Energy Resources Aotearoa
POWERING A BETTER NEW ZEALAND TOGETHER

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Economic Development, Science and Innovation Select Committee

via e-mail: EconomicDevelopment.Science.Innovation@parliament.govt.nz

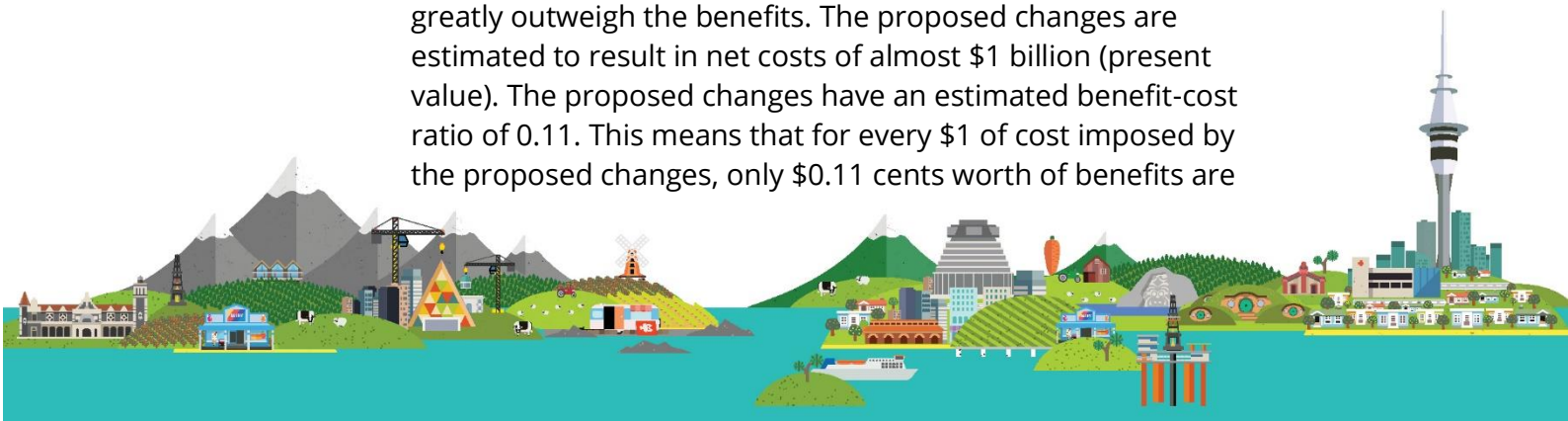
Submission on the Crown Minerals (Decommissioning and Other Matters) Amendment Bill

Executive summary

i. We support the bill's general intent to reduce the risk of decommissioning failure and support the bill where it codifies an obligation to decommission. We also broadly support the Minister obtaining powers to assess financial capability.

ii. However, the bill goes far beyond what is necessary or, in some instances, workable, to achieve the desired objectives. We commissioned independent reports from a range of leading advisors to guide our assessment of the proposed regime. Informed by those reports, we consider that if the bill is passed as drafted the Crown Minerals Act regime would be:

- **a global outlier, being duplicative and unnecessarily strict:**
  - natural resources consultancy Wood Mackenzie finds that the New Zealand proposals are far stricter than comparable jurisdictions and unnecessarily duplicate regulations;
- **excessively costly to the New Zealand economy and permit holders:**
  - economics consultancy Castalia finds the proposal's costs to greatly outweigh the benefits. The proposed changes are estimated to result in net costs of almost $1 billion (present value). The proposed changes have an estimated benefit-cost ratio of 0.11. This means that for every $1 of cost imposed by the proposed changes, only $0.11 cents worth of benefits are

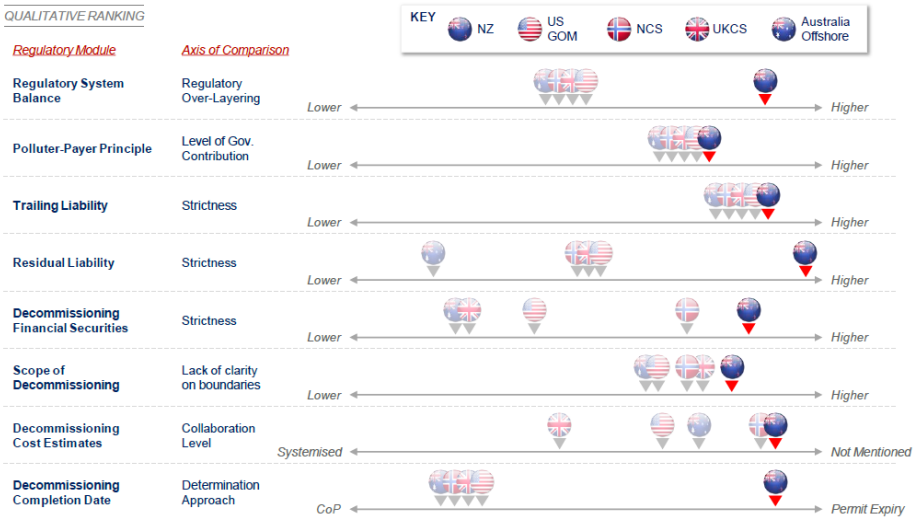


generated (delivering a net cost to society and the economy); and

- **bad and unconstitutional law:**
  - Professor Philip Joseph finds the bill to be retrospective and constitutionally objectionable, thereby giving rise to significant sovereign risk which will generally compromise investment in New Zealand;
  - Justin Smith QC expresses serious concern about trailing liability in the New Zealand context.

iii. Wood Mackenzie finds that the individual proposals and the regulatory over-layering puts New Zealand at the highest end of regulatory strictness out of all comparable jurisdictions, as per Figure 1 below.

Figure 1: Wood Mackenzie's qualitative ranking of proposals



iv. Wood Mackenzie advises:

> "New Zealand is the only country in our analysis that applies joint & several liability, trailing liability and makes compulsory the use of financial securities to protect taxpayers against decommissioning costs. Other jurisdictions analysed (UKCS, NCS, US GOM, Australia Offshore) seek to balance the overall regulatory system between level of taxpayers' protection and regulatory burden on the economy.
>
> New Zealand on the other hand seems to seek the highest level of taxpayers' protection theoretically possible by implementing each protection mechanism to their full extent and then layering them together in the regulations. We believe that this layering of mechanisms overwhelmingly focused on taxpayers' protection creates very strict regulations and could pose material risks to New Zealand's economy.

> Moreover, international benchmarks suggest that such a strict regulatory system is not necessary to obtain a satisfactory level of taxpayers' protection. In the case of New Zealand, it is our view that the additional burden would outweigh the practical benefits of the increased protection." [emphases added][1]

v. Together, the regulatory response is disproportionate to the risk being managed, imposes unnecessary regulatory burden, and poses real risk to energy security and societal and economic well-being.

vi. We consider that the issues in the bill are so severe that a fresh policy design process is warranted. We are ready and willing to assist the Government to develop a more suitable regime and to address the serious problems we identify. Ideally, time would be taken to work out a more suitable regime in genuine partnership with industry to devise a regime that works in everyone's interests. The intended timeframe, of having the bill enacted into law before the end of the year is far too rushed a process and more time is needed. We are not aware of any fields due to decommissioned within this timeframe or the near-term thereafter.

vii. However, if the select committee is minded to continue with the current bill, a number of refinements would avoid the most unnecessary costs for New Zealand while still achieving the goal of reducing decommissioning failure in a manner proportionate to the risk.

viii. Our suggested changes would focus on:

a. making decommissioning a statutory obligation and codifying the joint and several liability regime (as proposed);

b. strengthening the ability for the Crown to assess financial capability (as proposed);

c. allowing the Crown to impose financial security but making this *optional* with criteria, and not mandatory;

d. entirely removing the trailing liability;

e. entirely removing the post-decommissioning fund;

f. changing the decommissioning deadline to align it with cessation of production and not an arbitrary permit end; and

g. removing the absolute obligation to remove infrastructure, instead leaving that to specialist environmental agencies for case-by-case assessment.

1 Wood Mackenzie report entitled '*New Zealand Upstream Decommissioning Study*', page 7.

Contents

Introduction

1. Energy Resources Aotearoa represents energy-intensive firms in the energy resources sector, from explorers and producers to distributors and users of resources like oil, LPG, natural gas and hydrogen.
2. This document constitutes our submission on the Crown Minerals (Decommissioning and Other Matters) Amendment Bill. It follows our engagement on the 2019 *Review of the Crown Minerals Act 1991* in January 2020.[2]
3. Some of our members such as New Zealand Oil and Gas, OMV and Todd Energy have submitted on the bill. They provide their own perspectives and cover some detailed aspects that we have not necessarily focussed on due to the sheer magnitude of the proposals and a correspondingly inadequate consultation period. As a result, it is important to note that our silence on certain matters does not necessarily imply support or acceptance.
4. We recommend the reader carefully considers their submissions alongside ours to understand the sector's full perspective on the proposals.[3]
5. Our submission focusses on the sector's key concerns, and sets out our preferred way forward.

Submission

Energy Resources Aotearoa and its members are keen to support the government in developing a better regime for the Crown and New Zealand public

6. We support the overall intent of the bill to improve the decommissioning regime, but have serious concerns about:
    a. the unnecessary strictness of individual policies;
    b. the over layering between them; and
    c. how they then sit together on top of the existing regime.
7. Refinements to the scope and approach would improve the regime, by still achieving the goal of reducing decommissioning failure while being proportionate to the risk faced and avoiding unnecessary costs for New Zealand.

2 That submission can be found at: https://www.energyresources.org.nz/dmsdocument/128.

3 In particular, we draw attention to OMV's comments on the 'highly likely to comply' test and field development plans.

8. We are ready and willing to assist the Government to develop a more suitable regime and to address the serious problems we identify. Ideally, time would be taken to work out a more suitable regime in genuine partnership with industry to devise a regime that works in everyone's interests. The intended timeframe, of having the bill enacted into law before the end of the year is far too rushed a process and more time is needed.

9. Given the magnitude of the proposals, and the significant issues and concerns raised by ourselves and our independent advisors, we think a fundamental rethink is required. This would ideally happen by not progressing the bill further and to have government and industry work together to design a coherent regime that addresses government concerns while minimising wider economic costs as well as impacts on a sector with an important role to play through the energy transition.

10. However, if the select committee is not willing to recommend a fresh process, aspects of the bill can be salvaged. A more refined and considered approach can deliver outcomes that address the government's concern while reducing risks to the economy and energy supply.

11. A refined bill would focus on:

    a. making decommissioning a statutory obligation and codifying the joint and several liability regime (as proposed);

    b. strengthening the ability for the Crown to assess financial capability (as proposed);

    c. allowing the Crown to impose financial security but making this *optional* and not mandatory;

    d. entirely removing the trailing liability;

    e. entirely removing the post-decommissioning fund;

    f. changing the decommissioning deadline to align it with cessation of production and not an arbitrary permit end; and

    g. removing the absolute obligation to remove infrastructure, instead leaving that to specialist environmental agencies for case-by-case assessment.

Our sector is critical for medium-term energy security, contributes skilled jobs for the energy transition, boosts GDP and Crown royalties

12. Energy Resources Aotearoa's members contribute significantly towards energy security, creating essential jobs for the energy transition, and significant GDP. In doing so, it strengthens local communities. We outline

how this contribution can be compromised if the bill is passed as drafted, and regulations developed to implement it as it currently stands.

Natural gas is critical for New Zealand's current and medium-term energy security

13. Around 21% of New Zealand's total energy is provided by natural gas. Natural gas is crucial to the energy system as it provides backup cover for renewable generation at times when demand exceeds supply, or when hydro lakes are low or the wind doesn't blow. Gas-fired power stations help ensure New Zealand's electricity supply is affordable, reliable and reduces the possibility of blackouts. We note the importance of fossil fuels in minimising the impact of the blackout on 9 August this year. Indeed, some commentators were quick to blame natural gas power plants for not getting online fast enough which simply shows the importance of having alternatives available when the wind isn't blowing and when the hydro lakes are low.

14. Natural gas is also an essential feedstock for many industrial activities, such as methanol production and urea fertiliser for agriculture. These are industries that wouldn't exist without a ready supply of natural gas. It also supports a range of economic activities that require heat, such as furnaces, milk drying, timber processing and steel production. For many of these uses there are no viable, practical or affordable alternative energy sources currently available.

15. Given existing and signalled policy settings (such as phasing out fossil fuels) and petroleum field decline, New Zealand faces the prospect of a large and growing energy gap. Although we support greater use of renewables, they are either not commercial without subsidies or not available at sufficient scale, meaning that natural gas provides a valuable option.

16. Investment is required to keep natural gas flowing, but this needs the right policy and commercial settings. We note that the Gas Industry Company, the co-regulatory body established under the Gas Act 1992, recently remarked on the importance of predictability, saying:

> "Many stakeholders we heard from in every part of the industry supply chain perceived that a lack of policy certainty and predictability had undermined investor confidence." [4]

Natural gas is essential for energy security and to enable the transition

17. Hydrocarbons (oil and gas) provide about half of New Zealand's total energy needs and are predicted to still account for more than half of all global energy consumption in 2040.

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4 Gas Industry Company consultation paper entitled 'Gas Market Settings Investigation', page 37 which can be found at https://www.gasindustry.co.nz/work-programmes/gas-market-settings-investigation/developing-2/consultation-3/document/7263.

18. In the New Zealand context, the Climate Change Commission recognises an important ongoing role for natural gas out to 2050, with 25 petajoules ("PJ") of gas forecast to still be used for electricity firming and hard-to-abate process heat.

19. The recently released TIMES 2060 model shows natural gas also being used in both of its scenarios – approximately 45PJ and 65PJ (excluding use for feedstock) in 2050 in each scenario.

The sector provides well-paid jobs in regional New Zealand

20. The oil and gas industry generates around 11,000 jobs nationally at peak times, many of which are highly skilled and specialised. Most of these jobs are in regional New Zealand. Local workers earn twice the national average salary and have labour productivity of seven times the national average.

The sector's skills are important through the transition to a low emissions future

21. It is important that existing skills in the energy resources sector are not prematurely ended through the effects of regulations before new jobs are available in alternate firms and sectors. If a 'gap' emerges, this is negative not only for workers out of and between employment but also for firms in low emissions sectors.

22. The skills in the petroleum sector will have a critical role in supporting other industries such as geothermal, hydrogen or biogas. The skills can also support increased importation of refined petroleum products, which is important with the Marsden Point refinery set to close. A vibrant ecosystem of service providers is vital both to the current sector but also to the transfer of skills and capabilities to adjacent sectors. If such firms in renewable/low emission sectors cannot access skills then they will struggle to deliver on the Government's aspirations.

Oil and natural gas underpins significant GDP and royalties

23. The petroleum sector makes significant contributions to the economy and Crown accounts:

    a. on average, around $2.5 billion annually to New Zealand's GDP which is approximately one percent of total GDP;

    b. as a primary input underpins other parts of the economy;

    c. oil exports are on average worth approximately $750 million per year; and

    d. typically, 42.4 percent of all profit from a producing field is returned to the New Zealand Government in the form of royalties and corporate tax. As a result, the Government earns on average approximately $650 million in royalties and income tax from the sector every year.

Independent analysis and expert opinions support our analysis and submission

We commissioned a range of independent third-party work to inform our analysis.

24. In seeking to understand and analyse the potential implications of the bill's proposals, we commissioned a range of independent professional reports, each of which is appended. We make specific reference to excerpts and findings when responding to specific proposals, and briefly introduce each report below:

    a. a comparative jurisdictional analysis from leading international natural resources consultancy Wood Mackenzie (attached in **Appendix One**):[5]

        i. Wood Mackenzie analysed the bill and discussion document for regulations and have identified how the proposed legislation could be improved, drawing particularly on lessons from comparable overseas regimes; and

        ii. Wood Mackenzie finds that the New Zealand proposals are far stricter than comparable jurisdictions and unnecessarily duplicate regulations;

    b. regulatory economic impact analysis from Castalia applying the Treasury's best-practice guidelines (attached in **Appendix Two**):[6]

        i. Castalia are global experts in the economics, finance, law, and policy related to infrastructure and natural resources. Castalia has prepared an independent economic impact analysis of the regulatory proposals applying the Cabinet guidelines and Treasury *Guide to Social Cost Benefit Analysis.* The need for an independent cost benefit analysis was also especially high given the Ministry of Business, Innovation and Employment ("MBIE") had not commissioned one;

        ii. the report finds that the costs greatly outweigh any benefits. The proposed changes are estimated to result in net costs of almost $1 billion (present value). The proposed changes have an estimated benefit-cost ratio of 0.11. This means that for every $1 of cost imposed by the proposed changes, $0.11 worth of benefits are generated; and

        iii. Castalia recommends "policy makers should be mindful of this impact and seek to minimise the amount of decommissioning

5 For details about Wood Mackenzie, see https://www.woodmac.com/.

6 For details about Castalia, see https://castalia-advisors.com/about/.

that is brought forward, in order to reduce the costs of the proposed regime ;"[7]

c. independent legal opinion from leading public law scholar Professor Philip Joseph on the constitutional implications of the bill (attached in **Appendix Three**):[8]

   i. Professor Joseph finds the bill to be retrospective and constitutionally objectionable, thereby giving rise to significant sovereign risk which will compromise investment in New Zealand; and

d. independent legal opinion from leading barrister Justin Smith QC (attached in **Appendix Four**):[9]

   i. Justin Smith QC's independent legal opinion focusses on the trailing liability regime, implications for company directors, and the effect of the post-decommissioning fund provisions; and

   ii. Mr Smith expresses serious concern about trailing liability and the proposed enforcement provisions.

Some positive aspects but key changes would significantly improve the proposed regime

25. As stated upfront, we support the overall intent of the bill to improve the decommissioning regime. However, key changes would significantly improve the regime and ensure that the sector participants can constructively support the Government's objectives while avoiding the imposition of excessive costs on to New Zealand society.

Energy Resources Aotearoa supports the objective to improve the decommissioning regime in these specific respects

26. We support codifying an explicit obligation to decommission petroleum infrastructure and wells. It is good industry practice to decommission, and we support this being clarified as a consistent obligation.

27. We broadly agree with ability of the Minister to obtain greater details about the financial capability of permit holders (although details in the regulations will be important).

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7 Castalia report entitled 'Economic Impacts of Proposed Petroleum Decommissioning Regime', page 8.

8 For details about Professor Philip Joseph, see https://www.canterbury.ac.nz/law/contact-us/law-staff-profiles/philip-joseph.html and https://www.canterbury.ac.nz/research/news/awards/research-medal-content-blocks/research-medal/professor-philip-joseph/.

9 For details about Mr Justin Smith QC, see https://www.stoutstreet.co.nz/justin-smith-qc/.

However, overall the regime is duplicative and creates unnecessary and onerous costs on industry for the outcomes the government is intending to achieve

28. The strictness of individual proposals and the over-layering of proposals will overly burden companies engaged in oil and gas production and the New Zealand economy far beyond the benefit. Perhaps worst of all given the high costs, the proposals will not materially provide any greater assurance than would a more balanced regime.

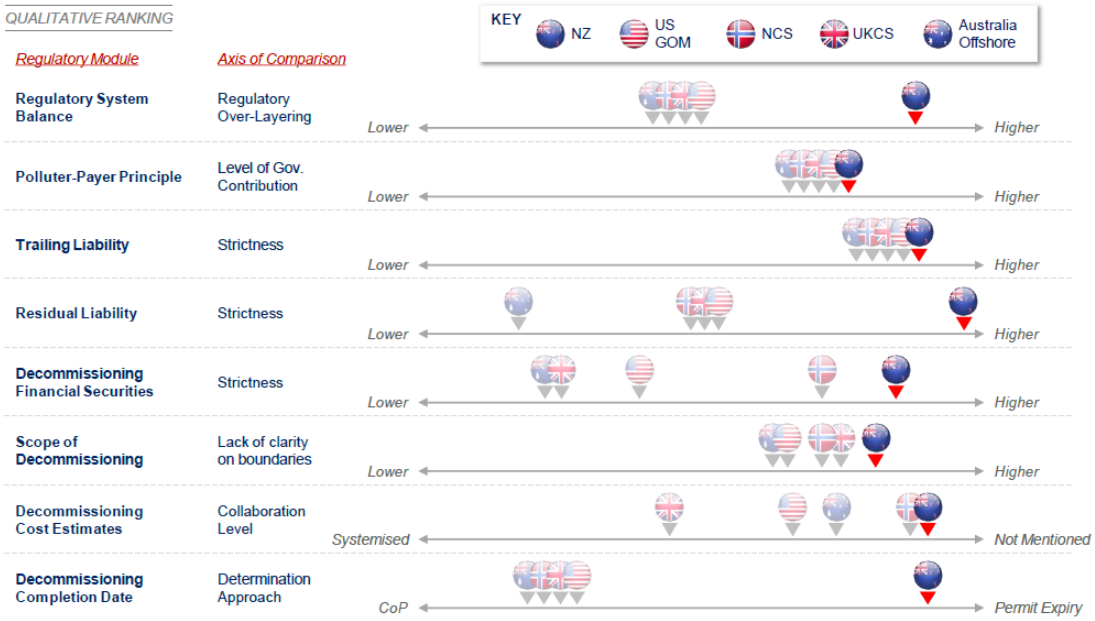
29. The bill cherry-picks certain elements from overseas jurisdictions, which taken together with the current regime form a duplicative and incoherent package. This will undermine achieving the objectives that the sector and government share. Wood Mackenzie's independent analysis shows how unnecessarily duplicative the proposed regime is.

30. The Government has looked to overseas regimes and pulled together various bolted-on liability and financial security assessments and arrangements. Some of the individual policies used overseas can have merit or be legitimate policy choices on a discrete level and (crucially) within the context of the broader regime from which they are picked. Context is everything, and just because something makes sense overseas in context does not mean it is suitable for New Zealand outside that context.

