

1 October 2024

Economic Development, Science and Innovation Select Committee

By email: <a href="mailto:edsi@parliament.govt.nz">edsi@parliament.govt.nz</a>

## Submission on the Crown Minerals Amendment Bill

#### 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 submission on the Crown Minerals Amendment Bill (the 'Bill'). We would welcome the opportunity to present our submission to the Economic Development, Science and Innovation Select Committee (the 'Committee').

#### **Key messages**

- 3. The pace of the legislative process (three business days) has not allowed sufficient time to fully engage with the amendments set out in the Bill. However, we acknowledge the necessity and efficiency of this process in light of our persistent calls for urgency to unlock the investment we know is required.
- 4. For the prosperity and well-being of all New Zealanders, we must have a safe, reliable, and affordable energy system that is resilient to climate-related events and other shocks. Evidence shows that the ban has imperilled this, creating undesirable economic, social and environmental risks. The previous government's management of Crown-owned minerals created sovereign risk and seriously undermined investor confidence.
- 5. Therefore, we welcome the direction of travel of the proposed amendments. We support the Government's intention to revitalise New Zealand's petroleum sector to help meet the country's energy needs. The changes set out in the Bill are a positive development towards restoring investor confidence and securing our energy needs.

6. However, we believe further measures are needed to address the substantial level of sovereign risk faced by the sector. Sufficient confidence will be required for investors to once again put their capital at risk in the inherently risky exercise of discovering, appraising, and developing New Zealand's petroleum resources.

#### Submission

- 7. This submission focuses on those changes that impact the upstream oil and gas sector, and canvasses:
  - a the positive role of petroleum (in particular, natural gas) in the economy, including its role on New Zealand's journey to a lower emissions future;
  - b those elements of the Bill that we strongly support as welcome steps in revitalising the upstream oil and gas sector, such as:
    - i. reinstating "promote" into the purpose statement;
    - ii. lifting the restrictions on applying for exploration acreage outside of onshore Taranaki and welcome the repeal of s23A(2); and
  - 8. extending the confidentiality period for offshore multiclient seismic surveys.
  - 9. areas of the Bill that are heading in the right direction but are either insufficient (decommissioning provisions) or misguided (retention of the post-decommissioning liability). The Bill does not address the fundamental flaw of regulatory overlap between legislation designed to manage land use and environmental effects and the enabling legislation to develop the Crown's mineral estate.
- 10. We round the submission out with a 'what next' section. It is critical that the government does not lose sight of the fact that much needs to be done following the passage of the Bill into law. In particular, the Petroleum Programme 2013 ('the Programme') requires substantial updating, and it is essential that officials work with the sector when updating this critical document.

#### We support reforming the Crown Minerals Act ...

- 11. Since 2018, changes to the Crown Minerals Act (the 'Act') had the dual effect of severely restricting the availability of new acreage for further exploration while attempting to eliminate *all* risk of the Crown having to undertake and fund another decommissioning project in the wake of the failure of the Tui permit holders.
- 12. Combined, these changes had the foreseeable effect of undermining investor confidence, as was evidenced by the rapid relinquishment of existing acreage and the flight of overseas investors. New Zealand now faces an energy shortage from which it will be hard to recover.

- 13. Restricting access to exploration acreage was an attempt by the then government to show international leadership on climate change – by demonstrating that New Zealanders could be better off if they were not relying on fossil fuels. The so-called 'just transition' has been a failed experiment, with New Zealanders experiencing job losses, damaged investment confidence, and higher energy prices from a less reliable and secure energy system.
- 14. The provisions of the Act relating to decommissioning were an exercise in regulatory overreach. The depth and breadth of the action taken were not supported by any evidence of a systemic issue of permit and license holders being unable to meet their decommissioning obligations, nor of environmental risk. This response further damaged New Zealand's energy security by altering field economics and shortening field lives.
- 15. We welcome a return to a more evidence-based risk management approach to ensuring the decommissioning of oil and gas pipelines, facilities, and wells by permit and license holders. We also welcome steps to rebalance and simplify the policy approach to the exploration and development of Crown-owned minerals and the Government's desire to utilise the resources under our feet to improve our economic, social and environmental resilience.

