The Offshore Renewable Energy Bill

Climate Justice Taranaki submission

to the Parliamentary Transport and Infrastructure Committee, 6 Feb 2025

Introduction

1. Founded in 2010 and incorporated in 2015, Climate Justice Taranaki (CJT) [1] is dedicated to environmental sustainability, social justice and inter-generational equity - our collective ethical responsibility to current and future generations, human and non-human. Our vision is founded on, and underpinned by, Te Tiriti o Waitangi, Aotearoa New Zealand's constitutional document.

2. Composed of a broad range of people with varied expertise and life experiences, CJT has engaged respectfully with government on numerous occasions. CJT has submitted on many consultation papers, policies and Bills over the past decade, including several relating to energy transition[2] and offshore renewable energy[3].

3. CJT is not convinced that developer-led, large-scaled offshore renewable energy is essential for Aotearoa New Zealand's energy decarbonisation, resilience and equity. An independent whole-of-energy system analysis is needed to verify the role of offshore renewable energy in the energy mix and map out a sustainable decarbonisation pathway. The analysis needs to incorporate ways to reduce overall energy demand and foster energy democracy. Regarding the Offshore Renewable Energy Bill[4], in this submission CJT has provided some recommendations around strengthening the assessment criteria on applications, strategic spatial planning and community benefits.

Misconception to be challenged

4. There is a common misconception across governments and parts of society that building ever more renewable energy capacity would get us off fossil fuels and onto zero emissions, energy security and equity. Yet this assumption omits three critical points: 1) commitment to stop exploring for, producing and consuming fossil fuels, 2) a substantial planned reduction of overall energy use so that precious renewable energy produced responsibly can be used smartly to meet the demand[5], and 3) transformation of the electricity market to prioritise public good, wellbeing, equity and resilience rather than commercial profits[6].

5. To this date, none of these three points are being addressed. On the contrary, the government has picked up the 'drill baby drill' mantra and is adamant to lift the oil and gas exploration ban and fast-track coal and other mining, ignoring our climate crisis and the plight of endangered species. There is no whole-of-system energy analysis[7] that examines the costs and benefits of different energy production, storage and demand management at the national scale, ways of minimising wastage, improving efficiency and reducing overall energy needs, or the opportunity costs when one energy is picked as a winner over others, and the social and environmental outcomes of different scenarios. The government's current review of the electricity market may be a step in the right direction but without a focus on wellbeing and equity, it is hardly transformative. Indeed, it risks taking us further down a privatized, hyper-expensive energy future.

6. It is time to acknowledge and act responsibly in addressing the many ecological boundaries[8] we have breached and the social foundations[9] that still fall short, both nationally and internationally. The reality is that, for the foreseeable future, even renewable energy infrastructures will continue to rely on fossil fuels and mineral mining to deliver their functions, with associated environmental and social impacts worldwide. There are real ethical issues at stake.

7. The International Energy Agency (IEA, 2022)[10] warns that the shift to a "clean" energy system will drive "*a rapid rise in demand for critical minerals – in most cases well above anything seen previously – poses huge questions about the availability and reliability of supply*". Offshore windfarms require up to 10 tonnes of copper per megawatt (MW) installed capacity, twice that of onshore installations (Bolson et al. 2022)[11]. Taranaki Offshore Partnership's proposed 1GW windfarm offshore from South Taranaki could require 10,000 tonnes of copper.

8. The life-expectancy of a wind turbine ranges from 20-25 years, after which we will face decommissioning and end-of-life waste management issues, and the costs and materials needed to replace it. All these issues need to be considered carefully and ethically before committing to over-building renewable energy capacity, especially offshore wind, and all energy generated ought to be used conservatively and wisely.

9. The zealous fixation on unending economic growth has caused the polycrisis we face, and it is increasingly being challenged for the demonstrable fallacy it is, by economists, environmentalists and community activists. Research now exists to explore using integrated assessment models to represent **degrowth** in terms of economics and energy demand[12]. The rationale behind this includes: "*(1) enabling faster emissions reductions in rich countries… (2) reducing reliance on absolute energy-GDP decoupling in scenarios; and (3) reducing the necessary upscaling speed of renewables and carbon dioxide removal.*" We encourage MBIE and academic institutions to undertake similar research and integrated assessments with an open mind and come up with more enlightened solutions.

Comprehensive cost-benefit analysis lacking

10. **Offshore wind energy development comes with enormous costs burden on NZ.** The PWC National Impact Study (March 2024) [13] says, "*Investments in enabling ports and energy transmission infrastructure will need to lead the development of offshore wind farms to unlock the resource and avoid flow on delays to the development of the sector.*" The cost of upgrading ports is estimated at USD100-300 million or as high as NZD720m[14] while the increase in transmission capacity is costed at NZD120-160m for 2 GW of offshore wind generation.