31. In its independent report, Wood Mackenzie assessed the bill's proposals against other jurisdictions. The following Figure 2 compares the New Zealand bill and proposals with other progressive, advanced economies. The individual proposals and the regulatory over-layering puts New Zealand at the highest end of regulatory strictness out of all jurisdictions.[10]

10 *Op cit*. Wood Mackenzie report, page 7.

Figure 2: Wood Mackenzie's qualitative ranking of proposals



32. Wood Mackenzie also notes on New Zealand's 'Balance of the Regulatory System' that:

> "New Zealand is the only country in our analysis that applies joint & several liability, trailing liability and makes compulsory the use of financial securities to protect taxpayers against decommissioning costs. Other jurisdictions analysed (UKCS, NCS, US GOM, Australia Offshore) seek to balance the overall regulatory system between level of taxpayers' protection and regulatory burden on the economy.
>
> New Zealand on the other hand seems to seek the highest level of taxpayers' protection theoretically possible by implementing each protection mechanism to their full extent and then layering them together in the regulations. We believe that this layering of mechanisms overwhelmingly focused on taxpayers' protection creates very strict regulations and could pose material risks to New Zealand's economy.
>
> Moreover, international benchmarks suggest that such a strict regulatory system is not necessary to obtain a satisfactory level of taxpayers' protection. In the case of New Zealand, it is our view that the additional burden would outweigh the practical benefits of the increased protection.
>
> We suggest taking a more balanced and integrated approach as other more mature decommissioning jurisdictions have done.[11]

33. Wood Mackenzie summarises its view saying:

> "Our opinion is that combining the joint & several liability with the trailing liability with mandatory financial securities is likely to

11 *ibid.* page 7.

> overburden companies without providing a materially greater protection to taxpayers when compared to a more balanced system, which either combines legal liabilities with conditional financial securities or combines mandatory financial securities with reduced legal liabilities."[12]

Costs of the bill and policy package significantly exceed any benefits

34. When considering amendments to law and regulation, the Cabinet guidelines require proper analysis of the costs and benefits of the proposed changes.[13] However, this analysis has either not been undertaken by MBIE, or not made public.

35. Therefore, we obtained Castalia's independent economic impact analysis to fill this gap in order to understand net impacts. Good public policy requires that the net present value of social (or public) benefits exceeds social costs before a policy proposal be advanced. Such a test means that the proposal will likely be overall welfare enhancing.

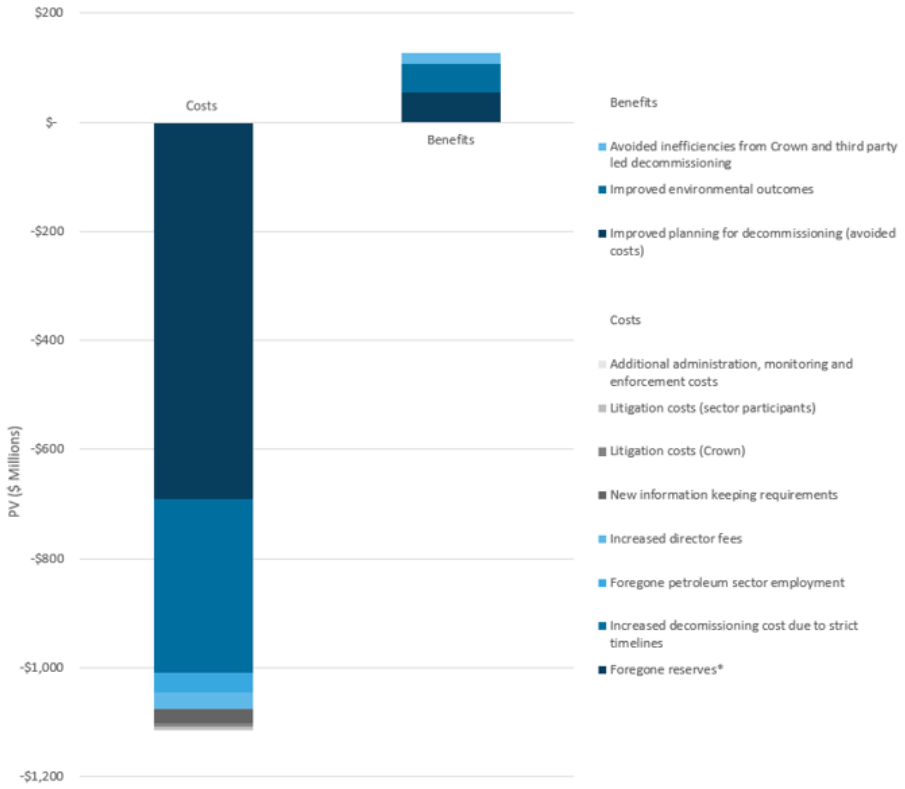
36. In its analysis Castalia found that the proposals impose around $1.12 billion in costs and create $126 million in benefits, amounting to a benefit cost ratio of 0.11. Figure 3 below outlines the costs and benefits, and the detail can be found in the report in Appendix Two.

12 *ibid*. page 17.

13 Cabinet Office Circular CO (20) 2 dated 20 June 2020 states:

> 9. the Impact Analysis Requirements are intended to help advisers and decisionmakers avoid the potential pitfalls that arise from natural human biases and mental short-cuts, including by seeking to ensure that:
> 9.1 the underlying problem or opportunity is properly identified, and is supported by available evidence;
> 9.2 all practical options to address the problem or opportunity have been considered;
> 9.3 all material impacts and risks of proposed actions have been identified and assessed in a consistent way, including possible unintended consequences; and
> 9.4 it is clear why a particular option has been recommended over others.

Figure 3: Castalia analysis of costs and benefits of proposals



** Foregone reserves are estimated as based on an assumed value of petajoules of energy (PJ) and an assumption that this reflects the surplus economic value (after costs of extraction are expended)*

37. The objective of the CMA, while not currently universally popular, remains to promote the exploration and development of Crown-owned minerals.[14] When considering legislative and regulatory changes to the CMA regime, policymakers, including the select committee, must consider how proposed amendments align and contribute to the overall objectives of the relevant regime, as well as how they interact as a collective package. The Petroleum Programme effectively confirms a principal-agent relationship between the Crown and operators, saying:

> "An underlying premise in the Act is that the government wants other parties, such as public and private corporations, to undertake prospecting for, exploring for and mining of Crown owned minerals, including petroleum."[15]

38. The Crown should therefore only impose costs to the minimum extent necessary to reasonably manage risk so as to not compromise the ability for the industry as an agent to explore and mine petroleum. When imposing regulations, the Crown should also keep in mind that expenses

14 The role of legislation must align with its purpose. We refer to paragraph 22.3 of the Government's Legislation Guidelines 2018 which makes clear that "Legislation establishing the role of a regulator should set out the regulator's functions, powers and, sometimes, objectives and how it is expected to perform them. These provisions should expressly link the roles of the regulator to the purpose of the regime it operates within."

15 Petroleum Programme (Minerals Programme for Petroleum 2013), section 1.3(4).

are deductible, meaning that lower profits are earned. This reduces Crown revenue and means that, where related to decommissioning, the Crown may face higher fiscal outlays from rebates for overpaid royalties.

Key proposals that we have concerns with

39. The proposals in the package are neither simply 'best practice', 'interventions long overdue', or 'the necessary response to the Tui incident'.[16] We note that the Crown Minerals Amendment Act 2018 addressed the core issue allowing Tamarind to obtain the Tui field assets through the previous inability of the Crown to assess and decline a change of control.[17]

40. Although individually and in isolation most proposals can have merit, it is only in the context of a package built on top of existing policy infrastructure that overall merits and overall coherence can be judged.

41. We now outline our specific concerns about the following seven matters, being the:

    a. retrospective nature of the bill which gives rise to sovereign risk;

    b. trailing liability;

    c. post-decommissioning fund;

    d. mandatory imposition of financial security;

    e. Minister being allowed to require decommissioning before the end of the permit;

    f. strict obligation to remove infrastructure; and

    g. overriding consultation requirements on consequential changes to the Petroleum Programme.

Concern one: the retrospective nature of the bill is objectionable and gives rise to sovereign risk

42. These proposals change the rules of the game significantly after parties have obtained permits. This is especially concerning given the lack of grandfathering for existing permits and applications. As stated earlier, we can accept the imposition of a statutory obligation to decommission, as permit holders already planned on that, but most of the other proposals are wholly unexpected.

16 Given the Tui issue appears to be a major driver for the reforms, we are surprised to see such strict regulations proposed without any probabilistic analysis of a repeat event reoccurring.

17 This was bill number 47-1 which was introduced on 5 April 2018.

43. In paragraph 15 of his succinct legal opinion (see Appendix Three), Professor Joseph expresses significant concern about "troubling features" of the bill which have "retrospective application to the industry's permit and licence holders" and which "[impose] onerous new obligations on current permit and licence holders and establishes significant new liabilities."[18]

44. Professor Joseph considers in paragraph 15 that the "The Bill woefully fails [the] objective" specified in the *Legislation Guidelines: 2018 edition*, which is that "Legislation should be constitutionally sound – by this we mean that legislation should reflect the fundamental values of a democratic society."

45. Professor Joseph explains his view that "The Bill is retrospective and is constitutionally objectionable", saying in paragraph 15:

> "The *Legislation Guidelines: 2018 edition*... state that "[l]egislation should not affect existing rights". Chapter 12 reiterates that legislation "should not interfere with accrued rights and duties". The LDAC Guidelines state that the presumption against retrospectivity "is part of the rule of law..."

46. In arguing that "The rule of law implications are manifest", Professor Joseph explains in paragraph 17:

> "The Legislation Act 2019, s 12 states categorically: "Legislation does not have retrospective effect." Section 12, however, must be read subject to s 9(1). The rule against retrospectivity applies unless the legislation in question provides otherwise or the legislative context requires a different interpretation. Here, there is no question that the Bill has retrospective application. The Explanatory Note to the Bill states that the Bill applies to all current and future petroleum permit and licence holders."

47. The bill undermines what we consider to be the legitimate expectation of permit holders, based on long-standing expectations of predictable policy settings and the CMA itself. Professor Joseph explains in paragraph 14 that:

> "Section 30(1)–(3) of the CMA declares, in explicit language, that a permit holder has the right to prospect, explore or mine (as the case may be) "on the conditions stated in the permit."

18 Professor Joseph also explains in paragraph 19 of his opinion that:

> In *Yew Bon Tew v Kenderaan Bas Mara* [1983] 1 AC 553 at 558, the Privy Council rehearsed the classical definition of retrospectivity. Lord Brightman said a statute is retrospective if it "creates a new obligation, or imposes a new duty ... in regards to events already passed". See also Bennion's definition of "objectionable" retrospectivity (FAR Bennion *Statutory Interpretation* (supplement to 3rd ed, 1999) at p 236). Bennion wrote (emphasis in original): "Changes relating to the past are objectionable ... if they alter the legal nature of an act or omission *in itself*."

48. A response might be that because decommissioning occurs in the future the legislation is not retrospective. Professor Joseph anticipates and rebuts this response, saying in paragraph 22:

> "It is formalist to contend that, because these new obligations and liabilities are directed at future events (decommissioning), they do not apply retrospectively to affect the legal position of current stakeholders. This (formalist) conception of retrospectivity provides a convenient template to excuse objectionable (retrospective) legislation."

49. We are alarmed at the lack of grandfathering of existing applications, which we oppose in principle but particularly because the Maari field transaction is yet to obtain regulatory approval. If the bill is passed before approval is granted, the transferor and transferee will face materially different rules compared to what was expected when the deal was entered.[19] Professor Joseph expresses concern about this issue, saying in paragraphs 27 and 28:

> "A final issue of retrospectivity concerns cl 89A(b). This clause breaches a legitimate expectation that existing applications for petroleum permits will be determined according to the law in force at the time the application was lodged. …"
>
> and
>
> "Under cl 89A(b), an application for a petroleum licence lodged under the CMA before the Bill commences in force is nevertheless to be processed and determined under the Bill, as though its provisions were in force as law at the time the application was lodged. This retrospective application contravenes the standard expectation that applications are determined under the law applying when the application was lodged, even if new law commences in force before the application is processed."

50. Professor Joseph contrasts this peculiar provision (which we see as legally offensive) with more standard legislation which covers similar matters, such as the Exclusive Economic Zone (Continental Shelf and Environmental Effects) Act 2012 which, he notes in paragraph 29:

> "…require[s] that all pending applications be processed and determined as if amendment legislation had not been made (that is, applications are to be determined under the law in force when the application was lodged)."

51. Professor Joseph writes in paragraph 9:

> "It is contrary to the rule of law for governments metaphorically to shift the goal posts after the ball has been kicked."

19 The Maari field is being transferred from OMV to Jadestone Energy and is currently pending regulatory approval from the Minister of Energy and Resources under the CMA.

52. This changing of the rules creates sovereign risk which will negatively affect the investment climate and further reduce confidence that New Zealand is a predictable and stable jurisdiction in which to conduct business. Professor Joseph explains that this is a problem in the context of the CMA regime given the Petroleum Programme's specific policies relating to sovereign risk. He writes that in paragraph 41:

> "The Petroleum Programme 2013 [defines] "sovereign risk". ... as:
>
> > "... the risk that the government may unexpectedly change significant aspects of its policy and investment regime and the legal rights applying to investors to the detriment of investors."
>
> Through its retrospective nature, the Bill presents a classic example of the realisation of sovereign/country risk that the Petroleum Programme 2013, in Section 1.3(6), says should be minimised."

53. It is difficult, in light of such a learned opinion, to simply dismiss the impact of such retrospective changes on private property rights under the auspices of 'the right of the government to govern'.

Concern two: trailing liability

54. We agree with what we assume is the underlying *intent* of aligning incentives of permit holders with the Crown in order to reduce the risk of decommissioning failure.

55. However, we consider that in the New Zealand context trailing liability is unnecessary to achieve his given other aspects of the existing regime and parts of the bill that we support.

56. We therefore strongly oppose trailing liability (sometimes referred to as perpetual liability) being instituted in New Zealand through new sections 89M and 89T of the Bill. It was introduced without consultation, is unnecessary and is an extreme and highly unusual instrument in New Zealand law.

57. This very significant amendment has been introduced to the current bill without any consultation in the 2019 *Review of the Crown Minerals Act 1991* discussion document. To see such policy being proposed though a prompt legislative process is not only alarming as a matter of public policy process but as a matter of substance.

58. Fundamentally, trailing liability is not needed in New Zealand, because other provisions in both the CMA as currently configured and the bill provide the tools to ensure, with a high level of assurance, that decommissioning will be appropriately executed. Currently the Crown has a full approval role over the grant and transfer of permits. It will soon (and with our support) have imposed an explicit obligation to decommission with joint and several liability for permit participants.

Evidence from Justin Smith QC

59. We refer the reader to paragraphs 4-35 and 36-63 of Justin Smith QC's legal opinion (see Appendix Four) as it deals with trailing liability in detail. We will make use of some key insights by way of introduction and citation in the rest of this section.

60. Mr Smith expresses serious concerns about the trailing liability regime being implemented in the New Zealand context and considers it "ought to be abandoned entirely."

61. Mr Smith says in paragraphs 4 and 5:

> "The proposed perpetual (or "trailing") liability is extreme. There may be, in fact are, overseas examples of the use of this legislative tool. But that establishes precisely nothing. … The use of these regimes (in the relatively few jurisdictions where they have been adopted and which are cited as examples[20]) does not provide an automatic justification for their use in New Zealand."

The novel nature of trailing liability

62. Mr Smith considers that imposing trailing liability on former property owners would be "…a truly novel and draconian provision in New Zealand" and says so far as he is aware it has not been enacted anywhere else in New Zealand law. He also makes the point in paragraph 20 that:

> "Perpetual liability runs counter to New Zealand's long legislative history of having limitation of liability periods."

63. In highlighting the unusual nature of the proposal, Mr Smith makes a useful analogy in paragraph 12:

> "This would be the statutory equivalent of holding a former landowner liable for a nuisance they simply did not commit. Or, for example, holding a former property owner liable for failing to fence a swimming pool when it is the subsequent owner (or owners) who has failed to maintain fencing in compliance with required standards."

The threshold to justify a trailing liability regime

64. To justify employing such an extreme measure, Mr Smith writes in paragraph 13:

> "Ordinarily, the justification for such a draconian measure, whatever it is, would be expected to subsist in the form of extreme public interest necessity, which is unable to be adequately addressed by any other means."

20 For example, the Australian Government response to the liquidation of Northern Oil and Gas Australia Pty Limited group of companies and issues arising with reference to the Northern Endeavour FPSO cited in MBIE's discussion document *Discussion on the Proposed Regulations*.

65. Mr Smith considers that this threshold is not met, saying in paragraph 13:

> "… there are other provisions in the Bill which would adequately cope with the mischief the legislators wish to address."

66. We agree with this assessment.

Trailing liability is inappropriate for local policy context

67. Further, trailing liability is not appropriate for the New Zealand context. As noted above, it is important to consider the local context when importing notions from other jurisdictions. In this regard, Mr Smith says in paragraph 15:

> "Without doubt, in overseas jurisdictions where trailing liability is used there will have been factual circumstances, policy drivers and political circumstances which contribute to the justification for the use of these legislative tools."

68. Some other regimes such as the United Kingdom employ a regime of perpetual liability, but that has been part of a careful policy design where, in effect, the British Government has outsourced management of decommissioning risk to petroleum companies by placing upon them coherent and internal incentives to manage decommissioning risk. The United Kingdoms' trailing liability regime means that companies have direct incentives to ensure that their current joint venture partners and (when sales are considered) potentially transferees have adequate financial capability to decommission, because a current or previous participant will be liable in the event that other relevant parties are unable to undertake decommissioning. Specifically:

    a. in joint venture arrangements, the joint and several liability triggers the creation of decommissioning security agreements amongst the parties involved; and

    b. during a merger or acquisition transaction, the trailing liability incentivises the seller to ask for a decommissioning security agreement from the buyer.

69. In establishing such a regime, the British Government takes a lower key approach and, as Wood Mackenzie advises us, it has not imposed its own financial security requirements[21] as private companies have acted as incentives would dictate to be prudent.

70. By contrast, the New Zealand Government has long had an alternative (and also legitimate) method of taking a more hands-on approach to managing the transference of permits by carefully assessing each transaction and making a decision on whether to grant or decline consent to the transfer.

21 *op cit*. Wood Mackenzie report, page 12.

71. As Wood Mackenzie states:

> "In practice, the UKCS, the NCS, the US GOM and Australia Offshore apply the joint & several liability, apply the trailing liability (soon to be passed into law in Australia) but do not use mandatory financial securities."[22]

72. In noting the importance of the local context which strongly negates the need for a trailing liability regime, in paragraph 6 Mr Smith states:

> "In the absence of a ground up assessment of New Zealand's particular regulatory needs, the Bill appears to be a disproportionate response to an isolated issue, namely the necessity for the decommissioning of the Tui oil field to be undertaken by the Crown rather than the permit operator of that field. The liability scheme, in particular, does not seem to have been drafted with New Zealand's regulatory landscape in mind; namely, the comparatively small and shallow market, the permit regime (in which the Crown plays an active part in permitholder vetting and approval, setting of permit conditions and on-going permit compliance monitoring), and the nature of the corporate structures engaged in the industry."

73. In short, the Government is effectively imposing an approval role on incumbent vendors to undertake significant and costly due diligence on prospective buyers, all the while the Crown still retaining its full discretion over transfers (and ability to impose security requirements).

Criminalisation in the legislation is unheralded and unnecessary

74. Mr Smith expresses serious concern about criminalising what is ordinarily seen as conduct warranting no more than civil sanction, saying in paragraph 37:

> "It is no exaggeration to say that this represents imposition of criminal liability unheralded in the law of New Zealand."

75. Mr Smith's opinion, particularly at paragraphs 22-39 highlights the risks with criminal liability. The key problems are:

> "The regime would criminalise what is ordinarily seen as conduct warranting no more than civil sanction and, in this respect alone (besides the many other objections), it is disproportionate to the risks it seeks to manage.
>
> It imposes liability for events outside the control of permit holders and for acts or omissions involving no fault but where the high levels of penalty involved as *maxima* (both for corporate defendants and directors) imply fault."

22 *ibid.* page 11.

76. Mr Smith also makes the important observation in paragraph 26 that:

> "In most instances where a civil wrong which is merely actionable is criminalised there is a clearly recognisable and imminent moral hazard which is intended to be militated against."

Unusual criminal liability regime makes attracting directors unnecessarily difficult

77. The trailing liability and criminal liabilities imposed on directors are likely to make directorship unattractive. This risks undermining the objective of the CMA and decommissioning regime which is to attract high-calibre, responsible companies with skilled directors capable of identifying and mitigating risks. Skilled directors will also be critical to achieving the Government's aims in the energy transition and with the challenge of decommissioning getting closer to reality. On this topic, Mr Smith writes in paragraph 67:

> "The more pressing concern however is the unattractiveness a directorship of an Oil and Gas company would acquire as a result of the Bill's passing into law. An independent directorship is likely to become particularly unattractive for reasons which, hopefully, do not need explaining. And yet, in a highly regulated/high risk field, it is independent directors whose presence on boards might most be wanted as a matter of policy."

Trailing liability undermines the norms of civil and criminal liability and will impact legitimate corporate activity

78. We sought Mr Smith's opinion on whether it is appropriate to implement a perpetual liability regime discretely through amendments to the Crown Minerals Act or whether it would be more suitable to do this through broader (and more considered) company law reform. Mr Smith's advice is unequivocal, that the trailing liability proposal is harmful and bad law. He writes in paragraphs 47-50:

> "Granted, it makes no sense to focus on a particular industry in which to initiate such a significant departure from the norms of corporate (including director) liability. However, I would suggest that the idea behind the perpetual liability regime in the Bill, rather than being put off for a consideration of broader company law reform, ought to be abandoned entirely.
>
> <u>It is as silly as it is pernicious and the position does not alter just because it is considered more broadly.</u>
>
> Our norms of civil and criminal liability may not be perfect. But they are well understood and they do work. It would be an utter upheaval of our applicable norms to institute liability, civil, let alone criminal, for acts and omissions which do not result from the conduct of (and are therefore not attributable to) the persons sought to be made liable.

