Energy Resources Aotearoa
POWERING A BETTER NEW ZEALAND TOGETHER

energyresources.org.nz
energyskills.org.nz
energymix.co.nz
PO Box 25259, Wellington 6140

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Environment Select Committee

via email: Environment@parliament.govt.nz

# Submission on the petition to retain the ban on oil and gas exploration

## Introduction

1. Energy Resources Aotearoa is New Zealand's peak energy sector advocacy organisation. We represent participants across the energy system, providing a strategic sector perspective on energy issues and their adjacent portfolios. We aim to enable constructive collaboration to bring coherence across the energy sector through and beyond New Zealand's journey to net zero carbon emissions by 2050.

2. This document constitutes our evidence in response to a request from the Environment Select Committee (the Committee) to provide a submission in response to the petition to retain the ban on oil and gas exploration from Chlöe Swarbrick, co-leader of the Green Party (Petition of Chlöe Swarbrick: Continue the ban on oil and gas exploration (petitions.parliament.nz)

## Key messages

3. We oppose the current ban on new oil and gas exploration permits and **support its reversal at the earliest possible opportunity**.

4. The policy to restrict future access to exploration acreage was introduced without prior consultation or a sufficient evidence base to support the decision. Many of the issues, including higher energy prices and the economic (investment), social (job losses), and environmental (greater use of coal) damage likely to be caused, were insufficiently examined despite industry and local government warning of these impacts.

5. Unfortunately, the ban has materialised many worst-case outcomes for the Taranaki region and New Zealand's energy system. These impacts demonstrate that in the absence of economically viable renewable alternatives that can address the problem of intermittency, natural gas will continue to play a vital role in New Zealand's economic, social, and environmental future. The Climate Change Commission's (the 'CCC's') work reinforces this assessment.

## Submission

6. The Government's 12 April 2018 announcement to cease offering new exploration beyond onshore Taranaki shocked the upstream oil and gas sector. Characterised by then Prime Minister Jacinda Ardern as this generation's 'nuclear-free moment', this decision was a far-reaching ideological pivot towards a decarbonisation agenda that the Labour Party did not campaign on.[1]

7. When announced, these restrictions were described as applying only to offshore areas and became widely known as the "offshore ban." However, further changes were introduced and incorporated into the subsequent Bill through the Cabinet process.

8. While the government of the day claimed the changes would not affect existing Petroleum Exploration Permits ("PEP") or the right to apply for a subsequent Petroleum Mining Permit ("PMP"), the Bill (and a range of subsequent policies implemented by design to suppress the role of natural gas in the economy) irreparably damaged the investment confidence of sector participants. This resulted in the departure of international investment in the sector, causing significant damage to New Zealand's reputation as a sound investment destination.

**The ban was a global signal of New Zealand's intent to take climate action….**

9. Recognising that reducing emissions contribution from New Zealand's petroleum sector would have an insignificant impact on global emissions, the Government's aim was:

> "*to show global leadership by demonstrating to other countries that New Zealanders can be better off while taking action to reduce our impact on the climate."*[2]

This was the first in a series of announcements from the Government prioritising environmental and climate issues in the energy sector over critical domestic issues such as energy access, affordability, and security.

10. The rhetoric that formed around climate-related issues and our effect on the environment helped overcome the inertia of business as usual. However, such an approach tends to favour simplistic interventions, introducing disruptions and disconnects with unintended consequences.

11. This meant the amendments introduced were not subject to careful analysis by officials, participants in the petroleum sector, or other interested stakeholders. At the time, the Petroleum Exploration and Production Association of New Zealand (PEPANZ), as Energy Resources Aotearoa was formerly known,

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1 See https://www.nzherald.co.nz/nz/prime-minister-jacinda-ardern-bans-new-offshore-oil-and-gas-exploration-in-new-zealand/.

2 See https://www.mbie.govt.nz/dmsdocument/2028-regulatory-impact-analysis-proposed-changes-to-the-crown-minerals-amendment-act-1991-pdf.

highlighted the severe impacts on the economy, jobs and energy security, and the likely increase in global emissions.

