PETROLEUM EXPLORATION & PRODUCTION ASSOCIATION OF NEW ZEALAND

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Submission on the Taranaki 2050 Draft Roadmap
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Submitted by email to hello@taranaki2050.org.nz

# PEPANZ Submission: Taranaki 2050 Draft Roadmap

## Introduction

The Petroleum Exploration and Production Association of New Zealand ("PEPANZ") represents private sector companies holding petroleum exploration and mining permits, service companies and individuals working in the industry. This document constitutes the PEPANZ's submission to Venture Taranaki on the *Taranaki 2050 Draft Roadmap*[1], which closes for consultation on 30 June 2019.

## Submission

**General comments and our approach to this submission**

1. We commend the work undertaken by Venture Taranaki to get the Taranaki 2050 Draft Roadmap to this point, and welcome the opportunity to offer feedback to enhance some of the underpinnings upon which it has been based. Accordingly, in our approach to this submission we have sought to highlight only the specific areas where we considered some additional balance and context would be helpful.

**Comments on the Context chapter and relevance to the Government's decision on petroleum exploration**

*The decision to cease issuing exploration permits outside onshore Taranaki*

2. The Draft Roadmap opens with the scene-setting remarks about the end to new exploration permits outside onshore Taranaki, and states:

> The exploration decision is part of a much wider picture. The world has committed to taking action to lower greenhouse gas emissions. In 2016, New Zealand ratified the Paris Agreement and made international commitments to support the global response to the threat of climate change. Under this agreement, New Zealand needs to reduce emissions to 30% below 2005 levels by 2030.

3. If exploration decision was indeed about the wider picture of lowering greenhouse gas emissions, we consider the Government would have undertaken the consultation and analysis to assess whether the ban on new exploration permits would in fact reduce emissions. After the decision was made, officials prepared a regulatory impact statement stating that, perversely and counterintuitively, global greenhouse gas emissions will most likely *increase* as a result of the decision.

4. In the next paragraph of the Roadmap, the Productivity Commission's low emissions economy report is cited, and specific mention is made of the three "particular shifts" that must happen for New Zealand to achieve its low-emissions goals. Noting that revisiting the decision on new exploration permits may not have been within scope of the 2050 Roadmap, we briefly highlight that none of three shifts relate to supply-side interventions to ban petroleum exploration. Surely the independent Productivity Commission would have identified such a policy if it were in fact a useful contribution to the low-emissions transition.

[1] http://about.taranaki.info/Taranaki2050/Taranaki-2050-Roadmap.aspx?

**The Roadmap should define 'Just Transition' and have regard to International Labour Organisation principles**

5. The Roadmap does not define the concept of a Just Transition, and a discussion of the International Labour Organisation's Just Transition Guiding Principles[2] would benefit the paper.

6. The Government's decision to end new exploration permits outside onshore Taranaki appears to be the key driver for instigating the Just Transition programme, but regrettably, the very nature of that decision compromised key principles that would enable a Just Transition as envisaged by the International Labour Organisation.

7. The Roadmap could reference Guiding Principle 13(a), which envisages the social partners – Government, Workers and Employers – working together to develop goals and pathways:

> Strong social consensus on the goal and pathways to sustainability is fundamental. Social dialogue has to be an integral part of the institutional framework for policy making and implementation at all levels. Adequate, informed and ongoing consultation should take place with all relevant stakeholders.

8. The Roadmap could also reference Guiding Principle [14(3)(b)], which highlights that policy certainty is critical to a Just Transition:

> Legislative and regulatory certainty and the rule of law are needed in order to promote environmental and social sustainability, while stimulating innovation and investments in human, social and environmental capital. These are the prerequisites for long-term competitiveness and economic prosperity, social cohesion, quality employment and better environmental protection.

**The narrative should consider the trade-offs faced by the region**

9. All decisions involve opportunity cost, and therefore what we choose *not to do* is often as important as what choose *to do*. Understanding and articulating trade-offs is what gives scenarios starkness and consequence. Currently, the Roadmap describes a future state, but without adequately contemplating the downsides (which are inherent in all choices) this lacks robustness.