> There would be no general appetite for or interest in this as a matter of company law reform. There would be a virtually unanimous rejection of the idea by anyone sufficiently qualified to comment. This merely emphasises the unusualness of the Bill's current clauses (as regards trailing liability). [emphases added]."

79. A trailing liability regime will likely have a significant dampening effect on the interest in transferring permits, even if it would be otherwise preferable for another firm to obtain an asset. With the myriad of broader political economy changes to navigate, a new and complex regulatory regime for decommissioning will only serve to stifle investment and the willingness and ability of firms to enter and exit the market.

Concern three: the post-decommissioning fund

80. We strongly oppose proposed Subpart 3 of the bill and the establishment of a post-decommissioning fund, especially in the manner proposed.

Post-decommissioning fund was not consulted on

81. We are again concerned that the post-decommissioning policy has been advanced through the bill despite no prior consultation in the 2019 *Review of the Crown Minerals Act 1991.*[23]

82. To see such significant policy changes being implemented through a bill with no prior policy consultation simply serves to heighten concerns expressed above about increased sovereign risk and reduced investment confidence. Lack of policy consultation during policy development has negated our ability to improve the policy design. This is in addition to our concerns about how the substance of the bill will increase sovereign risk and reduce investment confidence.

Post-decommissioning fund is not solving any identified problem

83. The post-decommissioning fund proposal has been put forward without any compelling problem definition. No comparison of costs and benefits has occurred that would demonstrate that such a regulatory intervention is appropriate. Indeed, the 2019 *Review of the Crown Minerals Act 1991* stated that:

> "There is limited evidence around the risk that wells and related infrastructure pose after decommissioning has been completed,

23 The closest that discussion document came to the topic was in the context of its section 'Exploring the residual financial risks of current and future onshore petroleum wells', which stated, at page 94:

> "We are not proposing any specific changes to the CMA in regard to the management of residual financial risks associated with onshore petroleum wells in this discussion document. However, we are interested in your views on the suitability of existing CMA provisions and also the wider regulatory regime in managing these residual financial liability issues, particularly if there are current mechanisms which are underutilised."

> and the associated costs involved. Each instance of well and infrastructure failure would need to be assessed on a case-by-case basis for environmental and cost impact. There have only been a few instances of this occurring in New Zealand, and no instances in relation to offshore petroleum fields which are yet to be decommissioned, so MBIE has been unable to accurately assess the likely risks and costs involved."

84. We have reviewed the recent briefing entitled *Residual liability for petroleum wells and infrastructure following decommissioning*.[24] Nothing in the problem definition section appears to add anything beyond the above quoted finding in the Crown Minerals Act 1991 Review.

85. As stated in that briefing, MBIE states:

> "The absence of any market or regulatory incentives for permit/licence holders to factor residual liability into economic decision-making may give rise to inefficient economic outcomes and negative environmental externalities."[25]

86. We consider this view to significantly downplay the requirements and incentives of the current Act and other aspects of the bill to properly decommission in a manner than minimises the risk of future residual issues. It also does not engage with the non-regulatory option whereby land owners could seek individual bonds or arrangements from permit holders to manage residual risk where it may exist.

Wood Mackenzie's concerns

87. Wood Mackenzie considered the post decommissioning fund concept in its report and we refer the reader to section 4.4 on pages 15-17 of its report (see Appendix One). We quote some particularly relevant excerpts.

88. They graphically present their assessment of the relative strictness of the New Zealand proposal (the manner in which the bill deals with residual liability) as per the below Figure 4 below:

Figure 4: Wood Mackenzie's qualitative ranking of proposals

24 MBIE briefing entitled 'Residual liability for petroleum wells and infrastructure following decommissioning' https://www.mbie.govt.nz/dmsdocument/14681-residual-liability-for-petroleum-wells-and-infrastructure-following-decommissioning.

25 *ibid*, page 1.

89. Wood Mackenzie says on page 16 of its report:

> "Based on the comparative international analysis and on our own regulatory expertise, we see fundamental flaws in how the PDF is designed and in its 3 defining characteristics, as it infringes on the application of the "Polluter Pays" principle:
>
> - There is no link between quality of decommissioning work and fund contribution or exemption from contribution. Assuming that the quality of the work is the main driver of post-decommissioning success or failure, contribution should be linked to the quality of the decommissioning work so that companies are held responsible for pollution arising from their failure. By not linking the 2 elements, all upstream players are payers regardless of pollution. This is simply a tax on the industry.
>
> - Individual contributions are pulled together in 2 funds (onshore and offshore) used to cover cost of failures, regardless of the source of the contribution (who pay, how much they pay) or the company actually responsible for the failure (who was responsible for the decommissioning work, who were the asset's last owners). Therefore responsibility to pay for the pollution is shared, regardless of the actual responsibility for the pollution.
>
> - Payment is done prospectively and therefore not triggered by the pollution. There is no refund of the contribution to the contributing company if the company's assets do not experience post-decommissioning failures [all emphasis added]. There is therefore, in theory, a direct incentive for companies to carry out the legally mandated minimum scope and quality of decommissioning, because they will still pay for decommissioning failures, regardless of their occurrence. Whether this incentive is actually acted upon depends on companies' ethical stance as well as how strict and prescriptive wells Plug & Abandon (P&A) regulations are. If the infrastructure is fully removed, wells become indeed the primary source of decommissioning failure risks. Whether companies have the ability to reduce the scope and quality of P&A work and remain within the legal envelope, depends on the minimum scope and quality of P&A prescribed in law."

90. Wood Mackenzie says that the post decommissioning fund "under its current form requires a structural redesign." In page 16 of its report Wood Mackenzie identifies three options for this, the first of which:

> "...follows international practices and does not create a financial mechanism to match the residual liability. This is the choice made in UKCS, NCS [Norway], US GOM [Gulf of Mexico] and Australia where the residual responsibility is considered to provide sufficient protection to taxpayers."

91. Wood Mackenzie offers two other options to improve the fund and the reader can view these in the Appendix, but given the lack of problem definition we simply prefer to see the fund abandoned.

Post-decommissioning fund ignores foundational polluter-pays principle

92. As noted above, the levy for the fund violates the "polluter-pays" principle, by imposing a levy on all permit holders regardless of their actions or the risk profile of their assets. It involves paying for the potential clean-up of assets that the levied party had precisely nothing to do with. The polluter pays principle is foundational for environmental law in New Zealand (and other jurisdictions), and in abrogating this fundamental principle potentially upsets a well-established and understood incentive structure.

93. We acknowledge that the regulations may specify different payment amounts depending on the risk posed, but the fund is intended to be used to pay for all post-decommissioning issues, regardless of cause.

The levy is an unconstitutional open-ended tax

94. The bill has no detail on the actual quantum of money to be levied. The discussion document also contains no detail of the amount of the levy. A serious constitutional matter arises whereby what amounts to a tax is being set by the Executive and not the Parliament. It would therefore be highly imprudent for Parliament to pass what may end up as an open-ended tax on the upstream petroleum sector.

95. Justin Smith QC considered the proposal in paragraphs 69-74. His observations include:

> The amount and nature (lump sum or instalments) are to be determined by the Minister, having regard to prescribed criteria (not yet set) and with regards to the nature of payment, the person's financial capability. There is no right of challenge or appeal. That uncertainty is inimical to the business interests of those who hold licences and permits. Absent statutory clarification (as opposed to the matter being prescribed in regulations) no guidance is available on the aims and purposes and therefore the ultimate amounts of post decommissioning payments. This should be specified.

96. Mr Smith also considers it insufficiently clear as to whether the former permit holders must pay toward post-decommissioning fund.

In some cases it may be appropriate for the Crown to assume post-decommissioning liability

97. The Crown is the owner ultimate and beneficiary of New Zealand's petroleum resources. It nationalised the resources in 1937. It may therefore be appropriate for the Crown to assume some post-decommissioning residual liability in the rare situations where issues with old wells arise.

98. The Crown is not a disinterested third party, as the language in the bill's explanatory note implies, stating "the risk to the Crown *and other third parties* [emphasis added] of having to carry out and fund decommissioning". The Crown established a principal-agent relationship with permit holders in 1937. As outlined in the Crown Minerals Act and Petroleum Programme, the Crown specifically sought out the commercial sector to mine the resource on its behalf so as to obtain an economic rent (typically amounting to 42.4% through corporate taxes and royalties) through the concessionary regime.

99. The government also specifically sets the rules for decommissioning and is responsible for enforcement of the rules. This reinforces our view that the Crown is not less responsible than a completely unrelated third party.

100. In our view, the Crown cannot therefore reasonably claim to be a merely disinterested (or worse, likely to be harmed) third party. Yet the proposals in this bill, and in particular the proposed post-decommissioning fund, seem to represent a complete shedding of risk (with limited regard for the cost imposed on the sector) as if the Crown has no stake whatsoever. This goes beyond what we consider to be reasonable given the facts.

Concern four: mandatory imposition of financial security

101. We oppose the *mandatory* imposition of financial security requirements on permits and licences. We note that no comparable overseas jurisdiction imposes a mandatory security requirement.

102. The 2019 *Review of the Crown Minerals Act 1991* proposed that financial security agreements could be imposed *where deemed necessary* after the Minister considers the financial capability of the permit holder to undertake decommissioning. We submitted on the original discussion document saying that:

> "Theoretically we could support the proposal to enable MBIE to impose financial security obligations, but (as per the proposal), only if permit holders fail to maintain sufficient financial capability."

103. The Government has decided that "in order to secure, or secure in part, the performance of their obligations", the bill will require that:

> "A person who holds a permit or a licence, (whenever granted), must obtain and maintain 1 or more financial securities, of a kind, and in an amount, determined by the Minister...."[26]

104. This policy and wording means the Minister has no discretion and *must* impose financial security requirements and is granted wide case-by-case discretion over the type of security to be required.

105. This is unnecessarily prescriptive, especially given the new powers the Minister will obtain to investigate and review the financial capability of permit holders. Our strong preference has been that private management of liability is the standard approach and that financial security is only required where there are material issues with the company's financial position or method of provisioning etc. This would better reflect a risk-based approach.

106. Mandatory financial security in the absence of a risk assessment will be disproportionate to actual risk, imposing potentially significant burdens on permit holders when it is actually unnecessary.

107. We prefer that the bill outline criteria that must be met before financial security can be required (as opposed to providing a broad discretion).

Proposed mandatory financial security is duplicative and far stricter that other jurisdictions

108. Wood Mackenzie (see Appendix One, in particular pages 17-19) confirms that the decommissioning financial securities are very strict, compared to other jurisdictions:

Figure 5: Wood Mackenzie's qualitative ranking strictness of financial securities

109. Wood Mackenzie again highlights the overlaying of regulation, and then makes the point that legal liability already incentivises the management of risk, saying:

> "Of the countries we have reviewed, New Zealand is the only one that combines joint & several liability, trailing liability and mandatory financial securities. In other countries, legal liabilities are considered the first line of protection and they incentivise companies to put in place commercially driven financial securities as a protection against default. In JOAs [joint operating

26 Clause 17, which will introduce New Section 89ZE.

> agreements], the joint and several liability triggers the creation of DSAs [decommissioning security agreement] amongst the parties involved in the JOA. During an M&A transaction, the trailing liability incentivises the seller to ask a DSA from the buyer." [27]

110. Wood Mackenzie adds to this, saying:

> "In the countries reviewed, the use of government-mandated financial security is only a second line of protection, called upon if assessments of financial capability demonstrate a risk of default. Most times, the combination of the legal liabilities and the commercially driven DSAs are considered to provide a sufficient level of certainty that a company will honour its decommissioning responsibilities. This is all the truer for large established companies that already provision for decommissioning obligations on their books for the purpose of internal accounting and shareholder information disclosure."[28]

111. Modern New Zealand joint venture agreements typically address intra-JV decommissioning risk, and this is eminently sensible given the joint and several nature of liability.

112. The nature and quantum of financial instruments sought is of crucial importance and, if improperly devised, can lead to premature field close. Wood Mackenzie address this point, saying:

> "It is worth noting that financial instruments with a high impact on NPV through TVM [time value of money] could shorten field life by making late-life extension projects uneconomic. These projects tend to have slim margins and will accrue new decommissioning liabilities. By simply bringing forward decommissioning payments that were initially planned in later years, the choice of financial instruments could turn these projects from economic to uneconomic."[29]

Concern five: the Minister can require decommissioning before the end of the permit

113. We oppose the Minister being granted discretion to require permit holders to undertake decommissioning before the end of the permit or licence. These powers are proposed in clause 17 which inserts new sections 89G and 89H.

114. There is no clear reason that a Crown Minerals permit should be required to be active when physical decommissioning occurs. Fundamentally, Crown mineral permits grant the right to explore or produce a

27 *op cit*. Wood Mackenzie, page 17.

28 *ibid*. page 17.

29 *ibid*. page 18.

Crown-owned mineral. Crown mineral permits are not inherently related to physical activities such as decommissioning infrastructure.

115. Indeed, the clear and logical decision was made in 1991 to split out the permit/title aspect of the regime and manage it under the Crown Minerals Act 1991, whereas environmental and infrastructure elements were shifted into the Resource Management Act 1991. In the exclusive economic zone, the Continental Shelf Act 1964 continued to have a role although environmental management largely shifted into the EEZ Act in 2012.

116. Other aspects of the regulatory system such as the High Hazards WorkSafe regime actively ensures well integrity to prevent leaks. That is, concerns about assets deteriorating does not need to be managed within the ambit of the CMA.

117. The bill also proposes that the clarified obligation to decommission (which we support) does not cease to apply after a permit is no longer in place, i.e. if a permit holder has not decommissioned before permit expiry, revocation or surrender they will still be liable. This makes the obligation enduring beyond permit expiry.

118. Therefore, requiring decommissioning before permit end is unnecessary. It also effectively means earlier cessation of production than would normally be the case. This can alter field economics, reducing the multitude of economic benefits from production. It would also drastically change a key expectation that permit holders acquired their assets upon, namely that the operating timeframe is essentially production during the permit as well post-permit decommissioning.

119. Wood Mackenzie notes that New Zealand is an outlier compared to other progressive jurisdictions with the proposal (see Appendix One, pages 22-23):

Figure 6: Wood Mackenzie's qualitative ranking of the approach to setting decommissioning completion date

120. Wood Mackenzie notes perverse outcomes and risks that could arise from fixing the decommissioning date to the permit:

> "About the decommissioning completion date, MBIE's proposed regulations state that the "intention is to disincentivise permit and licence holders deferring decommissioning, unless there is a good reason for doing so; it is not to interfere in commercial decision of private companies". To achieve this, MBIE is proposing to anchor the decommissioning end date on the permit expiry date.

While this provides planning certainty, the principle may have unintended detrimental consequences. If, under the current baseline FDP [field development plan], decommissioning was to happen just after permit expiry (e.g. in the case where CoP [cessation of production] happens close to permit expiry), anchoring the decommissioning completion date on permit expiry would incentivise operators to find solutions to bring decommissioning forward so as to not have to apply for a new permit.

One way would be to shorten the life of the field by bringing CoP forward, thus allowing for sufficient time to execute decommissioning between CoP and permit expiry. Obviously, this would directly result in economic revenue losses, tax revenue losses, energy supply losses and suboptimal economic recovery of hydrocarbon resources.

Another way would be to find ways to accelerate the decommissioning schedule, by cutting down on scope, selecting service rigs based primarily on schedule availability, sourcing capabilities based on schedule availability, increasing the risk acceptance threshold or eliminating planning buffers. Such an approach would increase execution risks and, to some extent, prioritise timely execution over proper execution." [emphases added] [30]

121. Wood Mackenzie recommends an alternative which we also support:

"The alternative, taken by all countries reviewed during our analysis, is to anchor decommissioning completion date on the CoP [cessation of production] date and to allow for planning and execution flexibility within the bounds of a pre-defined window of time. We coin it the "Flexible CoP+X" approach."

"… this "CoP+X" approach is the choice made in the UKCS, NCS, US GOM and Australia. They all notionally anchor the decommissioning completion date on CoP, provide a generic guidance on timeline but ultimately take a case-by-case approach, recognising that many factors influence when the optimal decommissioning completion date should be."

"We therefore recommend that New Zealand adopts a "Flexible CoP+X" approach to decommissioning completion date, in which the specific decommissioning timeline of an asset should be determined on a case-by-case basis through dialogue between the operator, other E&P companies and the regulator. With regards to the legality of carrying out activities beyond the expiry of the permit (whenever the case arises), we believe that a decommissioning-specific permit extension, similar to those

30 *ibid.* page 22.

provided to exploration licenses for appraisal work, would answer this particular question." (emphases added) [31]

Concern six: the strict obligation to remove infrastructure imposes unnecessary costs and is again an international outlier

122. We oppose the elements of new Sections 89E and 89K that require that all 'petroleum infrastructure' is decommissioned and removed.[32] Our concerns relate to the impracticality of the broad definition of petroleum infrastructure, the incoherence with other specific legislation for environmental outcomes (RMA and EEZ Act) and the policy design which makes New Zealand a further outlier.

Practical concerns

123. The definition of petroleum infrastructure is extremely broad so total removal will involve high costs. Its breadth means that it will likely include infrastructure that is not an essential part of the upstream sector. For example, it will capture buildings and other assets that may either continue to be used by other companies or permit holders, or which can be repurposed.[33]

124. Related to the broad definition and general obligation to decommission (which, under the definition, means to remove), *significant issues may arise when calculating the level of financial assurance required under regulation.* Full removal will involve much higher costs than the alternative of leaving certain pieces of infrastructure in situ (as and where appropriate).

125. If full removal is the requirement except where a derogation is obtained through a separate regulatory approval, over-provisioning of financial security may be required which in turn imposes significant and ultimately unnecessary costs on permit holders. The exemptions in new sections 89E (2) and 89E (3) do not resolve this issue, as regulatory approval for abandonment of infrastructure is not typically obtained until close to end of life (this is because assets and infrastructure changes and a permit holder will not know definitively what it wants to do until the operation is coming to a close).

126. Until approvals to abandon material in place are obtained, full removal must be assumed under the bill, which must be provisioned for, i.e. even

31 *ibid*. page 22.

32 These concerns firmly remain despite sub-sections 89E (2) and 89E (3) which allow an exception from this obligation for full removal when so approved by appropriate regulatory authorities. We appreciate that the bill's drafters likely intend these two subsections to provide useful flexibility, and although conceptually they make sense, in reality they will not be adequate.

33 We note the work of Ara Ake, the national new energy centre, which has a focus on repurposing petroleum infrastructure. A presumption to remove assets leads to foreclosing options for new uses and which may waste resources.

though the concept of derogations is good, it will not be practical enough in real life applications. The obligation to decommission is acceptable by itself, but as soon as the bill gets into defining which infrastructure should be removed and presenting derogation pathways it becomes extremely blurry and problematic, as addressed in the next section.

Strict obligation to remove infrastructure creates regulatory inconsistency with other specific laws

127. Overseeing the management and removal of physical infrastructure is the domain of regulatory regimes other than the CMA – primarily the RMA and EEZ Act. If the CMA shifts its focus outside of managing core permit issues and into what amount to environmental issues, new issues may arise.

128. With scope creep and duplication comes the risk that responsibility and accountability is in fact diminished rather than enhanced, creating co-ordination problems as different regulators may feel less need to focus on areas where another regulator also has responsibility. If multiple regulators are considering the same matter and imposing requirements or conditions, the risk arises that those contradictions and inconsistent requirements are imposed which puts operators in a difficult position in terms of knowing which standard to meet. This creates uncertainty if any matters are contested in court.

Strict obligation to remove makes New Zealand global outlier

129. Wood Mackenzie considered the scope of decommissioning proposals in its report and we refer the reader to section 4.6 on pages 19-20 of its report (see Appendix One).

130. They graphically present their assessment of the clarity of boundaries in the New Zealand proposal as per the below figure:

Figure 7: Wood Mackenzie's qualitative ranking of scope of decommissioning and clarity of boundaries

131. Wood Mackenzie comments on the uncertainty about whether certain assets would be captured, saying:

> "New Zealand's proposed regulation does not specify the asset scope but refers to structure "*used to explore or produce petroleum products*" [emphasis original]. In the context of offshore production, this implies infrastructure and subsea pipelines. How onshore wells, production stations, tank farms and sales export pipelines are treated remains unclear.

> In all countries reviewed, the decommissioning regulations for offshore hydrocarbon production excludes associated onshore assets such as processing plants." [34]

Concern seven: the bill overrides consultation requirements on consequential changes to the Petroleum Programme.

132. The Crown Minerals Act requires that, before amending the Petroleum Programme, the Minister must give notice and invite submissions for 40 working days. However, the bill would override this consultation requirement if the changes "*expected to be minor and technical in nature, rather than policy judgements*".

133. We express reservations about the removal of consultation, as we are unclear what is considered by the Government to be in scope of 'consequential amendments'. Our concern is heightened due to the nature of the proposals in the bill with its inclusion of significant policy that we had not expected to see. Understanding the likely consequential amendments would require a detailed assessment of the Petroleum Programme.

Conclusion

134. We have presented a series of serious concerns about the combination of individually strict proposals, which together and on top of the existing laws lead to a disproportionate regime, whose costs far outweighing the benefits. The retrospective nature of the bill raises serious constitutional concerns which gives rise to sovereign risk.

135. Ideally, the bill would go back to the drawing board would be taken to work out a more suitable regime in genuine partnership with industry to devise a regime that works in everyone's interests. If, however, the bill is to continue, then the refinements we have proposed should be incorporated to minimise the adverse consequences.

136. We wish to constructively engage with the select committee and government on these important matters, and we appreciate the opportunity to submit on this bill.

34 *ibid.* page 19.