12. In a report commissioned at the time from the New Zealand Institute of Economic Research (NZIER) to independently estimate the wider impacts on New Zealand households, it was found that the decision could cost the economy up to NZ$28 billion by 2050. The full report can be found via the following link:

> https://www.nzier.org.nz/publications/economic-impact-of-ending-new-oil-and-gas-exploration-permits-outside-onshore-taranaki

13. In 2020, the Parliamentary Commissioner for the Environment (the 'PCE') released a report revisiting the impacts of the offshore ban. The PCE adopted a neutral stance, neither supporting nor opposing the changes.[3] The report found that opponents of the ban could legitimately claim the policy would impose significant costs on the New Zealand economy — and that the New Zealand Emissions Trading Scheme (the 'NZETS') would be a more effective tool to reduce emissions.

14. However, supporters of the ban could also legitimately claim that it strengthened New Zealand's negotiating position in international climate change forums. This was a significant step in reducing domestic emissions—particularly fugitive emissions from oil and gas production.

**…. failed to appreciate the difficulty in the low emissions journey ….**

15. The ban's effect on the sector, economy and environment has been devastating. One need only refer to recent events to see how shortages of natural gas, low hydro lake levels and minimal wind generation combined to wreak economic, social and environmental havoc.

16. While the ban indeed left existing permits untouched, it left the sector to squeeze mature fields harder and harder to keep the gas flowing. Unfortunately, despite the over NZ $1 billion in investment, this came with limited success.[4] The net effect of the ban and other policies can be seen in the following graph, which outlines the industry's best estimation of future gas production.

3 The PCE report and accompanying questions and answers can be found on the PCE website, available at: https://pce.parliament.nz/publications/restricting-the-production-of-fossil-fuels-in-aotearoa/.

4 Two notable exceptions were the Toutouwai discovery in 2020, and the Maui East discovery in 2021.

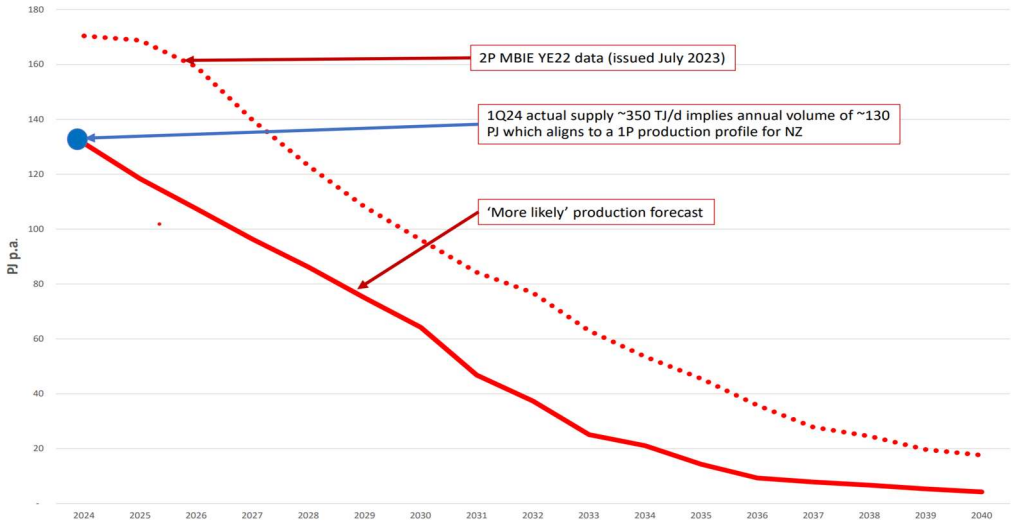


*Figure 1: 'More likely' natural gas production forecast (graph by Energy Resources Aotearoa, MBIE and industry data)*

17. The hope of a fully renewable electricity system has also proved to be a chimera while demonstrating the criticality of natural gas to the electricity system and electricity prices. New data from the Ministry of Business Innovation & Employment ('MBIE') shows that coal-based electricity generation increased by over 500% between April and June this year and the same quarter last year, while gas-fired generation increased by over 40% from the same quarter last year, despite a record contribution from geothermal generation.

