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Submission on the National Party's *Our Environment Discussion Document*
Submitted via email

PEPANZ Submission: National Party's *Our Environment Discussion Document*

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 PEPANZ's submission on the National Party's *Our Environment Discussion Document*[1]. We welcome the opportunity to discuss this with relevant members of caucus and staff if this would be helpful. **Appendix One** provides some general information on how the petroleum sector contributes to economic development

Comments on the *Climate Change* section

1. Page 11 states that "*National is proud to have signed New Zealand up to the Paris Agreement in 2015. This ambitious international agreement requires us to restructure our domestic economy to significantly reduce greenhouse gas emissions by the second half of the century without threatening food production*"
2. We note that the Paris Agreement specifies that net-zero emissions happen by the end of the second half of the century. This may be what the discussion document intends to convey, but the current wording of "by the second half of the century" (emphasis added) may be read as stating that 2050 is the deadline, which is not the case under the Paris Agreement. We recommend this be restated as either "by the end of the second half of the century" or "in the second half of the century".
3. The point about emission targets not threatening food production is reasonable (given the country's reliance on agricultural food production and risks of carbon leakage), but it is also important that policies to not threaten other emissions-intensive, trade-exposed sectors in manner stricter than those of trade competitors.

Comments on carbon capture and storage in relation to technology

4. Page 11 also refers to "[achieving] emissions reductions by adopting new technologies rather than reducing sector activity". We strongly support this where it is possible. If, as we are often told, technology costs are falling so rapidly, there is merit and legitimacy in waiting to take action after technology has become proven and more economic. This contrasts to acting early on adopting new technologies while they are still expensive and in their infancy, thereby foregoing cheaper alternatives.
5. A key technology that should be taken advantage of (where economically and technically feasible) is carbon capture and storage ("CCS"), and we would welcome the National Party's manifesto supporting this. CCS involves capturing emissions and injects them deep into underground reservoirs for permanent storage.

[1] https://www.national.org.nz/ourenvironment

6. According to the Intergovernmental Panel on Climate change, CCS is essential to reducing net emissions, and the world cannot meet its Paris emission targets without it[2]. CCS is a present and affordable technology today. Around the world there 21 large-scale active projects including the Gorgon project in Western Australia.
7. We take this opportunity to note that New Zealand has no legislation that sets out an enabling CCS regime or specific consenting process. This uncertain and ill-defined framework led two detailed New Zealand reports to conclude that the regulatory system is not equipped to deal with the nuances of CCS. **Appendix two** addresses this in more detail. The lack of a framework is likely to be a key barrier to the proposed '8 Rivers' project in Taranaki, which would use CCS in producing electricity, fertiliser and hydrogen from natural gas with zero emissions.
8. We note that the Productivity Commission recommended that a regulatory regime for CCS be designed, and the Government has released its response to that report[3]. The Government stated that "A decision will be made in 2020 on whether and how to assess the legislative framework for CCS activities and the timing of any further work[4].
9. A regulatory regime should be designed, and we would welcome the National Party's commitment to exploring this.

Principles

10. The discussion document proposes that the National Party's policy for "moving to a low carbon economy" be guided by five policies (Science-based, technologically-driven, long-term incentives, global response, economic impact) and we support these.
11. We suggest the addition of a sixth principle relating to 'energy security', as our economy and society depends on energy and most of that comes from hydrocarbons which emit greenhouse gases when burnt (i.e. discussions about low emissions should not happen without a discussion on energy costs and security). This principle would recognise the importance of energy security in New Zealand (and indeed globally too). We note that natural gas plays an especially important role in underpinning the largely renewable domestic electricity sector and ensuring electricity remains an affordable option if transport and process heat is to see greater levels of electrification.