#### ... but this Bill is a missed opportunity to go further

- 16. Despite the opportunity to make extensive changes, the proposed amendments to the Act do not go far enough to restore investor confidence and attract new interest in New Zealand's petroleum basins.
- 17. Many of the changes proposed in the Bill amend rather than repeal the profoundly flawed and ill-conceived legislation we now have. This is a missed opportunity that may require remedial action later.

#### Fossil fuels will remain a critical part of our energy mix beyond the 2050 target

#### The importance of natural gas

- 18. New Zealand's electricity system is one of the most renewable in the world, with around 88% of our generation needs met by renewable energy sources. In 2023, natural gas provided 9% of our generation, and coal 2%. The renewable component of our world-class electricity system is only set to increase as we develop our abundant renewable energy resources.
- 19. The recent decline in natural gas production, which dropped by 12.5% in 2023 and 27.8% for the first three months of 2024, reinforced the importance of natural gas production. This had a dramatic impact on both the gas and electricity markets, resulting in Methanex shuttering production for three months. It is now consulting with staff on the closure of one of its two remaining methanol trains at Motunui.

- 20. 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, while gas-fired generation increased by over 40% from the same quarter last year. This was in addition to a record contribution from geothermal generation.
- 21. While our reliance on fossil fuels, including natural gas, will diminish over time, as it stands, natural gas will continue to play a vital role in the security of our electricity system, providing crucial 'peaking' and 'firming' to back up other less reliable intermittent energy sources, such as wind and solar. With New Zealand looking to nearly double its electricity generation capacity over the next 30 years, natural gas will enable us to electrify our economy safely and securely.<sup>1</sup>

#### The importance of natural gas in achieving our long-term climate goals

- 22. In light of the above, we do not consider the utilisation of natural gas inconsistent with attaining our long-term climate goals. We believe that natural gas must play a positive role in achieving New Zealand's climate goals. On the contrary, continuing with the status quo will likely worsen our environmental and climate action performance, as more coal will be used in the electricity system.
- 23. We have reservations about the effectiveness of the proposed changes in the Bill with helping to unlock more significant investment in New Zealand's petroleum resources. Therefore, we are uncertain about the extent of additional natural gas that might be produced. This uncertainty is also reflected in the modelling undertaken by the Gas Industry Company, MBIE and the Climate Change Commission over the past year.
- 24. In particular, we note the difference in positions between the emission outcomes outlined in the Climate Implications of Policy Assessment (dated 14 May 2024) and the additional MBIE modelling released over the past few days. The difference in emissions outcomes is material, with the more recent modelling being substantially lower (at least up to 2035). Modelled outcomes after that become highly speculative as they are highly assumption dependent.
- 25. This new modelling seems to better and more appropriately reflect the 'secondorder' effects such as the:
  - 26. reduced reliance on coal in the electricity system resulting from increased gas production in the model; and
  - a increased role for natural gas in 'firming' renewable sources of electricity and therefore the increased uptake of renewables.

<sup>1</sup> 

See: <u>https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/energy-statistics-and-modelling/energy-modelling/electricity-demand-and-generation-scenarios</u>.

- 27. The new modelling also assumes a production profile that is sculpted over longer assumed field lives, rather than front-ended.
- 28. Concerning the issue of climate change, we refer Committee members to paragraphs 34 46 of Attachment 1.

#### Reinstating 'promote' in the purpose statement of the Act

- 29. We congratulate the Government for replacing 'manage' in the purpose statement of the Act with 'promote'. This returns the Crown to a more active role in the exploration and development of its mineral estate and is consistent with the intention of the Act as enabling legislation for firms wishing to invest in New Zealand.
- 30. It is essential that the role of legislation aligns with its purpose, and the use of 'promote' in other legislation is not unusual or inappropriate. For further information on this, please see our January 2023 submission on the Crown Minerals Amendment Bill 1981, available <u>here</u>.<sup>2</sup>
- 31. While we remain hopeful of a swift revitalisation of New Zealand's petroleum sector, additional measures are necessary, including active promotion of our under-explored basins. With the reinstatement of 'promote' to the purpose statement of the Act, we recommend that the government actively and quickly return to promoting New Zealand's under explored petroleum basins to international investors.

