MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

COVERSHEET

Minister	Hon Shane Jones	**Portfolio**	Resources
Title of Cabinet paper	Crown Minerals Act 1991: Ensuring security of gas supply and regulatory efficiency	**Date to be published**	10 July 2024

List of documents that have been proactively released		
Date	**Title**	**Author**
May 2024	Crown Minerals Act 1991: Ensuring security of gas supply and regulatory efficiency	Office of Minister for Resources
22 May 2024	Crown Minerals Act 1991: Ensuring security of gas supply and regulatory efficiency ECO-24-MIN-0077 Minute	Cabinet Office
15 May 2024	Regulatory Impact Statement: Amendments to the Crown Minerals Act 1991 relating to petroleum exploration and mining	MBIE
16 May 2024	Regulatory Impact Statement: Amendments to the Crown Minerals Act 1991 relating to small-scale non-commercial gold mining	MBIE
14 May 2024	Climate Implications of Policy Assessment disclosure sheet	MBIE

Information redacted **YES**

Any information redacted in this document is redacted in accordance with MBIE's policy on Proactive Release and is labelled with the reason for redaction. This may include information that would be redacted if this information was requested under Official Information Act 1982. Where this is the case, the reasons for withholding information are listed below. Where information has been withheld, no public interest has been identified that would outweigh the reasons for withholding it.

- Legal professional privilege
- Confidential advice to Government
- Commercially sensitive information
- Confidential information entrusted to the Government
- International relations

Regulatory Impact Statement: Amendments to the Crown Minerals Act 1991 relating to petroleum exploration and mining

Coversheet

Purpose of Document	
Decision sought:	*Agreement to amendments to the Crown Minerals Act 1991 to give effect to the Government's decision to remove the current ban on new petroleum exploration permits outside onshore Taranaki, and targeted measures to increase investment in New Zealand's petroleum sector.*
Advising agencies:	*Ministry of Business, Innovation and Employment*
Proposing Ministers:	*Minister for Resources*
Date finalised:	*15 May 2024*

Problem Definition

The Government has committed to removing the 2018 ban on new petroleum exploration permits (PEPs) outside onshore Taranaki in order to future proof the gas sector so that gas can be used as a transition fuel.

The 2018 ban prohibited new exploration activity:

- in the offshore environment, outside existing permit rights
- in respect of onshore, outside of the Taranaki region.

Industry reports that subsequent regulatory changes, which amended the purpose statement of the Crown Minerals Act 1991 (CMA) and introduced the oil and gas decommissioning regime, have had a further impact on investor confidence.

As a result, investment in both new exploration activity and in existing and already permitted fields and reserves has reduced and continues to decline.

This creates a risk to the supply of gas. Gas remains a necessary fuel for industrial, commercial and residential uses, and for electricity generation, and will continue to do so as we transition to renewable alternatives. However, data suggests there is a real risk that gas demand will exceed the best estimate of commercially viable future natural gas supply at some stage between 2025 and 2027.

Lack of supply will place energy security and economic activity at risk.

Global investment in petroleum exploration has been declining since 2014, when the oil price crashed. Climate change considerations and the uncertainty of the timing of the global energy transition is introducing a degree of caution among petroleum companies. These companies are therefore prioritising lower-cost resources where they can find them.

Executive Summary

The Government has committed to removing the ban in order to increase oil and gas exploration

These proposals relate to the following Government priorities:

- the National-NZ First coalition agreement commitment to 'future-proof the natural gas industry by restarting offshore exploration' and the National-ACT coalition agreement commitment to 'repeal the offshore oil and gas exploration ban';
- the National-ACT coalition agreement commitment to update the CMA to clarify its role as promoting the use of Crown minerals; and
- National's 100-point economic plan 'Rebuilding the economy' which includes a commitment to repeal the ban on oil and gas exploration to reduce New Zealand's reliance on imported coal and ensure gas can be used as a transition fuel as we move towards Net Zero 2050.

Together, these changes are intended to signal that New Zealand is "open for business" for new investment in the petroleum and minerals sectors.

Policy changes since 2018 have contributed to a period of low investment in existing and new petroleum exploration

In 2018, the CMA was amended to restrict new PEPs to onshore Taranaki with additional restrictions on Taranaki conservation land (henceforth referred to as the 2018 ban). The amendments did not alter the rights of existing permit holders[1], offshore and onshore, to extend their existing permit areas and duration.

In 2021, the CMA was amended to clarify and strengthen decommissioning requirements for petroleum permit holders. This included:

- an obligation to obtain and maintain a financial security for decommissioning costs,
- liability that extends to former permit holders (trailing liability), and
- a requirement to pay a sum or hold a financial security to cover any post-decommissioning risks and costs.

In 2023, the CMA was amended again to change the purpose statement and Minister's functions away from a "promotional" intent to one of "management".

Impact of the changes

The changes have impacted investment by:

- new investors looking to prospect and explore in New Zealand
- existing petroleum exploration permit holders looking to discover new fields, and
- existing petroleum mining permit holders operating our currently producing fields.

Industry reported that the 2018 ban resulted in international investors viewing New Zealand as 'closed' to new petroleum investment. Some exploration permit holders, who normally invest in a consortium, struggled to attract international interest in co-investment

[1] Permit holder is defined in the CMA as - **permit holder** means the person who is the sole permit participant, or all of the permit participants, as the case may be

for exploration and development.[2] Since the ban, exploration permits have gradually been surrendered back to the Crown. Exploration acreage under permit has shrunk from about 88,000 km^2 at the time of the 2018 ban to around 6,000 km^2 as of January 2024.

Industry also report that the 2021 amendments to the petroleum decommissioning regime and 2023 changes to the purpose statement further impacted the confidence of petroleum mining companies already operating in New Zealand. They point to the uncertainty and increased regulatory requirements of the decommissioning regime as further deterring the level of investment needed to get the most out of our current fields.[3]

The combined impact of lower investment in existing producing fields and significantly reduced investment in exploring for new fields has been declining gas reserves, resulting in a security of gas supply issue.

The gas reserves data report in 2023 indicated a significant decline in the estimates of gas reserves that can be commercially produced under current economic conditions, and of contingent reserves that could be produced with greater investment. As a result, recent studies suggest that gas demand will exceed the best estimate of commercially viable future natural gas supply at some stage between 2025 and 2027. Even if contingent reserves (which are not currently commercially viable to produce) come online, modelling still suggests that supply will not meet demand at some stage between 2028 and 2034, depending on how much of these reserves are developed.

Without further investment in gas supply, New Zealand faces risks to its energy security and economic development

Natural gas is critical to New Zealand's energy security as we transition to a low carbon economy. Gas is vital for certain industrial and commercial activities, particularly those that are hard to electrify, such as high-temperature process heat and petrochemical production. It is also a backstop in times of peak electricity demand (replacing coal) and is used to firm intermittent electricity generation, such as hydro (especially during dry years), and wind and solar energy. Our reliance on gas is expected to continue until there is a reliable and economic replacement for gas generation.

The ban and other policy changes are not the sole contributors to declining investment and gas supply

Analysis by the Gas Industry Company (GIC) in December 2023 suggests that drilling activity has been decreasing since 2015 due to factors such as difficulty financing fossil fuel operations and difficulty obtaining resource consents.

Globally, investment in upstream petroleum exploration has been declining since the oil price crash of 2014. Oil and gas companies that are investing in new exploration are prioritising lower-cost reserves. New Zealand also has inherent geological and geographical disadvantages, being remote and making it costly to do business.

The global and domestic investment landscape is, therefore, challenging. Industry feedback is that the existing regulatory environment has added to these existing and long-running trends and challenges.

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[2] https://www.nzherald.co.nz/business/nz-oil-exploration-hinges-on-great-south-basin/CJ7SVG4QLRAQ6TLCDHFTQGLZOE/

[3] Gas Industry Company, "Gas Supply and Demand Study," 8 December 2023, https://www.gasindustry.co.nz/assets/CoverDocument/Gas-Supply-and-Demand-Study-December-2023.pdf

Further changes are needed to positively shift the economics of petroleum investment and increase gas supply

Repealing the ban by itself may not achieve the desired impact of increasing petroleum investment and, therefore, gas supply. Consequently, additional measures are proposed in the preferred option that may help to improve investor confidence and investment.

The preferred option includes changes to the decommissioning regime to balance the cost to industry with the risk that, if a permit holder fails to decommission, the cost of decommissioning falls to private landowners or the Crown. It also includes a range of 'policy signalling' measures such as reversing changes to the CMA's purpose statement and introducing alternative, faster permit allocation methods.

Changes to the CMA are intended to address some of the potential causes for insufficient investment in production.

Other factors affecting investment are not addressed by these policy proposals

Emissions costs, long consenting time frames, the difficulty financing fossil fuel operations, and the small and closed nature of our domestic gas market (i.e., limited demand), are not addressed by the proposed CMA changes.

In addition, the small and closed nature of our domestic gas market and its reliance on demand from large users (e.g., Methanex) to underwrite supply with long term contracts means that there is limited scope for the normal market dynamics of rising prices to encourage new development.

Changes will not impact Crown costs

The preferred option is not expected to increase costs to the Crown.

The proposed amendments to the decommissioning regime alter the mitigations against a permit holder failing to decommission. The preferred option retains the concept of trailing liability, but reduces the potential pool of people to whom it applies. This may increase the likelihood that, in a case where a financial security fails and enforcement against liable parties is unsuccessful, the Crown will need to assume responsibility as a last resort.

Commercial Information

Given the multiple uncertainties involved, it has not been possible to reliably assess the potential increase in exposure to the Crown from this change. The uncertainties are:

- the likelihood and scale of a financial security failing or being insufficient in a given case
- the nature of the field involved in a default (small vs large, offshore vs onshore)
- at what point in time decommissioning eventuates (exploration vs production)
- the number of available liable persons against whom enforcement is successful.

Stakeholder views

In general, industry stakeholders and gas users are likely to have positive views about the preferred option, although some aspects, such as those relating to decommissioning, may not be supported.

Some iwi have voiced strong opposition to reversal of the ban, especially offshore. One Taranaki iwi supported further gas extraction from existing onshore fields so that the benefit of those can be maximised. Iwi reiterated their support for retaining robust decommissioning requirements.

Iwi also raised concerns about:

- reversal of changes to the CMA's purpose provision as inconsistent with the transition towards a low emissions future
- the reversal of the 2018 changes as they relate to Taranaki conservation land
- increased engagement burden.

Limitations and Constraints on Analysis

The proposals covered in this RIS relate to specific Government priorities

The Government's coalition agreements include the following relevant commitments:

- to 'future-proof the natural gas industry by restarting offshore exploration' and to 'repeal the offshore oil and gas exploration ban';
- to update the CMA to clarify its role as promoting the use of Crown minerals; and
- to repeal the ban on oil and gas exploration to reduce New Zealand's reliance on imported coal and ensure gas can be used as a transition fuel as we move towards Net Zero 2050.

In line with Government policy, reducing New Zealand's demand for gas is out of scope of these policy proposals.