Global response principles

12. The global response principle is that "New Zealand's response is on pace with our global trading partners." We strongly support this. As a country, New Zealand should certainly pursue emission reductions and maintain international credibility, but policy-compelled reductions should fundamentally only be required in a manner that is comparable with actions of New Zealand's trade competitors. In setting emission targets and policies (including free allocation of units to emissions intensive, trade-exposed sectors), it is critical to consider the revealed (rather than simply stated) preferences and actions of trade competitors. This is necessary to ensure the ongoing competitiveness of domestic firms.
13. There has been some suggestion that "ambition in New Zealand will bring reputational benefits and have a positive influence on other countries' mitigation efforts", but we note the Treasury's view that there is "… little evidence or argument is available to support that assumption."[5]

ETS has primary tool for reducing CO2 emissions

14. We agree that the ETS should remain the primary tool for reducing emissions, because it is the most economically-efficient tool to reduce emissions across the economy by distilling complex and dynamic information into the price, which then influences decisions. Secondly, relying on pricing mechanisms under the ETS requires less central planning, so reduces susceptibility to rent-seeking and special interest lobbying and the hidden wealth transfers that would arise interventions such as bans and subsidies.

Domestic vs international abatement

15. The discussion document states on p12 "We're strong proponents of accessing robust international units of integrity if they're available, but we believe most abatement over time should occur domestically".

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[2] 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.
[3] https://productivity.govt.nz/sites/default/files/Government%20response_Transitioning%20to%20a%20low%20emissions%20future.pdf
[4] Page 21, iBid.
[5] Regulatory Impact Statement, page 15. https://treasury.govt.nz/publications/risa/regulatory-impact-assessment-zero-carbon-bill

16. We support economically efficient domestic emission reductions but do not support the arbitrary preference that domestic abatement is necessarily preferable to international abatement.
17. Without access to international credits (which must be legitimate of course), ambitious emission reduction targets will weaken New Zealand firms by imposing higher costs than those faced by trade-competitors. Access to international units provides an economically efficient release of pressure on price from what would otherwise have to be domestic offsets. This point is especially relevant if New Zealand's targets are to be more ambitious than those of other nations. Ultimately, international units will primarily be needed in the case that New Zealand's emissions target is too aggressive or where domestic abatement is more expensive, so the 'pressure release' function of international credits is vital.
18. A fundamental value of the Emissions Trading Scheme, (compared to a simple carbon tax) is that it enables international trading to achieve emission reductions at the lowest marginal cost. To realise that goal, it is essential that international units can be used, so a presumption against their use seems to disregard a key benefit of the institution of the ETS.
19. Noting that international carbon markets are still emerging, we support using bilateral or multilateral arrangements between agreeable states. On this theme, we support the Productivity Commission when it stated in its Report on the Low Emissions Economy:

    The other approach of the Paris Agreement for internationally transferred mitigation outcomes is a government-to-government "cooperative" approach that lets countries coordinate trading among themselves, provided they follow accounting principles approved by the UNFCCC. An example of this approach is a voluntary and cooperative "climate team model" that some non-government organisations in New Zealand and Colombia are exploring. New Zealand would "invest in" emissions reductions in Colombia that are on top of Colombia's NDC. Payments would flow in direct proportion to verified reductions within an agreed price range and maximum budget.[6]

Adaptation

20. Renewable energy generation is more susceptible to the effects of weather events (both in terms of rain/wind/sun hours and also vulnerability of wind turbines, solar panels and distribution lines to storm damage). The infrastructure of natural gas is more secure and less affected by weather. This means that a natural gas network may be an important of an adaptive and resilient energy system in the event that weather events disrupt other forms of energy generation and distribution.

Language regarding the "Government's ban on future oil and gas".

21. On page 13, the document refers to "Government's ban on future oil and gas". In the interests of accuracy, we point out that the legislation[7] bans the issuance of new petroleum exploration permits outside onshore Taranaki.

Comments on the *Natural Capital* section

22. Page 6 states "Natural capital is a concept which equates to the sum of our ecosystems, species, freshwater, land, soils, minerals, air, and maritime space". Natural capital should include reference to the ocean environment as it includes major resources in the exclusive economic zone.