Appendix One: Wood Mackenzie's New Zealand Upstream Decommissioning Study

Wood Mackenzie
A Verisk Business

30 August 2021

New Zealand Upstream Decommissioning Study

Executive Summary

Decommissioning regulations must be addressed as part of a broader, collaborative, structured and holistic discussion on how to make decommissioning successful in New Zealand:

- Decommissioning is a complex and multi-dimensional endeavour that cannot be solved by any one party.
- The different facets of the story (i.e. regulatory framework, execution scenarios, financing, capability sourcing, follow-on opportunities) are interdependent and must be envisaged as part of an integrated system.
- With so many unknowns and variables, making decommissioning a success demands the collaboration of all stakeholders to ensure fully informed and balanced decisions are made
- Accelerating the learning curve and making informed decisions is key: successful decommissioning regimes are the ones that show the agility to navigate uncertainties and find tailored solutions to new challenges.

Regulations are a fundamental part of the overall decommissioning story as they provide the legal framework within which decisions are made. Balance of the overall regulatory system is therefore key to drive success for all stakeholders:

- Protection of the environment against the pollution that has arisen from oil & gas production and that could arise from post-decommissioning failures
- Protection of taxpayers against the cost of decommissioning activities and post-decommissioning failures
- Safe, effective, efficient and timely execution of decommissioning activities
- Maximisation of the economic recovery of New Zealand's petroleum resources
- Maximisation of the economic value creation from New Zealand's petroleum industry
- Responsible management of New Zealand's petroleum legacy

We have analysed New Zealand's proposed decommissioning regulations and we have identified 3 key areas of improvement:

1. The proposed regulations layer multiple legal and financial mechanisms intended to maximise taxpayers' protection against future decommissioning liabilities. This creates a very strict regulatory system that is likely to be detrimental to New Zealand's economy by penalising direct & indirect tax revenues, energy security, employment, overall economic growth and investments. At the same time, such a high level of protection might not be necessary in view of the actual risks of default. **In line with the results of our international benchmark, we recommend taking a more balanced approach aimed at ensuring a satisfactory level of taxpayers' protection while minimising negative economic impacts.**
2. The design of the post-decommissioning fund structurally conflicts with the application of the "Polluter Pays" principle as intended by the proposed regulations. Additionally, our international benchmark indicates that New Zealand is the only country in our analysis to impose an industry levy for post-decommissioning residual risks. **We recommend to structurally redesign how the regulations address post-decommissioning residual risks through legal and/or financial mechanisms.**
3. The proposed regulations do not provide a sufficient level of detail and practical specificity to understand the tangible impacts that different propositions would have on companies, on the level of taxpayers' protection and on New Zealand's economy as a whole. Such a characterisation of the impacts is necessary to meaningfully evaluate the regulations being proposed. **We recommend that more details be provided on how the regulations would be actually implemented, so that impact assessment scenarios can be subsequently developed prior to making key decisions.**

Contents

Acronyms & Abbreviations

AER – Alberta Energy Regulator

BSEE – Bureau of Safety and Environmental Enforcement

CCS – Carbon Capture & Storage

CMA 1991 – Crown Minerals Act 1991

CoP – Cessation of Production

DSA – Decommissioning Security Agreement

E&P – Exploration & Production

ERA – Energy Resources Aotearoa

FDP – Field Development Plan

HSE – Health, Safety & Environment

IMO – International Maritime Organization

JOA – Joint Operating Agreement

LIFO – Last In, First-Out

MBIE – Ministry of Business, Innovation and Employment

MPE – Ministry of Petroleum & Energy

M&A – Merger & Acquisition

NCS – Norway Continental Shelf

NE – Northern Endeavour

NOGA - Northern Oil & Gas Australia

NOPSEMA – National Offshore Petroleum Safety and Environmental Management Authority

NOPTA - National Offshore Petroleum Titles Administrator

NPT – Non-Productive Time

NPV – Net Present Value

OGA – Oil & Gas Authority

OWA – Orphan Well Association

P&A – Plug & Abandon

PDF – Post-Decommissioning Fund

RFCT – Ring Fenced Corporate Tax

SC – Supplementary Charge

TVM – Time Value of Money

UKCS – United Kingdom Continental Shelf

US GOM – United States Gulf of Mexico

1. Introduction

This document is a study conducted by Wood Mackenzie on the upstream decommissioning regulatory changes proposed by New Zealand's Ministry of Business, Innovation and Employment (MBIE) and currently undergoing a review and consultation process. The objective of this study is for Wood Mackenzie to identify relevant and applicable improvement recommendations. In order to do so, we have reviewed the proposed regulations and conducted a comparative analysis with decommissioning regulations in other countries. Please refer to *Section 2. Methodology & Objectives* for additional details.

The conclusions and recommendations contained in this report have been developed by Wood Mackenzie in consultation with OMV New Zealand and Energy Resources Aotearoa (ERA), the industry association representing the energy resources. Our analysis has therefore taken into account opinions expressed by New Zealand's petroleum companies, but we would like to emphasize that the conclusions and recommendations reflect Wood Mackenzie's own opinion. This report should thus be considered as an external third-party regulatory analysis that intends to be as objective as possible, based on the data and information reviewed. Wood Mackenzie does not have a vested interest in the outcomes of the ongoing consultation process. Our client base includes private corporations as well as regulators and governments.

It should also be noted that even though this report and the proposed regulations focus on the industry's legal and financial obligations, it is Wood Mackenzie's opinion that this topic should be addressed as part of a broader discussion on how to make decommissioning successful in New Zealand. Decommissioning indeed encompasses a wide array of different interdependent elements (e.g. impact assessment, capabilities, opportunities…) that need to be holistically considered and that require input from all stakeholders to be correctly understood. Because of what is at stake, the complexity of the endeavour and the scale of the resources to mobilise, making well-informed and balanced decisions is the most fundamental step in making decommissioning a success. As New Zealand starts to prepare for decommissioning, we believe that a collaborative, structured and holistic discussion on how to make it successful should underpin further decommissioning decisions.

2. Methodology & Objectives

We have used 2 documents to review New Zealand's proposed upstream decommissioning regulatory changes:

- Crown Minerals (Decommissioning and Other Matters) Amendment Bill
- Proposed regulations to support the Crown Minerals (Decommissioning and Other Matters) Amendment Bill 2021

The subsequent analysis and resulting report have focused on regulatory modules that we consider are the most likely to affect the key objectives of the decommissioning regulatory framework:

- Safe, effective, efficient, timely planning and execution of decommissioning activities
- Maximisation of the economic recovery of New Zealand's oil and gas resources
- Protection of taxpayers against decommissioning liabilities
- Responsible management of New Zealand's petroleum legacy
- Economic value creation from the New Zealand's Exploration & Production (E&P) industry

We have conducted the analysis following 2 approaches:

1. Direct: after reviewing the regulatory documents, we leveraged our upstream industry and regulatory experience to identify potential shortcomings and improvement opportunities pertaining to the 6 key regulatory modules identified.
2. Indirect: we then reviewed the offshore decommissioning regulations in the United Kingdom Continental Shelf (UKCS), Norway Continental Shelf (NCS), United States Gulf of Mexico (US GOM) and Australia Offshore to test our initial theses and refine our recommendations with an international perspective. The intent of this international comparison was to analyse the regulatory system put in place by other countries in an attempt to address similar challenges to those faced by New Zealand. We selected the 4 countries because of their decommissioning maturity, concessionary permitting system, political similarities to New Zealand (democratic systems of western developed nations) and large offshore E&P sector.

The reasoning we used and the conclusions we derived from our analysis are based on what we consider to be the core principles of any regulatory framework:

- Clarity in regulatory rationale, objectives, institutional setting and implementation framework. It is fundamental to clearly understand what the regulations prescribe and do not prescribe, the scope of their applicability and how they intend to be implemented in practice.
- Balance between the sometimes-diverging interests of the parties involved in the activities governed by the regulations. This balance is particularly important as the divergence in individual parties' interests tends to reflect the different objectives of the activities being regulated.
- Coherence of the overall regulatory system and of the principles that underpin the regulations philosophical foundations. Regulatory frameworks are built on certain socially and morally acceptable principles (e.g. the "Polluter Pays" principle). It is therefore paramount to ensure that these principles do not conflict and that they are consistently applied throughout the different pieces of regulation.
- Stability of the regulations and certainty in how they will be applied as well as what their outcomes will be. Stability and certainty are key to develop buy-in and to ensure individuals or entities subject to the regulations can actually prepare for and abide by them.

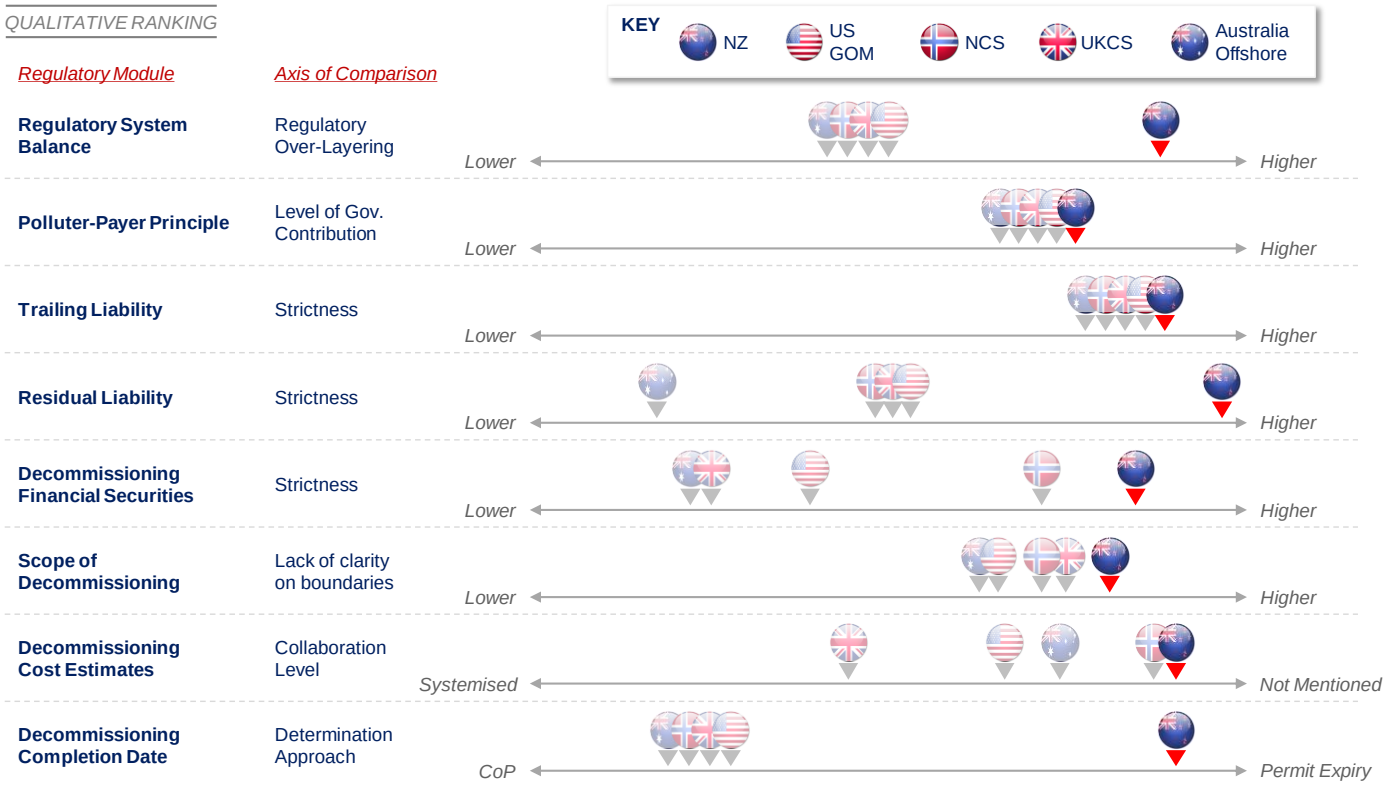
This has allowed us to generate 3 types of findings:

- Systemic: findings and recommendations pertaining to the balance and coherence of the overall regulatory system. This has in particular allowed us to conduct a comparison of the strictness and coherence of New Zealand's regulations compared to that of the other countries in the study.
- Module-specific: improvements to the inner mechanics of a specific regulation or specific proposition. This has usually to do with improving the practicality of a regulation and/or making it better aligned with the system's underlying principles.
- Detailed definition: more information and details would help better understand how a given regulation will be implemented and what its practical consequences are likely to be. Providing the right level of detail and specificity is indeed necessary to assess the impact on stakeholders. Any meaningful evaluation of whether a regulation is acceptable and how it compares to alternatives requires this impact assessment.

3. Summary of Results

Our analysis has reviewed the following 8 key regulatory modules:

1. Balance of the Regulatory System
2. Application of the “Polluter Pays” Principle
3. Trailing Liability
4. Residual Liability
5. Decommissioning Financial Securities
6. Scope of Decommissioning
7. Decommissioning Cost Estimates
8. Decommissioning Completion Date



1. Balance of the Regulatory System

New Zealand is the only country in our analysis that applies joint & several liability, trailing liability and makes compulsory the use of financial securities to protect taxpayers against decommissioning costs. Other jurisdictions analysed (UKCS, NCS, US GOM, Australia Offshore) seek to balance the overall regulatory system between level of taxpayers’ protection and regulatory burden on the economy.

New Zealand on the other hand seems to seek the highest level of taxpayers’ protection theoretically possible by implementing each protection mechanism to their full extent and then layering them together in the regulations. We believe that this layering of mechanisms overwhelmingly focused on taxpayers’ protection creates very strict regulations and could pose material risks to New Zealand’s economy.

Moreover, international benchmarks suggest that such a strict regulatory system is not necessary to obtain a satisfactory level of taxpayers’ protection. In the case of New Zealand, it is our view that the additional burden would outweigh the practical benefits of the increased protection.

We suggest taking a more balanced and integrated approach as other more mature decommissioning jurisdictions have done. In order to strike this regulatory balance, detailed impact assessments and comparative analyses between different regulatory options need to be conducted. To do so meaningfully would require a level of detail on implementation and practicalities that is currently lacking in the regulatory documents that we have reviewed.

2. Application of the "Polluter Pays" Principle

The "Polluter Pays" principle underpins decommissioning regulations in New Zealand like it does in the other jurisdictions of our analysis (UKCS, NCS, US GOM, Australia Offshore). The only element of discussion pertains to whether the principle should extend to include the government, and the consequences that such an inclusion would have.

Though the government is never legally identified as being responsible for decommissioning, multiple elements – chief amongst them the tax deductions on decommissioning costs – de facto include the government as one of the parties that directly finance decommissioning activities. This is the case in New Zealand as well as in the other jurisdictions we have reviewed.

A very practical consequence of how responsibility is delineated has to do with the quantification of the financial assurance (be it a financial security or simply the acceptance threshold of financial capability assessments) that a company might need to provide. With tax deductions providing the government's share of the decommissioning costs, companies would only need to provide a level of financial assurance equal to their share of the decommissioning costs net of tax deductions. Considering the materiality of decommissioning costs this could make a significant difference in the financial impact on companies, without reducing the level of taxpayers' protection as the tax deductions would in any case be provided.

We have also identified fundamental issues between the design of the post-decommissioning fund and the application of the "Polluter Pays" principle (see *Section 4.4 Residual Liability*):

- Absence of link between fund contribution (or exemption from contribution) and quality of decommissioning work, which we see as the main driver of post-decommissioning success or failure under the operator's control.
- Fund payments done by a given company are not ring-fenced to this company's assets and flow into collective funds. The responsibility to pay for the pollution is therefore decoupled from the actual responsibility for the pollution.
- Payment is done prospectively and there is no refund of the contribution to the contributing company if the company's assets do not experience post-decommissioning failures.

3. Trailing Liability

Trailing liability is the legal principle based on which, in the context of a transfer of asset ownership after which the buyer defaults, the seller is still liable for the execution of the decommissioning programme, usually to the extent of the decommissioning liabilities accrued at the point of ownership transfer.

The main point of discussion on trailing liability is the question of systemic balance already mentioned under the *Balance of the Regulatory System* section. Apart from this, we identified 2 elements that we would like to highlight:

- Core practical questions on implementing trailing liability need to be answered to better understand its impact and practicality.
- The examples of Australia's Northern Endeavour (NE) industry levy, Canada's Orphan Well levy and Norway's Decommissioning Parent Company Guarantee (PCG) illustrate how different jurisdictions deal with orphaned assets and the steps they took to prevent it from happening in the future. These examples are not necessarily best suited when discussing decommissioning or post-decommissioning liabilities on asset which are not orphaned. Managing and preventing orphaned assets is a distinct important topic which should be addressed by dedicated regulations.

4. Residual Liability

Residual liability is the legal principle based on which companies that are responsible for the decommissioning of one or multiple assets remain responsible for failures that occur on these assets once the decommissioning is completed. In particular, these companies would be liable to pay for the costs arising from those post-decommissioning failures.

Considering the creation of a financial mechanism to support the legal principle of residual liability is a legitimate question. Conceptually, it mirrors the decommissioning discussion on balancing legal liabilities and financial securities, i.e., how to ensure the benefits of additional taxpayer protection are not outweighed by the corresponding additional detrimental impact on the economy?

On this question, the 4 jurisdictions in our review (UKCS, NCS, US GOM, Australia Offshore) all apply the legal principle of residual liability, but none of them have implemented a corresponding financial mechanism. Moreover residual liability of companies is, every time, limited to the assets for the decommissioning of which they were responsible. There is no example of a collective industry responsibility for all E&P assets decommissioned in the jurisdiction.

If considering the creation of a financial mechanism is indeed valid, the answer that New Zealand brings on the other hand, in the form of the post-decommissioning fund mechanism, is in our opinion more problematic. The design and the principles on which the mechanism is built structurally conflicts with the application of the “Polluter Pays” principle.

We have identified 3 options of balanced paths that New Zealand could instead follow when applying the residual liability:

1. Only apply the residual liability without a corresponding financial mechanism, in line with international practices.
2. Apply the residual liability and request post-decommissioning non-cash financial securities (e.g. parent company guarantee, letters of credit…) conditional to certain risk factors (e.g. if the company no longer has business interests or investments in New Zealand, if the financial capability assessments show a risk of default…).
3. Apply the residual liability and request post-decommissioning cash-based (e.g. cash deposits) or investment-based financial securities. We particularly favour the use of Energy Transition-related domestic investments as collateral instead of a cash payment. Because post-decommissioning failures are an uncertain event, cash-/investment-based financial securities require a mechanism to limit how long they would last in the absence of actual failures:
    - ✓ Financial security is conditional to certain risk factors
    - ✓ A company’s financial security is ring-fenced to the company’s assets
    - ✓ Payment of/investment in the security is done close to or during decommissioning to minimise the risk of companies becoming cash-strapped because they have to pay financial securities for both decommissioning and post-decommissioning obligations.
    - ✓ Financial security is partially refunded/collateral drawn down once decommissioning is complete based on the quality of the decommissioning work
    - ✓ Remaining balance of the financial security gets progressively refunded/drawn down over time if no failures happen

5. Decommissioning Financial Securities

The main point of discussion on financial securities is the question of systemic balance already mentioned under the *Balance of the Regulatory System* section. Our opinion is that combining the joint & several liability with the trailing liability with mandatory financial securities is likely to overburden companies without providing a materially greater protection to taxpayers when compared to a more balanced system, which either combines legal liabilities with conditional financial securities or combines mandatory financial securities with reduced legal liabilities. When compared to the other countries in our review, New Zealand was the only one to combine joint & several liability, trailing liability and mandatory financial securities.

In other countries, legal liabilities are considered the first line of protection and a sufficient source of protection as they incentivise companies to put in place commercially driven financial securities as a protection against default. The use of government-mandated financial security is only a second line of protection, called upon only if assessments of financial capability demonstrate a risk of default. Application of this second line varies between countries.

At a more practical level, it is crucial to compare how different types of financial securities would be implemented in order to assess the level of taxpayers’ protection they provide, how accessible they are to different types of company, as well as their impact on companies’ profitability, future investments and balance sheet. The current state of the New Zealand proposed regulations does not provide a sufficient level of details to make this comparison possible.

6. Scope of Decommissioning

New Zealand’s proposed decommissioning regulations covers offshore wells, offshore infrastructure and subsea pipelines. The treatment of associated onshore assets (onshore wells, production stations, tank farms and sales export pipelines) however remains unclear.

There is no absolute answer as to whether it would be preferable to include these associated onshore assets to the decommissioning scope, and 2 questions requiring further detailed comparative studies must be considered:

1. Under which regulations would those assets fall if excluded from the proposed decommissioning regulations and what would that imply?
2. Should associated onshore assets be treated differently because of intrinsic characteristics that warrant either different regulations or specific provisions being made in the proposed regulations (e.g. only decontamination and partial dismantlement as the sites can be easily repurposed)?

The decommissioning regulations for offshore assets in New Zealand and other jurisdictions reviewed are aligned to the International Maritime Organization's (IMO) guidelines and require to permanently plug wells, remove all infrastructure and clear the seafloor. Derogations can exist but are treated on a case-by-case basis. They mainly pertain to leaving pipelines in situ and to doing only a partial removal on technically challenging concrete gravity-based structures.

7. Decommissioning Cost Estimates

Accurate estimation of decommissioning costs is fundamental because it determines the size of the resulting financial liability hence driving whether financial securities are required, their type and their amount.

- Underestimation leads to poor planning and puts decommissioning execution as well as taxpayers' protection at risk.
- Overestimation sub-optimally blocks capital that could otherwise be invested and deployed in the economy. Overestimation also has the potential to shorten field life by making late-life production extension projects uneconomic.