10. The Roadmap assumes a positive shift away from hydrocarbons (with the exception of envisaging some projects with carbon capture and storage) but does not adequately address the significant costs of winding down oil and gas activity in the region. Two major pieces of research can be cited to understand the potential effects ending new oil and gas exploration and shifting to net-zero emissions, which we cover in turn. To provide a narrative that is coherent with the vision of apparently heavily shifting away from petroleum extraction, we recommend that these two pieces of research be raised in the Roadmap's narrative.

*Costs of ending new petroleum exploration permits*

11. PEPANZ contracted NZIER to analyse the regional and national costs of the Government's decision to end new petroleum exploration permits. This report[3] modelled that effects of the policy would be felt most keenly in the Taranaki region, with key impacts as listed below.

    a. In Taranaki the ban will reduce real GDP by between 35% and 53%, or $16 billion and $40 billion, with a medium scenario of 46% (~$30 billion). The impacts on regional consumption, investment and export revenue are also strongly negative.

[2] International Labour Conference. Provisional Record. Fifth item on the agenda: Sustainable development, decent work and green jobs 102nd Session, Geneva, June 2013

[3] https://www.pepanz.com/assets/Uploads/NZIER-Economic-impact-of-ending-new-oil-and-gas-exploration-permits-outside-onshore-Taranaki-February-2019.pdf

b. Households in Taranaki will see a substantial reduction in their standard of living. From 2020 to 2050, real GDP per household in Taranaki will fall by $623,000, in the medium scenario. This is equivalent to a $20,774 fall in household incomes each year for the next 30 years.

c. Job losses within the sector (between 33% and 40%) and within Taranaki (between 3.2% and 6.6%) will be severe.

d. The reduction in the nominal gross value added by the oil and gas industry to other sectors in Taranaki will be between $12 billion and $29 billion, with a medium scenario of $22 billion ($736 million per year over 30 years).

*Costs of net-zero emissions*

12. The Ministry for the Environment's consultation document on the Zero Carbon Bill included references to the economic analysis of the costs of transition. That work shows that the economic challenges of a net-zero 2050 target are indeed significant, whereby New Zealand would face:
    - slower rates of economic growth as a result of higher emissions prices and other transition policies
    - competitiveness issues in trade-exposed emissions-intensive industries
    - decline in output and jobs for higher emissions sectors
    - slower rates of growth in household incomes.

13. The New Zealand Institute of Economic Research (NZIER) conducted analysis for the Government showing that the net-zero target would reduce economic growth by anything from 10 to 22 per cent compared to the counterfactual scenario of continuing with current pathways.

**Comments on Chapter 8 Energy**

*The role of petroleum extraction in 2050 should be acknowledged*

14. Given that Taranaki 2050 vision is not solely about emissions but is also about social and economic well-being, the energy trilemma (pertaining to security, affordability and sustainability) is a useful framework to account for the various considerations.

15. The ongoing role of petroleum, and especially natural gas, should be acknowledged as having a role in Taranaki 2050 (its peaking role in electricity generation; domestic, commercial and industrial uses; and for export either as LNG or as petrochemical such as methanol). Global energy scenarios envisage significant growth in natural gas demand in the coming decades, with the International Energy Agency contemplating a 45% increase out to 2040 in its mid-case 'New Policies Scenario'. Exporting natural gas from Taranaki could help meet this demand and provide economic and social benefits to the region.

16. We consider it important to note that even if renewable technologies increase their *relative* share of the domestic and global energy mix, it is important to keep in mind the *absolute* levels, which still see significant increases in demand for petroleum. We highlight this because, in a globally connected world with increasing absolute demand for petroleum, Taranaki is well-placed to continue exporting products which are in growing demand. This may not be a popular view, but it warrants stating: demand will be met by production from *somewhere*, and we consider that Taranaki should embrace the opportunity to provide it and to benefit economically and socially.