#### Access to exploration acreage

- 32. We support the removal of restrictions to applying for exploration acreage outside of onshore Taranaki.
- 33. We welcome the removal of these restrictions and the repeal of s23A(2), which restricted applications for petroleum exploration permits on a 'priority in time' basis, and s50A, which restricted access to Taranaki conservation land.

#### Extending the exclusivity period for multi-client offshore surveys

34. We welcome the extension in s90(8) of the confidentiality of information gathered under a Petroleum Prospecting Permit from 15 to 21 years.

#### **Government policy statements**

35. We believe the ability to issue Government Policy Statements from time to time might be useful. However, clauses 12 to 12B are silent on the status of these (for example, are they secondary legislation), whether they must be observed, to

<sup>&</sup>lt;sup>2</sup> Our submission can be accessed at: <u>https://www.energyresources.org.nz/dmsdocument/231</u>.

whom they are addressed, and on the position should they conflict with any provision of the Act (which would not be appropriate). This needs to be clarified and we refer the Committee in this regard to the ability to issue Ministerial directive letters under the Overseas Investment Act 2005.

#### Updating the decommissioning provisions

- 36. The amendments to the Act to ensure permit and license holders undertake and fund decommissioning were a dramatic overreaction. While we agree that the existing provisions were insufficient, there was no evidence of a systemic issue or failure in the sector. Our strong advice remains that all of the provisions and amendments are repealed, and the Government works with the sector to develop proportionate rules and regulations.
- 37. Officials did not prefer the above approach, so we limit our comments to the amendments proposed in the Bill. Our concern is that the changes do not sufficiently or more fairly reallocate risk between the Crown and permit holders. The unequal burden on permit holders will continue to dampen the desire to invest in new exploration, appraisal, and development, potentially frustrating the Government's stated policy objectives.

#### Further changes to the financial security provisions are necessary ...

- 38. The new sections 89ZL through 89ZQ are a slight revision on the current sections. The focus is on financial security arrangements for the *permit holder*. This is problematic as it makes it difficult to provide suitable financial security arrangements where the permit holder is comprised of unrelated permit participants. Officials have indicated there is no flexibility in the Act for individual permit participants to provide financial security. This is highly problematic for several reasons, though primarily for the following:
  - a as currently drafted, permit participants are treated as one entity and are required to provide acceptable financial security with no apparent discretion for the capability of individual permit participants. While this approach could work for new mining permit applications, *it is not workable for existing mining operations*; and
  - b joint venture partners (JVPs') typically do not share or disclose commercially sensitive information to other JVPs beyond what is required by the joint operating agreement. Settling on an agreed combination of financial security instruments among permit participants is a time-consuming and challenging negotiation. For example, where there are significant disparities in the strength of the respective balance sheets, a large, well-capitalised, foreignowned company might prefer to offer a parent company guarantee on the basis of its strong balance sheet. In contrast, a smaller New Zealand resident company might prefer an escrow fund or similar.

- 39. It is important that s89ZL is substantially redrafted to enable individual permit participants to provide security directly to the Crown with respect to their percentage of interest in the permit.
- 40. In addition, as currently drafted, the proposed replacement sections 89ZL through 89ZQ do not give effect to the options presented in the Cabinet Paper and agreed to in the Cabinet Minute amending the Act to allow for greater flexibility in obtaining financial security.<sup>3</sup>
- 41. We recommend these sections be substantially redrafted to give effect to the intent of the Cabinet Paper.