11. International developers also expect financial 'derisking' and enabling regulations. The UK report on NZ's offshore wind development supply chain noted, "*perhaps more unique to New Zealand, will be the requirement for developers to advise and collaborate with the government on the support required to derisk projects and secure finance. In a market already heavily reliant on renewable generation, it will be critical for the government to provide the required level of certainty to developers to ensure projects remain viable*" (Xodus, June 2024) [15]. Contracts for Difference are commonly used in the UK as the main mechanism for supporting low carbon electricity generation[16] without which offshore wind is economically unviable[17].

12. Because of a small domestic energy market (around 5 gigawatts), talks of substantially increasing renewable energy demands, notably to make 'green' hydrogen for export, make offshore wind development more attractive. The PWC study says, "*Offshore wind is particularly important for decarbonising hard-to-abate emissions associated with transport fuels and industrial feedstocks as it can unlock high levels of green hydrogen production and Power-to-X (PtX) synthetic fuels.*" The Xodus report says, "*Large scale hydrogen export is an alternative scenario that could be considered for New Zealand which would significantly increase electricity demand and increase the scale of proposed build out of offshore wind.*" Meanwhile, the Hydrogen Action Plan "*outlines the Government's plan to unlock private investment in hydrogen… focusses on unlocking low-emissions hydrogen, including green, blue, turquoise, white, and orange hydrogen… reflects the Government's market-led and delivery-oriented approach*" (MBIE, Nov 2024)[18]

13. The Parliamentary Commissioner for the Environment has cautioned that the support for hydrogen export could potentially make it more difficult and costly for NZ to meet its climate change commitments[19]. CJT has long been a critic on the push for a hydrogen export economy, because of its inherent inefficiency and wasteful use of precious energy, and doubtful economic argument. Increasingly, energy specialists are pointing out that the fallacies of investing heavily on green hydrogen, especially when public funding is involved[20]. There are more efficient technologies and policies to drive decarbonisation[21].

14. The NZ Wind Energy Association reveals that there is an additional 4.76 GW of onshore wind generation projects in various investigation, planning and consenting stages[22], including 1551 MW consented or likely to be consented as of August 2024 but waiting for the right market conditions[23]. Rather than being produced as an 'essential service' for public good as it was before 1984[24], the current electricity market system thrives on scarcity[25], disincentivises investment in renewables and is purely profit driven for shareholder pockets. There are also many solar generation projects already consented but not yet built. How will a push for offshore renewable energy affect the development of onshore renewables and vice versa? Unlike onshore wind, offshore wind energy infrastructure is so much more demanding financially and technically that it tends to rule out community ownership or management, thereby maintaining the concentration of power, literally. Smaller scale renewable projects like onshore wind and solar have a greater potential for democratising energy[26], [27].

15. There is a general preconception that there are fewer impacts from offshore wind farms than onshore ones. But just because offshore wind farms are located far in the horizon does not mean that their environmental and social impacts are less or negligible. A case in point, an offshore wind plant needs some 50 per cent more minerals and metals than an onshore one (UNEP, 2024)[28].

16. Is there a cost-benefit analysis that considers the costs associated with mining for such minerals and metals, whether it occurs here or overseas? Are we comfortable to ignore the environmental and social impacts and injustice[29] from mining the additional materials to support an oversized offshore wind energy and H2 export industry?

17. **"*There is a race to roll out this*** [renewable] ***technology and reach 'net zero'*** *- the point where the global economy produces no more greenhouse gases than the planet can absorb. Yet, this must be done in a way that includes the nearly three quarters of a billion people who currently lack access to electricity. We also must be sure to not leave developing and resource-rich countries behind in the development of renewable energy systems*" (UNEP, 2024).

18. Critically, offshore wind energy development, both in the coastal marine areas and in the Exclusive Economic Zone (EEZ), puts our already **heavily stressed coastal and marine environment and ecosystems** at ever greater risks. Aotearoa NZ is a global marine mammal and seabird hotspot, with many threatened and/or unique species that breed only here. These will be increasingly vulnerable to additional stresses that could lead to further population decline and threaten survival of the species. NZ has obligations under a number of international or regional agreements, notably the UN Convention on Biological Diversity, Convention on Conservation of Migratory Species, Agreement on the Conservation of Albatrosses and Petrels, East Asian – Australasian Flyway Partnership and Sharks MOU.

19. There are known and potential effects at all stages of offshore wind energy development from overseas experiences which would be relevant. But we have little or poor baseline data for most marine species, including their seasonal movements, behaviours and ecological niche. We acknowledge that one prospective developer is doing a variety of studies offshore in Taranaki. Nonetheless, impacts such as population decline and damage of a critical benthic community like sponge gardens or deep sea corals may not be realised until it is too late, if ever. The speed of

offshore wind development globally means that research and monitoring of impacts are playing catch-up[30]. It is clear from the presentation by the Department of Conservation at the Ara Ake Offshore Renewable Energy Forum (2023)[31] that there are serious risks involved. Our presentation in the 2024 forum articulates some of our key concerns[32].