The proposed New Zealand regulations only state the requirement to provide cost estimates but do not discuss the practices and implementation details that underpin cost estimations. Based on our own expertise and the results from the international comparison, we believe that creating a vehicle of close collaboration on cost between the government and the operators (similar to that of the UKCS) should exist within a broader collaborative dialogue about decommissioning. A collaborative platform on cost would yield multiple benefits:

- Provide a shared database of assumptions and cost data that everyone can use, thus facilitating alignment between companies and the regulator (e.g. regulators costing each asset individually vs. companies including contracting economies of scale, thus leading to very material differences in cost expectations)
- Information sharing accelerates the learning curve (innovation, best practices exchange) thus driving costs down and safety up
- Lower decommissioning costs lead to lower tax deductions and therefore higher tax revenues for the government
- Coordination of decommissioning execution to realise economies of scale (e.g. shared rig/vessel) and reduced Non-Productive Time (NPT)
- Better understanding of the impact that different decommissioning scenarios, options and schedule have on operators

8. Decommissioning Completion Date

We recommend that, like other jurisdictions reviewed, New Zealand should adopt a "Flexible CoP+X" approach to decommissioning completion date, in which the completion date is anchored on Cessation of Production (CoP) and the specific timeline of an asset should be determined on a case-by-case basis through dialogue between the operator, other E&P companies and the regulator.

Timing flexibility should be provided to accommodate factors such as abandonment market capacity, Health, Safety & Environment (HSE) risks, infrastructure reuse, market factors, coordination with other projects and carbon emissions to optimise execution.

With regards to the legality of carrying out activities beyond the expiry of the permit (whenever the case arises), we believe that a decommissioning-specific permit extension, similar to those provided to exploration licenses for appraisal work, would answer this particular question.

4. Details of Study Results

4.1 Balance of the Regulatory System

The primary purpose of decommissioning regulations is to ensure decommissioning activities are carried out in a safe, effective and timely manner. To do so, the regulations need to assign the responsibility of decommissioning to physical and/or moral persons. Across all the jurisdictions we reviewed (UKCS, NCS, US GOM, Australia Offshore, New Zealand), this assignment is based on the application of the "Polluter Pays" principle. It is considered a fair approach that those responsible for the pollution should be liable to pay for the decommissioning of petroleum infrastructure. In practice, determining the responsibility for the pollution always looks at persons who have commercially or financially benefitted from the activities that triggered the pollution (i.e. the E&P activities) and, as a rule, assign formal responsibility based on past or present ownership of the E&P assets. Applying the "Polluter Pays" principle also means that those who have not polluted should not be the ones paying. In the case of decommissioning this really means protecting the taxpayers against having to bear the costs of decommissioning.

From that starting principle, it becomes necessary to ensure the "Polluter Pays" principle can be effectively applied to ensure taxpayers are protected. Regulations resort to a combination of 3 main protection mechanisms to do so:

- Joint & several liability: co-owners of an asset are liable, together and individually, for the full execution of the asset's decommissioning activities. In practice, taxpayers' protection comes from the fact that if a party defaults its partners will still need to pay and execute the full decommissioning programme. Joint & several liability is not per say a proposal. It is already part of the Crown Minerals Act 1991 (CMA 1991) though the CMA 1991 does not explicitly include decommissioning obligations. Historically, decommissioning obligations have been formalised in the specific terms & conditions of permits, which are themselves subject to the CMA 1991.
- Trailing liability: in the context of a transfer of asset ownership after which the buyer defaults, the seller is still liable for the execution of the decommissioning programme, usually to the extent of the decommissioning liabilities accrued at the point of ownership transfer. Taxpayers' protection comes from the fact that if the current owner defaults, the previous owner will be called upon to pay and execute decommissioning activities.
- Financial securities: decommissioning activities require large financial resources. Financial securities can involve different types of financial instruments, but they all aim to ensure that a sufficient amount of money is provisioned and available to cover decommissioning costs. Taxpayers' protection comes from the fact that if the current owner defaults, funds will be readily available to pay for decommissioning activities.

All the countries we reviewed include those 3 protection mechanisms in their decommissioning regulations, but what differs is the extent to which they are applied with regards to the overall balance of the regulatory system. The first point of contention pertains to the conditions that make financial securities needed: is the security mandatory or is it only required in certain cases? The second point of contention pertains to the type and amount of financial securities to be used: which instruments should be used, and how much should be secured?

Depending on the instrument used and amount requested, financial securities can indeed have a material and detrimental impact on businesses and the economy as a whole. They impact profitability by bringing forward cash outflows and creating new costs linked to the instrument itself. They impact balance sheet, thus weakening the company financially and making business more difficult to conduct (e.g. lower cash reserves, worsening gearing ratio, higher cost of financing…). They potentially disincentivise late-life production-extension projects that accrue decommissioning liabilities, by lowering their Net Present Value (NPV), potentially making them uneconomic (they already have slim margins) and thus shortening the field life. Of course, these business impacts have wide-ranging knock-on impacts on the economy through reduced tax revenues, reduced supply of energy, reduced investments, early shutdown of operations.

Intuitively, more protection mechanisms lead to better taxpayers' protection. Similarly stricter protection mechanisms lead to better taxpayers' protection. But as previously described, implementation of those different layers of protection sometimes comes at a steep cost. This is why the jurisdictions we have reviewed always try to balance legal liabilities and financial securities, so as to create sufficient taxpayers' protection but at the same to avoid adding additional burdens that outweighs the increased protection. In practice, the UKCS, the NCS, the US GOM and Australia Offshore apply the joint & several liability, apply the trailing liability (soon to be passed into law in Australia) but do not use mandatory financial securities.

These 4 jurisdictions consider that legal liabilities are a sufficiently robust first line of protection for taxpayers. Financial securities are only requested by the government if it assesses that the owners show risks of default on their decommissioning obligations. Legal liabilities are sufficient to incentivise companies to put in place commercially driven financial securities as a protection against default:

- In Joint Operating Agreements (JOA), the joint & several liability triggers the creation of Decommissioning Security Agreements (DSA) amongst the parties involved in the JOA, so that the default of one of the parties does not threaten the remaining parties.
- During a Merger & Acquisition (M&A) transaction, the trailing liability incentivises the seller to ask a DSA from the buyer, so that if the buyer defaults, funds are already provisioned to cover decommissioning costs.
- Successful assessment of financial capability (done periodically by the different regulators) is considered to provide sufficient certainty that a company will meet its decommissioning obligations. This is all the truer for large established companies that already provision for decommissioning obligations on their books for the purpose of internal accounting and shareholder information disclosure.

In practice, the actual application of the financial security request differs between countries. To this date, we are not aware of cases in the UKCS when financial securities have been requested by the government. In the NCS, the government can and has requested in the past that licensees provide financial security to fulfil their obligations, however the scope of these obligations is not limited to decommissioning activities or to a specific field. This security is designed as a corporate-wide financial security that covers all possible liabilities in the future. In the US GOM, use of mandated financial securities has been more common for companies deemed to be too weak financially, particularly many of the small shallow-water operators that acquired late-life assets in the past decade. In those instances, the regulator used bonds called “supplemental bonds”.

New Zealand is the only country in our analysis that applies joint & several liability, trailing liability and mandates the use of financial securities. At a systemic level, it seems that the regulations want to implement each protection mechanism to their full extent individually and then layer them together in the regulations to obtain the highest level of taxpayers’ protection theoretically possible. This may however have a significant impact on New Zealand’s economy as, for example, the cost burden on operators may result in earlier retirement of assets, leaving hydrocarbons on the ground. Instead we suggest taking a more balanced and integrated approach as other more mature decommissioning jurisdictions have done, with the aim of finding a level of protection that is sufficient in practice and still bearable by the industry.

In order however to strike this regulatory balance, detailed impact assessments and comparative analyses between different regulatory options need to be conducted. To do so meaningfully requires a level of details on implementation and practicalities that is currently lacking in the regulatory documents that we have reviewed.

4.2 Application of the “Polluter Pays” Principle

As previously mentioned, the “Polluter Pays” principle underpins the taxpayers’ protection that the decommissioning regulations aim to achieve. The principle relies on identifying who is responsible for the pollution to identify who should be liable to pay. Responsibility for the pollution is usually determined based on the commercial and financial benefits derived from the activities that triggered the pollution. Delineation of this beneficial relation to the polluting activities can be underpinned by different principles: equity (i.e. asset ownership), operatorship (i.e. operational control), financial benefit (i.e. share the profit). In practice equity is used in all countries, including in New Zealand. By applying the joint & several liability and the trailing liability however, the regulations suggest that equity ownership is not the sole driver of determination in who is responsible for the pollution:

- Joint & several liability disconnects the level of liability to the level of ownership
- Trailing liability extends ownership across time to former owners

Practical application points to a broader definition of the responsibility, and one that is more aligned to financial and commercial benefits rather than strict equity ownership. Under this conception, the government of New Zealand could arguably be designated as one of the primary financial beneficiaries of the polluting activities. This idea is further reinforced by 3 elements:

- The legal nature of the concessionary permits that grant E&P companies the permit to explore and produce New Zealand’s hydrocarbon resources. In its interpretation of section *1A. Purpose* in the CMA 1991, the Minerals Programme for Petroleum 2013 actually specifies in clause 1.3.4 that “*An underlying premise in the Act is that the government wants other parties, such as public and private corporations, to undertake prospecting for, exploring for and mining of Crown owned minerals, including petroleum. The government does not wish to undertake these activities itself, although it may from time to time undertake seismic survey or other prospecting activities for the purpose of providing information to promote interest in New Zealand’s petroleum estate*”.

- The tax deductions triggered by decommissioning spend which de facto make the government of New Zealand pay a material share of the decommissioning costs (deduction in the year in which costs are incurred, if the deduction results in tax losses and the expenditure is attributable to the removal and restoration operations, the losses can be carried back indefinitely and offset against previous year's income).
- The history of the Maui asset in which the government initially had a 50% interest through Petrocorp illustrates how the government was a direct owner.

Other countries we have reviewed also de facto accept the government's position as a financial beneficiary through the tax deductions that are granted for decommissioning spend. In the UKCS for example, incurred decommissioning costs and costs of decommissioning financial securities are tax deductible in the same year against Ring Fenced Corporate Tax (RFCT) and Supplementary Charge (SC). Costs in excess of the taxable income in the year can be carried back to April 2002, then can be carried forward indefinitely. When decommissioning losses are carried back, the 'last in, first out' (LIFO) principle applies. If a company however ceases its operations with outstanding decommissioning losses, these losses will not get tax relief. We estimate that the overall tax relief-based contribution of the UK government to decommissioning costs will be around 50%. Similarly in the NCS, the NPD estimates that it will indirectly (i.e. excluding Equinor's share) cover 78% of the costs associated with termination and disposal of facilities

There is a fourth element, that supports this position using a social contract-based prism. It analyses the rationale that underpins the use of specific taxes (e.g. excluding generic taxes like corporate income tax, VAT….) applied to extractive industries. Perception of extractive-specific taxation can fit on a spectrum where:

- One end considers that extractive industries take from a country's finite resources for the sole purpose of creating private corporate wealth. As these resources will not be replaced once they are extracted, resource-specific taxes are seen as a just compensation for the people in the country. This approach typically informs the age-old view of western E&P companies in developing countries.
- The other end of the spectrum considers extractive industries similar to a public-private partnership that serves the interest of both the country (economic prosperity, energy supply…) and the corporations (profits). On this end of the spectrum, both parties have their interests aligned and they bring their own capabilities to the table to make it happen. Countries for instance bring mineral resources, labour pool, regulatory stability, security or ease of doing business. Companies on the other hand bring technologies, know-how, investments, and other private sector attributes. This is a much more collaborative view of extractive activities in which the government is a business partner of E&P companies. It also corresponds to how we see NOCs behave or private companies in the UKCS or the NCS.

In our opinion, New Zealand falls on this second end of the spectrum. Based on our understanding of New Zealand, the Crown considers the extractive industry to be a partner in the economic growth and prosperity of the country. This, along with the 3 other elements previously mentioned, reinforces the idea that the government should be considered as a de facto beneficiary of E&P activities.

Beyond the conceptual consequence of changing the delineation of responsibility, a very practical consequence has to do with the quantification of the financial assurance (be it a financial security or simply the acceptance threshold of financial capability assessments) that a company might need to provide. With tax deductions providing the government's share of the decommissioning costs, companies would only need to provide a level of financial assurance equal to their share of the decommissioning costs net of tax deductions. Considering the materiality of decommissioning costs this could make a significant difference in the financial impact on companies, without reducing the level of taxpayers' protection as the tax deductions would in any case be provided.

4.3 Trailing Liability

Trailing liability (or more accurately lack thereof) is at the heart of what spurred New Zealand to review and strengthen its decommissioning regulations. Transfer law made it so that the trailing liability principle was indeed not applicable to the Tui field. Following Tamarind's insolvency, Tui essentially became an orphan asset and decommissioning liabilities were transferred to the government. This is a story that has happened in Australia, in Canada and in Norway.

The Northern Endeavour incident in Australia was initially triggered by a legal gap allowing existing titleholders to dispose of mature assets to entities which may not be financially or technically capable of fulfilling their decommissioning obligations:

- The transfer of the asset from Woodside to Northern Oil & Gas Australia (NOGA) was done via the sale of the company that held the title to the Northern Endeavour field. There was thus no transfer of title per say.
- National Offshore Petroleum Titles Administrator's (NOPTA) review of the technical/financial capability of the buyer as a condition for transaction approval only applies to direct transfer of title, and therefore did not happen on Northern Endeavour.
- Northern Endeavour was thus acquired by NOGA, a small company with limited financial capabilities, wholly dependent on this single asset's cash flows.
- When the asset was shut down by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) on HSE grounds, NOGA became cash strapped and entered voluntary bankruptcy, thus becoming unable to meet its decommissioning obligations.
- At the time, trailing liability on decommissioning did not exist. Consequently, the asset became orphaned and the decommissioning responsibility was passed on to the government.

In reaction to this incident, the government kicked off 2 initiatives:

- A full review of decommissioning regulations that led to the government proposing an amendment bill that includes trailing liability. It has been approved by the government and we expect trailing liability to be passed into law very soon. It will be applied on a LIFO basis and will allow NOPSEMA as well as the Responsible Commonwealth Minister to call back previous titleholders to remediate the area if the current titleholder defaults.
- Creation of a temporary production-based levy on the offshore industry with the sole intent of covering the costs that the government would have to bear to decommission Northern Endeavour. This levy is limited to the asset's decommissioning costs and not intended as a permanent mechanism.

In Norway, trailing liability applies to asset sales only (i.e. sale of the interest in the asset by way of transfer of the licence and related contracts), but not to a sale of all or part of the shares in a company holding interests in production licences. In 2017 the Ministry of Petroleum & Energy (MPE) decided to create a system of decommissioning liability for share sales in the form of a seller's guarantee. This system was not entered into law but rather became a condition (not systematically called upon) to obtain approval from the MPE for any transactions (whether direct or indirect) which result in a change in control of an interest in a production licence on the NCS.

Though this new approval condition does not eliminate the risk of an asset being orphaned, it eliminates the risk that the taxpayers or the industry have to bear the costs of decommissioning should an asset become orphaned. The seller's guarantee (called Decom PCG) works as follows:

- Can be issued by the share seller itself, or by its parent or ultimate parent – at the MPE's discretion
- The guarantee is structured as a surety, in which the default of the target firm (the buyer) to pay decommissioning costs cash calls (currently three months after the due date) will trigger payment – there is no requirement for the licensees to utilise rights under the JOA or insolvency procedures.
- The beneficiaries of the guarantee are the licensees in the production licences held by the target company, and the Norwegian State
- The liability is a pure financial liability but is unlimited, and the full pre-tax value of the defaulted decommissioning cost is payable.
- The liability covers only facilities in place at the completion of the share sale transaction
- The liability is prorated to the participating interest held by the target company in the relevant fields at the time of share transfer registration.
- The guarantee remains even if the shares of the target company are subsequently sold to a new buyer. In that case, the claim under the guarantee shall first be made against the latest successor in interest and then further up the successor chain.

In the Canadian province of Alberta, the Orphan Well Association (OWA) was created to protect public safety and manage the environmental risks of oil & gas properties that are categorised as orphans, i.e. when there are no legally responsible parties to undertake the decommissioning obligations. When the owner of an asset defaults, the Alberta Energy Regulator (AER) will first reach out to remaining working interest participants. Thereafter, if they are unable to find any, the infrastructures are handed over to OWA.

The Orphan Fund Levy has been put in place to pay for the closure activities (suspension, abandonment, remediation, or reclamation) pertaining to these orphan infrastructures. The levy is calculated by AER in consultation of OWA, the

Canadian Association of Petroleum Producers (CAPP), and the Explorers and Producers Association of Canada. It is assessed based on the estimated costs needed to carry out decommissioning operations by OWA, anticipated claims by defaulting companies, debts arising from previous years' operations and any surplus for emergencies or expenditures AER deems necessary. Once the levy has been finalised, AER will annually request for each active E&P company under its jurisdiction to pay their share of the levy. The share is calculated based on the share that a given company has on the industry's overall remaining decommissioning liabilities.

As of 2020, Alberta has expanded the powers of OWA to allow production and operation of wells, pipelines and facilities in its custody under the Liabilities Management Statutes Amendment Act, 2020 (Bill 12). This ensures that the wells are not prematurely decommissioned if there are any profits generated that can be used to offset the Orphan Fund Levy.

These 3 examples illustrate how different jurisdictions dealt with the risks of orphaned assets and the steps they took to prevent assets from being orphaned in the future. It is important to note that these case studies are not best suited to discussions about decommissioning or post-decommissioning liabilities on asset which were not orphaned. Though some of the mechanisms put in place might be similar (e.g. use of an industry levy to decommission orphaned assets and use of an industry levy for post-decommissioning costs on non-orphaned assets) the rationale and approach used by regulators in the 3 previous case studies are fundamentally different from that of regulators dealing with non-orphaned assets. In our opinion, these examples provide very valuable insights on how to deal with orphaned assets but should not be used beyond that scope. Managing and preventing orphaned assets is a distinct important topic which should be addressed by dedicated regulations.

Like all the countries in our review, New Zealand includes in its proposed regulations the principle of trailing liability limited to decommissioning obligations existing at the time of asset transfer. The main point of contention on trailing liability is the question of systemic balance already discussed previously under the Balance of the Regulatory System section. Apart from this, answering practical questions on trailing liability would help better understand its impact and practicality:

- How is liability prioritised amongst several "generations" of former owners?
- How is the trailing liability of former owners prioritised with the joint & several liability of current owners?
- How is financial liability quantified and distributed amongst the different companies that had ownership over time? What are the allocation keys?

4.4 Residual Liability

The Post-Decommissioning Fund (PDF) is a key element of the proposed New Zealand decommissioning regulations. It seeks to create a financial mechanism (a levy in this case) that applies the "Polluter Pays" principle to the post-decommissioning residual risks. We see the PDF having 3 defining characteristics:

- Payments by the E&P industry to the fund are collected prior to the pollution-triggering event, on the basis that 3 characteristics of an asset (well integrity, infrastructure, HSE impact of failure) constitute a good proxy for future risks of failures. This ex-ante collection of the funds is in part justified by the difficulty and costs that New Zealand would face if it had to seek payment from a foreign company, located outside of New Zealand, without economic interests in New Zealand that could be used as collateral.
- The PDF collectivises (within the separate realms of offshore and onshore assets) the responsibility for decommissioning failures. All companies contribute to a fund based on their portfolio of assets, and the money in the fund is used to address costs of decommissioning failures regardless of the asset on which the failures happen.
- The PDF does not have a restitution mechanism that allows for unused funds to be returned to the contributors. It is in essence a new industry-wide asset-based tax.

The underlying articulation of ideas between residual liability and PDF is conceptually the same as the articulation between legal decommissioning liability and decommissioning financial securities: it boils down to a question of balance between protection of the taxpayers against post-decommissioning costs and the detrimental impact on the economy of this protection. Governments want to avoid a situation in which excessive protection (i.e. beyond what is needed in practice) weakens companies' balance sheets, makes business more difficult to conduct, reduces profitability (and thus tax revenues) or disincentivises late-life production-extension projects.

The 4 jurisdictions in our review (UKCS, NCS, US GOM, Australis Offshore) all apply the legal principle of residual liability, but none of them have implemented a corresponding financial mechanism. Moreover residual liability of

companies is, every time, limited to the assets for the decommissioning of which they were responsible. There is no example of a collective industry responsibility for all E&P assets decommissioned in the jurisdiction.

Based on the comparative international analysis and on our own regulatory expertise, we see fundamental flaws in how the PDF is designed and in its 3 defining characteristics, as it infringes on the application of the "Polluter Pays" principle:

- There is no link between quality of decommissioning work and fund contribution or exemption from contribution. Assuming that the quality of the work is the main driver of post-decommissioning success or failure, contribution should be linked to the quality of the decommissioning work so that companies are held responsible for pollution arising from their failure. By not linking the 2 elements, all upstream players are payers regardless of pollution. This is simply a tax on the industry.
- Individual contributions are pulled together in 2 funds (onshore and offshore) used to cover cost of failures, regardless of the source of the contribution (who pay, how much they pay) or the company actually responsible for the failure (who was responsible for the decommissioning work, who were the asset's last owners). Therefore responsibility to pay for the pollution is shared, regardless of the actual responsibility for the pollution.
- Payment is done prospectively and therefore not triggered by the pollution. There is no refund of the contribution to the contributing company if the company's assets do not experience post-decommissioning failures. There is therefore, in theory, a direct incentive for companies to carry out the legally mandated minimum scope and quality of decommissioning, because they will still pay for decommissioning failures, regardless of their occurrence. Whether this incentive is actually acted upon depends on companies' ethical stance as well as how strict and prescriptive wells Plug & Abandon (P&A) regulations are. If the infrastructure is fully removed, wells become indeed the primary source of decommissioning failure risks. Whether companies have the ability to reduce the scope and quality of P&A work and remain within the legal envelope, depends on the minimum scope and quality of P&A prescribed in law.

Furthermore, we have identified practical elements that would need to be clarified in order to understand how the PDF would be implemented:

- On what basis is PDF contribution calculated?
- How is the cost of a failure quantified?
- Is a risk-of-failure factor applied to the cost of failure?
- How are PDF contributions scheduled over time?
- Is there a limitation (time, financial amount, failure scenarios) on the extent of the residual liability?
- Does payment in full to the PDF terminate the residual liability?
- How is failed decommissioning defined in relationship to what companies can control?