18. Despite massive subsidies, shifting from over 85% has proved difficult and expensive. This was predicted by the work of the Interim Climate Change Committee. The renewable share of electricity generation in the June 2024 quarter fell to 81.3%, an 8.6% decrease from the June 2023 quarter. Policies aimed at advancing the renewable cause, like the ill-fated Lake Onslow pumped hydro project, proved only to cause more harm to other long-term renewables and fossil fuel investments, dampening investor confidence in building other renewable power projects.

**…. and ignored the fact that 'tomorrow's decisions can affect today's'**

19. The policy promises under which all businesses invest – that today's investment will be kept whole tomorrow – was broken. A change in government policy tomorrow can quickly bring changes that frustrate any investments made today and reduce future profits anticipated.[5]

20. This massive sovereign risk fundamentally changed today's operating and economic context, making all future fossil fuel-related investments in New Zealand much more challenging. It is worthwhile pointing out that the ban as a policy had implications that extended beyond the oil and gas sector. The damage

[5] This is more formally known as "the ex-post expropriation of regulatory returns by executive fiat" and is the reason, for example, why compensation was offered to energy intensive, trade-exposed businesses whose operations became subject to the introduction of the emissions trading scheme.

was not just limited to the oil and gas producers but also potential investors of new gas-fired power stations and import facilities.

21. Under this spectre, investors fled. At the time of the ban, 20 international and five local companies were engaged in exploration and production in New Zealand, with about 82,000 km$^2$ of frontier exploration acreage permitted. Today, only nine investors active in the sector—seven international and two local. All New Zealand frontier exploration acreage permits have been handed back. There is currently 0 km$^2$ in frontier acreage under permit.

22. The graph below shows the total exploration permits acreage trend, notable milestones, and future relinquishment dates. The ban snuffed out previous government initiatives to boost attractiveness and elevated interest in the run-up to the 2018 block offer.

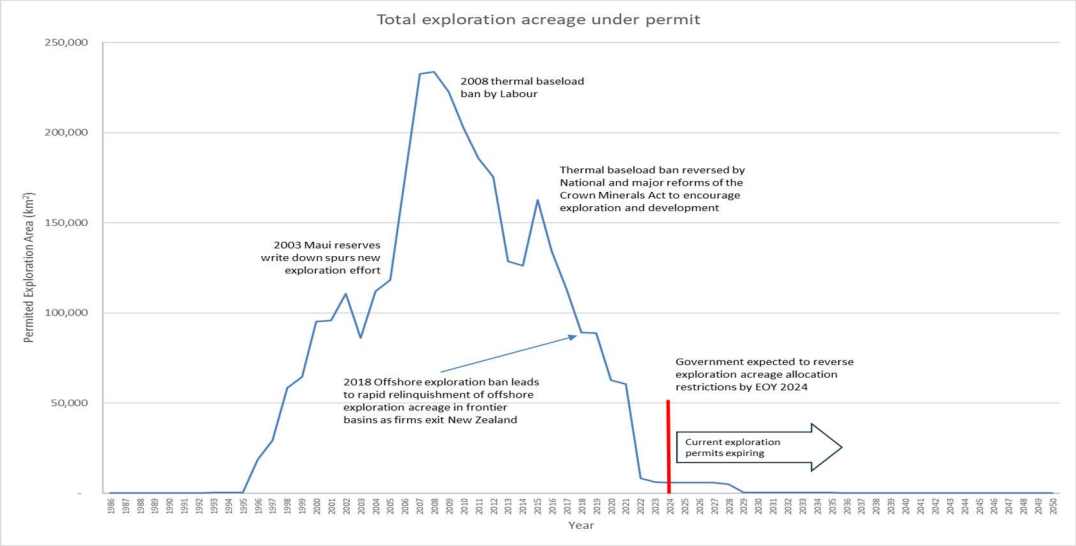


*Figure 2: Total amount of exploration acreage under permit (graph by Energy Resources Aotearoa, MBIE data)*

## The previous government's promise of a 'just transition' for our energy workforce is a failed experiment

23. The highly touted 'just transitions' process for the energy sector and its associated regional frameworks were flawed from the outset. The promised 'just transition' for Taranaki and the avalanche of investment in renewable energy projects, with the associated employment opportunities, never materialised.

24. Although renewable energy projects are progressing (and more so since the abandonment of the Lake Onslow pumped hydro project), they are not yet generating the volume or quality of jobs needed to compensate for the industry's many losses.