20. From our involvement in marine consenting processes under the EEZ-CS Act, we know that **cumulative effects** on marine species and ecosystems have never been properly assessed, and the precautionary principle largely ignored. We have little confidence that the approach would be much different in the offshore renewable energy space, given the government's rhetoric for 'growth at all costs' and the developer-led pathway being taken.

21. Moreover, unprecedented marine heat waves in the past two decades have caused gradual die-offs of West Coast bull kelp[33] and more recently Fiordland sponges[34]. Recent studies have found that offshore wind farms can modify the intensity and spatial structure of wind-driven upwelling, potentially raising seawater temperature[35]. With so many intricate issues and little understanding, we need to take the precautionary approach, add no further harm while safeguarding what is left. Networks of well-designed and effectively managed marine protected areas[36] offer multiple benefits such as habitat recovery and sustaining breeding fish stocks[37]. We need many more of them to help reach the global target of 30% coverage by 2030[38] while honouring Te Tiriti o Waitangi.

The RMA and EEZA

22. Part 2 of the Bill states that "*the permitting regime does not supersede or replace any other legislative requirements, including requirements under the Resource Management Act 1991 (the RMA) and the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (the EEZA*)…" However, we are well aware that both the RMA and EEZA are in the process of being weakened in respect of environmental protection. There are also a number of new or proposed pieces of legislation designed to override environmental safeguards and public participation, notably the Fast Track Approvals Act and the proposed Regulatory Standards Bill.

Te Tiriti o Waitangi

23. While section 6 requires consistency with the obligations arising under existing Treaty settlements, and customary rights, there is no provision for honouring the obligations under Te Tiriti o Waitangi or the Treaty of Waitangi. This is especially worrying with the Marine and Coastal Area (Takutai Moana) (Customary Marine Title) Amendment Bill[39] being processed under urgency at the time of writing, the Treaty Principles Bill in Select Committee and a proposal for a Regulatory Standards Bill[40] being resurrected. These all represent classic neo-liberal examples of privatizing profits at the expense of our life-supporting biosphere, while socializing losses.

24. CJT is opposed to such legislation, the intention of which is to further disadvantage mana whenua, mana moana and the public, for the benefit of corporations, many of which are foreign-owned. The Crown's 'ability' in these respects hinges on a demonstrably false-assumption, that Māori ceded sovereignty in 1840. That was not the case.

25. Ngā Iwi o Taranaki and Te Rūnanga o Ngāti Mutunga, in their response to an earlier consultation on Enabling Investment in Offshore Renewable Energy expressed[41], *"Historically, New Zealand's energy regulatory framework has excluded Māori from active participation and direct benefit from the energy system. This is largely a result of the Crown's presumption of ownership of natural resources and subsequent authorizing regimes. This resulted in the exploitation of Māori natural resources by private companies empowered by the Crown to the exclusion and detriment of iwi and hapū…*

Consequently, there are limited demonstrable positive impacts on the social, cultural, environmental and economic well-being of iwi and hapū from the exploitation of Māori natural resources which has placed iwi and hapū at a disadvantage in terms of engagement in these regulations and other alternative energy regulations as they develop."

Strategic spatial planning to avoid use conflicts

26. There needs to be robust spatial planning that prioritises ecosystem health, biodiversity and customary rights above any economic or commercial development, including renewable energy development. At the very least, existing marine reserves and marine mammal sanctuaries should be excluded from offshore renewable energy development and protected from the associated impacts.

27. We acknowledge that the designation of 'safety zones' which exclude bottom trawling and other environmentally harmful activities could lead to some positive outcomes in terms of ecosystem health and fish stocks. But there is no strategic spatial planning to avoid conflicts between renewable energy development and other incompatible uses, notably seabed mining[42] which we are totally opposed to.

28. There is a certain unfairness when Fast-Tracked projects could trump offshore renewable energy projects during their 7-year long feasibility stage because of the way the Bill is drafted. We agree with the proposal by the Environment Defence Society (EDS)[43] in "*stating that an applicant that has made a feasibility application under the Bill has priority under the RMA/EEZ Act in the event that another application for the same natural resource (marine space) is made under those Acts.*"

Feasibility permits

29. Given that the permit holder would have exclusive right to a commercial permit, the mandatory considerations for granting feasibility permits need to be much stronger than proposed in the Bill. Notably, section 19(1)(a) "*the proposed development is likely to deliver* ***benefits for New Zealand***" needs clear definitions, as does "*good industry practice*" under s19(1)(c). Our experience with the oil and gas industry in Taranaki has shown us that such 'benefits' are not broadly shared in the community and hinge upon sacrificing the environment (land, air and water quality), often exacerbating existing social inequity. The environmental costs are externalised and largely ignored or played down to enable the flow of profits to corporations and their shareholders.