*The specific role of natural gas in ensuring affordable electricity should be acknowledged and envisaged into the future*

17. We strongly support the vision statement that "In 2050, Taranaki makes a significant contribution to a coherent New Zealand energy system that is secure, affordable, and sustainable." However, without ongoing natural gas exploration to discover reserves for use in electricity peaking plants we can

confidently expect the price of electricity to increase and to be less affordable[4]. To support achieving this vision, we see continued natural gas exploration to be a critical part of the strategy and consider this should be acknowledged in the energy section.

18. We recommend that the Energy chapter of the Roadmap envisage and support ongoing petroleum exploration to provide regional economic benefits, to meet global demand, and to ensure domestic energy security and affordable electricity.

*Low emissions energy should be preferred over renewable energy*

19. Reference is made to "existing resources help support a transition to renewable energy" in section 8.2. However, for consistency and a focus on emissions rather than the fuel source, the reference to "renewable energy" should be replaced with "low emissions energy". This is an important distinction because not all renewable energy is low emissions (e.g. geothermal releases greenhouse gas emissions) and non-renewable can be low emissions (e.g. use of petroleum with carbon capture and storage).

*Carbon capture and storage should be enabled*

20. We support the roadmap's references to carbon capture and storage (CCS), and that the region would "work with government to consider appropriate regulations for carbon capture storage..." Enabling CCS would allow the benefits of petroleum production without the key downside of greenhouse gas emissions. According to the Intergovernmental Panel on Climate Change, carbon capture and storage is essential, and the world cannot meet its Paris climate targets without it[5].

21. We support this being included in the Roadmap as currently the ability to deploy CCS in New Zealand is limited by the lack of a legal framework to clearly enable it. To support the Roadmap's statement, it could refer to the two following reports and excerpts:

- In *Carbon Capture and Storage: Designing the Legal and Regulatory Framework for New Zealand*[6] Barry Barton of Waikato University states CCS "is probably not actually possible at all under the existing law".
- The Productivity Commission's *Low Emissions Economy*[7] report considers that the current law "*is not set up to deal with the complexities of CCS, and acts as a barrier to the uptake of these technologies*" (page 449).

*The hydrocarbon sector's emissions from production are low*

22. *Emerging opportunities* in Section 8.4 states that "Taranaki is THE example of a significant hydrocarbon economic sector moving towards a low-emissions economy". It is worth noting that hydrocarbon production is not itself particularly emissions-intensive (at least compared to any industrial activity in terms of its energy *use*). The petroleum industry in New Zealand contribute less than one percent of the country's emissions[8]. Certainly, the downstream combustion of certain oil and natural gas products contribute a much greater amount, but the production itself is minor. We also acknowledge that certain emissions-intensive users of natural gas such as Methanex operate in the Taranaki region, but that is due to the beneficial economics of proximity to source.

23. To ensure that the Roadmap is factually based, we recommend it note that petroleum exploration and production itself is a minor contributor to greenhouse gas emissions.

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[4] The New Zealand Initiative recently released a report showing that "100% renewables, without any dry year reserve thermal generation, could add more than $800 million to the cost of electricity each year and reduce emissions at a cost of more than $1,000/tonne" Page 31: https://nzinitiative.org.nz/assets/Uploads/Switched-on-report-summary.pdf
We understand that the report of the Interim Climate Change Committee, which was presented to the Government in May 2019, similarly shows significant annual costs of 100% low emissions electricity.

[5] *IPCC Special Report: Global Warming of 1.5C* Chapter 2: 2.6.3 Carbon Dioxide Removal (CDR) *"Most 1.5°C and 2°C pathways are heavily reliant on CDR at a speculatively large scale before mid-century"* p158.