Energy security of supply is a broad and complex challenge, and this policy proposal relates to one aspect

Energy security refers to the provision of secure energy for all our domestic needs. It relates to the range of fuels we use for industrial, commercial, residential and transport needs. As we transition to a greater reliance on renewable energy and novel fuels, energy security and affordability are key areas of policy focus.

This policy proposal is confined to one component of energy security, namely regulatory changes to increase the likelihood that the upstream gas sector will produce sufficient natural gas so that it can continue to play its role as a transition fuel.

Other aspects of energy security, such as regulatory or market settings to clear the way for new generating capacity or lower emissions fuels are outside scope.

The quality and certainty of evidence varies

The GIC's study on gas supply and demand from December 2023 provides the best and most recent evidence for the causes of underinvestment in gas production (analysed in Section 1 below). Additionally, MBIE has consulted directly with New Zealand's oil and gas industry.

In comparison to evidence for the policy problem, the quality and certainty of evidence for the effectiveness of proposed policy options is low. This is because options are intended to influence investor behaviour and we cannot accurately predict behavioural responses and impact. However, we have modelled a scenario based on the GIC's scenarios of future gas development from December 2023, that assumed a higher portion of current gas reserves would be developed by industry, as a result of the policy changes.

MBIE's modelled scenario does not include any fiscal impacts on the Crown or any wider economic impacts. The evidence for this is qualitative and uncertain.

There has been limited consultation on these proposals

These proposals have not been the subject of formal public consultation.

MBIE has undertaken targeted consultation with the oil and gas industry on policy options to gauge impact. Industry are supportive of the reversal of the 2018 amendments and changes to the purpose statement of the CMA. They do not support all aspects of the decommissioning proposals.

Engagement with iwi took place on 7 and 13 May, with written feedback received on 14 May.

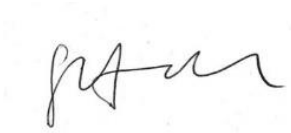
Responsible Manager(s) (completed by relevant manager)

Susan Hall

Policy Director

Building, Resources and Markets

Ministry of Business, Innovation and Employment



15 May 2024

Quality Assurance (completed by QA panel)

Reviewing Agency:	Ministry of Business, Innovation and Employment
Panel Assessment & Comment:	A Quality Assurance panel with representatives from the Ministry of Business, Innovation and Employment and the Ministry for Regulation has reviewed the Regulatory Impact Statement (RIS) 'Crown Minerals Act 1991'. The panel has determined that the RIS partially meets the quality assurance criteria. The RIS provides a complete analysis of the impacts of amending the Crown Minerals Act to increase investment in the petroleum sector. However, in line with the Government's policy and

	subsequent constraint on the RIA, the problem definition and objectives are narrowly defined, which means the options analysed are highly constrained. In addition, there has been limited consultation undertaken on the proposals. Finally, although the emissions implications of the proposal are modelled in the separate Climate Implications of Policy Assessment (CIPA), the RIS could include more analysis of the consequences of the emissions implications.

Section 1: Diagnosing the policy problem

What is the context behind the policy problem and how is the status quo expected to develop?

CONTEXT – THE BAN AND IMPACTS

In 2018, the CMA was amended to ban new petroleum exploration permits outside onshore Taranaki to support New Zealand's climate initiatives

1. The 2018 ban restricted:
    - offshore development by no longer offering future Petroleum Exploration Permits (PEPs) for offshore acreage (referred to as blocks), and
    - new onshore blocks to only the Taranaki region for 2018, 2019 and 2020 with additional restriction on conservation land. Existing exploration and mining permits could still be developed.
2. The 2018 ban was enacted to support the following outcome: "Initiating a long-term transition away from petroleum exploration and production, in line with New Zealand's international commitments to transition to a low-carbon economy."[4]
3. The policy reflected, and was premised on, a transition to a lower emissions economy, where alternative energy forms and technologies would, over time, provide suitable and economic substitutes for gas. It was also assumed that the exploration acreage under permit at the time, around 88,000 km^2, would be sufficient to sustain gas supply during the transition.[5]

In 2021, the CMA was amended again to reduce fiscal risks to the Crown in the context of petroleum decommissioning

4. The CMA was amended in 2021 to clarify the legal and financial obligation of petroleum permit/licence holders to decommission petroleum infrastructure and wells at the end of their productive life. These changes aimed to mitigate the risk of the Crown or other third parties (like private landowners onshore) having to carry out and/or fund decommissioning, as occurred with the Tui oil field in 2019.

In 2023, the CMA's purpose statement was changed

5. The purpose statement of the CMA to "promote" the exploration and development of Crown-owned minerals was changed to "manage". This change affected both petroleum and other minerals. The Minister's functions were also changed from attracting permit applications to, from time to time, offering permits for application.

The Government has committed to removing the ban in order to increase oil and gas exploration

6. These proposals relate to the following Government priorities:
    - the National-NZ First coalition agreement commitment to 'future-proof the natural gas industry by restarting offshore exploration' and the National-ACT coalition agreement commitment to 'repeal the offshore oil and gas exploration ban';
    - the National-ACT coalition agreement commitment to update the CMA to clarify its role as promoting the use of Crown minerals; and
    - National's 100-point economic plan 'Rebuilding the economy' which includes a commitment to repeal the ban on oil and gas exploration to reduce New Zealand's reliance on imported coal and ensure gas can be used as a transition fuel as we move towards Net Zero 2050.
7. The Government has also removed the previous Government's aspirational target of 100% renewable electricity by 2030.

8. Its policy is to increase the supply of gas in order to boost economic activity and enable gas to be used as a transition fuel until the market adopts alternatives.

Gas produced in New Zealand is used across our economy

9. New Zealand has a closed market for natural gas, that is, we have no infrastructure to support gas exports and imports. This means that supply must match domestic demand.

10. The majority of New Zealand's gas supply comes from six main fields in Taranaki, some of which also produce oil or condensate:

    - Three offshore – Pohokura, Maui and Kupe
    - Three onshore – Mangahewa, Turangi and Kapuni

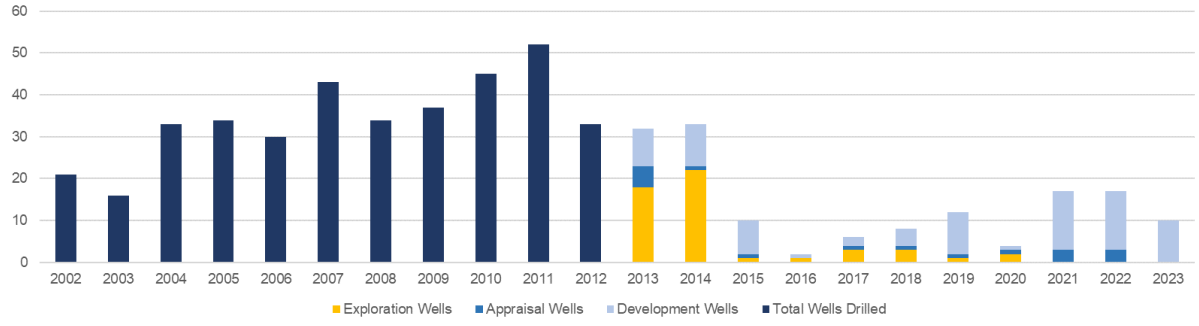
11. In New Zealand, demand for natural gas comes from:

    - Industrial users
        i. Methanex, to produce methanol – 36 per cent
        ii. Ballance, to produce urea – 5 per cent
        iii. Other industrial users, like Fonterra, NZ Steel and Oji Fibre – 20 per cent
    - Electricity, to firm generation in times of peak demand or intermittent renewable generation – 26 per cent
    - Residential and commercial users, like households and businesses – 10 per cent.

Petroleum exploration activity was declining before the 2018 ban …

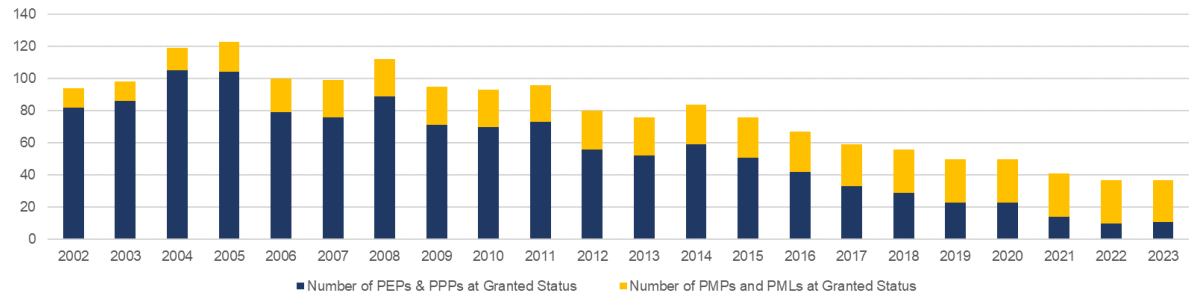
12. In New Zealand, drilling activity after 2014 averaged 9.5 wells per year compared to 34 wells per year during the period 2002 to 2014. The last exploration well drilled was in 2020.

Figure 1: Number of petroleum wells drilled (2002 to 2023, MBIE)[6]



13. The number of active exploration permits since 2014 has also been declining.

Figure 2: Number of granted prospecting, exploration and mining permits and licences (2002 to 2023, MBIE)



14. As of early 2024, the total permitted exploration acreage across New Zealand is just over 6,000 km^2 following a period of high permit surrender and expiry in 2021 (11 permits covering around 52,000 km^2 in exploration acreage).

… and our existing gas fields are in decline

15. Our current gas producing fields are old and in decline. The oldest, Kapuni, was discovered in 1959. The largest, Maui, was discovered in 1969. Extracting more resources from aging fields can be more technically challenging and costly, and they may not produce as expected. Commercial Information

16. Both 2P and 2C reserves in existing fields are declining.[7] 2P reserves are the best estimate of gas reserves that can be commercially produced under current economic conditions. In 2022, 2P reserves were overall down 17 per cent, the most significant of which came from the Mangahewa and Maui fields at a 48 per cent and 24 per cent reduction each. 2C are contingent reserves, which may be converted into 2P through investment.[8] 2C contingent reserves declined 41 per cent in 2022, primarily due to technical revisions by operators due to performance data.

Industry have reported reduced investment confidence

17. Industry reported that the 2018 ban resulted in international investors viewing New Zealand as 'closed' to new petroleum investment. Some exploration permit holders, who normally invest in a consortium, struggled to attract international interest in co-investment for exploration and development.[9]

18. The 2021 amendments to the petroleum decommissioning regime and 2023 changes to the purpose statement further impacted the confidence of petroleum mining companies already operating in New Zealand. They pointed to the uncertainty and increased regulatory burden of the decommissioning requirements as preventing the level of investment needed to get the most out of our current fields.[10]

19. Industry report that the combined impact of lower investment in existing producing fields and significantly reduced investment in exploring for new fields has resulted in our historically low gas reserves.

