

23 June 2023

Environment Select Committee

By e-mail: en@parliament.govt.nz

Submission on the Environment Select Committee Inquiry into Seabed Mining in New Zealand

Introduction

1. Energy Resources Aotearoa is New Zealand's peak energy advocacy organisation. Our purpose is to enable constructive collaboration across the energy sector through and beyond New Zealand's transition to net zero carbon emissions in 2050.
2. This document constitutes our submission on the Environment Select Committee's (the **Committee**) inquiry into seabed mining in New Zealand.
3. We welcome the opportunity to present our submission to the Committee.

Overarching comments

4. We welcome the Committee's inquiry into seabed mining in New Zealand. We especially welcome and support the exclusion of existing petroleum from consideration by the inquiry. Our focus in this submission is on looking for a way forward that balances the competing aims of environmental protections and the development and use of New Zealand's offshore minerals estate.
5. There have been two high profile applications to develop offshore minerals over the last decade, namely; an application to mine phosphate nodules on the Chatham Rise by Chatham Rock Phosphate LTD (**CRPL**) and irons sands in the South Taranaki Bight by Trans-Tasman Resources LTD (**TTRL**). Both applications were declined by the Environmental Protection Authority (the **EPA**).
6. In declining the CRPL application to mine phosphate nodules on the Chatham Rise in 2015, the decision-making committee considered an adaptive management approach, but ultimately favoured environmental caution over economic benefit. The TTRL application, although initially granted, has ultimately suffered a drawn-out process of appeals through the New Zealand courts.
7. Both of these processes have been at considerable time and expense to both the applicants and taxpayers and seemingly suffers from a lack a strong national

direction for both the decision-maker and the applicant. In the absence of a comprehensive national oceans strategy, we welcome efforts to provide clarity to both the New Zealand public and potential investors on the development of New Zealand's offshore minerals estate.

Comments on the terms of reference

8. The terms of reference for the inquiry traverse the range of key issues highlighted in the public discourse on these matters. Many of the questions posed require a very detailed discussion with a strong scientific evidence base to quantify the impact.
9. In this regard we confine our feedback to the principles of good public policy, including the exploration and development of New Zealand's offshore minerals estate for the benefit of all New Zealanders.

We support the exclusion of existing petroleum rights from this inquiry

10. We are pleased to see existing offshore petroleum excluded from the scope of this inquiry. We infer from the public statements made on the establishment of this inquiry from the Minister for the Environment, the Hon. David Parker, that the exclusion is due to the recognition of the important role these resources play in New Zealand's energy security and wellbeing, combined with the upstream oil and gas sector's strong track record on both health and safety and environmental performance.¹ Given this, we strongly support such an exclusion.

A thumbnail historical sketch

11. The history of the modern oil and gas sector began in 1847 with the application of distillation techniques to fluids from naturally occurring onshore oil seeps.
12. Many of the most prospective areas for petroleum exploration are, as a consequence of the underlying geology, in marine environments. There has been considerable activity, initially in the near shore coastal waters, since the 1890s, with a push into deeper water enabled by the invention of mobile (floating) offshore drilling units. The earliest example in New Zealand we are aware of is the Moa-1B well, drilled by Esso about 90km offshore from New Plymouth in 1969.
13. The potential for incidents, both environmental and to human health and safety, has meant the upstream petroleum sector has become one of the most heavily regulated in the modern economy. This has resulted in a significant body of

¹ Minister Parker was quoted in Energy News, saying "I would make it clear now that were we to agree those sorts of changes in the future—and I'm not saying we would - but were we to do so, there is no way we would contemplate resiling from the agreement that we had with the oil and gas industry that they can continue with their existing rights in the Taranaki offshore basins." Available at: <https://www.energynews.co.nz/news/gas/138899/gas-rights-not-affected-seabed-mining-inquiry-parker>

knowledge detailing and describing the effects of petroleum mining operations in the offshore environment. The impact of these operations is therefore well understood, and the appropriate mitigations are identified.