[6] https://www.waikato.ac.nz/__data/assets/pdf_file/0011/179570/University-of-Waikato-CCS-Report-2013-web.pdf

[7] https://www.productivity.govt.nz/sites/default/files/Productivity%20Commission_Low-emissions%20economy_Final%20Report_FINAL_2.pdf

[8] We calculated the precise figure as 0.9659%. This comprises the New Zealand oil and gas sector's emissions from processing, venting, flaring, activities & transportation and storage. Calculated from New Zealand's Greenhouse Gas Inventory 1990–2017.

**Comments on the A3 Taranaki 2050 Roadmap**

*Low emissions should be the goal for Taranaki, not necessarily net zero emissions*

24. The A3 *Taranaki 2050 Draft Roadmap* states (in the top left) "Diversification to net zero emissions". This should be amended to "Diversification to low emissions". This is for two main reasons:
    - The rest of the document and vision talks about *low emissions* (as distinct from *net zero*) and this is appropriate;
    - domestic emission targets apply to the country of New Zealand as a whole – not to every region. The concept of net-zero implies that greenhouse gas emissions are either offset/captured either through bio-sequestration (in trees) or geo-sequestration (through injection into geological formations). This means that certain regions may have higher emissions (say due to comparative advantages in more emissions-intensive sectors) while other regions may be better suited to low-emission activities or heavier forestry for offsets. Because of the location-specific nature of petroleum, and because Taranaki is the only producing region in New Zealand, it would be reasonable to envisage some higher emissions in this region from electricity or petrochemical generation.

**Comments on the Chapter 12 People and Talent**

25. When considering what will happen to workers in the petroleum sector who may lose employment due to a transition to a low emissions economy, it is important to consider what substitute employment is available compared to alternatives overseas. It is relevant to recognise that workers in the New Zealand petroleum sector earn over twice the average income[9] and are often highly trained and specialised. The idea that workers will simply shift into substitute employment at much lower wages or in unrelated areas needs testing – is it not more likely, that displaced Taranaki petroleum workers will move overseas into the same role and sector where jobs are available? (unless family or social circumstances don't permit).

26. The Roadmap should canvass the risk of population leakage because of these factors.

**Comments on the Chapter 17 Environmental Sciences**

27. Under Environmental Sciences, another new 'emerging opportunity' could be to develop ways to manage and minimise the effects of petroleum exploration and extraction. We suggest this is added to the chapter.

**Comments on the Chapter 18 Regulatory**

28. Section 18.3 states that "Regulations incentivise the transition to low-emissions and enable new technologies and opportunities." We consider that the term 'incentivise' should be replaced with 'enable'. Policy that enables technology (for example by removing unreasonable regulatory restrictions or addressing genuine market failure) can be appropriate, but 'incentivising' particular technologies goes well beyond that.

29. Our general position is to rely on carbon pricing as the most efficient tool to dynamically drive emission reductions throughout the economy. Local planning rules to incentivise certain technologies risks sending confusing and conflicting signals leading to inefficient choices in the local economy. In addition, the Zero Carbon Bill and Climate Change Commission will have a central role in guiding emission reductions with a nation-wide lens.

30. Carbon leakage (whereby emissions policies in one jurisdiction simply push production to another less-restrictive jurisdiction) is a key concern of PEPANZ, and this concern is relevant domestically if one local authority prevents an emitting operation within its jurisdiction if that simply moves to another council's jurisdiction.

[9] The average salary in the petroleum and minerals sector is $105,000 - twice the New Zealand average of $50,000.

31. Certainly, local government must represent the will of local communities and we respect that, but it is important to be mindful of core government policies. With the Climate Change Commission expected to be established, it will have the role of advising the Government on 'carbon budgets' – periodic stepping stones which are expected to outline sectors of priority for emission reductions. If the Climate Change Commission does not identify removing petroleum production from New Zealand, the region will have acted faster than necessary in transitioning. As covered in paragraph 3, the Productivity Commission did not state anywhere in its Low Emissions Economy report that shifting away from petroleum exploration was a useful contribution to lowering emissions. Given that report was comprehensive in nature, we do not expect that such supply-side interventions are likely to be high on the impending Climate Change Commission's agenda either.