CONTEXT – CLIMATE CHANGE OBLIGATIONS

In 2022, the Government released New Zealand's first Emissions Reduction Plan (ERP)

20. In 2022, the Government released New Zealand's first Emissions Reduction Plan (ERP). For the energy sector, Action 11 in the ERP is to manage the phase-out of gas by developing a gas transition plan for the gas industry, explore opportunities for renewable gases and ensure an equitable transition. It also included working with the industry co-regulator, the GIC, to consider any additional or changed mechanisms to ensure gas is available to industrial users in times of unexpectedly tight supply, and

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[6] An exploration well is drilled in order to establish the existence of a possible petroleum deposit. An appraisal well is drilled to establish the extent and size of a petroleum deposit. A development well is used for production.

[7] https://www.mbie.govt.nz/about/news/petroleum-reserves-data-shows-decline-in-gas-reserves

[8] Contingent Resources may include, for example, projects for which there are currently no viable markets, or where commercial recovery is dependent on technology under development, or where evaluation of the accumulation is insufficient to clearly assess commerciality.

[9] https://www.nzherald.co.nz/business/nz-oil-exploration-hinges-on-great-south-basin/CJ7SVG4QLRAQ6TLCDHFTQGLZOE/

[10] Gas Industry Company, "Gas Supply and Demand Study," 8 December 2023, https://www.gasindustry.co.nz/assets/CoverDocument/Gas-Supply-and-Demand-Study-December-2023.pdf

improving the timeliness and detail of information about gas supply and demand to market participants.[11]

The Government is working on New Zealand's second Emissions Reduction Plan (ERP)

21. The Government is currently developing New Zealand's second ERP for the period 2026 to 2030. It is intended this second ERP will be published before the end of 2024.

22. The recommended Option 3 is expected to lead to a substantial increase in projected emissions compared to a counterfactual of lower gas use. This will be an important consideration in the energy and industry chapters of the second ERP.

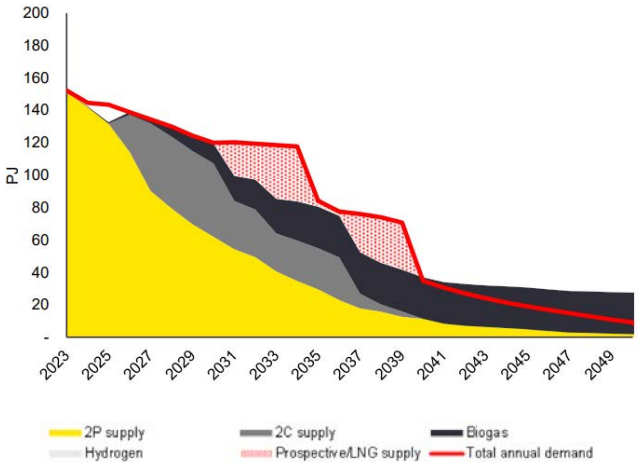
HOW THE STATUS QUO IS EXPECTED TO DEVELOP

Without further investment in existing fields by market incumbents, gas supply will not meet demand in the short term

23. As upstream exploration declines, according to the GIC, gas supply will likely not meet demand sometime between 2025 and 2027 at the earliest and between 2028 and 2034 (if reserves are developed) at the latest.[12]

24. Increased investment is needed to convert our 2C reserves into 2P resources. Developing these reserves will require significant investment, estimated to be about $200 million per annum across all existing gas fields, according to the advisory firm Enerlytica[13]. Without such investment, annual production is expected to undergo a sustained decline.

Figure 3: The "Supply Headwinds" modelled scenario in GIC's Gas Supply and Demand Study, December 2023



[11] https://environment.govt.nz/publications/aotearoa-new-zealands-first-emissions-reduction-plan/energy-and-industry/

[12] https://www.gasindustry.co.nz/assets/CoverDocument/Gas-Supply-and-Demand-Study-December-2023.pdf

[13] Gas Transition Plan – Issues paper, 2023, pg. 24, https://www.mbie.govt.nz/dmsdocument/27255-gas-transition-plan-issues-paper-pdf

25. Figure 3 plots the expected supply from the "Supply Headwinds" counterfactual in the GIC's gas supply and demand study against forecast demand. Under this scenario, 2P production can support total annual demand up until 2024 based on current Methanex demands without its Waitara Valley production facility. Development of 2C resources will need to commence from 2025 and can support total annual demand up until 2026. After that, this scenario assumes biogas and new exploration or LNG imports to fill the growing gap between supply and demand, with a minor amount of hydrogen assumed by 2035. If any of these alternative or non-natural gas sources do not eventuate, then the supply situation is further constrained.

There will be no investment in new fields, whether by market incumbents or new market entrants

26. New field developments can take at least seven years from discovery to first petroleum production. The earliest these 'greenfields' could come online may be around 2034, the GIC's most optimistic timeframe in which gas supply does not meet demand.

Constrained gas supply will continue to be met by a mix of burning coal for electricity generation and large industrial users reducing demand

27. In the absence of renewable alternative fuels to gas, constrained supply currently results in increased burning of coal and demand response by large industrial users.

28. To illustrate, in 2021, gas production was lower than expected and, coupled with historically low hydro storage, put pressure on our energy system. Instead of using gas, Genesis imported coal (the highest level on record) to use at the Huntly power station for thermal generation. Coal use for electricity generation increased 29.5 per cent in 2021[14] and emissions in the first half of 2021 rose with the increased use of coal (up 1.4 per cent in the March 2021 quarter and 4.8 per cent in the June 2021 quarter).[15] Burning coal generally results in twice the amount of CO_2 emissions than natural gas.[16]

29. In response, major gas and electricity consumers reduced demand at an economic cost. Methanex, New Zealand's largest gas consumer, idled its Waitara plant at a cost of approximately 70 jobs and brought forward a planned maintenance outage on its Motonui plant, which enabled some gas to be diverted to Genesis.[17] The Tiwai Point aluminium smelter, which consumes about 13 per cent of the country's electricity, also gave up some electricity, about 15 per cent of the energy that Methanex released.[18]

As we transition to a zero-carbon future, gas demand is predicted to decline and exacerbate supply risks

30. In the GIC's 2023 gas and supply study[19], gas demand is expected to decline across all modelled scenarios as the economy decarbonises and gas users switch to low or zero-emissions fuels.

31. Superficially, a decrease in gas demand could imply less concern over a decline in gas supply. However, the nature of New Zealand's closed gas market means that supply must match demand. Lower gas demand risks further reducing supply because the

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[14] https://www.mbie.govt.nz/dmsdocument/23550-energy-in-new-zealand-2022-pdf

[15] https://www.stats.govt.nz/news/greenhouse-gas-emissions-rise-in-june-2021-quarter/

[16] https://www.eia.gov/environment/emissions/co2_vol_mass.php

[17] https://www.stuff.co.nz/business/300237857/taranaki-methanol-plant-closure-disappointing-but-not-unexpected-business-leaders-say
https://businessdesk.co.nz/article/policy/methanex-investment-indicates-a-desire-to-stay-in-nz

[18] https://southlandapp.nz/NewsStory/tiwai-point-aluminium-smelter-to-lower-its-electricity-consumption/608884ea073af9002be82a44

[19] https://www.gasindustry.co.nz/assets/CoverDocument/Gas-Supply-and-Demand-Study-December-2023.pdf

development of new gas fields and contingent reserves is highly dependent on the existence of long-term contracts for large amounts of fixed gas offtake.

32. Large gas users such as Methanex, through the size of their offtake, help to underwrite investment on the supply side which has benefits to other smaller consumers. They also provide flexibility in demand so that if more gas is produced, they will receive it; and if there are supply constraints they are able to reduce their demand.

33. If demand from these large users significantly decreases, remaining users may not be able to underwrite the needed supply development, or provide demand flexibility.

Problem definition - What is the policy problem or opportunity?

New petroleum exploration in New Zealand is restricted by law

34. The 2018 ban on exploration outside of onshore Taranaki directly restricted exploration as new permits can only be awarded in a limited area of New Zealand. In onshore Taranaki, there is only 1,257 km^2 of permitted acreage and 1,504 km^2 of un-permitted acreage with resource potential to explore and develop. Since 2018, four exploration permits have been awarded. At the same time, permitted exploration acreage is also declining through surrenders and expiry, reaching low levels.

Existing exploration and mining permit holders consider that changes since 2018 added costs and changed the economics of field development, reducing investment

35. The 2018 ban indirectly impacted the development of existing fields:[20]

- For offshore exploration and mining permit holders, reduced exploration activity meant there were fewer opportunities to share costs. Offshore drilling campaigns generally require multiple wells to justify bringing expensive and specialised rigs to New Zealand.[21]
- For some exploration permit holders, the amendments amounted to a cap on their ability to maximise return by obtaining new acreage in the future. And some discoveries are simply not economic to produce unless they are developed with other accumulations, which was harder or impossible to do when no new exploration permits were being granted.
- Many exploration permit holders are also mining permit holders, who tend to look at their operations in New Zealand on a portfolio basis. This means that any constraints on the exploration side of their operations may impact on their assessment of their existing producing assets, and vice versa.

36. According to the industry, the 2021 changes related to petroleum decommissioning liability constrained their ability to approve projects and take on further risk.[22] Based on consultation with the industry, permit holders consider that, in particular, the following requirements will either tie up capital that could otherwise be used to invest in field development or increase overall risk:

- The requirement to obtain and maintain one or more financial securities to meet decommissioning costs. Although the Minister has discretion in setting the amount and kind of financial security, there is uncertainty about how this might be exercised and what the costs might be.
- Under the CMA, liability for decommissioning extends to previous permit holders even after they have transferred their interest away from the permit. This means

[20] The 2018 amendments preserved the rights of existing prospecting, exploration and mining permit holders. This included the right to change work programme, extend land and extend the duration of the permit.

[21] https://www.gasindustry.co.nz/assets/CoverDocument/Gas-Supply-and-Demand-Study-December-2023.pdf

[22] Ibid.

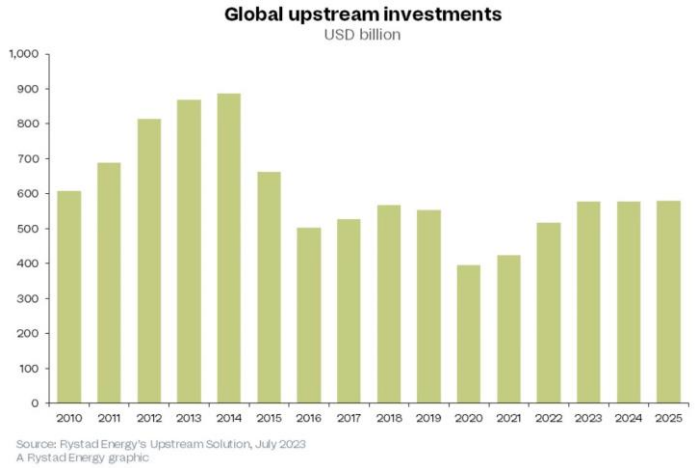
that if the current permit holder does not decommission or pay for decommissioning, the Crown can call on former permit holders to do so.