Following our analysis, we believe that the PDF under its current form requires a structural redesign. We have identified 3 paths that could be taken by New Zealand.

The first one follows international practices and does not create a financial mechanism to match the residual liability. This is the choice made in UKCS, NCS, US GOM and Australia where the residual responsibility is considered to provide sufficient protection to taxpayers.

The second paths mirrors what is done for decommissioning. Instead of resorting to a collective industry-wide levy, the government could ask companies to provide a financial security to protect taxpayers from decommissioning failures, ring-fenced to those assets for which these companies were responsible.

Using a levy implies cash payments, when other financial instruments better aligned to the "Polluter Pays" principle could be used (e.g., parent company guarantees…). If different financial instruments are deemed to provide a sufficient level of protection against decommissioning costs which are certain to happen, those same instruments should similarly provide a sufficient level of protection against post-decommissioning costs which are only possible.

In the spirit of balance, the financial security would be conditional (e.g. if the company no longer has business interests or investments in New Zealand, if the financial capability assessments show a risk of default…) rather than mandatory. Then the same considerations as those exposed in *Section 4.3 Decommissioning Financial Securities* would apply regarding financial instruments, amount, contribution schedule… On this path, an advantageous and mutually beneficial form of securities would be domestic investments used as collateral, particularly if those investments can accelerate the Energy Transition and contribute to the country's sustainable economic growth.

The third possible path would be to retain the current cash payment model but to modify the design and implementation mechanisms to address the flaws previously highlighted. Recommended changes would include:

- Payment is conditional (e.g. if the company no longer has business interests or investments in New Zealand, if the financial capability assessments show a risk of default…)
- Company's contribution is ring-fenced to its own assets
- Contribution is done close to or during decommissioning based on a conservative estimate and clear calculation rules (this will avoid the risk of companies becoming cash-strapped because they have to pay both decommissioning financial securities and post-decommissioning fund contributions. It also reduces the length during which capital is tied up in the fund before the first refund is made)
- Create a refund mechanism. The PDF is setup to address failures that only have a risk to happen. When compared to financial securities for decommissioning liabilities, the PDF is more akin to an insurance mechanism while financial securities are actual provisioning for future costs. Post-decommissioning failures could very well never happen, the immobilisation of the cash payments to address risk of failures should therefore be limited in time based on the evolution of the risk profile:
  - ✓ Part of the contribution can be refunded once decommissioning is complete based on the quality of the decommissioning work
  - ✓ Remaining balance of contribution would get progressively refunded over time if no failures happen
- "Green" domestic investments could be used as collateral instead of a cash contribution. This would avoid capital sitting idle, help the E&P companies be part of the energy transition, enable E&P companies to retain active economic interests in New Zealand and support the government's overall energy strategy.

4.5 Decommissioning Financial Securities

The question of financial securities is a multi-layered topic of discussion. At a systemic level, the focus is on whether to make financial securities mandatory within the broader question of balancing legal liabilities and use of financial securities to create a level of taxpayers' protection which is deemed sufficient but not overly detrimental to the economy.

At a more practical level, the focus is on how financial securities will be used, both in the case when they are or are not mandatory. Some of the key practical questions to answer are:

- Which financial instrument should be used depending on the company, on the situation, on the outcome of the financial capability assessments?
- For different types of instruments, how to calculate the value of the financial security in relation to the estimated decommissioning costs?
- For different types of instruments, how to determine the schedule of payment that contributes to building up the financial security?

The systemic-level question of balance has already been discussed in *Section 4.1 Decommissioning Liability* of the document. Our opinion is that combining the joint & several liability with the trailing liability with mandatory financial securities is likely to overburden companies without providing a materially greater protection to taxpayers when compared to a more balanced system, which either combines legal liabilities with conditional financial securities or combines mandatory financial securities with reduced legal liabilities.

Of the countries we have reviewed, New Zealand is the only one that combines joint & several liability, trailing liability and mandatory financial securities. In other countries, legal liabilities are considered the first line of protection and they incentivise companies to put in place commercially driven financial securities as a protection against default. In JOAs, the joint and several liability triggers the creation of DSAs amongst the parties involved in the JOA. During an M&A transaction, the trailing liability incentivises the seller to ask a DSA from the buyer.

In the countries reviewed, the use of government-mandated financial security is only a second line of protection, called upon if assessments of financial capability demonstrate a risk of default. Most times, the combination of the legal liabilities and the commercially driven DSAs are considered to provide a sufficient level of certainty that a company will honour its decommissioning responsibilities. This is all the truer for large established companies that already provision for decommissioning obligations on their books for the purpose of internal accounting and shareholder information disclosure. Use of this second line of protection varies between the countries we have reviewed:

- In the UKCS, based on our understanding, the government has never resorted to mandating financial securities

- In NCS, the government sometimes requests licensees to provide financial security to fulfil their obligations, however the scope of these obligations is not limited to decommissioning activities or to a specific field. It is designed as a corporate-wide financial security that covers all possible liabilities in the future. The instrument used is usually a parent company guarantee, though the government may request other instruments such as letters of credits.
- In NCS, the Ministry can also request a seller's guarantee as part of the approval process (not in the regulations) to sell shares in a company holding interests in production licences. The guarantee is a surety of unlimited amount but not exceeding facilities in place at the completion of the share sale transaction and prorated to the participating interest held by the target company in the relevant fields at the time of share transfer registration. This surety is designed to the benefit of the other licensees and the Norwegian State.
- In the US GOM, use of mandated financial securities has been more common for companies deemed to be too weak financially, particularly many of the small shallow-water operators that acquired late-life assets in the past decade. In those instances, the regulator used bonds called "supplemental bonds". It is worth noting that supplemental bonds were rescinded by the Trump administration and now in the process of being re-instated by the Biden administration. While the rules for financial assurance have not been finalized yet between the two presidential administrations, it is likely that the regulators will impose a system where good credit/highly capitalized companies will be able to "self-insure," i.e. not rely on surety bonds to meet their obligations. Lower credit/less capitalized companies will not be able to self-insure, though they may be able to rely on the self-insurance status of a JV partner in an asset. The concern among these lower credit companies is twofold: first, that the annual bond cost would represent an untenable expenditure, especially among the older, less cash flow positive assets; second, that the insurance market would be unable or unwilling to issue bonds given the significant chance that a bond will be called on an asset that has no value. The current bankruptcy case of Fieldwood is being closely monitored as the company has an estimated USD 9.3bn in decommissioning obligations, and it is highly likely that it will fail to fulfil those obligations after the bankruptcy restructuring. Some of the USD 9.3bn is covered by supplemental bonding, so if Fieldwood fails to meet its obligations then some or all of those bonds would be called in, probably in the amount of hundreds of millions or billions of dollars in claims. This will likely make the insurance sector reluctant to issue new bonds when they already have significant risk in the region, thus possibly making access to supplemental bonds harder for smaller companies in the region.

Except in the specific cases aforementioned, we have very limited information regarding the type, amount and payment schedule of the financial securities used by E&P companies in other countries. When they are used in a purely commercial context, implementation details are not communicated though we understand parent company guarantees are often used. When they are mandated by the regulator in the US GOM, implementation details of the supplemental bonds are the result of a confidential negotiation with the operators. We therefore cannot provide a point of comparison using practices in other countries.

We would however like to provide a framework to help compare different types of financial instruments and articulate the impact they can have on a company. Different types of financial instruments can be categorised along 3 dimensions that must be balanced when comparing an instrument to another:

- Liquidity: how rapidly available the funds are. This is particularly important to regulators as the less liquid the instrument the lower the guarantee it is perceived to provide. Cash deposits or bonds are the most liquid as they essentially are pre-payments, but they are also the ones that impact companies' profitability the most.
- Impact: for a given amount of financial security, different instruments impact NPV differently because of Time Value of Money (TVM) (e.g. upfront vs. late payments). In addition, the costs of different instruments vary, thus triggering different levels or additional costs. Finally, all instruments are not treated the same by accounting principles and their impact on the balance sheet and subsequent evaluation of financial strength (e.g. cost of financing, gearing ratios, short-term vs. long-term liquidity…) varies.
- Feasibility: not all instruments are available in every country depending on the financial ecosystem and not all instruments are available to every company depending on cash availability (e.g. deposit), corporate structure (e.g. parent company guarantee) or portfolio structure (e.g. asset guarantee).

It is worth noting that financial instruments with a high impact on NPV through TVM could shorten field life by making late-life extension projects uneconomic. These projects tend to have slim margins and will accrue new decommissioning liabilities. By simply bringing forward decommissioning payments that were initially planned in later years, the choice of financial instruments could turn these projects from economic to uneconomic.

From the perspective of protecting shareholder value, E&P companies should favour financial securities with the minimal levels of cash outflows (both security payments and cost of security) and the most delayed schedule of payment. To be

able however to compare the merits of financial instruments, additional details need to be provided in the regulations to answer key practical question such as:

- How is the amount of the security be calculated in relation to decommissioning cost estimates?
- Does the amount differ based on the financial instrument selected?
- For different instruments, what is the expected schedule of payment? Is there a provision for companies that would be financially choked by certain instruments (e.g. large cash deposits over the span of only a few years)?
- How is the amount allocated amongst existing owners in the context of the joint and several liability?
- How is the amount allocated amongst existing and former owners in the context of the trailing liability?
- If a "negative" financial capability assessment can trigger a call for additional financial securities, would a "positive" assessment result in the reverse?

Practical details provide clarity on the pros and cons of different financial securities. They also allow companies to understand how they should prepare to provide a guarantee. For instance, would they need to pay back other debts to keep a low gearing ratio, or remove a guarantee already placed on an asset, or provision cash for upcoming payments.

4.6 Scope of Decommissioning

Understanding the scope of decommissioning required by the regulation is critical as it forms the basis on which cost estimates, subsequent financial obligations and activity plans will be defined. In this study, we have looked at the dimensions of decommissioning scope:

- Asset scope: the assets that fall under the decommissioning regulations, and in particular how the onshore assets associated to offshore production should be treated (e.g. production stations, tank farms, long-reach deviated wells, water injection wells).
- Technical standards: activities that need to be performed on the different types of assets within the scope to consider the decommissioning to be complete.

Asset Scope

New Zealand's proposed regulation does not specify the asset scope but refers to structure "*used to explore or produce petroleum products*". In the context of offshore production, this implies that a core asset scope would include offshore wells, offshore infrastructure and subsea pipelines. How onshore wells, production stations, tank farms and sales export pipelines are treated remains unclear.

In all countries reviewed, the decommissioning regulations for offshore hydrocarbon production excludes associated onshore assets such as processing plants. These are treated differently, either because of jurisdictional boundaries (e.g. Federal vs. State jurisdiction in the US GOM) or because they are considered similar to other "plant-like" assets such as power plants.

There is no absolute answer as to whether it would be preferable to include associated onshore assets to the decommissioning scope. There are 2 elements to consider. First, under which regulations would those assets fall if excluded from the decommissioning regulations and what would the impact be on companies. A detailed comparative study is required here to determine which option is more advantageous.

Second, should associated onshore assets be treated differently because of intrinsic characteristics that warrant either different regulations or specific provisions being made in the proposed regulations? In the UKCS, subsea pipelines can be left on the seabed if there is a potential for re-use, particularly for the Carbon Capture & Storage (CCS) industry using depleted reservoirs for storage. In a similar fashion, it is likely that the sites of associated onshore assets could be repurposed for other industrial use where offshore installations are less likely to have a second life. This would justify the need to treat the decommissioning of associated onshore assets differently (e.g. with only decontamination and a partial dismantlement). Again, further studies are needed here to understand potential for re-purposing and decide on the need for regulatory specificities.

Technical Standards

IMO's guidelines on the "*Standards of the Removal of Offshore Installations and Structures on the Continental Shelf and in the Exclusive Economic Zone*" require full removal for all abandoned or disused offshore installations. However, the guidelines also allow coastal States to have the authority to make exceptions from this requirement on case-by-case

basis. Reasons for exceptions include installations that can be repurposed (e.g. “Rigs-to-Reef” programmes in the US GOM and offshore California); installations for which the removal is technically unfeasible, extremely costly or present unacceptable risks to personnel or the marine environment; installations that do not cause any interferences with other uses of the sea. Should any infrastructures be left in situ however, IMO guidelines warrant that there should be a 55m unobstructed column of water to ensure safety of navigation, and these infrastructures need to be clearly marked to help with navigation.

In New Zealand and in other jurisdictions reviewed, the decommissioning regulations for offshore assets are aligned to IMO’s guidelines and require to permanently plug wells, remove all infrastructure and clear the seafloor. Derogations exist but are treated on a case-by-case basis. Pipelines for instance are often left in situ following an assessment of the environmental impact of leaving the pipeline in situ; of the environmental impact of removing the pipeline; of the cost of removing the pipeline. This is the case in the UKCS if the removal will destroy marine ecosystems or of there is potential for re-use, particularly for CCS and storage projects. Similarly the in US GOM, Bureau of Safety and Environmental Enforcement (BSEE) allows for pipelines to be left in situ if they do not constitute a hazard to navigation and commercial fishing operations as well as do not have any adverse environmental effects. They are then decommissioned, cleaned, filled with seawater and plugged at the ends.

In practice, platform-related structures are less prone to derogations. In the UKCS and NCS, IMO’s guidelines are supplemented by OSPAR Decision 98/3 which makes full removal of topsides and all steel installations with a jacket weight less than 10,000 tonnes in air mandatory. Concrete installations and steel jackets weighing more than 10,000 tonnes in air are subject to decisions by the relevant coastal State authority:

- In the UKCs, the decision from the government on the Brent field is pending and will establish precedence for the other ~10 similar platforms for which the concrete legs and foundations could be left in place. Shell has proposed to the Oil & Gas Authority (OGA) a decommissioning option that includes only the partial removal of the legs. They have justified this approach with technical feasibility studies which show that due to the age and design of the structures, the way they are fixed to the seabed and the unpredictable way they may rise to the surface, a refloat operation would be too risky. There is also a high probability of technical failure and high risk to human life and the environment.
- In the UKCS again, decommissioning proposal for Dunlin Alpha include an option to cut the legs 55m below sea level. The concrete gravity-based structure weighs around 32,000 tonnes and requires large scale underwater cutting operations that have not been attempted before. Technical reviews done by independent third parties have concluded that full removal is not feasible due to the significant technical and marine operation challenges.
- In the NCS, a decommissioning study headed by Exxon on the Odin Field compared the impact of 3 different topside decommissioning options (remove and take ashore for recycling, remove and dispose in deep-water, place on the seabed as artificial reef) and concluded in favour of onshore recycling. It was deemed to be the most economical option due to transportation and cleaning costs, as well as the one addressing potential issues arising from future liabilities for dumped installations.

In Australia, NOPSEMA is in the process of reviewing its decommissioning regulatory framework and has stated its intent to collaborate with the industry to provide guidance. In particular, NOPSEMA wants operators to articulate the risks and benefits of alternatives to full removal so that they can provide a pathway for obtaining deviations where appropriate.

Regulations proposed in New Zealand are aligned to that of other countries reviewed in this analysis. Additional details regarding the decision criteria to justify derogations to the full removal default position would help the industry assess the expected scope, scale and cost of decommissioning more accurately.

4.7 Decommissioning Cost Estimates

Accurate estimation of decommissioning costs is fundamental because it determines the size of the resulting financial liability hence driving whether financial securities are required, their type and their amount. Underestimation leads to poor planning and puts decommissioning execution as well as taxpayers’ protection at risk. Overestimation on the other hand sub-optimally blocks capital that could otherwise be invested and deployed in the economy. Overestimation also has the potential to shorten field life by making late-life production extension projects uneconomic as these projects accrue new decommissioning responsibilities and tend to already have slim margins. In these cases, the difference between accurate estimation and overestimation could be the difference between an approved economic project and a shelved uneconomic one.

Yet, the accurate estimation of decommissioning costs is an intrinsically challenging exercise. First, regional cost data is limited. While there are cost benchmarks from other jurisdictions that could be used, New Zealand specifics would

have to be factored in. These include geographical remoteness, maturity of the decommissioning ecosystem, availability of labour, sourcing lead times…

Moreover, as CoP approaches, more granular and confident estimates will be required. This is turn is likely to require actual market quotations and/or third-party estimates which would be time-consuming, often costly and sometimes difficult to obtain depending on the supplier ecosystem depth.

Finally, accurate cost forecasting must incorporate a large number of variables susceptible to making cost vary significantly. These include both external (e.g. supply/demand balance, rig availability, forex rates, inflation…) and internal (e.g. economies of scale by coordinating execution, technological advancement, scaling of the supply chain, industry progressing up the learning curve…) elements.

These challenges are not specific to New Zealand and every country preparing for decommissioning is facing them. In the countries we reviewed, all companies estimated decommissioning costs using a similar approach to that used for capital project costing. To estimate decommissioning costs:

- Companies develop their own cost estimates internally to support Field Development Plan (FDP) submission and updates as well as internal accounting.
- Granularity of costing increases with project maturity (e.g. pre-development vs. steady-state production)
- Internal costing relies on internal benchmarks (particularly for large international companies with international portfolios), market quotations and public sources

In some cases (UKCS, US GOM, NCS) we found that the regulator was developing its own costing model to conduct financial capability assessments, and that it sometimes (UKCS, US GOM) also provided cost data to the industry to help companies in their effort. Governments however never prescribed the use of specific cost data and methodologies. At best they provided guidance by fostering a collaborative working environment.

In the UKCS, the government is particularly pro-active in working with companies to promote innovation, scaling of the decommissioning industry and identification of decommissioning cost reduction. This is part of the broader UKCS decommissioning strategy that emphasizes these actions are key levers to accelerate the industry's learning curve.

The OGA expects companies to provide a reasonable cost estimate of the decommissioning programme but also acknowledges that accurate cost data and confirmation of the final decommissioning option may be dependent on the outcome of a commercial tendering process. As a result, companies participate in stewardship meetings every 6 months during which decommissioning costs and approaches (from estimates and execution) are shared and discussed. This results in a cost database on which companies can rely to do their cost estimates. It also provides the benefit of aligning all parties on a common set of cost assumptions and to foster sharing of lessons learnt.

The proposed New Zealand regulation only states the requirement to provide cost estimates but does not discuss the practices and implementation details that underpin cost estimations. Based on our own expertise and the results from the international comparison, we believe that creating a vehicle of close collaboration on cost between the government and the operators should exist within a broader collaborative dialogue about decommissioning. A collaborative platform on cost would yield multiple benefits:

- Provide a shared database of assumptions and cost data that everyone can use, thus facilitating alignment between companies and the regulator (e.g. regulators costing each asset individually vs. companies including contracting economies of scale, thus leading to very material differences in cost expectations)
- Information sharing accelerates the learning curve (innovation, best practices exchange) thus driving costs down and safety up
- Lower decommissioning costs lead to lower tax deductions and therefore higher tax revenues for the government
- Coordination of decommissioning execution to realise economies of scale (e.g. shared rig/vessel) and reduced NPT
- Better understanding of the impact that different decommissioning scenarios, options and schedule have on operators

4.8 Decommissioning Completion Date

The mechanism used to determine the completion date of decommissioning activities must balance 2 objectives: planning certainty and pragmatic flexibility

- Planning certainty to ensure decommissioning will be done and that all parties are aligned on when it will happen.
- Pragmatic flexibility to accommodate execution uncertainties and ensure decommissioning activities are executed in a safe, efficient and effective manner.

About the decommissioning completion date, MBIE's proposed regulations state that the "*intention is to disincentivise permit and licence holders deferring decommissioning, unless there is a good reason for doing so; it is not to interfere in commercial decision of private companies*". To achieve this, MBIE is proposing to anchor the decommissioning end date on the permit expiry date.

While this provides planning certainty, the principle may have unintended detrimental consequences. If, under the current baseline FDP, decommissioning was to happen just after permit expiry (e.g. in the case where CoP happens close to permit expiry), anchoring the decommissioning completion date on permit expiry would incentivise operators to find solutions to bring decommissioning forward so as to not have to apply for a new permit.

One way would be to shorten the life of the field by bringing CoP forward, thus allowing for sufficient time to execute decommissioning between CoP and permit expiry. Obviously, this would directly result in economic revenue losses, tax revenue losses, energy supply losses and suboptimal economic recovery of hydrocarbon resources.

Another way would be to find ways to accelerate the decommissioning schedule, by cutting down on scope, selecting service rigs based primarily on schedule availability, sourcing capabilities based on schedule availability, increasing the risk acceptance threshold or eliminating planning buffers. Such an approach would increase execution risks and, to some extent, prioritise timely execution over proper execution.

On the other hand, one could question the need to emphasize planning certainty so much if legal and/or financial obligations already provide certainty that decommissioning will happen, even if not by the operator itself in a worst-case scenario. The alternative, taken by all countries reviewed during our analysis, is to anchor decommissioning completion date on the CoP date and to allow for planning and execution flexibility within the bounds of a pre-defined window of time. We coin it the "Flexible CoP+X" approach. While theoretically, but not practically, marginally reducing planning uncertainty, this approach offers multiple benefits towards a safe, efficient and effective execution. Flexibility indeed allows operators to better design, plan and prepare for decommissioning, prioritising quality of work. By doing so, they are better able to mitigate risks and capture opportunities.

For instance, it allows companies to coordinate the decommissioning of multiple assets to achieve economies of scale and better contracting terms, typically in rigs or vessel contracting. This is particularly relevant for New Zealand where its remote location and relatively small E&P ecosystem makes the cost of marine spread and rig leasing a major cost component. Coordinating rig use will also have a positive impact on carbon emissions stemming from marine spread.