Comments on the *Waste* section

23. Page 9 states "A circular economy is restorative by design and is underpinned by the use of renewable energy. It's a sustainable and viable alternative to the dominant linear model we have today."
24. We note that renewable energy technology is made of minerals which is mined with petroleum-powered machinery, meaning it still fundamentally requires non-renewable inputs. In terms of the sustainability of resources, there remain vast quantities of undeveloped petroleum resources and, contrary to earlier concerns about *peak oil*, experts believe there is plenty to be found. We accept that there are constraints on the amount of greenhouse gases that can be emitted, and we go on to address that later.

[6] Low Emissions Economy Report. Productivity Commission. Page 130. https://www.productivity.govt.nz/sites/default/files/Productivity%20Commission_Low-emissions%20economy_Final%20Report_FINAL_2.pdf
[7] Crown Minerals (Petroleum) Amendment Act 2018.

Responses to specific questions

25. *"Is there broad acceptance of the principle that it should be polluters who pay?"*

    Yes, where a clear negative externality exists.

26. *"Where's the balance between environmental urgency and economic impact?"*

    In relation to greenhouse gas emissions, we should recognise that New Zealand contributes 0.17% of global emissions, which means that we alone cannot influence global outcomes in terms of emissions. We therefore consider that we our pace of change (which is a proxy for urgency) should not put domestic firms at a competitiveness disadvantage vis-à-vis overseas firms.

27. *"How do we incentivise efficient transition of our large scale industrial capacity to lower emission technologies?"*

    A carbon price similar to those of trade-competitors will drive emission reductions on the margin. However, significantly lowering emissions from large scale industrial firms can only be done if the technologies exist, so requiring reductions without a clear commercial technological pathway simply risks carbon leakage and weakening the NZ economy for no real gain. We also relate this to our earlier comment about the need for such firms to have access to affordable carbon credits and this is where international units can be important.

    A level playing field is needed, to allow technological solutions like CCS to be deployed where appropriate.

28. *"How do we get the balance right between exposure to the ETS and ensuring industry doesn't shut down completely, resulting in increased high emission imports?"*

    As above, it is critical that targets and imposts should be similar to trade-competitors. Industrial allocations will likely have a role and access to international units provides a 'pressure release' option.

29. *"Do we realistically see a future where New Zealanders stop using steel, aluminium, and concrete? If not, is there any justification in taxing local producers out of the market?"*

    No, we do not see this an option in the foreseeable future. Although some recycling and substitutes may work in certain cases, we must be realistic about the question of scale. At scale, in a growing world with increasing demand for a decent lifestyle, demand for these products will grow and can only be met through traditional means. Because of growing demand and willingness of overseas countries to meet that demand (and with no scaleable technological alternative), we continue to see a strong case for domestic production and not imposing carbon costs in excess of those faced by trade competitors.

Appendix one: How the petroleum sector contributes to economic development

Importance to New Zealand

- Natural gas and oil provide over half of New Zealand's total energy. They are widely used in transport and industrial processes (like milk, food and timber processing) and for heating our homes and cooking our food.
- Natural gas provides 12% of our electricity supply, acting as a crucial backup to renewable sources and keeping prices down.
- Around 45% of New Zealand's natural gas is exported in the form of methanol, a petrochemical with a variety of uses e.g. making plastics and everyday products.
- Global demand for natural gas is growing strongly with a 45% increase expected by 2040.

Economic benefits

- The petroleum industry creates employment for up to 11,720 jobs, including 7,070 in Taranaki.
- The average salary is $105,000 - twice the New Zealand average.
- 42% of all profit from most producing fields are returned to the New Zealand government in the form of royalties and levies and corporate tax.
- On average the Government receives around $500 million per year in royalties and taxes from the oil and gas sector.
- Over $2.5 billion contributed to New Zealand's GDP each year.