- The requirement to pay an amount or provide a financial security to cover post-decommissioning risks and costs. There is uncertainty about how this risk will be quantified and therefore what funds or securities would need to be set aside.

There are other underlying factors contributing to these upstream production problems that are outside the scope of the proposed reforms

37. Exploration activity in New Zealand has been declining since 2014, before the 2018 ban on new petroleum exploration outside onshore Taranaki. This is consistent with global trends in upstream oil and gas investment, which peaked in 2014 when the oil price crashed, and has not recovered to the same levels as oil and gas firms and traditional lenders navigate the energy transition and pursue lower-cost reserves and development options. COVID-19 also impacted investments after 2020.

Figure 4: Global upstream investment (Rystad Energy)



38. Against this context, New Zealand starts from a position of relative disadvantage, being geographically distant from major markets, technically challenging, and expensive relative to the other options international investors are currently favouring.

39. According to current permit holders, the reduced level of activity around existing reserves in New Zealand is due to the combination of several factors including difficulty obtaining resource consents and difficulty obtaining finance for fossil fuel operations due to uncertainty over future demand and policy.

40. The economics of gas field development is complex and depends on demand for gas and, in some fields, the return from oil production. Many gas fields are developed primarily for their oil potential, which is exported, and gas is an associated product. However, New Zealand's gas market is relatively small and closed (no exports) with only one major individual user (Methanex) being in the position to write long term contracts to underpin production. Increasing investment in petroleum production by addressing gas market settings is outside the scope of changes to the Crown Minerals Act 1991.

The policy opportunity is to increase gas supply in the short and long term

41. The key opportunities from these proposals are to:

- enable new petroleum exploration, where the market is willing to invest, by removal of the ban
- make adjustments to the decommissioning regime that will:
    i. increase the available capital to investors while not reducing risk to the Crown

ii. improve investor confidence by reducing risk

- make regulatory changes to further improve investor confidence.

42. Overall, it is intended that these changes will remove barriers and send a positive signal to the sector in order to promote investment in existing fields and encourage new exploration and development.

Stakeholder impacts

43. Stakeholder impacts are set out in the table below:

Stakeholder category	Impact	Nature of impact
Petroleum producers	Direct	Measures adopted should incentivise petroleum producers to develop existing reserves and to undertake new exploration.
Electricity generators	Direct	The policy is intended to incentivise further investment in exploration and development of petroleum in order to ensure sufficient gas for firming and peaking operations in the electricity market. This will help maintain security of supply during the transition to a low carbon future.
Industrial users	Direct	Higher levels of gas during the transition will also ensure a reliable supply for industries reliant on gas as an input. These stakeholders, or businesses, are direct beneficiaries of the policy, as are their employees if this policy results in sustained productivity for these businesses.
Gas pipeline owners	Direct	Higher levels of gas during the transition will also ensure a reliable supply delivered to industries through gas pipelines. Pipeline owners are a regulated monopoly who earn a fixed return on capital to run and maintain the gas pipelines.
Commercial users	Indirect	Higher levels of gas will provide greater security of supply as these users transition to renewable fuels.
General public	Indirect	Reliable and potentially more affordable electricity supply.

44. The proposals in this paper will not disproportionately impact distinct population groups. However, any exploration enabled by these changes may disproportionately impact regions where this activity occurs.

The preferred solution will be controversial with many stakeholders

45. Many stakeholders, including iwi, either object to petroleum development occurring in specific regions or areas, or object to any petroleum development because of the emissions created and the localised environmental effects caused by gas use and petroleum exploration.

46. MBIE has prepared a separate Climate Impacts of Policy Assessment.

47. The preferred option is expected to lead to a substantial increase in emissions. This increase, projected to be approximately 14.2 Mt CO_2-e cumulative to 2035, stems largely from prolonged gas usage in the electricity, commercial and industrial sectors.

This is as compared with a counterfactual “Supply Headwinds” scenario, where current gas supply is challenged, and future supply is limited.

48. In that world, industrial production and economic activity reduce due to lack of supply of gas.

49. The 14.2 million tonnes is the estimate for direct gas impacts. It does not model the potential emissions impact for displaced coal-fired electricity generation as a result of gas availability. These emissions savings could be significant. In 2022, electricity emissions from coal generation were 2.7 $MtCO_2e$, with an average of 3.5 $MtCO_2e$, over the previous 5 years and a peak of 6.4 $MtCO_2e$ in 2012.

50. Neither do the estimates factor in the full range of potential emissions reductions that may result from increased renewable energy generation, stabilised by a secure supply of gas, and increased electrification (for example, process heat electrification, EV uptake).

Consultation with iwi and hapū

51. On 7 May and 13 May, Ministers Jones and Potaka virtually met with iwi and hapū with Treaty settlements and with an interest in policies relating to petroleum exploration and mining in New Zealand. This included eight iwi from the Taranaki region, where all of New Zealand’s current petroleum activities occur.

52. Feedback was provided verbally during the hui and in writing subsequently as follows:

- From some iwi, a strong opposition to reverse the 2018 ban, especially offshore. This is because of concerns regarding the general impacts of climate change and the contribution of oil and gas consumption to climate change. Written feedback also raised concerns that further exploration offshore would interfere with the Marine and Coastal Area (Takutai Moana) settlement process and rights that had already been affirmed through that process.
- One iwi supported further gas extraction from existing onshore fields so that the benefit of those can be maximised.
- Some viewed the proposal to reverse the amendment to the CMA’s purpose statement (from ‘manage’ back to ‘promote’) as inconsistent with the transition towards a low emissions future.
- As the ban reversal would also reverse the additional protections for some Taranaki conservation land, iwi are concerned this may undermine rights in existing Treaty settlements if mining is once again allowed on those tracts of land or adjacent tracts of land.
- Some iwi considered allowing priority-in-time permit applications in addition to the competitive tender process (Block Offer) would create further issues with already inadequate and variable engagement between iwi and the Crown, and iwi and permit holders. Other iwi noted that engagement on applications through the priority-in-time method may be preferred as they relate to specific development proposals.
- Iwi reiterated their support for retaining robust decommissioning requirements.

What objectives are sought in relation to the policy problem?

The Government wants to ensure a secure and affordable supply of gas as a transition fuel

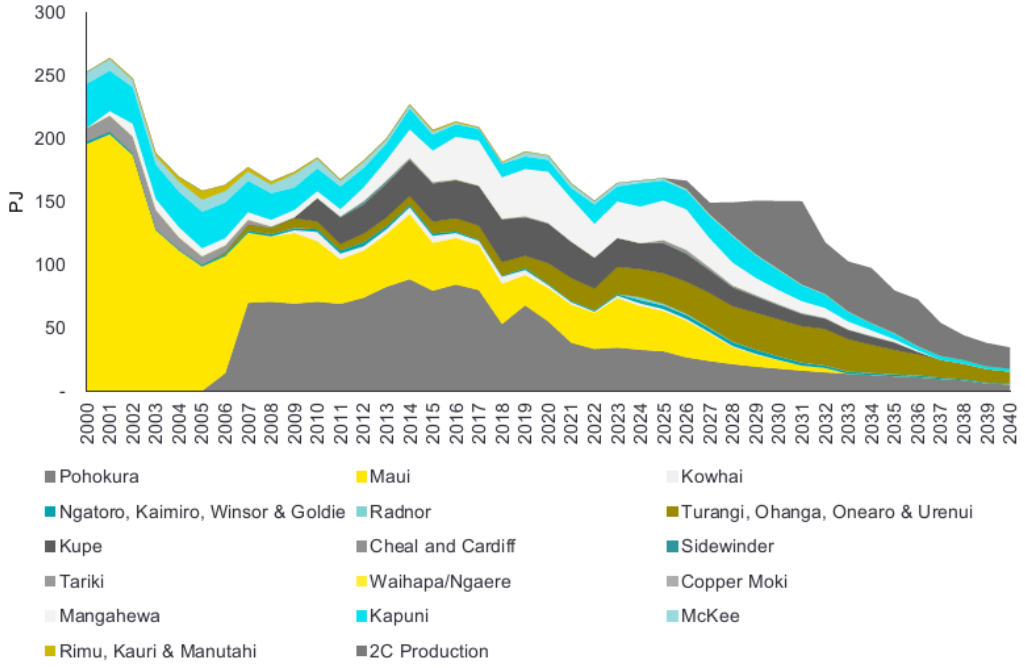
53. To obtain a more secure and affordable supply of gas in the short and long term, we need more investment in existing gas fields and exploration for new petroleum fields. A

key challenge is to attract and retain new private investment in New Zealand's petroleum sector.

54. Achieving this objective requires both removing regulatory barriers, but also measures that will increase investor confidence in the market, so that stakeholders are more likely to commit to the development of existing reserves and, in the longer-term, commit to new exploration and development.

55. A positive investment signal to the sector may promote investment in existing fields. This would help maintain 2P reserves and facilitate 2C reserves being investigated to becoming viable and move to 2P status. It could also extend the overall 2C resources by adding gas that had previously been down-graded due to a lack of an economic pathway to viability.

56. Our domestic gas market is small and closed. The spot price for gas plays only a limited role in the market, which relies on demand from large users (e.g., Methanex) who are willing to underwrite that exploration with forward contracts for gas purchase.



57. Figure 5 from the GIC study[23] below plots forecast supply until 2040. This outlook is based on MBIE production profiles and shows a plateau between 2023 and 2026 and a decline in production from 2026 onwards until new resources can be brought into production. A plateau period appears possible out until the early 2030s if 2C resources are developed but steep decline is evident after this point in the absence of new field exploration and development.

Figure 5: Unconstrained natural gas supply forecast. Source: Gas Supply and Demand Study 2023, GIC

58. It should be noted that the data portrayed in this graph is indicative only as it reflects reasonable expectations of development that have not been confirmed by field operators' future plans. Furthermore, due to the lead time in consenting and

[23] Gas Supply and Demand Study 2023, https://www.gasindustry.co.nz/our-work/work-programmes/gas-supply-and-demand/#gas-supply-and-demand-study-2023

sanctioning new production, there is uncertainty around the amount of 2C resource that can be accelerated to maintain or increase gas production.

59. GIC modelled several different supply and demand outcomes reflecting different demand needs in the electrical and industrial sectors. While the required date differed, all of the scenarios modelled required development of the 2C reserves to meet expected demand, even with a scenario where Methanex exited. Some scenarios needed this development as early as 2025.

60. A significant boost in investor confidence also has the potential to add to the overall reserves through new exploration adding onto existing reserves and leading to greater development of existing of 2P and 2C reserves.

61. New exploration can also address security of supply problems in the long run but, given the high cost and long lead times to establish new exploration, such an impact is unlikely for at least a decade or more. However, new exploration could also have an indirect and positive impact on incumbents, supporting their investment in existing fields to address supply problems in the short run.

The Government wants to signal that New Zealand is 'open for business' and improve investor confidence

62. The 2018 ban introduced a perception of increased sovereign risk to New Zealand's policy and regulatory settings for petroleum development. While legislative and other changes can improve long-term regulatory certainty, this will be difficult to achieve in practice because investors will factor in sovereign risk, or the chance that subsequent Governments may change policies and regulations.