Looking into the future

14. Our analysis also shows that natural gas will continue to play a critical role in maintaining New Zealand's winter electricity capacity. The spate of recent insufficient generation notices from Transpower illustrate the importance of reliable, fast start generation to ensure the stability of the national grid.²
15. With regard to the electricity sector, we draw to the Committee's attention a recent independent report we commissioned from Energy Link, which may provide useful context. The Energy Link report used a representative range of scenarios from Energy Link's price path model to explore the potential role of natural gas in the electricity system out to 2038. It contains useful insights about the additional fast start gas peaking capacity that will be required across a range of demand scenarios, and the likelihood of gas supply being sufficient to meet this. It finds that up to 320 MW of new fast start gas peaking capacity could be required over the next 15 years.
16. You can access the report at the links below:
 1. Summary report: <https://www.energyresources.org.nz/dmsdocument/242>
 2. Full report: <https://www.energyresources.org.nz/dmsdocument/243>
17. In addition, we also draw to the Committee's attention a further recent report "Fuelling the Energy Transition". In this report we find an additional \$6.3 billion in costs to consumers can be avoided through to 2036 by an orderly transition that encourages sufficient gas supply. In other words, lower gas prices are worth \$6.3 billion to consumers over 15 years, which is \$210 per household per year on an NPV basis, at a time when consumers can least afford higher prices.
18. Our analysis also highlights the ongoing importance of gas in New Zealand's energy mix, identifying a significant "energy gap" that would need to be filled should there be an early exit of gas in the economy.
19. The Fuelling the Energy Transition can be accessed via the following links:
 1. Summary: <https://www.energyresources.org.nz/assets/Uploads/Fuelling-the-Energy-Transition-Web-Summary.pdf>

² Transpower recently committed to working with the electricity sector to manage peak winter demand during tight supply situations. See <https://www.transpower.co.nz/news/transpower-working-sector-manage-winter-capacity-risks> for further discussion on this issue.

2. Full report: <https://www.energyresources.org.nz/assets/Uploads/Fuelling-the-Energy-Transition-Full-Report.pdf>

A definition of seabed mining is required

20. Finally, we note the lack of a definition in the recent private member's Bill in the name of Debbie Ngarewa-Packer calling for the prohibition of seabed mining was problematic. This meant a range of seemingly unrelated activities, such as petroleum exploration and production, and dredging would be captured.
21. For the removal of doubt, should the Committee recommend any legislative changes we recommend the Committee define, precisely, what is meant by seabed mining. We offer the following suggestions in developing this definition:
 1. seabed mining (or "offshore minerals exploration and mining") should be defined as; "the exploration and recovery of minerals from the seafloor by underwater mining techniques";
 2. minerals are a naturally occurring substance or a naturally occurring mixture of substances and may be in the form of sand, gravel, clay, limestone, rock, evaporates, shale, oil-shale, and coal;³ and
 3. the definition of minerals should explicitly exclude petroleum, which is covered appropriately under both the Petroleum Act 1937 and the Crown Minerals Act 1991 as a Crown owned mineral.
22. By precisely defining the activities and aims of seabed mining this will help frame the outcomes and recommendations of the inquiry to inform the development of appropriate control measures.

The discourse on seabed mining is unhelpfully framed as a binary outcome

23. The debate over whether or not seabed mining should be allowed in New Zealand is essentially a contest of approaches. Putting aside the adequacy of current legislation, there is a gulf between those who believe the environment should be protected at all costs and those who regard the development and use of those same resources as fundamental to New Zealand's social and economic wellbeing (with the appropriate environmental safeguards and protections of course). For those who prioritise environmental protections, a broad-based ban is the logical conclusion for all seabed exploration and mining activities.
24. To state the positions of these competing views;
 1. the natural environment, and therefore the protection of that environment, is fundamental in achieving New Zealand's wellbeing