# ... while trailing liability is redundant with appropriate financial security arrangements

- 42. It is unclear why trailing liability for previous permit holders has been retained. Trailing liability is an unnecessary and redundant feature of the legislation given:
  - a where there is a transfer of interest in a permit, the regulator assesses the financial capability of the transferee (see s41 of the Act);
  - b section 89ZG empowers the Minister to assess a permit holder's financial capability to meet decommissioning obligations; and
  - c section 89ZL requires permit and license holders to hold financial securities of a kind and amount determined by the Minister to assure that the decommissioning cost does not fall on landowners or the Crown.
- 43. We note that the Bill is silent on the treatment of any financial security arrangements in place at the time of a transfer of a permit participant's interest or change of permit holder. We recommend the treatment of these arrangements where there is a change in permit participants be clarified.
- 44. We also note the lengthy period of time the regulator allows itself to make the determination that a prospective permit participant, or new applicant, has the necessary financial and technical capabilities to give effect to the permit. Combined with the obligations placed on the transferring permit holder, these seem unnecessarily onerous.

<sup>&</sup>lt;sup>3</sup> See Cabinet Paper "Crown Minerals Act 1991: Ensuring security of gas supply and regulatory efficiency" and "Crown Minerals Act 1991: Ensuring security of gas supply and regulatory – Minute of Decision" available at: <u>https://www.mbie.govt.nz/dmsdocument/28875-crown-minerals-act-1991-ensuring-security-of-gas-supply-and-regulatory-efficiency-proactiverelease-pdf</u> and <u>https://www.mbie.govt.nz/dmsdocument/28876-crown-minerals-act-1991-ensuring-security-of-gas-supply-and-regulatory-efficiency-minute-of-decision-proactiverelease-pdf</u> respectively.

45. With the vetting of permit participants by the regulator, ongoing financial capability assessments, and financial security arrangements, trailing liability appears as a catchall in the event of regulatory failure.

# Removing the need for a post-decommissioning fund is a sensible and pragmatic step ...

- 46. We welcome the repeal of the provision in s89ZV requiring financial security and payment for any unforeseen post-decommissioning obligations. This provision was problematic in terms of pricing the risks associated with a failure event after decommissioning.
- 47. However, while noting it is common in other jurisdictions to hold former holders perpetually liable for any issues arising post-decommissioning, we do not agree in this case that this provides a sufficient rationale to hold the permit holder that carried out any decommissioning activities liable indefinitely.

## ... but perpetual liability post-decommissioning should be limited

- 48. Perpetual liability post-decommissioning extends to all parts of the petroleum production system that have not been removed. We believe this is an unreasonable policy position.
- 49. The exploration and development of New Zealand's petroleum estate is managed via a concessionary permitting regime, with the Crown granting exclusive rights to permit holders in a specified area for a specified period of time. In return the Crown receives income from taxes and royalties. An important underlying premise of this arrangement, articulated in Section 1.3 of the Programme, is:

" .... that the government wants other parties, such as public and private corporations, to undertake prospecting for, exploring for and mining of Crown owned minerals, including petroleum. The government does not wish to undertake these activities itself ...."<sup>4</sup>

- 50. The Crown's involvement in developing its mineral estate is multifaceted, with the Crown occupying many roles, including as the regulator across a range of ministries and Crown entities, as lawmaker, landowner, and beneficiary. It is unreasonable in our view for the Crown to expect a risk-free return on its petroleum estate. We believe this extends to taking ownership of the post decommissioning liabilities, once satisfied any permit holder obligations have been satisfactorily discharged.
- 51. The primary risk to human health and safety and to the environment after decommissioning is the risk of a leaking well. Once flushed and cleaned, the

See Section 1.3(4) of the Petroleum Programme 2013, available at:
<u>https://www.nzpam.govt.nz/assets/Uploads/our-industry/rules-regulations/petroleum-programme-2013.pdf</u>.

other components of a petroleum production system that remain pose little environmental concern.