63. Consequently, for New Zealand to improve its risk and cost profile to attract investment, additional measures will be needed. These measures seek to address the costs and other barriers that investors face in order to overcome the risk premium that attaches to potential policy changes, so that the sector can take action to increase the supply of gas.

Section 2: Deciding upon an option to address the policy problem

What criteria will be used to compare options to the status quo?

64. The following five criteria, equally weighted, will be used to compare options to the status quo:

    - **Increasing gas supply** – is this option likely to increase investment in petroleum exploration and production and thereby increase gas supply?
    - **Energy security impacts** – does this option positively impact New Zealand's energy security?
    - **Fiscal impact** - what are the risk effects, both positive and negative, for the Crown?
    - **Economic impact** – what are the impacts, both positive and negative, for the wider economy?
    - **Domestic greenhouse gas emissions** – will this option reduce domestic greenhouse gas emissions in the future?

65. To assess the effect of the options, MBIE commissioned a new scenario from the 2023 GIC gas demand and supply study. This new scenario is based on GIC's 'Industrial focus' scenario but is modified to incorporate a greater level of gas use for peaking generation in the electricity sector.

66. Analysis of other aspects of the economic contribution of the sector is qualitative only, and considers the potential impacts in relation to the contribution of the sector to the economy in recent years.

What scope will options be considered within?

67. Scope is defined by the set of feasible options that can give effect to the Government's policy to:

    - remove the current ban on new petroleum exploration outside onshore Taranaki
    - promote New Zealand's economic development by improving investor confidence in the petroleum sector.

68. Some of these options, such as the repeal, are limited to the changes needed to give effect to the policy through the required legislative changes to the CMA.

69. Many options to remove barriers and promote investor confidence require legislative changes to the CMA. Work is underway on non-regulatory options that could contribute to the policy objective, such as the use of promotional campaigns.

What options are being considered?

70. MBIE has analysed three options in this RIS.

    a. Option 1 - Counterfactual
    b. Option 2 - Repeal the 2018 ban and reverse changes to the CMA's purpose statement
    c. Option 3 - Repeal the 2018 ban and reverse changes to the CMA's purpose statement, along with additional measures to reduce regulatory burden and uncertainty, and signal policy intent.

What options were rejected?

71. Option 3 includes additional measures to reduce regulatory burden and uncertainty in order to improve investor confidence and promote further investment. These measures do not, however, address fully all of the concerns raised by investors. These other, suggested measures include:

    - introducing compensation and arbitration measures to guarantee long-term policy stability and directly address the perceived sovereign risk, and
    - amending decommissioning requirements in a way that shifts some liability and/or risk to the Crown or other third parties, for example, removing trailing liability on former permit holders or removing all post-decommissioning liability.

72. To address all of industry's concerns would significantly weaken regulatory control and expose the Crown to greater financial risk. An option that includes some of these variations was therefore rejected.

Option 1: Counterfactual

73. Under the counterfactual, the 2018 ban would remain in place and new permits for petroleum exploration would continue to be issued over onshore Taranaki only, to the extent there is demand for any. Since the 2018 ban, NZP&M has granted four onshore permits across three competitive tender processes (known as 'Block Offers'). Development offshore could only occur through extending the life of existing fields and developing the limited exploration acreage that is currently under permit (approximately 5,500 km^2 as of January 2024).

74. Investment levels would likely remain on the current trajectory. As indicated later, in the absence of significant development of reserves, this may lead to a shortage of gas for key industries and the electricity sector when expected supply falls below current demand levels, with consequential effects on security of supply and the economy.

Option 2: Repeal the 2018 ban and reverse changes to the CMA's purpose statement

75. Repealing the 2018 ban on new petroleum exploration beyond onshore Taranaki will allow the Crown to receive and assess new applications for petroleum prospecting, exploration, and mining permits across New Zealand, including offshore. Amendments would also end the restrictions on Taranaki conservation land (other than land covered by Schedule 4 of the CMA), introduced at the same time as the 2018 ban.[24]

Changes to the CMA's purpose statement and Minister's functions

76. The purpose of the CMA is currently "to manage prospecting for, exploration for, and mining of Crown-owned minerals for the benefit of New Zealand." The Minister's functions (defined in Section 5 of the CMA) include offering and granting of permits, the preparation of minerals programmes, decisions on decommissioning, working with regulators, and the collection and disclosure of information.

77. The purpose statement was amended in 2023 to replace the word "promote" with "manage". At the same time the Minister's functions were changed from "attract permit applications, including by way of public tender", to "from time to time, offer permits for application by way of public tender".

78. The purpose statement directs decision-making under the CMA. Decisions on both petroleum and minerals permits (e.g., when, and how often, to hold future public

[24] The restrictions prevented new permit holders from accessing Taranaki conservation land for petroleum activities other than minimum impact activities (geological, geochemical, and geophysical surveying, taking samples by hand or handheld methods, and aerial surveying).

tenders for petroleum exploration permits), must be consistent with the scheme and purpose of the CMA. The intention behind the 2023 change was to provide more discretion in how the Crown, as the resource owner, allocated rights to petroleum and minerals in the context of a managed transition away from oil and gas. The word "promote" was therefore changed to "manage", a change that would mean the purpose statement neither required nor inhibited the development of Crown-owned minerals.

79. Option 2 would repeal these changes, reverting to the word "promote" and the Minister's function "to attract" permit applications, consistent with the Government's coalition agreement to clarify the CMA's role as promoting the use of Crown minerals. The change is intended to send a positive signal of the Government's support for the sector and avoid any perception that the Government's intended promotional activities are inconsistent with the purpose of the CMA.

Option 2 may increase investment in gas supply by attracting some new exploration and development, and indirectly reducing costs for existing fields

80. Repealing the 2018 ban will allow the Crown to permit new petroleum developments, some of which could address New Zealand's gas security of supply problem in the mid-to-long-term (7+ years). Changes to the CMA's purpose statement would also signal to investors that New Zealand is open to investment in minerals exploration and development.

81. Repealing the 2018 ban may also indirectly increase investment in existing fields by reducing costs, especially offshore. Periods of high and new investment interest generally lead to more drilling activity, offering more opportunities for existing permit holders to share and, therefore, reduce costs for exploration and development.

82. Whether or not Option 2 is successful in meeting the Government's objectives depends on how attractive New Zealand is to new petroleum investment, relative to other countries. Internationally, New Zealand is considered a high-cost market and the 2018 ban introduced a perception of sovereign risk to our commercial profile. Reversing the ban will not remove the perceived sovereign risk as policy can always change in the future. We, therefore, consider that to attract new investment, the Government needs to address New Zealand's high-cost profile to overcome the perceived risk that will attach to New Zealand from policy uncertainty.

While industry support Option 2, some other stakeholders will strongly oppose it

83. Industry support reversing the 2018 ban and reinstating the promotional intent of the CMA, but they do not consider it by itself a solution that will achieve the Government's objective of increasing investment in New Zealand's petroleum sector and supporting our gas security of supply.

84. Stakeholders who supported the 2018 ban, such as some iwi and environmental NGOs, will likely strongly oppose repeal. Changes to the purpose statement and Minister's functions will be controversial because they will re-introduce a promotional intent. Most iwi and non-governmental environment organisations were supportive of the change from "promote" to "manage" when it was made in 2023.

International relations

International relations

Legal professional privilege

Option 3: Repeal the 2018 ban, reverse changes to the CMA's purpose statement, and implement additional measures to reduce regulatory burden and uncertainty and signal policy intent

89. This option augments Option 2 with the addition of multiple proposals to increase investment in petroleum exploration and production by:

    a. Reducing the regulatory burden and uncertainty of the petroleum decommissioning regime in the CMA; and

    b. Amending existing, and introducing new, provisions that would:

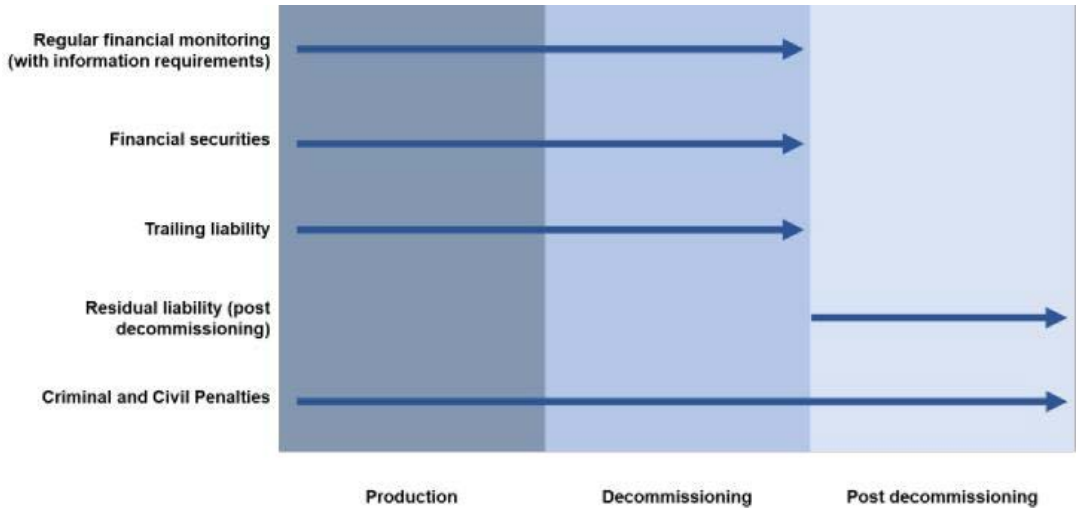
        - improve sector participants' ability to direct capital at investments in field developments, and
        - help signal the Government's policy on increasing petroleum investment for our gas security of supply.

Changes to reduce the regulatory burden and uncertainty of the petroleum decommissioning regime

90. Decommissioning petroleum fields involves plugging and abandoning wells, removing all or part of the infrastructure, and undertaking necessary site restoration activities.

Commercial Information

Commercial Information The Crown Minerals Amendment Act 2021 introduced a risk-based decommissioning regime with the following elements:



91. The purpose of New Zealand's decommissioning regime is to mitigate fiscal risk to the Crown, other third parties and ultimately taxpayers of having to fund decommissioning in the event of a petroleum company's failure to decommission (e.g., in the case of financial default).

92. Industry contends that complying with the current decommissioning requirements increase costs and deters further investment. For example, industry consider that the requirement to make a payment or provide a financial security for any risks that may arise after decommissioning is unworkable as the risks cannot be quantified and costed; and risks tying up capital that could otherwise be invested in production.

93. Option 3 would seek to address this concern while still mitigating fiscal risk to the Crown and other third parties. The core design of New Zealand's petroleum decommissioning requirements would remain unchanged – financial securities would still be mandatory, liability would still trail former permit holders, and permit holders that decommission would still be liable for residual risks in the post-decommissioning phase.

94. Option 3 includes the following decommissioning-related changes:

    a. For financial securities, providing greater flexibility in how financial securities can be arranged and held;
    b. For trailing liability, limiting it to the immediately-prior permit holder; and
    c. For post-decommissioning liability, replacing the requirement to provide a payment or financial security to cover any post-decommissioning costs with perpetual liability for any issues and costs.