25. We advocated that any transition would take considerable time. However, the previous government grossly underestimated the time needed for a 'just transition'. The rushed and flawed policy created a substantial gap in employment opportunities, particularly in regions where the energy sector operates. Should there be a revitalisation in the oil and gas industry, New

Zealand will now be competing with overseas jurisdictions to whom they moved, and at global prices.

26. Putting aside the absence of clarity surrounding what precisely a 'just transition' was meant to look like (other than a hasty shift away from the use of fossil fuels), there was very little practical support for any transition by the previous government. The industry and local stakeholders have been left to pick up the pieces from such an abrupt and unnecessary policy change.

27. Our local communities are feeling the real impacts of the oil and gas ban, with substantial job losses within companies that rely on natural gas. These are real jobs and real people.

28. The loss of jobs in the sector has created a ripple effect, affecting workers, their families, and the broader community. With household incomes shrinking, economic instability rising, and local businesses suffering from reduced spending, the cumulative impact of these changes is highly concerning for the regions that once were thriving.

29. The list of companies downsizing their workforce due to energy instability is lengthening. It includes some of New Zealand's vital industrial performers, such as Methanex, Meridian, Todd Energy, Beach Energy, BECA, Worley, Oji Fibre Solutions, and Winstone Pulp International. We expect to see many more.

**Fossil fuels will continue to play an essential role in our energy system ....**

30. The world will remain reliant on fossil fuels to meet its energy needs for the foreseeable future. In its 2024 statistical review of world energy, the Energy Institute found that over 82% of the world's primary energy needs are currently met by fossil fuels. ExxonMobil's world energy outlook, released in August this year, forecasts all current primary energy sources will remain in the mix out to 2050 and beyond, with oil and gas continuing to meet more than 50% of our needs. This gives an idea of the magnitude of the challenge to decarbonise our economies.

31. About 57% of New Zealand's energy needs are met by fossil fuels, which puts our energy system amongst the cleanest in the world. Even so, we expect fossil fuels will continue, if diminishing, to play an essential role as part of our energy mix to 2050 and well beyond the 2050 carbon net-zero targets for our economy.

***.... and are already doing much of the emissions reduction 'heavy lifting' ...***

32. The energy sector is already doing the domestic reduction 'heavy lifting' and with appropriately targeted policies stands ready to unlock further action. This is shown below in the following graphics from Powering our low-emissions future Energy Resources Sector Net Zero Accord: A progress report, page eight.


*Figure 3: New Zealand's natural gas emissions profile (graphs by Energy Resources Aotearoa)*

33. Similarly, impressive reductions come from the upstream oil and gas sector in reducing its overall emissions, and intensity. Overall upstream emissions from the exploration, production, and processing of domestic oil and gas more than halved from 2010 to 2021, from 1.6 Mt to 0.7 Mt. Production fell only 31% in the same period. This was made possible by significant investments in efficiency and emissions reduction by upstream oil and gas operators – including all signatories of the Energy Resources Sector Net Zero Accord. These investments include substantial reductions in venting and flaring (down 74%). Upstream oil and gas production in 2021 was 36% less emissions intensive on a per-unit basis than in 2010.

**…. and this is neither inconsistent with our long-term climate goals, or Nationally Determined Contribution ….**

34. Continued use of natural gas is not inconsistent with achieving New Zealand's long-term climate goals and contributing to the implementation of the Paris Agreement. Under the Paris Agreement, countries communicate their ambition for climate action through their Nationally Determined Contributions (NDCs). In the spirit of the Paris Agreement, these NDCs are based on countries' unique national circumstances. They are representative of the highest possible ambition a country can bring to the table.

35. The Paris Agreement is not a punitive agreement nor a diktat. Neither was it intended to encourage a negative, finger-pointing approach to any given country's ways to achieving the goals of the Agreement, but rather enable collective action by allowing for innovation, collaboration and learning in the implementation of the Agreement. New Zealand's NDC and domestic emissions budgets are carefully set to allow for the transition to a low-carbon future, including using natural gas and low-carbon technologies like carbon capture and storage and green gases such as hydrogen or biomethane. Indeed, the necessary use of natural gas in the transition to New Zealand's low-carbon future is also captured in the CCC and Intergovernmental Panel on Climate Change's scenarios'.

