggestions are useful and look forward to engaging further in the process.