95. The decommissioning changes seek to address the uncertainties and potentially inefficient costs of the current requirements in order to free up capital for investment. They are intended to improve the economics of producing contingent gas reserves from our existing fields, which are not currently commercially viable, to address security of supply issues in the short term. Changes in how financial securities are held and to the post-decommissioning requirements are intended to directly achieve this objective; changes to trailing liability would signal the Government's objective of a more balanced approach to risk mitigation, which may flow through to investment decisions.

Providing greater flexibility in how securities are held

96. All permit and licence holders ("permit holders") are required to obtain and maintain one or more financial securities. The amount and kind of the financial security would be

determined by the Minister after considering a range of criteria set out in the CMA.[25] The Crown can call on the security if the permit holder fails to carry out or meet the costs of decommissioning; the security can also be used by the permit holder to fund their decommissioning.

97. The sector considers these financial security provisions to be inflexible. We agree as, in some scenarios, restrictions in the legislative provisions lead to inefficient costs. For example, an entity with interests in multiple fields would have to provide multiple financial securities rather than a single one to cover all its interests.

98. Option 3 includes changes that would increase flexibility in how securities are held:

- For joint ventures, providing flexibility for parties to provide separate securities, should they want to. Current requirements would obligate all parties to enter into financial securities together, which may not be suitable.
- For entities that hold interests in multiple permits, allowing the entity to provide a security that can cover obligations across all permits. This could avoid additional costs from holding multiple securities.
- For permit participants that are related, allowing securities to be held by one participant that covers the obligations across all related permit participants, including across permits.
- To allow for different kinds of financial securities, such as Parent Company Guarantees or bank securities, where the permit holder (who may be a subsidiary) is not a party to the security.

99. These changes will enable the sector to reduce costs by adopting measures that best suit their circumstances without materially increasing the risk profile to the Crown.

Limiting trailing liability

100. Trailing liability provides that, if a permit holder fails to carry out or fund decommissioning, liability for the cost of decommissioning can flow 'up the chain' to former permit holders. Trailing liability is only intended to be used as a last resort after other safeguards, including any financial securities, are unable to be accessed (e.g., Parent Company Guarantees) or are insufficient. The most recent permit holder is the first to be liable, and then the previous permit holder, and so on.

101. Option 3 would limit trailing liability to the permit holder immediately before the transfer, rather than all previous transferees. This would still ensure consistency with the 'polluter pays' principle (i.e., those that benefited the most from the asset would be responsible for any liabilities). It would continue to promote behavioural change in the industry so that permit holders, who have the best knowledge about the value proposition of future reserves, conduct sufficient due diligence before applying to the Minister to transfer their interest.

102. This option may increase the likelihood that, in a case where a financial security fails and enforcement against liable parties is unsuccessful, the Crown will need to assume responsibility as a last resort.

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[25] 89ZM of the CMA sets out the matters that the Minister must have regard to when setting the amount and kind of financial security. This includes: the estimated cost of decommissioning; the extent to which the amount will cover the cost; the extent to which the kind of security will ensure that the Crown will obtain payment in the event the permit holder fails to carry out the decommissioning or meet those costs; the circumstances of the permit holder; the time needed for the permit holder to comply with their obligations, and the time when work will need to start; the estimated administration costs to the permit holder of meeting and maintaining the security for the required period (including the costs of maintaining any possible increase in the amount required to be secured while the security is in place); any information relating to current or emerging risks to the permit holder's ability to comply with their obligations; and the conclusions of the most recent financial capability assessment (if any).

103. Given the multiple uncertainties involved, it has not been possible to reliably assess the potential increase in exposure to the Crown from this change. The uncertainties are:

- the likelihood and scale of a financial security failing or being insufficient in a given case
- the nature of the field involved in a default (small vs large, offshore vs onshore)
- at what point in time decommissioning eventuates (exploration vs production)
- the number of available liable persons against whom enforcement is successful.

Changes to post-decommissioning obligations

104. Post-decommissioning refers to the period after a permit holder has carried out decommissioning. Permit holders are currently required to provide a risk-based payment and/or financial security to cover any post-decommissioning costs, including monitoring and remediation. The details of this are to be set out in regulations.

105. As regulations have not been developed, there is currently no indication for the sector of what the cost of the payment might be, how it will be calculated, how often it needs to be paid, when it needs to be paid, how long any fund will be held in place, and, if it is not called upon, what happens to the proceeds. Accordingly, industry is concerned that, without sufficient parameters in the CMA, post-decommissioning obligations could be burdensome, requiring them to set aside funds for this future liability and diminishing capital available for more immediate investment.

106. Jurisdictions such as the UK and Australia impose perpetual liability on decommissioned wells and infrastructure.[26] For infrastructure left in situ in the Exclusive Economic Zone and Continental Shelf, this is partly in keeping with the International Maritime Organisation's guidelines for legal title to be unambiguous and for clearly established responsibility for maintenance and liability for future damages.[27]

107. Option 3 includes changes to post-decommissioning liability that will more closely align New Zealand's regime with other jurisdictions. These changes will:

- remove the current requirement to provide a payment or financial security for post-decommissioning issues;
- introduce perpetual liability for the permit holder who has decommissioned; and
- require the permit holder who decommissioned to keep the regulator informed about changes to structure and domicile.

Further changes to signal policy intent

Introducing an optional Government Policy Statement into the CMA

108. Option 3 would introduce an optional Government Policy Statement (GPS) mechanism into the CMA. A GPS could signal the Government's policy direction for one or more Crown-owned minerals. If issued, a GPS could signal the Government's medium to long-term vision and priorities for petroleum and minerals exploration in New Zealand; highlight focus areas for the Government, for example, increasing natural gas production for energy security; provide strategic guidance to the regulator on managing

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[26] See Australia: https://www.industry.gov.au/publications/trailing-liability-decommissioning-offshore-petroleum-property-guidelines/trailing-liability
UK: https://www.gov.uk/guidance/oil-and-gas-decommissioning-of-offshore-installations-and-pipelines

[27] See 3.11 of IMO Resolution A.672(16) "Guidelines and standards for the removal of offshore installations and structures on the continental shelf and in the exclusive economic zone," 19 October 1989, https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.672(16).pdf

its functions and operations; and inform the wider sector, the general public, and other entities involved in authorising permit and minerals-related activities.

Allowing faster permit application methods

109. An annual, competitive tender or block offer is currently the only way to allocate petroleum exploration permits (PEPs) under the CMA.

110. Before 2013, New Zealand used both block offers and "Priority in Time" (PIT) - a limited competition allocation method – to award petroleum permits. A non-tender method like PIT offers benefits to smaller operators, who can more rapidly evaluate an opportunity and execute investments. However, a non-tender method does limit competition, which means the government may not necessarily see and choose the best work programme for a particular block.

111. Option 3 would allow the Petroleum Programmes (secondary legislation) to stipulate alternative methods to block offer, set out when they could be used, and how different methods would interact with each other.

Extending exclusive use periods for some speculative prospecting datasets

112. Seismic and other data acquired by specialist speculative prospectors currently has a 15-year confidentiality period under the CMA, after which MBIE can release the data publicly. Speculative prospectors can play an important role in promoting New Zealand internationally.

113. While the 2018 ban preserved the rights of speculative prospectors to exclusively on-sell their offshore data, in practice the ban extinguished demand for their data because New Zealand stopped issuing exploration permits over blocks for which they had collected data.

114. Speculative prospectors undertake a range of activities to promote their data and by extension New Zealand as a place for petroleum investment. There are seven sets of data that were collected before the ban whose 15-year confidentiality period was impacted by the ban. The confidentiality period for these datasets expire progressively between 2028 and 2034.

115. Option 3 would extend the 15-year confidentiality period by 6 years for the 7 datasets that were impacted by the 2018 ban. This is intended to support the activities that speculative prospectors undertake, which helps promote New Zealand's petroleum sector.

International relations, Legal professional privilege

Option 3 is expected to lead to a substantial increase in New Zealand's greenhouse gas emissions

117. MBIE has prepared a separate Climate Impacts of Policy Assessment.

118. Option 3 is expected to lead to a substantial increase in emissions. This increase, projected to be approximately 14.2 Mt CO_2-e cumulative to 2035, stems largely from prolonged gas usage in the electricity, commercial and industrial sectors. This is as compared with a counterfactual "Supply Headwinds" scenario, where current gas supply is challenged and future supply is limited. In that world, industrial production and economic activity reduce due to lack of supply of gas.

119. The 14.2 million tonnes is the estimate for direct gas impacts. It does not model the potential emissions impact for displaced coal-fired electricity generation as a result of gas availability. These emissions savings could be significant. In 2022, electricity

emissions from coal generation were 2.7 $MtCO_2e$, with an average of 3.5 $MtCO_2e$, over the previous 5 years and a peak of 6.4 $MtCO_2e$ in 2012.

120. Neither do the estimates factor in the full range of potential emissions reductions that may result from increased renewable energy generation, stabilised by a secure supply of gas, and increased electrification (for example, process heat electrification, EV uptake).

Industry is unlikely to support some of the decommissioning-related changes

121. Industry is unlikely to support retaining trailing liability in any form as they consider a mandatory financial security, together with Crown approval of permit transfer and change of control, sufficient to mitigate risk. Industry also consider any form of post-decommissioning liability unnecessary as the risks are low to very low.

Industry is likely to support faster permit allocation methods

122. A PIT-type process is likely to be supported by industry as it will have benefits for smaller operators who can more rapidly evaluate an opportunity and execute investments, whereas block offer is more suited to larger operators and certain types of complex development areas, like offshore. Block offers offer more efficiency in a high-interest investment environment, whereas PIT-type methods are more suited to a low-interest environment.

Iwi and hapū have a range of views on Option 3

123. As noted in the 'Stakeholder Impact' section above, MBIE met with select iwi and hapū to provide information on proposed changes and seek feedback.

124. Some iwi have a strong opposition to repealing the 2018 ban, especially offshore, because of concerns regarding the general impacts of climate change and the contribution of oil and gas consumption to climate change. There were also concerns about impacts on conservation land and the settlement process and rights under the the Marine and Coastal Area (Takutai Moana) Act. They also viewed the reversal of the CMA's purpose statement, from "manage" back to "promote", as being inconsistent with the transition towards a low-emissions future.

125. Some iwi expressed concerns about the additional engagement burden from potentially two permit allocation methods – Priority in Time and Block Offer. Others saw some benefits to Priority in Time as engagement could be about specific development proposals.

How do the options compare to the status quo/counterfactual?

126. The GIC observed that gas demand over the coming decades is expected to continue to decline, driven by two main factors:

- the drive to decarbonise the economy (which includes reducing fossil fuel use for electricity generation)
- the assumed closure of large industrial consumers, noting that such closures may be due to increased global competition or upstream supply constraints.

127. However, there is also the potential for gas demand to increase within certain sectors, for example where gas can provide an alternative to coal use (with consequential lower emissions).