36. This pragmatic ethos was encapsulated in Decision 1/CMA.5 on the outcome of the first global stocktake (contained in FCCC/PA/CMA/2023/16/Add.1

paragraph 29) from COP28 at the United Arab Emirates where it:

> "*…recognizes that transitional fuels can play a role in facilitating the energy transition while ensuring energy security."*

37. This recognises that replacing fossil fuels' contribution to our economy is a massive and costly undertaking. Achieving a low-emissions economy will take time and require significant energy and material inputs.

38. From a public policy perspective, it is too simplistic to measure our success or progress or failure against a single metric. The extent to which we are reducing our emissions in line with our NDC and domestic legislative goals is important, but we should not trade off our economic and social wellbeing or prosperity.

39. Allowing for the increased exploration and use of indigenous natural gas can be seen not only to have benefits for achieving New Zealand's long term climate goals, but also further qualitative, systemic benefits. The use of natural gas will allow for increased energy security, ensuring energy affordability while also supporting the livelihoods, and increased prosperity and related social benefits. Benefits include:

    a. importing less fossil fuel sources of energy like coal, lowering domestic emissions;

    b. avoiding the export of emissions and therefore reducing total global emissions as various production activities like the manufacture of methanol would remain in New Zealand with more stringent climate rules;

    c. retaining the option of the development and uptake of renewable gases such as the scaling up of biomethane and other low carbon technologies such as carbon capture and storage; and

    d. leveraging off New Zealand's increased energy sovereignty to bring reliability and resilience for households and businesses in the face of increasing climate impacts while also creating a strong enabling environment for the development of energy relevant research, science and technology in New Zealand.

40. This is consistent with MBIE climate implications assessment advice in the context of amending the Crown Minerals Act which is unequivocal:

> " ….. these proposals address the other two parts of the energy trilemma – security of supply and affordability. We are now in a situation where our annual natural gas production is expected to peak this year and undergo a sustained decline, creating a pressing security of supply issue. This could affect schools, hospitals, business, and jobs."[6]

[6] Report prepared by the Ministry of Business, Innovation & Employment entitled 'Climate Implications of Policy Assessment disclosure sheet', dated 14 May 2024, page 8.

41. These are some of the obvious benefits of the inclusion of indigenous natural gas in the short to medium term energy systems, consistent with IPCC guidance, to support New Zealand's journey to a low carbon future.

The work of the Climate Change Commission

42. This view is supported by the work of the CCC in determining our emissions budgets. While their work maps out a pathway to achieve a net-zero carbon economy, it is clear that natural gas and liquid fuels will play a vital, if diminishing, role in securing part of our evolving energy mix as we electrify our electricity supply and transport system, and our economy.

43. In Figure 4 below, we can see a growing gap between the assumptions in the CCC demonstration pathway and what the official MBIE-published existing reserves base is expected to deliver.