Flexibility also allows an improved understanding of the capabilities that will be required, how to find those capabilities and choose the sourcing model that best fits the industry. One could imagine that if the decommissioning of multiple assets were to be coordinated and if operators had time to align on their technical solutions, the industry could come together to setup a decommissioning capability development program targeted at developing domestically specific core capabilities that might otherwise be difficult to source internationally. This would trigger positive economic benefits, secure core capabilities and accelerate the learning curve for those capabilities in the specific context of New Zealand.

As previously mentioned, this "CoP+X" approach is the choice made in the UKCS, NCS, US GOM and Australia. They all notionally anchor the decommissioning completion date on CoP, provide a generic guidance on timeline but ultimately take a case-by-case approach, recognising that many factors influence when the optimal decommissioning completion date should be. Typical elements that factor in the determination of the timeline include abandonment market capacity, HSE risks (e.g. in environments where the absence of maintenance can rapidly increase the risks of HSE incidents on a facility), infrastructure reuse (e.g. options to reuse pipelines for CCS projects) , market factors (timing for market oversupply) and coordination with other projects to optimise execution.

For example, one of the UKCS' decommissioning strategic objectives is to accelerate the learning curve and to reduce costs. To do so, the OGA emphasises the need to take a tailored approach and views infrastructure reuse, technological innovations and coordination as key success drivers. The regulation provides for deferred or phased decommissioning in those cases. On the topic of permit expiry, the regulation actually goes to extent of explicitly stating that "*The relinquishment of the field license is not related to completion of a decommissioning programme or any ongoing liabilities under it. The timing of relinquishment is a separate matter which should be discussed with the OGA's Licensing Unit as well as HMRC*."

Likewise in Australia, the regulation does not prescribe a fixed timeline for decommissioning. In practice, the regulator recommends that mobile floating facilities (e.g. Floating Production, Storage and Offloading vessels) be decommissioned within 1 year after CoP, wells to be P&A within 3 years after CoP and fixed structures (platforms, pipelines) be decommissioned within 5 years after CoP. In practice, NOSPEMA recognises that there is not a “one size fits all” and therefore treats decommissioning schedule on a case-by-case basis.

We therefore recommend that New Zealand adopts a “Flexible CoP+X” approach to decommissioning completion date, in which the specific decommissioning timeline of an asset should be determined on a case-by-case basis through dialogue between the operator, other E&P companies and the regulator. With regards to the legality of carrying out activities beyond the expiry of the permit (whenever the case arises), we believe that a decommissioning-specific permit extension, similar to those provided to exploration licenses for appraisal work, would answer this particular question.

5. Conclusion

Decommissioning of petroleum infrastructure forms a central part of the Energy Transition narrative for any hydrocarbon producing country, particularly so for one as environmentally progressive as New Zealand. As large-scale execution starts to become a tangible reality, operators are trying to determine how to best and safely deliver the upcoming global wave of decommissioning activities. Regulators on their end are reviewing regulatory frameworks, filling in gaps and working out the multitude of implementation details that inevitably start to appear once regulations are put to the test.

In New Zealand, Tamarind's insolvency acted as the trigger for the regulatory review and started the process to assure the country's decommissioning readiness. The government's immediate focus is now on ensuring that the E&P industry's legal and financial obligations provide a sufficient level of protection to the country's taxpayers against decommissioning liabilities. This constitutes a critical step in preparing for the long-term success of the national decommissioning story. It is however only the first of many steps.

Looking at more mature and experienced decommissioning regimes, such as the UKCS, provides valuable insights into the challenges that lay ahead and how to best prepare for them. We observe that the most successful decommissioning regimes are not the ones that can best predict future risks and challenges, but the ones that show the adaptability and agility to navigate uncertainties and work out tailored solutions to new challenges as they arise. With so many unknowns and variables, being able to accelerate the learning curve is what truly matters. To do so, successful regimes rely on an inclusive and holistic approach to decommissioning: inclusive to ensure balanced and integrated decisions; holistic to ensure decisions are fully informed and tailored.

Decommissioning is a complex and multi-dimensional endeavour that cannot be solved by any one party. The different facets of the story (i.e. regulatory framework, execution scenarios, financing, capability sourcing, follow-on opportunities) are interdependent and can therefore only be envisaged as part of an integrated system, not in individual silos. As New Zealand prepares for decommissioning, we thus believe it to be fundamental that the current focus on the industry's legal and financial obligations be part of a broader, continuous and collaborative working dialogue between the government, the industry and the civil society. Similar to how individual regulatory mechanisms cannot be isolated from the overarching regulatory system, the regulatory framework should not be considered independently from the other dimensions of decommissioning which influence its application and on which it has a material impact.

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Appendix Two: Castalia's Economic Impacts of Proposed Petroleum Decommissioning Regime

Economic Impacts of Proposed Petroleum Decommissioning Regime

Report to Energy Resources Aotearoa

August 2021

Table of contents

Appendices

Tables

Figures

Definitions

CMA	Crown Minerals Act 1991
FDP	Field Development Plan
MBIE	Ministry of Business, Innovation and Employment
NPV	Net present value
NZD	New Zealand Dollars
PJ	Petajoule

Executive summary

The government has proposed significant changes to the regime for the decommissioning of oil and gas wells and infrastructure in New Zealand. It is reviewing the Crown Minerals Act 1991 (CMA) and associated regulations. As part of this review, the government has developed a range of proposals that are intended to limit Crown and third parties' (such as landowners and regional councils) exposure to petroleum decommissioning related liabilities.

This report assesses the economic impacts which are likely to result from the government's proposed changes to the petroleum decommissioning regulatory regime. The economic impact assessment is systematic. The analysis is structured according to the following steps, which are consistent with the best-practice guidance from the Te Tai Ōhanga/New Zealand Treasury's *Guide to Social Cost-Benefit Analysis*:

- Defining the counterfactual scenario
- Defining the proposed changes and describing how these change the counterfactual
- Identifying all impacts and affected parties
- Determining which impacts are material
- Quantifying the material impacts
- Assessing the distributional impacts
- Analysing how sensitive the results are to changes in key assumptions.

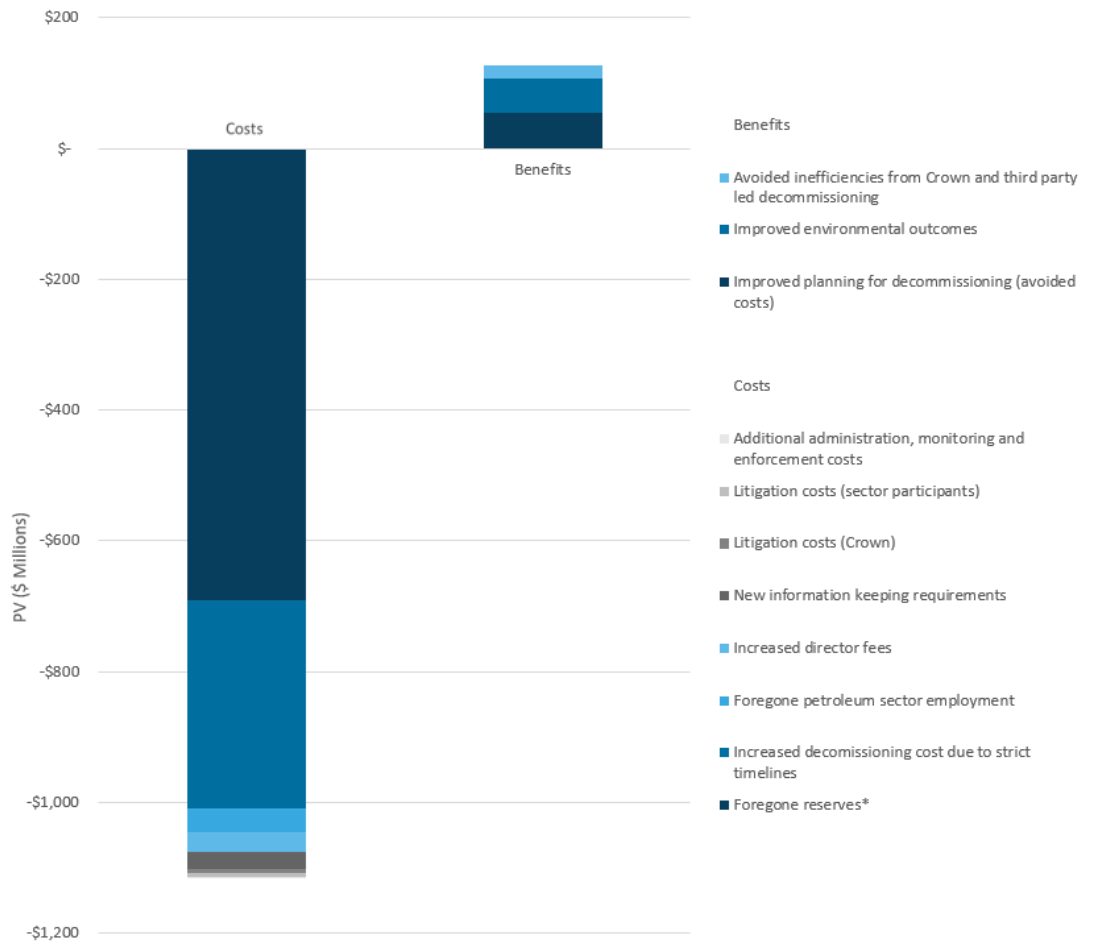
The costs of the proposed changes exceed the benefits

The proposed changes are estimated to result in net costs of $989 million (in present value terms in New Zealand dollars, NZD).[1] The proposed changes have an estimated benefit-cost ratio (BCR) of 0.11. This means that for every $1 of cost imposed by the proposed changes, $0.11 worth of benefits are generated.

The total quantified costs and benefits are set out in Figure 0.1:

[1] All monetary figures in this report are expressed as New Zealand dollars (NZD).

Figure 0.1: Total quantified costs compared to benefits



** Foregone reserves are estimated as based on an assumed value of petajoules of energy (PJ) and an assumption that this reflects the surplus economic value (after costs of extraction are expended)*

The proposed changes will result in minor benefits to the New Zealand economy

The total economic benefit of the proposed changes in present value terms is $126 million.

The most significant benefit comes from the petroleum industry's decommissioning cost savings due to improved decommissioning planning and discipline. This is due to greater regulatory scrutiny of decommissioning plans in the proposed regime. Even though the percentage of cost saving is small, it has a large impact due to the underlying high cost of decommissioning activity.

The proposals will effectively eliminate the risk that the Crown or third parties have to undertake decommissioning, because it will be nearly impossible for a permit or licence holder to avoid its decommissioning obligations. This creates a benefit because the Crown incurs higher costs when it leads decommissioning.[2] The economic benefit of the proposed changes is

[2] This was the case when the Crown incurred the costs associated with decommissioning the Tui oilfield after the failure of the permit holder Tamarind.

the difference in costs between the Crown carrying out decommissioning in a minority of cases where a permit holder fails, and a permit holder itself carrying out the decommissioning.

There is also a minor benefit to the environment. The post-decommissioning fund will ensure that small risks are not left to mature into environmentally damaging events that require remediation.

The proposed changes impose significant costs on the New Zealand economy

The total economic cost of the proposed changes in present value terms is $1.12 billion.

The single largest cost comes from the foregone production as a result of earlier decommissioning. Another key cost is due to the strict decommissioning timelines mandated by the proposed regime. These timelines reduce petroleum permit holders' ability to phase decommissioning around cost-saving factors (such as decommissioning at the same time as a neighbouring field to drive down equipment hire costs).

The other significant cost relates to lost jobs to the earlier decommissioning of petroleum fields, relative to the counterfactual. This earlier decommissioning will likely be incentivised by the increased regulatory burden placed on permit holders. Since the New Zealand economy is at full capacity, the economic cost is the difference between the well-paying petroleum sector jobs ($105,000 per annum) and alternative employment at a lower wage rate.

There are a range of new ongoing costs imposed by the proposed changes. Permit and licence holders will have to satisfy new information keeping requirements, and pay additional directors fees to remunerate their directors for criminal liability risks. These new risks will also likely result in litigation between the Crown and industry participants. Finally, the regulator (Ministry of Business, Innovation, and Employment MBIE) will require additional resources to monitor and enforce the new regime.

Some fiscal impacts are misconstrued as economic costs and benefits by the government

There are three significant fiscal impacts resulting from the proposed petroleum decommissioning regime, which could be misconstrued as economic impacts. These impact the affected party, but do not result in more or less economic goods in New Zealand:

- The shift of decommissioning costs from the Crown to permit holders in situations where the permit or licence holder financially defaults is a transfer, not an economic benefit to the Crown. However, there is a benefit to the extent permit holders can achieve decommissioning with lower costs than the Crown
- The reduction in petroleum related royalties and taxes to the Crown is not a cost per se. The foregone reserves which remain in the ground, are however a cost
- The money or other financial instruments deployed by licence and permit holders for financial security arrangements does not reduce the availability of capital in the economy, and is therefore not an economic cost.

The result is sensitive to changes in key assumptions, but costs likely to exceed benefits in all scenarios

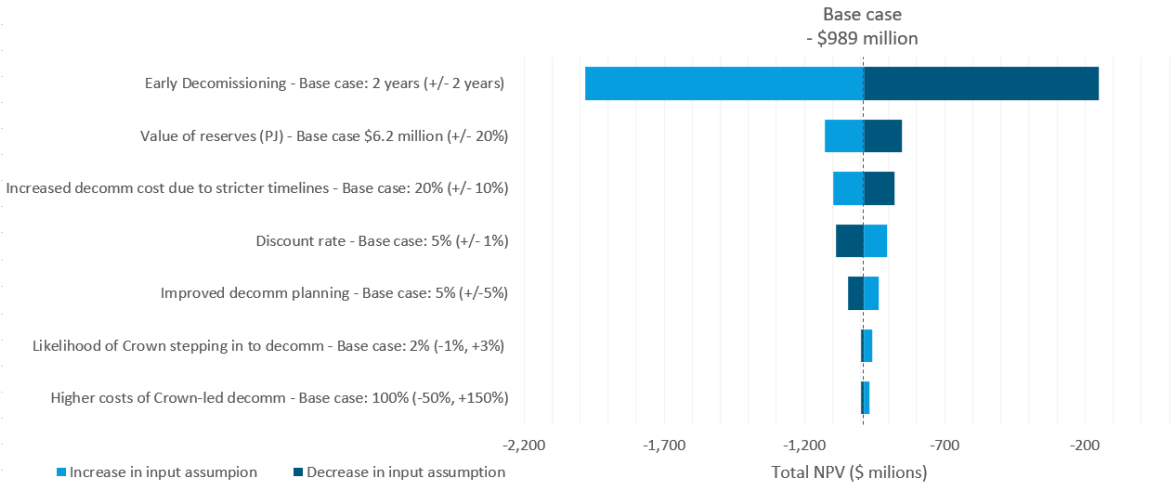
Sensitivity analysis shows that in all cases, costs will still exceed benefits. The results of this analysis are presented in Figure 0.2.

The most significant variable impacting nearly all costs and benefits is the decommissioning timeline. As the decommissioning date is brought forward, petroleum fields operate for less time which reduces compliance costs for both permit and licence holders, and the Crown. It

also significantly increases costs because it brings forward the costs of decommissioning and results in lost production.

Policy makers should be mindful of this impact and seek to minimise the amount of decommissioning that is brought forward, in order to reduce the costs of the proposed regime.

Figure 0.2: Total NPV resulting from sensitivity testing of key cost and benefit variables



1 Introduction

The government is reviewing the Crown Minerals Act 1991 (CMA) and associated regulations. It has developed proposals that are intended to limit the exposure of the Crown and other third parties to petroleum decommissioning related liabilities.

This report estimates likely impacts resulting from the government's proposed changes to the petroleum decommissioning regime. This report only considers proposals relevant to decommissioning (it does not assess non-decommissioning related proposals in the Bill, such as the proposals to enable MBIE to impose enforceable undertakings and issue infringement and enforcement notices).

The economic impact is estimated under the following steps:

- Defining the counterfactual scenario (step 1)
- Defining the proposed changes and describing how these change the counterfactual (step 2)

Steps 1 and 2 are contained in Appendix A.

- Identifying all impacts and affected parties (step 3)
- Determining which impacts are material (step 4)
- Quantifying the material impacts (step 5)
- Analysing how sensitive the results are to changes in key assumptions (step 6).

Steps 3-6 are set out in the following sections 2, 3 and 4.

2 Identifying the costs and benefits of the proposed regime

The economic costs and benefits of the proposed petroleum decommissioning regime are analysed relative to the counterfactual that the current petroleum decommissioning regime is continued. It is important to differentiate economic costs and benefits from transfers. Often changes in the fiscal impact of a policy can be misconstrued as a change in the economic costs and benefits. This is addressed below. The materiality and parties impacted by the proposals are also set out.

2.1 The proposals will result in a range of costs and benefits relative to the counterfactual

The benefits of the proposed regime relate to the reduction in the cost of decommissioning by avoiding the Crown leading the decommissioning process. The costs of the proposed regime include a range of compliance costs, costs due to higher risks, foregone production and reduced wages.

Benefits are mainly due to the avoided cost of Crown-led decommissioning

Under the counterfactual and under the proposed regime, decommissioning will occur from now until 2061 for all fields. The only difference under the proposed regime is that decommissioning will not be led by the Crown because the regime reduces any residual risk of the Crown needing to step in.

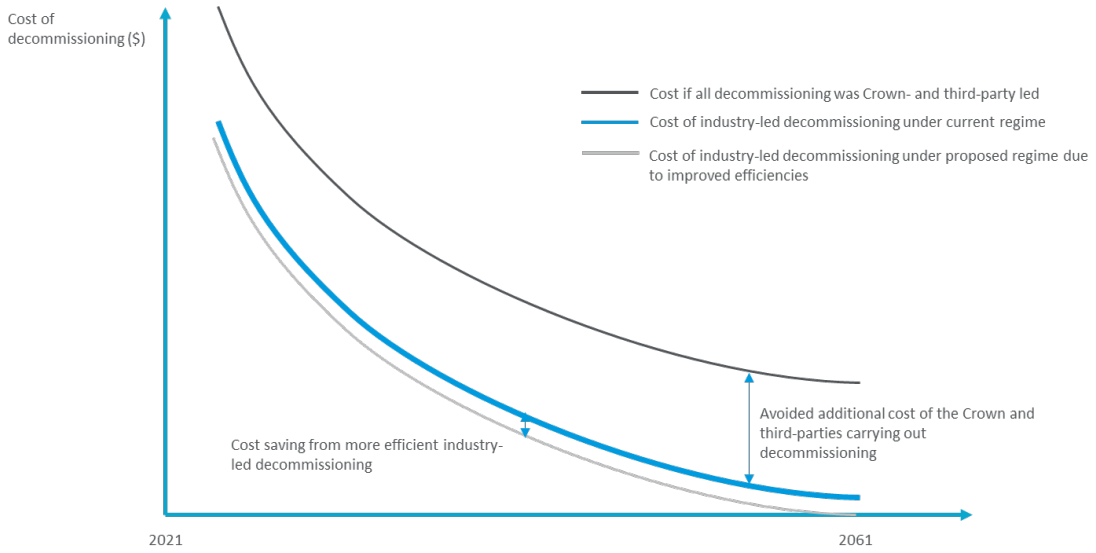
When the Crown leads decommissioning, the process tends to be costlier. This is due to several factors including:

- Gearing up costs for the Crown (as a non-specialist)
- Costs of consultation with a wider range of stakeholders that the Crown typically involves
- Crown is more inclined to decommission to a higher standard than is necessary due to reduced incentives to manage costs and to set an example for the industry.

This higher standard of decommissioning partially explains the Crown's costs to decommission the Tui oil field (in response to the permit holder Tamarind Taranaki Limited's financial default) which were significantly higher than the costs of the original plans prepared by the permit holder.

An additional benefit is that the new regime leads to the industry making more efficient decommissioning plans, reducing its costs. These benefits are illustrated in Figure 2.1 below.

Figure 2.1: Conceptual illustration of potential reduction in decommissioning costs



The avoided additional cost of the Crown and third-parties carrying out decommissioning is not applicable to all oil and gas wells and infrastructure. It only applies to situations where the permit holder fails to meet its obligations. This is only likely in a very small minority of cases in the counterfactual. This risk has already been reduced since Tui-Tamarind under the Crown Minerals Amendment Act 2018, which now grants the Minister more oversight where there is a change of control in a permit holder. Therefore, the benefits of the proposed regime are mostly:

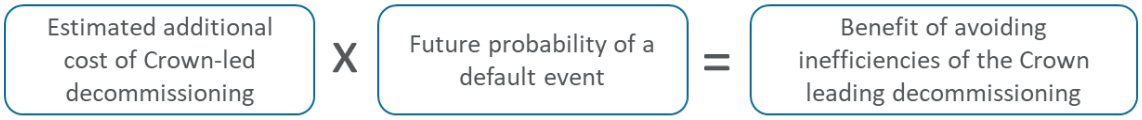


Table 2.1 sets out the list of benefits and is informed by regulatory impact statements prepared by MBIE in support of the proposals, as well as Castalia's independent assessment of the proposed regime.