The counterfactual

128. The GIC "Supply Headwinds" scenario is used as the counterfactual for the policy as it models a very constrained gas supply where only limited volumes of reserves are developed into production.

129. This counterfactual scenario considers a supply side which experiences considerable difficulty in moving ahead with new development. Demand from industrial, commercial, and residential sectors is assumed to be sharply reduced. Methanex does not reopen its Waitara valley plant but keeps Motunui-1 running until 2035 and Motunui-2 until 2040. Demand from gas-fired electricity generators is phased out early for both baseload and cogeneration, but peaking and dry year reserve still operates until 2050.

130. The counterfactual has much reduced gas demand through a more rapid decline in industrial and electricity use. It also assumes 70 per cent of 2P and 30 per cent of 2C reserves are developed and that a major biogas industry is developed in order to meet gas demand. Both of these assumptions may be overly optimistic as a counterfactual, meaning that, in reality, gas supply might be even more limited than this scenario predicts.

131. Such an outcome would place New Zealand's electricity system and wider economy at risk. New Zealand's gas sector is critical as a source of direct energy for key industries, as a stabiliser for the electricity system, and as an input to petrochemical production.

Electricity sector risks

132. A gas shortage would leave the electricity sector much more reliant on intermittent or variable renewable generation. This could increase price volatility, putting upward pressure on electricity costs to consumers.

133. A sustained or significant shortage could threaten security of supply, risking power cuts. While Methanex in the past has relinquished supply to meet a short-term supply issue, this is not a viable solution for a long-term gas shortage.

Economic risks

134. A gas shortage could also prolong coal usage with a consequential increase in emissions due to coal generation having higher emissions than gas. The same effect could arise from higher electricity prices as a consequence of a gas shortage deferring electrification.

135. Industries and jobs dependent on gas may be undermined by gas being less accessible or less cost-effective. Businesses not able to easily switch to another energy source might have to scale back or cease operation in New Zealand, impacting jobs and those regional economies supported by these businesses.

136. For example, loss of a secure gas supply could lead to the closure of Methanex. According to Methanex, its activities contribute over $800 million to the economy, supporting over 3,000 jobs directly and indirectly.[28] Closure or curtailment of other gas reliant industries might not be as large but could still be significant, such that a major loss of gas supply could result in a significant cost to the economy.

Option 2 – Repeal the 2018 ban and reverse the CMA's purpose statement change

137. Analysis by a number of parties such as the Electricity Authority and the GIC, independent consultants such as Boston Consulting Group, and the Climate Change Commission all indicate a consistent view in the need for gas past 2030, while at the same time gas usage overall is predicted to decline.

138. Option 2 repeals the ban on offshore exploration and development. This may in itself lead to exploration and investment in new fields, but the extent is unknown.

[28] Methanex submission to MBIE on the Gas Transition Plan issues paper, 2023.

Additionally, we are unsure if it will lead to increased investment in existing fields as it does not address the issues and concerns of current permit holders.

139. This option has not been separately modelled. However, the assumption for Option 2 is that the repeal of the offshore ban by itself provides limited incentive to industry. As a result, the limited levels of development of 2C reserves indicated in the "Supply Headwinds" scenario might occur, including the development of a significant biogas industry. The outcome of this option is shown in Table 1 below.

Table 1: Summary of gas supply by source – Supply Headwinds scenario (PJ)

	2023	2025	2030	2035
2P supply	151.4	131.7	62.0	29.5
2C supply	-	-	45.2	25.4
Biogas	-	0.9	12.4	25.7
Hydrogen	-	-	-	0.4
Prospective/LNG supply	-	-	-	3.3
Total	151.4	132.6	120.0	84.2

Source: GIC Gas Supply and Demand Study December 2023

Option 3 – Repeal the 2018 ban along with additional measures to reduce regulatory burden and uncertainty, and signal policy intent

140. Option 3 augments Option 2 with additional measures aimed at addressing investor confidence and regulatory barriers to improve petroleum (oil and gas) exploration and development in New Zealand.

141. Some measures are targeted (decommissioning changes) at removing unnecessary compliance costs, and some are broader (optional policy statement and different allocation methods) and aimed at signalling policy intent.

142. None of the GIC scenarios provide a perfect match to the expected outcome of Option 3. Therefore, in order to model a scenario more aligned with the expected outcome of Option 3, a new scenario was created for the GIC model.

143. This new scenario, called "Industry and Electricity Focus", assumes industrial and petrochemical use will continue past 2040, as will gas use in the electricity sector, but mainly for gas peaking and dry year support.

144. A key assumption in this modelling is what portion of 2C reserves will be developed. For reference, the different GIC modelling scenarios postulated between 20 per cent and 50 per cent, depending on the scenario, with the "Supply Headwinds" scenario that was adopted as the counterfactual at 40 per cent.

145. The additional measures in Option 3 are expected to increase investment but it is unlikely that all of the existing reserves will be developed. A figure of 60 per cent of 2C reserves was chosen as a reasonable increase on the GIC's most optimistic figure of 50 per cent, resulting from these measures.

146. A summary of other gas demand and supply from this new scenario is shown in the tables below.

147. Other assumptions in this scenario are as follows:

- Option 3 will deliver additional gas to the market through development of existing reserves and new exploration and development. The amount of additional gas development that could occur as a result of Option 3 is difficult to reliably estimate.
- Gas exploration and development is, however, strongly linked to demand. By postulating a higher level of demand, particularly in major industries, it is

assumed that in Option 3 supply will rise to meet demand. This means an increase in the likelihood that existing 2P and 2C reserves are developed and new exploration happens.

148. While the extent to which these changes will drive investor preference for new development or exploration is difficult to assess, if they are even partly successful, that may in turn increase or stabilise demand. If it eventuates, this would in turn help to improve investor confidence and propensity to invest, in a feedback loop, as higher gas demand spurs additional gas development.

149. Predictions from the new scenario are in Table 2 below, showing higher development of 2C reserves after 2030 and new exploration development starting in 2035 (allowing time for field exploration and development). Note that the model uses the terms "prospective" and "LNG supply" interchangeably. For the purpose of this analysis, this is assumed to all be new exploration development, rather than LNG import.

Table 2: Summary of gas supply by source – Industry & Electricity focus scenario (PJ)

	2023	2025	2030	2035
2P supply	151.4	155.0	88.6	42.2
2C supply	-	-	48.4	45.6
Biogas	-	0.2	1.3	6.4
Hydrogen	-	-	-	-
Prospective/LNG supply	-	-	-	39.2
Total	151.4	155.2	138.4	133.4

Source: 2024 new scenario for GIC Gas Supply and Demand Study December 2023

150. The new modelled "Industry and Electricity Focus" scenario assumes that 60 per cent of 2C reserves will be developed into 2P reserves and later into full production. This provides greater gas availability for petrochemical and industrial commercial use that can support electricity demand until 2035, but new exploration development is required after that date. The modelled demand by sector is shown in Table 3 below.

Table 3: Summary of gas demand by component – Industry & Electricity focus scenario (PJ)

	2023	2025	2030	2035
Cogeneration	12.3	9.5	7.6	7.6
Electricity (excl. cogen)	31.4	32.1	24.4	20.6
Petrochemical	72.4	72.4	71.2	71.2
Residential	6.3	6.5	6.4	6.2
Commercial	6.9	7.1	7.0	6.8
Industrial	23.0	22.7	21.8	21.0
Total	**152.3**	**150.3**	**138.4**	**133.4**

Source: 2024 new scenario for GIC Gas Supply and Demand Study December 2023

151. The modified scenario assumes gas demand will remain high for peaking or firming use in the electricity sector to support renewables and for dry year support when Huntly Coal retires. However, it assumes a lower level of gas usage in other aspects of the electricity sector.

What option is likely to best address the problem, meet the policy objectives, and deliver the highest net benefits?

152. Each option is given a rating against the key criteria in the table below.

Table 4: Options rating

Criteria	Option 1: Counterfactual	Option 2: Repeal 2018 ban and 2023 purpose statement changes	Option 3: Repeal and additional measures
Increasing gas supply	Will not increase investment in gas development and exploration to increase gas supply. 0	Allowing permits for new exploration may result in an increase (magnitude uncertain) in gas development and exploration to increase gas supply. +	Allowing permits for new exploration along with additional measures to address investor confidence and regulatory burden is more likely to result in a material increase investment in gas development and exploration to increase gas supply. ++
Energy security impacts	Will not increase gas supply so energy security will worsen. 0	A slight increase in gas supply may marginally improve energy security (but not for a prolonged period), but only if new exploration and development occurs. +	A larger and more prolonged improvement in gas supply will materially improve energy security. ++
Fiscal impacts	Potential and gradual decrease in royalties and taxes from petroleum mining activities. 0	Some increase in royalties and taxes from petroleum mining activities. +	The Crown fiscal risk (likelihood) from changes to trailing liability and post-decommissioning requirements are difficult to assess. But the impact is likely to be medium to high, depending on the field or nature of the post-decommissioning issue. Crown revenues through royalties and taxes from petroleum mining activities may increase. +
Economic impacts	Significant economic impact likely from future gas shortages, potentially leading to early closure of major gas reliant industries and consequential economic loss. 0	Economic outlook will improve to the extent that new exploration and development occurs. But if insufficient gas is developed then risk of early closure of major gas reliant industries and consequential economic loss remains. +	Greater improvement in economic outlook likely with more new exploration and development. +
Emissions	Emissions in New Zealand will decline over time due to lower gas use and deindustrialisation. 0	Increase in emissions likely to the extent that new exploration and development extends gas supply. -	Increase in emissions likely as extended gas supply prolongs industrial gas use. - -
Overall	0	+3	+4

Key:
++ much better than doing nothing/the status quo/counterfactual
+ better than doing nothing/the status quo/counterfactual
0 about the same as doing nothing/the status quo/counterfactual
- worse than doing nothing/the status quo/counterfactual
-- much worse than doing nothing/the status quo/counterfactual

What option is likely to best address the problem, meet the policy objectives, and deliver the highest net benefits?

Neither Option 1 (Status quo) nor Option 2 would address all aspects of the problem or meet the policy objectives

153. Option 1 does not address the policy objective to attract new exploration and development and secure New Zealand's gas supply in the short and long term. The status quo limits areas that can be explored. Therefore, any additional gas supply would need to come from existing gas fields, which are in decline. This will not meet the objective to ensure we have a secure and affordable supply of gas as we move to a lower-emissions economy and reduce New Zealand's reliance on coal, nor will it provide sufficient gas for key industries or for the electricity sector. Lack of gas for these sectors over the coming decade would have significant economic consequences.

154. Such consequences would potentially include the closure of a major industrial plant such as Methanex. According to Methanex, its activities currently contribute over $800 million to the economy, supporting over 3,000 jobs directly and indirectly.[29] Closure or curtailment of other gas reliant industries might not be as large but could still be significant such that a major loss of gas supply could result in a significant cost to the economy.