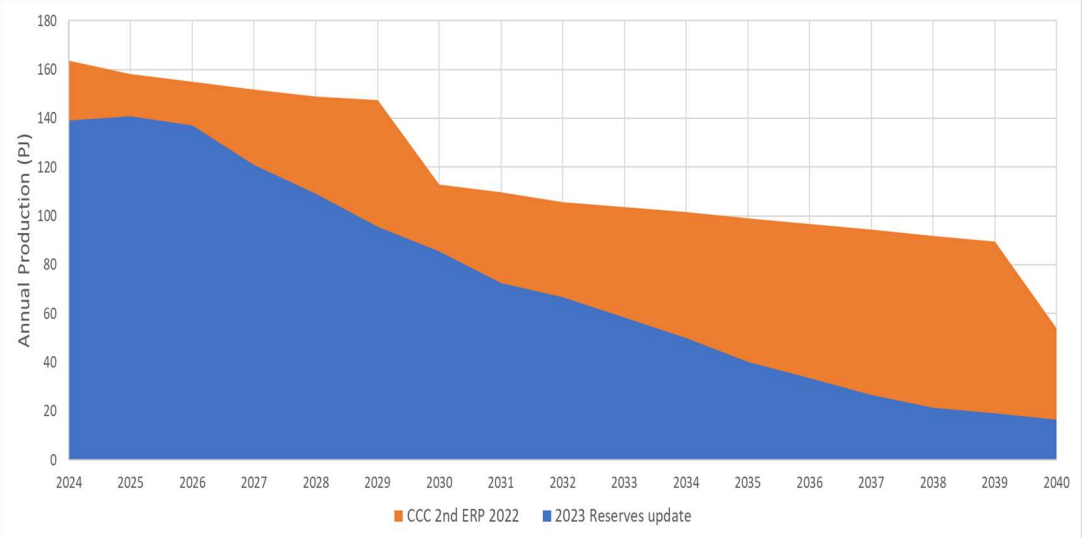


*Figure 4: Climate Change Commission demonstration pathway gas demand versus aggregate production profile from exisitng operations (graph by Energy Resources Aotearoa, MBIE and CCC data)*

44. Figure 4 delivers a sobering view on a number of fronts. Most tellingly, from an organisation that seeks a shift away from fossil fuels at the earliest opportunity, this graph signals two key points, being:

a. the significant shortfall of supply relative to the demand assumptions. The graph confirms that New Zealand faces an energy shortage. Put another way, there's the equivalent of an extra ten years at current production levels that can be produced, *and we will still meet our climate targets*; and

b. that as this level of energy demand is allocated to natural gas in the modelling, it is evident that the CCC's modelling did not produce an economically viable alternative to natural gas (otherwise the orange profile would be lower still). The upshot of this is that the energy shortfall is a

genuine shortfall not to be easily or affordably addressed via other alternatives. [7]

45. This energy gap can potentially be filled by:

    a. importing gas in the form of LNG;

    b. accelerated renewable energy project buildout;

    c. reducing demand through demand response or deindustrialisation; or

    d. exploration and development of domestic petroleum resources.

46. While some of these options are unequivocally negative, none provides a "silver bullet" solution, with each option carrying different risks and costs. We believe all options must be treated consistently and fairly, with the least-cost options being the most favoured. This means domestic oil and gas exploration needs to be encouraged, or we risk putting our most vulnerable Kiwis at risk through high energy prices and a less diverse, resilient and secure supply.

**…. nor the advice of the International Energy Agency …**

47. Addressing the frequent (and misguided) claims that the globally based work of the International Energy Agency (IEA) should be seen as specific guidance for New Zealand's energy circumstances is worthwhile.

48. The report often referred to is the IEA's World Energy Outlook 2022, which shows that even as demand for natural gas decreases over time that it will continue to play a critical role in supporting global energy security and affordability through 2050 by providing gas-fired power for peak electricity needs. Indeed, the IEA warns that premature retirement of this infrastructure could have negative consequences for energy security.

49. Understanding that the IEA's statements are made in the context of global investment is vital. The IEA's views are not a domestic policy prescription nor abrogate the need for rigorous, thoughtful domestic policy settings where energy security and affordability are equally important considerations of the energy trilemma. It is also worthwhile noting that the IEA's work highlights that energy resources are unevenly distributed, and an abundance in one geography does not mean this can be used to meet a need in another, placing countries like New Zealand at the end of complex and long logistical chain, subject to all its volatility and vagaries.

**…. nor likely to breach our Free Trade Agreements**

50. Some concerns have been raised about removal of the ban and how it might put our free trade agreements such as that recently agreed with the EU, at risk.

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[7] We note that as set out in the MBIE Climate Implications Assessment, the modelling of the CCC is based on the Government's understanding of expected gas supply as at 1 January, 2023 and does not reflect recent negative developments as broadly reflected in Figure 1 above. Given this, it is likely that either that energy gap is larger, or the transition more expensive due to the use of more expensive renewable alternatives to fill it.

51. Under the agreed terms of that trade deal, which has been signed and ratified by the two parliaments, both parties are required to "effectively implement" the Paris Agreement (including 2030 targets) and refrain from any action or omission which "materially defeats the object and purpose of the Paris Agreement."[8]

52. Putting aside for the moment the explicit recognition and affirmation of each party's right to regulate within their territories to achieve legitimate policy objectives, such as the protection of human, animal or plant life or health, social services, public education, safety, the environment, including climate change, public morals ...." (Article 10.1 paragraph 2), the passing of the Zero Carbon Act in 2019 (with its five-yearly budgets for shrinking emissions) is according to some legal advisors, likely to be a sufficient example.