³ This recommendation borrows from guidance for Australian offshore mineral exploration and mining legislation. See <https://www.industry.gov.au/mining-oil-and-gas/minerals/regulating-offshore-mineral-exploration-and-mining>

outcomes and must be protected at all costs. This includes taking a precautionary approach when faced with uncertainty. Environmental integrity is paramount, as there is too much at stake to accept these risks; and

2. the counterfactual posits the resources available in the natural environment are to be developed and utilised in the service of society. This approach seeks to ensure natural resources can be allocated and developed in an economically efficient manner for societal benefit with environmental risks identified and suitably mitigated.
25. The validity of these views can be adequately demonstrated, but such is the difference in approach it is unlikely adherents will be convinced to shift positions. Ultimately, a drawn-out debate on the right way forward brings us no closer to reconciling these perspectives and priorities. The truth likely lies somewhere between.
26. Therefore, rather than seeking to reach an accord between these positions, we submit it is the role of government, and therefore the design legislation, not to subscribe to either view, but to seek balance between the competing tensions of development and protection and to design suitable administrative rules and processes to facilitate high quality decision-making. That is, the exploration and development of the offshore minerals estate should be neither encouraged nor discouraged, but development will necessarily be constrained by regulation, including environmental standards.

Adaptive management is a fundamental feature in our legislation

27. At the time of its inception the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 was intended to address a legislative gap to manage the environmental effects of economic activities.⁴ New Zealand lacked a comprehensive regime to manage environmental effects of economic activities in New Zealand's Exclusive Economic Zone (the **EEZ**), and more broadly the Extended Continental Shelf (the **ECS**).
28. The legislation was intended to strike a balance between the development of the natural resources in the EEZ and protection of the environment. The types of economic activities contemplated at the inception of this legislation included not only existing interests, such as fishing effort, but also the exploration and development of offshore petroleum and mineral resources.
29. This approach draws heavily on that adopted under the Resource Management Act 1991 (the "RMA"), in that it relies on a rules and consenting framework to manage the adverse effects of an activity. Importantly this approach requires an

⁴ See Cabinet Paper to the from the office of the Minister for the Environment to the Cabinet economic Growth and Infrastructure Committee, May 2011, available at: https://environment.govt.nz/assets/Publications/cab-paper-eez-environmental-effects-legislation_0.pdf

agnostic view on what the activity is (unless prohibited) but places the burden of proof squarely on the applicant to identify, and where appropriate, avoid or mitigate those effects. In essence the intent was to treat each application on its merits.

30. This was intended to provide the applicant with sufficient confidence in the regulatory process and decision-making, encouraging the development of New Zealand's natural resources. Equally important was to provide a process for members of the public to voice their concerns, support, and opposition. This was especially for controversial activities such as mining of iron sands where the immediate and long-term effects are difficult to quantify with any degree of certainty.
31. It was noted at the time of its inception the decision-making framework needed to acknowledge there remains an ongoing lack of detailed information about the EEZ and ECS. To address this decision-makers would be required to exercise caution where information was uncertain or insufficient.
32. However, a lack of information was not intended to be an insurmountable barrier to exploration and development. Where there was a reasonable expectation that adverse effects could be realised, but those effects were uncertain or could not be scientifically verified, decision-makers were able to consider an adaptive management approach. This is essentially a "learning by doing" approach, whereby activities are permitted in a strictly controlled and limited manner.
33. Adaptive management can be thought of as the decision-maker reserving the right to reverse the decision (withdraw consent) in light of new information. The burden of proof (and therefore the costs) will necessarily sit with the applicant.
34. With reference to our comments on the terms of reference for this inquiry, it would appear that the basis of the legislative system has been in place for some time. What appears to be lacking is a clear and consistent national direction on the path forward for both the applicant and the decision maker.
35. Both the EEZ Act and the RMA have the appropriate, enabling powers for policy makers to develop an appropriate national direction for decision-makers and applicants in the exploration and development of New Zealand's offshore minerals. This is through either a National Policy Statements (NPS) in the RMA for coastal waters, or EEZ policy statements for the EEZ.