155. Option 2 (Repeal of the 2018 ban and 2023 changes to the purpose statement) has the potential to improve economic activity and security of supply, but the effect is likely to be limited. Removing the ban will allow new permits to be issued for exploration and development. Changing the purpose statement to a promotional intent is expected to send a positive signal to new investors. However, new developments, if successful, would take at least seven years to come online, if not longer. New exploration could have indirect and positive effects on investment activity in existing fields. However, by themselves, these changes may not produce the intended effect of encouraging incumbent market participants to invest more to maximise production from existing fields. There is, therefore, a risk that in the short-to-medium term, gas supply remains constrained.

156. Furthermore, if the repeal by itself does not result in sufficient additional gas supply, then the risk of gas shortages in the electricity sector, and more industrial use threatening economic activity, remains. Consequently, Option 2 has only minimal benefit relative to the counterfactual and is not recommended.

Option 3 is likely to best address all aspects of the problem in the short and long terms, and meet policy objectives

157. Option 3 augments the repeal with a range of measures to address and improve investor confidence and reduce regulatory burdens and costs. However, it does this in a way that maintains the core petroleum decommissioning regime that would continue to mitigate fiscal risk to the Crown. Option 3 would provide a signal that New Zealand wishes to attract international petroleum investment as part of a wider Government push that the country is open for business. By directly addressing industry concerns about the regulatory burdens of the decommissioning requirements, it is expected to have a greater likelihood of increasing exploration and development, which will, in turn, improve security of supply and boost overall economic development.

158. It is feasible that a change to the trailing liability provisions could result in future costs to the Crown if, at the time of decommissioning, a financial security fails or does not meet the full costs of decommissioning, and the trailing liability regime is unable to secure financial compensation from the persons captured by the requirements. This risk exists currently but the existing requirements make a broader pool of people

[29] Methanex submission to MBIE on the Gas Transition Plan issues paper, 2023.

potentially liable in this scenario. As noted in paragraph 90, decommissioning costs vary by mining field, Commercial Information The likelihood of a scenario in which the Crown is responsible for decommissioning cannot be reliably assessed.

159. It is also feasible that the changes to post-decommissioning liability may have a fiscal impact on the Crown if the permit holder who is liable for costs does not exist at the point when those costs arise. We are unable to assess the likelihood of such a scenario. Any post-decommissioning costs are also uncertain and will vary depending on the nature of the issue, such as the severity of a well leak or the scale of infrastructure degradation.

160. Option 3, if successful, will help to deliver additional gas that is needed for economic activity and to support security of supply until a transition to a more renewable future can occur. Failure to deliver this additional gas (Option 1 and Option 2) risk significant economic consequences from gas shortages in the electricity sector and the risk of industrial plant closure. It may also result in a marginal increase in Crown royalties to the extent that new exploration and development occurs.

161. Options 2 and 3 are likely to deliver higher emissions than the counterfactual, largely because in the counterfactual there is a significant decline in gas utilising industry.

There is a residual risk that Option 3 does not increase investment as much as intended

162. None of the options directly address New Zealand's perceived sovereign risk that results from the 2018 ban. According to the industry, New Zealand's policies in relation to petroleum exploration are now considered uncertain. Despite Option 3, this perceived sovereign risk may permanently attach to New Zealand's commercial risk profile and deter some investment that would have proceeded otherwise.

In the absence of viable and lower-cost alternatives, Option 3 may prolong our reliance on gas with implications for the energy transition

163. Gas-fuelled open cycle gas turbines (OCGT) are currently the main technology to manage peak electricity load and short-term, multi-day shortfalls in supply. The supply shortfalls are only expected to grow as the amount of intermittent generation from solar and wind increases.

164. Option 3 may delay investment in lower-cost and lower-emissions alternatives. This may see New Zealand more reliant on gas, prolonging our transition to a lower-emissions economy.

What are the marginal costs and benefits of the option?

165. No dollar values are available for estimated costs and benefits for Option 3.

166. Option 3 is expected to reduce compliance costs for regulated groups (permit holders).

167. The Crown may benefit from an increase in royalties but the extent of this is unknown and will largely depend on new field development at least seven to ten years hence.

168. The major benefit of the option is intended to be increased gas for industry and for security of supply during the transition to a lower carbon economy. This benefit will also have a flow on beneficial economic effect, but the extent of this benefit has not been estimated.

169. While benefits of additional gas may be hard to quantify, the potential consequences of shortages are identifiable - industries potentially closing, electricity price rises due to volatility and, in extremes, power shortages. Should this occur, the economic cost would be high.

170. There is a potential risk from the changes to decommissioning requirements of the Crown being exposed to higher costs in the event of a permit holder failing to

decommission or in the event there are any post-decommissioning issues to address. However, while this may be potentially high cost, we consider it to be a low probability event with controls and mitigations. This includes regular financial capability assessments and the mandatory requirement to hold a financial security for decommissioning of a kind and amount determined by the Minister, and, in the post-decommissioning phase, perpetual liability.

Table 5: Impact analysis of preferred option on costs and benefits to affected parties.

Affected groups *(identify)*	**Comment** *nature of cost or benefit (e.g., ongoing, one-off), evidence and assumption (e.g., compliance rates), risks.*	**Impact** *$m present value where appropriate, for monetised impacts; high, medium or low for non-monetised impacts.*	**Evidence Certainty** *High, medium, or low, and explain reasoning in comment column.*
Additional costs of the preferred option compared to taking no action			
Regulated groups (Minerals and Petroleum permit and licence holders)	Permit holders will face reduced ongoing costs of complying with decommissioning and post-decommissioning requirements.	High to Low	Medium
Regulators (New Zealand Petroleum and Minerals)	The regulator will incur low, one-off costs in updating its policies and systems. Increased permitting activity (i.e., more applications), which would require more resources/costs, but these are cost recovered through fees.	Low	High
Crown	The Crown may be exposed to decommissioning costs if financial securities fail and the limited pool of liable parties are unable to meet their obligations.	Current estimated decommissioning costs for mining fields range from Commercial Information [redacted] excluding any potential escalations in costs if the Crown is responsible. Likelihood is unknown.	Medium to Low
	The Crown may also be exposed to post-decommissioning costs in the long run if permit	Potentially Medium to High impact, but likelihood is Low	

	holders cease to exist and no one can be held liable.		
Others (e.g., wider government, consumers, environmental groups, etc)	Increased exploration activity may raise environmental impacts or concerns.	Unknown	Unknown
Total monetised costs	Without accurate quantifiable evidence, it is not possible to provide an estimate.	Unknown	Unknown
Non-monetised costs	Any additional costs on the regulator can be cost recovered.	Low	Medium

Additional benefits of the preferred option compared to taking no action			
Regulated groups (Minerals and Petroleum permit and licence holders)	Regulated groups will benefit from lower compliance costs and greater certainty for investments.	High	Low
Regulators (New Zealand Petroleum and Minerals)	Changes to post-decommissioning requirements should reduce administrative need to quantify risk and costs, and manage a post-decommissioning fund.	Low	Medium
Crown	Government may benefit from an increase on royalties and taxes from gas users.	Low	Low
Others (e.g., wider government, consumers, etc)	Gas users will benefit from greater certainty of gas supply. Communities where exploration occurs may receive flow on economic benefits.	High	Low
Total monetised benefits	Without accurate quantifiable evidence, it is not possible to provide an estimate.	Unknown	Unknown

Non-monetised benefits	Improved gas supply which will have significant economic benefits.	High	Low

Section 3: Delivering an option

How will the new arrangements be implemented?

Primary and secondary legislative amendments will be required to enable implementation

171. Changes to the CMA will be required to implement the preferred option. Parliamentary Counsel Office will advise in more detail on changes to be made once Cabinet has agreed to the proposed change and drafting has begun.

172. The changes proposed to the CMA within scope of this Regulatory Impact Statement are intended to take effect immediately, with no transitional arrangements. The changes are not intended to negatively impact permit and licence holder's existing rights.

173. There will need to be new secondary regulations, particularly relating to the decommissioning requirements and information that permit holders need to supply, to support the overall purpose of the preferred option.

174. Changes to both the Minerals Programme for Petroleum and the Minerals Programme for Minerals (excluding Petroleum) will need to be made. The Programmes are considered secondary legislation that interpret the CMA.

175. Consultation with other agencies will occur throughout the drafting process. The changes proposed will not amend any other agencies regulatory roles, however, there may be an increase in workload, for example, for the Department of Conservation, if the proposed changes lead to an increase in permit applications and therefore applications for access arrangements over conservation land.

MBIE will continue engagement with iwi and hapū, stakeholders, and interested groups

176. There is already high awareness among stakeholders of the policy change discussed in this document, however, there has been limited consultation or information shared about the specific proposed legislative changes with some stakeholders. Therefore, implementation of the preferred option will involve a significant amount of communication and engagement campaigns with stakeholders, interested groups, and iwi and hapū.

MBIE is preparing for implementation

177. MBIE is the government department responsible for administering the CMA and this regulatory role will not be affected by the proposed change. The Minister for Resources is responsible for making decisions about the allocation of permits under the CMA and these decision-making powers have generally been delegated to MBIE.

178. MBIE will, therefore, need to resource the implementation of the changes, and changes that may result from the preferred option, for example, an increase in applications for petroleum exploration permits. However, MBIE considers these can be managed within baselines.

How will the new arrangements be monitored, evaluated, and reviewed?

179. The preferred option involves changes to the existing regulatory system. MBIE will continue its existing regulatory, monitoring, and advisory role of energy markets to gauge any areas of concern. In addition, the GIC will continue to monitor gas supply.

180. One of the expected outcomes of the legislative change is that a greater volume of 2C gas reserves from existing fields will be investigated and developed into 2P reserves, and then brought into full production. We may see this reflected in reserves data as early as next year (2025), but actual production is likely to be several years (2-3 or

longer) away as it depends on a range of factors such as whether development is offshore or onshore, and consenting timeframes.

181. Given the lengthy timeframes involved from the grant of a petroleum exploration permit to the point where the first well is drilled (up to seven years), and then from drilling to production (potentially a further decade depending on the basin), the full impact of this legislative change in terms of future gas production may not be felt for many more years. This complicates the monitoring and evaluation of this legislative change against its purpose. However, whether or not the legislative changes have increased investment interest and, therefore, investment in petroleum exploration, will likely be seen through the first round of competitive tender for petroleum exploration permits held after the changes are enacted.

182. As stewards of the Crown Mineral estate, MBIE monitors investment in the upstream petroleum sector through nominations for future block offer areas, the number of bids received in block offer rounds, exploration expenditure, the quantity of seismic lines shot, and the number of exploration wells drilled. The last three elements are regularly published each year in the *Energy in New Zealand* publication.

183. MBIE also has an ongoing role in monitoring energy markets and advising on matters such as energy security and energy affordability. Gas production and demand data is collected through the International Energy Agreement 1976 and the Gas (Statistics) Regulations 1997. Detailed daily production profiles by field and reserve and resource data is collected through the CMA. Gas production, demand and prices are published each quarter, reserve and resource information is published each year, while daily production profiles are not currently published at all. Short-term gas prices can be monitored on EMSTradepoint (http://www.emstradepoint.co.nz/).