- 52. For pipelines and structures that have been partially removed or abandoned in place, it is reasonable to expect landowners, including the Crown in the case of Crown-owned land and the maritime estate, to meet the cost of future remediation. This presumes that an appropriate consultation and consenting process has been followed to allow permissions and agreements to remove or abandon pipelines and structures, in place or partially. It also presumes these activities have been performed to an acceptable standard.
- 53. If required at all, post-decommissioning liabilities should only be extended to cover the risk of a leakage from a plugged and abandoned petroleum well that has been accepted as being plugged and abandoned. In this case the former permit holder should undertake and pay for the necessary intervention and cleanup. It should also be timebound and limited.
- 54. We recommend that the perpetual liability provision be removed or, at minimum, amended to provide a sunset date, say five years, on former permit participants' liability for plugged and abandoned wells.

#### Missed opportunities with this Bill

- 55. The Bill attempts to address several primary concerns with the Act. We submit that this Bill is a missed opportunity to address the root causes of many of the previous policy choices and need to go further for the overall package of changes to have a material impact on the confidence to invest.
- 56. In the following sections, we outline the key matters we believe would restore balance to the Crown's management of the exploration and development of its mineral estate while operating within the design of our legislative system.

#### Financial securities should be limited to plugging and abandoning wells only

- 57. Land use matters, including the demolition and removal of plant and structures, are best suited to legislation designed to manage environmental and human health and safety effects.
- 58. The petroleum well is the most unique component of an upstream oil and gas production system. The other components of the production system, such as pipelines, processing facilities, and even offshore structures, are also used in other industries and can be (in fact already are) managed through environmental effects-based legislation.
- 59. This is the domain of the Resource Management Act 1991 (the 'RMA') for activities undertaken in New Zealand's territorial waters and onshore, and the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 for activities carried out in the Exclusive Economic Zone (the 'EEZ Act').

- 60. Permits issued under the authority of the Act grant exclusive rights to the permit holder to undertake exploration and mining activities within a prescribed area for a certain length of time. Importantly, the shape and location of the area are driven by the location of the underlying resource, not the location of the aboveground plant and equipment. For example, the Maui gas field is located offshore, but the main processing plant is situated onshore at Oaonui, well outside of the mining license.
- 61. In the upstream oil and gas sector, the economic life of pipelines and processing facilities is often, but not always, linked to the economic life of the below-ground resource. It is in the interests of the owners of those above-ground assets to maximise their economic life, usually by finding and developing new resources to keep those facilities utilised. Only the petroleum wells, which must intersect the resource they produce, are inseparable from the permit, both geographically and economically.
- 62. Ensuring these wells are correctly plugged and abandoned at their end-of-life is essential to managing environmental risk.
- 63. Given this, the Act is uniquely placed to ensure permit holders have sufficient financial capability to plug and abandon their wells when required, more so than the RMA or the EEZ Act, which are best placed to manage the other components of the production system.
- 64. We recommend that any financial security requirements in the Act should be limited to the scope and cost of plugging and abandoning petroleum wells.

#### The basis for setting a financial security still presumes complete removal

- 65. Consistent with the above, our preference is for financial security arrangements for decommissioning above-ground pipelines and infrastructure to be removed from the Act and managed through appropriate resource management legislation as they are for other sectors (for more on where these boundaries are best addressed see below).
- 66. The Act has a clear role to play in setting out clear obligations and expectations for permit holders concerning the decommissioning of petroleum infrastructure, but not in the setting of environmental and restoration standards. We reiterate our position, as per our 2021 submission on the Crown Minerals (Decommissioning and Other Matters) Amendment Bill, that the requirement to remove infrastructure potentially creates regulatory inconsistencies with other specific laws.<sup>5</sup>

<sup>5</sup> 

Our submission is available at: https://www.energyresources.org.nz/dmsdocument/187

67. Our reading of s89E(2) suggests a default environmental standard of completely removing any and all petroleum infrastructure is presumed. The relevant section reads:

"However, if in relation to petroleum infrastructure, **no other enactment, relevant standard, or requirement by a regulatory agency** contains any requirements or standards relating to the method of decommissioning a particular item of petroleum infrastructure, **that infrastructure** <u>must</u> be decommissioned by totally removing it."