Potential for new developments

- The April 2018 decision to end new exploration permits beyond onshore Taranaki was a major blow to industry confidence. There have been job losses and potential investment lost.
- However some new exploration is likely to occur around Taranaki and the South Island over the next few years under existing permits.
- One study estimates a successful find in just one field could earn the Crown $32 billion.
- Natural gas could be exported directly to Asia and/or used by new domestic industries and to replace coal.
- New Zealand may need to import LNG from Australia if local development efforts are unsuccessful.

Appendix Two: Further comments on the regulatory situation facing carbon capture and storage in New Zealand

Two key reports have considered the regulatory situation facing carbon capture and storage in New Zealand:

- *Carbon Capture and Storage: Designing the Legal and Regulatory Framework for New Zealand*[8], and
- The Productivity Commission's *Low Emissions Economy*[9] report.

The Productivity Commission's *Low Emissions Economy* report and the Waikato University paper both recommend a bespoke CCS Act. The Waikato University paper states "*A close analysis of the RMA, the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act), and the Crown Minerals Act 1991 produces the conclusion that none of those Acts is capable, either in its detail or its general architecture, of delivering the legal framework that is required for CCS*".

The main comments of the Commission and University include the following.

i. CCS is a 'removal activity' under the Climate Change Response Act. That means the removing entity (i.e. an operator of a suitable geological formation) could receive 1 ETS credit for every tonne of CO2 removed and stored (s64(1), CCRA).

ii. However, that only applies where the capture and storage is related to a given operator's activities. So, if an operator were to store carbon on behalf of a third party, then that operator could not currently claim ETS credits.

iii. One of the Commission's recommendations (R14.7) is to change the ETS Act so that an entity performing CCS (including capture) can receive ETS credits, regardless of whether or not that entity was the source of the CO2.

iv. Like the Commission's R14.7 recommendation, the University paper recommends that the definition of 'removal activity' be wider than currently stated for CCS, i.e. that CCS be a removal activity "*whether or not the CO2 is from an activity that is required to surrender units*".

v. The Commission considers that the combined effect of the RMA, EEZ Act and Crown Minerals Act is not capable of delivering the legal framework required for CCS. In particular, the RMA was singled out for not being fit-for-purpose for CCS. For example, the RMA is not equipped to deal with the long-term liability required for CCS operations.

vi. The University paper aligns with the Commission's findings on the RMA, stating "*The overall consequence appears to be that the positive effect of CCS on climate change cannot be taken into account (it is not a renewable energy project), but its possible negative effects on the environment more broadly can be. This could make it practically impossible to get consent for a CCS project…*"

vii. To deal with this issue, the Commission recommends (R14.6) that a whole new piece of legislation, a CCS Act, be drafted to regulate CCS.

viii. The University paper also considers that a new CCS Act is the preferred option. To clarify the interplay between any new CCS Act and current regimes like the RMA and EEZ Acts, the paper states (emphasis added) "*We conclude that new legislation should be enacted that specifically regulates the injection of CO2 for permanent sequestration, any subsequent leakage or migration, and exploration for storage formations. We propose that those matters will be removed from control under the RMA and EEZ Act, and will not require permits under them*" (Executive summary, page vii)

ix. The University paper (page 57) recommends any new CCS Act apply only to the injection and storage aspects of CCS operations, but other CCS activities will likely still be covered by the RMA.

x. The University paper (page 49) concludes that permits for CCS cannot be issued under the Crown Minerals Act, as CCS is outside the definition of 'mining'. The University notes that the CMA does not prohibit CCS.

[8] https://www.waikato.ac.nz/__data/assets/pdf_file/0011/179570/University-of-Waikato-CCS-Report-2013-web.pdf
[9] https://www.productivity.govt.nz/sites/default/files/Productivity%20Commission_Low-emissions%20economy_Final%20Report_FINAL_2.pdf