Resource management reforms and spatial planning

36. Our recent submission on the Spatial Planning Bill 2022 highlighted the difficulty for regulators when attempting to proactively proscribe areas for the exploration

and development of natural resources, particularly as it relates to petroleum and minerals.⁵

37. There are areas in New Zealand's oceans estate that deserve, and are afforded, special protection in legislation. Our recommendations for resource management reforms, which we repeat here, is to propose an open and transparent, evidence-based process to identify areas where seabed mining activities would be allowed, restricted, or disallowed. This approach is preferable to the blanket ban on exploration and development of offshore minerals as has been previously proposed.
38. An open, consultative approach would ensure a robust process that would identify areas to be excluded from consideration of seabed mining, while retaining the requirements to treat each application on its merits. This approach is consistent with the original intent of the legislation and would mean that policy-makers make informed, science-based decisions as to access to the resources. Such clarity would inform investors up-front and avoid lengthy and costly litigation with uncertain outcomes.

New Zealand does not sit in isolation from the global economy

39. Those calling for a transition from a carbon intensive economy to a lower emissions, renewables based economic future are often also advocates of limiting or banning mining. This is largely on the grounds of environmental impacts and the risk to biodiversity.
40. However, it is widely accepted that significant additional quantities of critical minerals are required as material inputs into this transition.⁶ We take the view that it is inconsistent for New Zealanders who wish to enjoy the societal benefits of a lower emissions economy to look to restrict the exploration and development of those minerals critical for the transition.
41. In essence; we argue the exploration and development of New Zealand's offshore mineral estate, by those willing to risk their capital in doing so, should be allowed *provided it can be demonstrated this can be reasonably achieved in an environmentally responsible manner.*

⁵ Please see paragraphs 16 through 21 of our submission, available at: <https://www.energyresources.org.nz/dmsdocument/234>

⁶ The IEA provides an excellent overview of the critical minerals needed for as inputs for clean energy technologies. A summary is available at: <https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions/mineral-requirements-for-clean-energy-transitions>

New Zealand's offshore environment risks remaining ill-defined

42. New Zealand is blessed with one of the world's largest exclusive economic zones, covering some 4 million square kilometres. While the potential of New Zealand's offshore minerals endowment is recognised, it is fair to say this potential, as well as a detailed description of the biodiversity and environmental conditions are not well understood.⁷
43. The development of New Zealand's offshore minerals has been limited, with the CRPL and TTRL application not progressing to operations phase. The consenting issues encountered by these projects highlight the ongoing headwinds faced by project proponents. This in turn has a chilling effect for other investors.
44. Offshore operations are technically demanding and costly. Without the potential for economic benefit, the case for scientific inquiry will remain challenging. Ironically the desire to protect the environment will likely be at the expense of developing and understanding that same environment. Protecting the environment is much harder if we do not know what it contains. Providing a clear pathway for the exploration and development of New Zealand's marine resources will only add to our body of knowledge, and at the same time contribute to better environmental protections.

Concluding remarks

45. Thank you for the opportunity to provide feedback on the inquiry into seabed mining. Energy Resources Aotearoa supports the need for streamlining these processes as we transition to a lower carbon economy. We welcome and support the exclusion of existing petroleum rights from the scope of the inquiry.
46. We submit the management of the adverse effects of exploration and development of New Zealand's offshore minerals estate should be managed at the national level. We believe existing legislation in the EEZ and RMA largely provides the framework for a consistent national direction on seabed mining operations to be developed.
47. It is important to note very little has changed in the period between the EEZ Act coming into effect and now. The mineral potential of the EEZ and ECS remains under explored and largely unquantified. We caution that the adoption of an overly cautious approach, that discourages firms from considering exploration and development activities or requires them to submit to lengthy and costly litigation for highly uncertain outcomes will mean the potential of these areas will remain a mystery.
48. We welcome the opportunity to present our submission to the Committee.

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See <https://www.nzpam.govt.nz/nz-industry/mineral-estate/>