(emphasis added)

- 68. This sets a de facto environmental standard for estimating the cost of any decommissioning project that has not been consented, which is outside of the purpose of the Act. This cuts across the intended purpose of the decommissioning plan required under s89ZB, which describes the end state of decommissioning of wells and facilities and the methods and processes to achieve this outcome.
- 69. We strongly recommend repealing s89E(2).

#### The highly likely test remains problematic.

- 70. The term "highly likely" remains problematic. Our feedback to officials on the proposed guidelines for assessing the financial capabilities of permit participants highlighted several issues in relying on a "highly likely" test. <sup>6</sup>
- 71. We urge the Committee to recommend removing the highly likely test and returning to the more legally accepted and defined "likely" test.

#### Criminalising director's responsibilities have not been addressed

- 72. The Bill does not address the issue of criminalising the responsibilities of directors.
- 73. We draw the Committee's attention to our submission on the Crown Minerals (Decommissioning and Other Matters) Amendment Bill, in particular, the advice from Justin Smith QC, where he found that:

"The regime would criminalise what is ordinarily seen as conduct warranting no more than civil sanction and, in this respect alone (besides the many other objections), it is disproportionate to the risks it seeks to manage"<sup>7</sup>

<sup>&</sup>lt;sup>6</sup> Feedback on decommissioning financial securities and financial capability assessment guidelines, available at: <u>https://www.energyresources.org.nz/dmsdocument/download/258</u>.

 <sup>&</sup>lt;sup>7</sup> See pages 110-122 of our submission on the Crown Minerals (Decommissioning and Other Matters) Amendment Bill, available at: <u>https://www.energyresources.org.nz/dmsdocument/187.</u>

- 74. The accountability of directors is crucial for good corporate governance. However, the emerging trend of extending directors' personal liability in a piecemeal manner across a range of statutes is a concerning trend. This prompted the New Zealand Institute of Directors to call for policymakers to take a more balanced and coherent regulatory approach.<sup>8</sup>
- 75. Not doing so risks deterring the capable and experienced people needed to ensure businesses are well run from taking on governance roles. We urge the Committee to recommend repealing Section 89ZZX, which deals with criminal liability for knowingly failing to carry out certain obligations, as these are satisfactorily dealt with through civil penalties.

#### The Bill does not address the issue of blurring regulatory roles and responsibilities

- 76. The provisions introduced by the previous government to manage the decommissioning of petroleum wells and infrastructure were fundamentally flawed, drawing land use matters into the Act.
- 77. Permits under the Act concern the underlying resource and the exclusive right for a permit holder to undertake activities related to those minerals. Importantly, this creates the right, but not the permission, to undertake these activities. Other consents are required to manage the effects of those activities.
- 78. Simply put, the purpose of the Act is to manage the rights and royalties related to the exploration, production, and sale of Crown-owned minerals. The Act is not intended to prescribe an environmental standard for decommissioning activities; that is the purview of resource management and other legislation.
- 79. This confusion may relate to the blurring of the legislative responsibilities of various regulators across the petroleum sector. As noted above, our view is that many of the financial security obligations related to decommissioning petroleum infrastructure are, in fact, land use issues and would be better placed in more appropriate, effects-based legislation. We also note that this approach unreasonably singled out the upstream petroleum sector from other large industrial sectors (e.g. power and metals production) for financial security and post-closure responsibilities.
- 80. The recently announced reforms of resource management legislation offer an opportunity to restore balance to ensure that decommissioning and site remediation **across all industries** meet landowner expectations and regulatory requirements.
- 81. In this vein, we also note the extension to environmental and maritime legislation in the amended sections 41AE and section 41C. These are matters

<sup>8</sup> Institute of Directors New Zealand "Balance of responsibility" available at: https://www.iod.org.nz/news/articles/balance-of-responsibility#.

that should appropriately be left to the relevant environmental and maritime regulators.