53. In general, such agreements also provide against the weakening of environmental laws in order to boost trade. While removing the ban is not being done for trade reasons (as noted above), one of New Zealand's preeminent economists, John Ballingal has been quoted as saying it was unlikely shifting the mix of how New Zealand met its targets - for example by cutting methane targets .... would meet a high enough bar to result in sanctions.[9]

**The NZETS emissions cap and the 'waterbed' effect**

54. Finally, it is also worthwhile addressing the interaction between the use of natural gas and the NZETS. On the presumption that a reversal of the ban results in greater levels of natural gas production (this assumption has a high degree of uncertainty attached to its probability and depends on the extent to which the Government's proposed changes to the Crown Minerals Act are sufficient enough to give investors the confidence to invest in new exploration and appraisal), all emissions in the gas sector are covered by the NZETS.

55. As of June 2020, the NZETS is capped which means there is now a maximum amount of emissions allowed under the scheme. This amount is being reduced every year. This is designed to help drive emissions down and will be one of the most important and effective climate policy's any Government introduces.

56. Crucially it means that any additional emissions that *might* result from the lifting of the ban *must be* reduced or offset elsewhere. Overall, gross emissions cannot increase due to this effect. This is known as the 'waterbed effect', because emissions popping up in one area means emissions flop down in other areas. This is one of the most important - but least understood - concepts in climate policy.

57. This logic is also a refutation of the use of so-called complementary measures such as the Government Investment in Decarbonising Industry ('GIDI') fund. It

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8 Official Journal of the European Union, 2024/866, Free Trade Agreement between the European Union and New Zealand, Article 19.6, paragraphs 2-3.

9 See https://www.sense.partners/bio-john-ballingall.

completely neutralises most other polices to reduce emissions. For example, subsidising electric vehicles might lower our transport emissions but cannot lower New Zealand's total emissions because transport is already covered by the NZETS. If fewer people drive petrol-powered vehicles, then emissions permits are freed up which will then be taken by other users, such as factories. [10]

## Conclusion

58. New Zealand is on a journey to a low-carbon economy. Natural gas, in particular, is expected to be essential in ensuring this journey happens smoothly. Indeed, it's more cost-effective for New Zealanders to utilise our domestic energy resources to fuel the transition to a low-carbon future. The alternative would risk New Zealand's prosperity and send research and innovation on low-carbon gases and renewables, jobs, and ultimately emissions, offshore.

59. New Zealand's energy mix already benefits from a high proportion of renewable energy sources, and this proportion is only set to increase. However, while renewable sources of energy are developing rapidly, consumers are currently restricted in their choice of affordable alternatives to fossil fuels. They will rely on such fuels for decades to come.

60. Natural gas is also an enabler of electrification, providing a social safety net in the face of more extreme climate impacts, such as Cyclone Gabrielle.

61. However, the ban enormously damaged New Zealand's reputation as a politically stable jurisdiction for all investors. Investors need the comfort of stable and predictable policy settings, particularly for something so critical to the economy as energy security.

62. Unquestionably, an energy system that provides cheap, abundant energy and where environmental impacts are minimised or managed is highly desirable. The necessary investments and technology to achieve this will take time and considerable commitment from governments and industry.

63. The effects of this unnecessarily rushed policy will continue to ripple throughout the economy for years to come. The previous government confused the highly desirable outcome of a highly renewable energy system with what was feasible in a short time frame.

64. We continue to support the Government's decision to reverse the ill-conceived and unnecessarily rushed 2018 exploration ban.

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[10] For further, fuller detail on the 'waterbed' effect and its implications, see our note entitled 'Perspectives Series – The 'waterbed effect': the most important climate policy you've never heard of', dated 30 November, 2021, accessible via the following link: https://www.energyresources.org.nz/dmsdocument/202. This is also consistent with the content of The Treasury document entitled 'Briefing to the Incoming Minister of Finance, Economic and Fiscal Strategy – Responding to your Priorities, 2008, page 29, where it was noted after the establishment of the NZETS, that "The adoption of the ETS renders most other abatement policies redundant."