30. Importantly, what is "good industry practice" in terms of designs, technologies and materials required to withstand seismic events in the proposed permit area? Additional concerns are the risk of a seismic event coinciding with extreme storm activity. A 2021 study jointly published by UK and US engineers warned[44], "*The earthquake hazards that can affect offshore wind farm are fault displacement, seismic shaking, subsurface liquefaction, submarine landslides, tsunami effects and a combination thereof. Procedures for seismic designing OWTs are not explicitly mentioned in current codes of practice.*"

31. S19(1)(d) states, "*the applicant has, or is likely to have, the technical and financial capability to install, operate, maintain, and decommission the proposed ORE generation infrastructure.*" Assurance is needed that the applicant has a plan to obtain such capability, if it does not already have such.

32. In addition to what's proposed in the Bill s19(2), we strongly recommend that in determining an application, the Minister must also have regard to the following considerations:

- The scope, methodology and activities proposed to take place in the feasibility permit period
- Preliminary assessment of environmental effects and plans to minimize, monitor and mitigate adverse effects.
- Plans to conduct full lifecycle analyses and minimize lifecycle impacts such as durability and circularity of materials and technologies to be employed, and ethical sourcing of materials.
- Reporting regime, information sharing and collaboration / partnerships (not just consultation) with Māori and local institutions.

Commercial permits

33. On mandatory considerations for determining an application, section 29(2)(a) requires that the Minister must have regard to "*whether there are changes to the proposed development that are material to the benefits that were assessed as part of the applicant's feasibility permit application".* As pointed out earlier, the term "*benefits"* needs clear explanations as it is otherwise open to interpretations, as does "*good industry practice*" under s29(1)(a). Moreover, the seven years or longer time-lapse between the feasibility and commercial stages of the development could see substantial changes in the overall renewable energy generation and demands which affect the role and importance of offshore renewables.

Transmission infrastructure and missing provisions

34. The Bill says, "*93(2) The owner of ORE transmission infrastructure must inform the chief executive within 30 working days of entering into any contract with another person to build or operate any ORE transmission infrastructure or to transfer ownership of any ORE transmission infrastructure…*" There are also clauses about levies and decommissioning obligations on transmission infrastructure owners which is good. But there is no clarity around how transmission infrastructure owners come to be and their obligations beyond levies and decommissioning.

35. Information around electricity supply contracts[45], power purchase agreements[46], contracts for difference and mechanisms to ensure affordability for household electricity users would be helpful.

Decommissioning

36. The proposed decommission obligations with financial security and trailing liability sound reasonable. However, the impacts of removing the infrastructure to the environment need to be assessed on a case-by-case basis, to determine the best ways forward. It would be equally important to have a comprehensive full-life-cycle assessment upfront, and to select companies that responsibly source and use materials and technologies that are superior in terms of durability, reusability and recyclability.

37. It would also be prudent to impose obligations and liability to remediate environmental impacts, restore damaged infrastructure and remove nuisance to other users, for example following an extreme weather event, earthquake, tsunami or human error.

Levies

38. We note that s168(1) relates to regulations on imposing levies on permit holders and transmission infrastructure owners for the purpose of recovering some of the costs of administering this Act.

39. We propose an additional levy to feed into a Fund established to support community initiatives towards marine ecosystem research, restoration and threatened species recovery. This could be one way of assuring at least some community benefits[47], [48] from offshore renewable energy development.

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[1] https://climatejusticetaranaki.info/
[2] https://climatejusticetaranaki.info/wp-content/uploads/2023/11/cjt-sub-mbie-energy-transition-nov23-final.pdf
[3] https://climatejusticetaranaki.info/wp-content/uploads/2023/04/cjt-submission-on-mbie-enabling-offshore-renewable-energy-6april23-final.pdf
[4] https://www.legislation.govt.nz/bill/government/2024/0102/latest/d3706409e2.html
[5] https://clever-energy-scenario.eu/ A Collaborative Low Energy Vision for the European Region (CLEVER) uses the Sufficiency-Efficiency-Renewables framework, focussing on first scaling energy needs to what is considered essential to provide a decent level of services to all (sufficiency). The latter is combined with technological improvement (efficiency), and renewable energies. *"A reduction of final energy demand of 55% by 2050 compared to 2019 levels can set Europe on a resilient and strongly sustainable transition pathway. -25% in 2030 and -45% in 2040 are milestones..."*
[6] https://350.org.nz/generating-scarcity-report/
[7] https://pce.parliament.nz/media/ndudvpxt/letter-considerations-for-the-development-of-new-zealand-s-energy-strategy.pdf
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