#### Next steps

82. The amendments proposed in the Bill are a necessary but insufficient step in reviving further investment in New Zealand's petroleum sector. There are still further challenges to overcome, in particular, addressing the perception of New Zealand as a risky place to invest. Overcoming a reputation of high sovereign risk will require significant effort to build investors' trust and confidence. We believe further amendments are necessary and their impacts made explicit to our potential investors.

#### Operationalising the changes proposed in the Bill

- 83. Careful consideration will need to be given to how the changes proposed by the Bill will flow onto secondary legislation and any guidance that may be developed to help permit holders meet their regulatory obligations.
- 84. Officials should engage proactively with the sector to ensure these regulations and materials can be developed efficiently.

#### Updating the Petroleum Programme 2013 with sector input is essential

- 85. Despite four significant amendments to the Act since 2013, the Programme has not been updated. As such, it is out of date and requires significant revision. We understand that officials are in the process of updating the Programme.
- 86. The Programme is an important component of the legislation governing the exploration and development of the Crown's petroleum estate. It sets out how the Minister and the Chief Executive will act when performing a duty or exercising a power under the Act in relation to petroleum. The Minister and the Chief Executive must act in accordance with the Programme, so it is vital to get this right.
- 87. We note the Bill does not remove Section 16(3)(b) of the Act and introduces a new clause, Section 16(3)(c). The purpose of these clauses is to excuse the Minister from having to consult on changes to the Programme due to amendments introduced as part of the Crown Minerals Amendment Act 2023 or this Bill. It is essential that, at a minimum, officials work with the upstream sector to ensure the Programme is fit-for-purpose.
- 88. We recommend officials engage directly with the sector, ideally though a working group approach, to capture feedback before completing changes to the Programme.

#### **Concluding comments**

- 89. We welcome the action in reversing some of the more egregious changes to the Act. The truncated Select Committee process is evidence of the importance the current Government is placing on restoring confidence for investors in New Zealand's minerals sector.
- 90. While supportive, the Bill does not go far enough. Many of the concerns raised by the petroleum sector pertaining to the previous four amendments to the Act remain, as does the enduring perception of New Zealand having a high sovereign risk. Therefore, the proposed changes may not stimulate the desired investment from incumbent or potential new entrants.
- 91. We would like to thank the Committee for the opportunity to submit our views on this topic.

#### Attachment

Attachment 1 - Energy Resources Aotearoa submission to the Environment Select Committee on the petition to retain the offshore ban



30 September 2024

#### **Environment Select Committee**

via email: <u>Environment@parliament.govt.nz</u>

## 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 (<u>Petition of Chlöe Swarbrick: Continue</u> 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.<sup>1</sup>
- 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."<sup>2</sup>

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.
- 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,

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

<sup>2</sup> See <a href="https://www.mbie.govt.nz/dmsdocument/2028-regulatory-impact-analysis-proposed-changes-to-the-crown-minerals-amendment-act-1991-pdf">https://www.mbie.govt.nz/dmsdocument/2028-regulatory-impact-analysis-proposed-changes-to-the-crown-minerals-amendment-act-1991-pdf</a>.

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-endingnew-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.<sup>3</sup> 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.<sup>4</sup> 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.

<sup>3</sup> 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/.

<sup>&</sup>lt;sup>4</sup> 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.<sup>5</sup>
- 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

<sup>5</sup> 

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<sup>2</sup> 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<sup>2</sup> 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 <u>FCCC/PA/CMA/2023/16/Add.1</u>

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;
  - 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."<sup>6</sup>

<sup>6</sup> 

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.  $^{\rm 7}$ 

- 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.

<sup>&</sup>lt;sup>7</sup> 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."<sup>8</sup>
- 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.<sup>9</sup>

## 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

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

<sup>&</sup>lt;sup>9</sup> See <u>https://www.sense.partners/bio-john-ballingall</u>.

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. <sup>10</sup>

#### 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.

<sup>&</sup>lt;sup>10</sup> 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: <u>https://www.energyresources.org.nz/dmsdocument/202</u>. 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."