Table 2.1: Comprehensive list of economic benefits resulting from the proposed petroleum decommissioning regime

Benefits	
Title	***Qualitative description***
Avoided inefficiencies from Crown and third party led decommissioning	The proposals increase the likelihood that petroleum permit holders will carry out decommissioning which permit holders can do at less cost, compared to the Crown and third parties. It costs more for the Crown and third parties to undertake decommissioning compared to petroleum industry participants. The Crown and third parties lack skills necessary to procure and negotiate favourable terms for decommissioning services. Furthermore, they often face condensed planning time as the obligation tends to fall to the Crown or third parties at a time when decommissioning must happen urgently.
Better planning for decommissioning	New requirements on permit and licence holders to maintain current field development plans may improve discipline and planning for decommissioning. This planning may realise efficiencies in decommissioning (for example, planning may better facilitate coordination between offshore permit holders to reduce rig hire costs).
Standardised decommissioning conditions	Standardised decommissioning conditions streamline MBIE's monitoring process. This frees up resources (FTE) that would have previously been used to monitor different standards according to permit and license conditions.
Improved environmental outcomes	Ensuring that permit holders decommission wells in an orderly manner and contribute to post-decommissioning costs reduces the risk of environmental harm. In the counterfactual, the Crown or third parties may act slowly, or refuse to act at all to address hydrocarbon leakage from a well site in situations where the permit or licence holder has avoided its responsibilities. Placing these costs on permit holders avoids this scenario. Note that this will only reduce instances of minor environmental damage. The Crown will promptly act to address major risks, such as those related to offshore wells. The post-decommissioning fund will primarily reduce instances where small risks are left to mature due to the inaction of landowners and regional councils.
Improved health and safety outcomes	Ensuring that permit holders decommission wells and contribute to post-decommissioning costs reduces the risk of human harm. If a permit holder fails to adequately decommission, the site may prove to be a health and safety hazard in situations where the Crown or third parties act slowly or refuse to act at all. Placing decommissioning costs on permit holders avoids this scenario.
Increased social licence for the petroleum sector	The public's perception of the petroleum industry may improve from permit holders' contributions to a post-decommissioning fund, along with a reduction in situations where permit holders default on their petroleum decommissioning obligations. This improves the petroleum industry's social licence, which reduces the risk of further regulation in the future.

Costs related to increased risks, increased compliance costs, directors' fees, foregone production and reduced wages

Table 2.2 sets out a list of costs informed by regulatory impact statements prepared by MBIE in support of the proposals, as well as Castalia's independent assessment of the proposed regime.

Table 2.2: Comprehensive list of economic costs resulting from the proposed petroleum decommissioning regime

Costs	
Foregone petroleum production	The burden of these new requirements on permit and licence holders will reduce production for two reasons: ▪ Increased sector-specific risks increase the hurdle rate of return for oil and gas projects (whether new or ongoing) will increase and will therefore likely reduce renewed investment in operating fields ▪ Permit holders will have to bring forward decisions to cease production and begin decommissioning. This will result in less petroleum produced, relative to the counterfactual.
Increased risk for petroleum sector participants	The proposals increase petroleum permit and licence holders risk exposure, which increases the cost of doing business. Perpetual liability for decommissioning increases transaction costs when transferring permits (for example, the original permit holder may seek financial security from the new permit holder, independent of financial security requirements from the Crown). Pecuniary and criminal penalties incentivise overly risk-averse behaviour, which adds to the cost of doing business. These penalties will also make directorship on New Zealand oil and gas company boards very unattractive.
Increase director fees	The extreme criminal liability provisions in the proposals will increase the remuneration required to attract directors to join boards of petroleum companies.
Sovereign risk across all sectors	New Zealand's willingness to pierce the corporate veil, and impose trailing criminal liability on future directors will negatively impact New Zealand's attractiveness for investment.
New information keeping requirements	Permit and licence holders will face additional costs due to new requirements to maintain asset registers and field development plans, as well as meeting other information requirements from the regulator.
Additional administration, monitoring and enforcement costs	The regulator (MBIE) will require specialised skills to assess financial capability and the suitability of financial security arrangements. The regulator will need to resource financial capability assessments, as well as the review of asset registers and field development plans.
Litigation costs	Where there is an alleged breach of a statutory duty, the high level of criminal and pecuniary penalties increases the likelihood of drawn-out litigation.
Increased decommissioning costs due to strict timelines	New requirements to complete decommissioning within a specified timeframe (by the expiry or surrender of the permit, a date specified by the Minister, or within 1-2 years on revocation) may increase decommissioning costs. These timelines may be unrealistic for decommissioning offshore installations as the decommissioning process can be delayed by weather events outside the control of the permit holder.

Foregone petroleum sector employment	The new decommissioning obligations will likely bring forward decommissioning activity, relative to the counterfactual. This will result in petroleum sector workers losing their roles sooner than in the counterfactual due to some wells retiring early.

2.2 There are some significant fiscal impacts that are not economic impacts

There are three significant fiscal impacts resulting from the proposed petroleum decommissioning regime, which could be misconstrued as economic impacts:

- The shifting of costs from the Crown to third parties for decommissioning costs in situations where the permit or licence holder financially defaults
- The reduction in petroleum related royalties and taxes
- The money or other financial instruments deployed by licence and permit holders for financial security arrangements.

While these impacts will significantly impact the affected party, they do not create economic impacts. In other words, these impacts do not result in more or less economic goods when viewed across the economy.

Avoided decommissioning costs by the Crown and third parties

Three Regulatory Impact Statements (RIS), prepared by MBIE, note a "benefit" for the Crown and third parties in avoiding the costs of decommissioning in situations of permit or licence holder financial default.[3] One of the RIS states "we anticipate a high level of benefits from avoided costs for the Crown and other third parties from potentially having to fund decommissioning activities". [4]

While this is a financial benefit to the Crown and third parties, it is not an economic benefit. The benefit to the Crown and third parties is entirely offset by the costs the licence or permit holder faces during decommissioning. There is an economic benefit insofar as permit and licence holders can undertake decommissioning at a cheaper cost compared with the Crown and third parties. However, this benefit is smaller than the total decommissioning costs avoided by the Crown and third parties.

Lost petroleum royalties and taxes

The RIS notes that royalties and taxes to the Crown may reduce.[5] This is presented as a cost. This is not an economic cost. This is a transfer from permit holders to the Crown. Therefore, it should not factor in a cost-benefit analysis.

[3] MBIE (June 2020) Impact Assessment: Regulation governing legal and financial responsibility for decommissioning petroleum infrastructure and enforcement tools under the Crown Minerals Act 1991, page 39. https://www.mbie.govt.nz/dmsdocument/11619-regulation-governing-legal-and-financial-responsibility-for-decommissioning-petroleum-infrastructure-and-enforcement-tools-under-the-crown-minerals-act-1991-proactiverelease-pdf

[4] MBIE (June 2020) RIS, page 39.

[5] MBIE (June 2020) RIS, page 38.

Opportunity cost relating to financial security arrangements

Capital can freely move across borders and to New Zealand petroleum projects. Therefore, there is no associated economic cost with the requirement to post financial security. The party posting security has an opportunity cost of capital, but the wider economy is not deprived of capital. Projects with positive expected value outcomes will be financed by capital, including international capital.

2.3 Materiality assessment of costs and benefits

This section reviews the materiality of each impact described in the comprehensive list of benefits and costs presented in section 2.1. Each impact will be assessed as either:

- **Material**—affected parties will notice the impact. The economic cost or benefit is likely to be appreciable or significant.
- **Immaterial**—affected parties will not notice the impact. The economic cost or benefit is likely to be negligible or insignificant.

Table 2.3: Materiality assessment of all costs and benefits resulting from the proposed petroleum decommissioning regulatory regime

Benefits		
Title	*Assessment*	*Rationale*
Improved planning for decommissioning (avoided costs)	Material	Advanced planning tends to drive down decommissioning costs. Permit holders will realise efficiencies in decommissioning, which will likely reduce the overall cost of decommissioning.
Avoided inefficiencies from Crown and third party led decommissioning	Material	Landowners and the Crown incur significantly greater costs to decommission petroleum wells compared to industry participants.
Improved environmental outcomes	Material	Avoiding delays in decommissioning and site remediation work reduces the risk of environmental harm.
Standardised decommissioning conditions	Immaterial	Standardised decommissioning conditions are unlikely to materially reduce MBIE's regulatory workload. It may streamline some processes (which simplifies monitoring), but it is improbable that this impact alone will free up FTE.
Improved health and safety outcomes	Immaterial	In the counterfactual, the Crown will intervene to address any significant risks to human health. While the proposals reduce the need for the Crown to step in (transferring risk onto petroleum sector participants), it does not result in a material benefit to human health and safety.
Increased social licence for the petroleum sector	Immaterial	While stricter obligations on permit and licence holders may improve the perception of the sector, this impact is unlikely to result in a significant benefit for the sector (relative to the counterfactual where existing permit holders will continue to actively manage their social licence).
Costs		
Foregone petroleum production	Material	Forgoing even a small percentage of petroleum due to accelerated decommissioning will have an economically significant cost when considered across the entire petroleum estate.

Increased risk for petroleum sector participants	Material	Risks arising from perpetual liability, along with the high level of pecuniary penalties, will have a material impact on New Zealand's petroleum sector cost of capital.
Increased director fees	Material	Cost of remunerating directors to take on the new criminal liability requirement.
Sovereign risk across all sectors	Material	The proposed regime will likely increase the risk premium for investments in New Zealand. However, the exact impact is uncertain.
New information keeping requirements	Material	Permit and licence holders will incur a material compliance cost to meet the proposed information requirements.
Additional administration, monitoring and enforcement costs	Material	MBIE will require a noticeable increase in FTE to effectively administer and monitor compliance with the proposed regime.
Litigation costs	Material	Given the high level of pecuniary and criminal penalties, litigation costs are likely to be significant for both the Crown and permit or licence holders.
Increased decommissioning costs due to strict timelines	Material	Accelerated decommissioning timelines will materially increase the cost of decommissioning, particularly when the decommissioning is offshore.
Foregone petroleum sector employment	Material	Petroleum sector wages are considerably higher than the average wage in the New Zealand economy. Therefore, losing these jobs will have a material impact on the economy.

2.4 Parties affected by the proposals

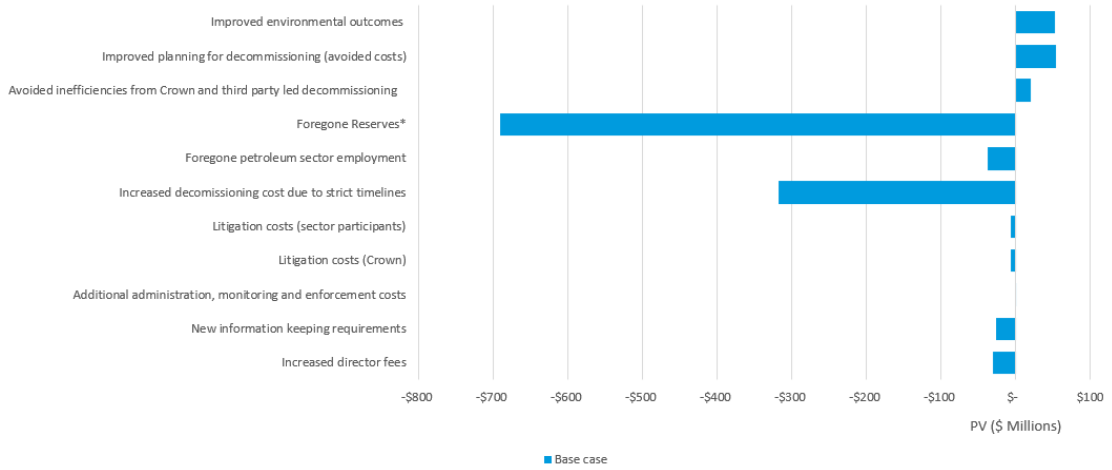
The costs and benefits of the proposals fall across four groups of affected parties:

- **The Crown**—The Crown spans all dimensions of government, including MBIE as the petroleum sector regulator.
- **Industry participants**—This group spans all existing and prospective permit and licence holders that are (or will be) exposed to petroleum decommissioning liabilities.
- **Landowners**—This group represents all current and future landowners owning land with a producing petroleum well.
- **General public**—This group represents the rest of New Zealand, which experiences the impacts of changes in the environment, health and safety, and general economic conditions such as employment.

3 Size of the marginal costs and benefits expected from the proposed regime

The marginal costs of the proposed regime significantly exceed the marginal benefits. Figure 3.1 compares these costs and benefits.

Figure 3.1: Comparison of total marginal costs and benefits



** Foregone reserves are estimated as based on an assumed value of petajoule of energy (PJ) and an assumption that this reflects the surplus economic value (after costs of extraction are expended)*

The analysis of costs and benefits is dependent on key variables and a methodology to determine the impacts on decommissioning costs. This is because the oil and gas fields in New Zealand have different sizes, are both onshore and offshore and have different remaining lives. This is set out in section 3.1. The material benefits of the proposed changes (section 3.2) and costs (section 3.3) are quantified with an explanation of the calculation methodology.

3.1 Key variables in the analysis and methodological approach

Cost and benefits are calculated over a 40-year period. 2060 is the final year of the analysis period, which corresponds with the depletion of the Mangahewa gas field, which MBIE predicts to be the last petroleum-producing asset in New Zealand.

Decommissioning profile

Costs and benefits are built up from a profile of producing petroleum fields which we built using MBIE's 2020 Petroleum Reserves Data.[6] This profile allows us to determine how many

[6] https://www.mbie.govt.nz/building-and-energy/energy-and-natural-resources/energy-statistics-and-modelling/energy-statistics/petroleum-reserves-data/

fields are producing, and therefore, incurring compliance costs. It also enables us to determine when decommission costs are likely to occur.

Figure 3.2: Profile of producing and decommissioning fields in the counterfactual

In the base case, the increased costs of the proposed regime on petroleum permit holders brings all decommissioning activity forward by two years. This is a conservative assumption.

3.2 Material benefits resulting from the proposed regime

The proposed regime will likely result in a total benefit with a present value of $126 million.

Table 3.1: Quantified benefits resulting from the proposed regime

Benefit	Incidence of cost	Present Value (NZD)	Quantification methodology
Avoided inefficiencies from Crown and third party led decommissioning	The Crown and landowners	$19,700,000	**Overview:** Estimate the decommissioning cost inefficiencies that are avoided through the reduction of events where the Crown or landowners must undertake decommissioning. **Assumption:** 100 percent cost increase when the Crown or landowners undertake decommissioning (relative to a permit or licence holders decommissioning cost). 2 percent risk that the Crown or landowners will have to undertake decommissioning in the counterfactual. Because of the high-profile nature of the Tui Tamarind situation, MBIE has the regulatory focus to manage decommissioning, and the petroleum industry is incentivised to avoid another situation like Tamarind to preserve its social licence.

			Calculation: Benefit = (current decommissioning costs * 2 percent risk that the Crown or landowners assume liability) * 100 percent representing the additional cost for the Crown or landowners to decommission.
Improved planning for decommissioning (avoided costs)	Industry participants	$54,300,000	**Overview:** Estimate the percentage cost saving generated by additional planning and subtract that percentage from current decommissioning costs. **Assumption:** 5 percent cost saving due to planning **Calculation:** Benefit = 5 percent of decommissioning costs in the proposed regime (representing the cost-saving).
Improved environmental outcomes	General public	$52,500,000	**Overview:** Estimate environmental remediation costs avoided due to the reduced risk of environmentally harmful post-decommissioning events. **Assumption:** 5 percent chance per site in the counterfactual that a plugged and abandoned well requires remediation. 1 percent chance per site in the proposed regime. Remediation costs $5 million per event. **Calculation:** Benefit = current remediation costs – proposed regime remediation costs.

3.3 Material costs resulting from the proposals

The proposed regime will produce total costs with a present value of $1.115 billion. Additionally, the proposals are likely to reduce New Zealand's attractiveness for investment. This is a qualitative impact which we describe below.

3.3.1 Quantified costs of the proposed changes

The quantified costs of the proposed changes amount to $1.115 billion. This is set out in Table 3.2 below.

Table 3.2: Quantified costs resulting from the proposed regime

Cost	Incidence of cost	Present Value (NZD)	Quantification methodology
Increased director fees	Industry participants	-$30,000,000	**Overview:** Estimate the additional directors' fees necessary to compensate directors for new criminal liability risks. **Assumptions**: Current oil and gas sector fees are $80,000 per director. This fee will increase by 100 percent, reflecting the increased risk. 33 directors of permit holding companies (there are currently 11 permits, and we assume each company has three directors). **Calculation**: Cost = 33 directors (which scales down over time as decommissioning occurs) * $80,000
Foregone production due to early decommissioning	Industry participants	-$690,800,000	**Overview:** Estimate the value of reserves based on recent transactions of permits and estimate the reduction in production due to early decommissioning based on remaining reserves (2P) in wells

			Assumptions: Remaining reserves will be extracted under BAU in a linear manner over the lifetime of the well. The economic value of the reserve is equal to the remaining reserves (measured in PJ) multiplied by the value of PJ 2P reserves from recent transactions. **Calculation:** Cost = Reduction in years of production x remaining reserves x value of PJ 2P reserves
New information keeping requirements	Industry participants	-$26,600,000	**Overview:** Estimate permit and licence holders' additional FTE requirements to maintain current field development plans, asset registers and respond to MBIE information requests. **Assumption:** Average wage in the petroleum sector is $105,000 a 60 percent overhead. Fields require an additional 0.5 to 1.5 FTE to satisfy information requirements (depending on how large, and therefore, how complex their operation is). **Calculation:** Cost = active petroleum fields in the proposed regime * FTE cost
Additional administration, monitoring and enforcement costs	The Crown	-$1,500,000	**Overview:** Estimate MBIE's additional costs to establish processes and maintain staff and skills necessary to administer, monitor, and enforce the new obligations. **Assumption:** MBIE estimated $40,000 initial set up costs, plus additional staff costs of $90,000.[7] We add an additional 60 percent to ongoing staff costs reflecting overheads. **Calculation:** Cost = $40,000 set up cost + $144,000 ongoing staff costs per year (this cost scales down in the future as fields cease production).
Litigation costs	The Crown	-$6,000,000	**Overview:** Estimate the cost of litigation. **Assumption:** 5 percent chance that litigation will occur each year, at the cost of $500,000 per case.[8] **Calculation:** Cost = (number of active fields or decommissioning fields * 5 percent risk that litigation will occur) * $500,000 litigation costs.
	Industry participants	-$6,000,000	This cost mirrors the Crown's litigation costs.
Increased decommissioning costs due to strict timelines	Industry participants	-$ 318,000,000	**Overview:** Estimate the increase in decommissioning costs that result from strict decommissioning timelines. **Assumption:** 20 percent cost increase (extreme cost increase is unlikely as we think it is more likely than not that the Minister will grant an extension where statutory timelines prove overly burdensome). **Calculation:** Cost = decommissioning costs in the counterfactual – decommissioning cost in proposed regime timeframe*20% (representing cost increase).

[7] RIS June 2021, page 17.

[8] This is in the ballpark of court costs sought in the following petorluem industry related case: https://www.rnz.co.nz/news/national/438297/epa-ordered-to-pay-oil-and-gas-company-110k

Foregone petroleum sector employment	General public	-$ 37,000,000	**Overview:** Estimate the value of lost petroleum sector jobs resulting from accelerated decommissioning due to the proposed regime, relative to the counterfactual. **Assumption:** Average wage in the sector is $105,000 per annum.[9] Other jobs for workers with petroleum sector skills in the economy are paid 20 percent less. There are approximately 5,000 FTE currently employed directly and indirectly in New Zealand's petroleum production industry, and this FTE is distributed evenly across active fields.[10] We assume that around 1,000 of the FTE workers are involved in drilling, extraction and other operational roles.[11] Another 1,000 are in service provision roles that would be impacted by ending production. We therefore estimate that approximately 2,000 FTE workers would be impacted with a reduction in salary and wages. **Calculation:** Cost = Difference between petroleum sector wages and other available jobs (20 percent)

3.3.2 Unquantified material costs resulting from the proposals

Foregone reserves due to change in sector risk

The proposed regime broadly increases the risks to permit holders, and the directors, of carrying out oil and gas production activity and the process of decommissioning assets. The full range of interventions changes the sector risk, increasing the required return (hurdle rate) of projects requiring investment. For example, a decision to invest in new equipment and skilled staff to improve the extraction rate or efficiency of a well will require a higher return to compensate for the risk of deploying those resources.

The cost of these increased risks can be measured in terms of the foregone reserves that are not extracted due to the higher required return (hurdle rate). This economic value is equal to the value of the reserves, plus royalties payable to the Crown. This is equal to the economic surplus that would be available after the full costs of extraction and marketing the resources are subtracted from the sale price. We expect this to be a significant cost. The total value of this economic cost will depend on a range of commercial decisions and project specific risks.

Sovereign risk across all of New Zealand

The proposals are unique and extraordinary due to the retrospective nature and draconian penalties, according to legal scholars and experts.[12] This creates a sovereign risk that imposes costs across the economy. New Zealand is a developed economy with a relatively stable government, monetary system and normally predictable regulatory policy. The extraordinary aspects of the proposed regime are likely to have marginal impacts on the country risk premium that foreign investors perceive for New Zealand. Experts attempt to quantify the country risk premium for all countries, including New Zealand. Damodaran estimates that New

[9] https://www.nzpam.govt.nz/nz-industry/value-benefits/

[10] https://www.martinjenkins.co.nz/assets/Home/The-wealth-beneath-our-feet-next-steps.pdf

[11] https://figure.nz/chart/tAQeOoJ0aDCZo3ER-0lQ9qb11z8owuTQb

[12] Opinions of Prof. Philip A. Joseph, dated August 2021 and Justin Smith, QC, dated August 2021.

Zealand has a comparable risk premium to Australia, Singapore and the United States.[13] The proposed regime is likely to have a small but widespread impact on the perceived riskiness of investing in New Zealand, which raises the cost of capital. This cost is uncertain and diffused across the economy. Therefore, we have not attempted a quantitative assessment. We provide a qualitative description below.

Risk of over-insurance resulting from the post-decommissioning fund

The post-decommissioning fund will collect payments from permit and licence holders and those parties will receive no refunds. The amounts paid into the fund are akin to a tax.

The fund is intended to cover the costs of future post-decommissioning remediation and making good other environmental and other impacts. The future remediation costs for post-decommissioning may not be as costly as the amount of the fund. In other words, the fund may over-insure against the post-decommissioning remediation problem.

Therefore, some of the amounts collected for the post-decommissioning fund may result in a deadweight loss. There is also a risk that the post-decommissioning fund does not collect sufficient funds to cover the costs of remediation.

4 Sensitivity Analysis

There is uncertainty in the size of the costs and benefits from the proposals, as is common in all studies where future states of the world need to be modelled. Therefore, we test a range of sensitivities in key variables which drive significant costs and benefits. We consider what if:

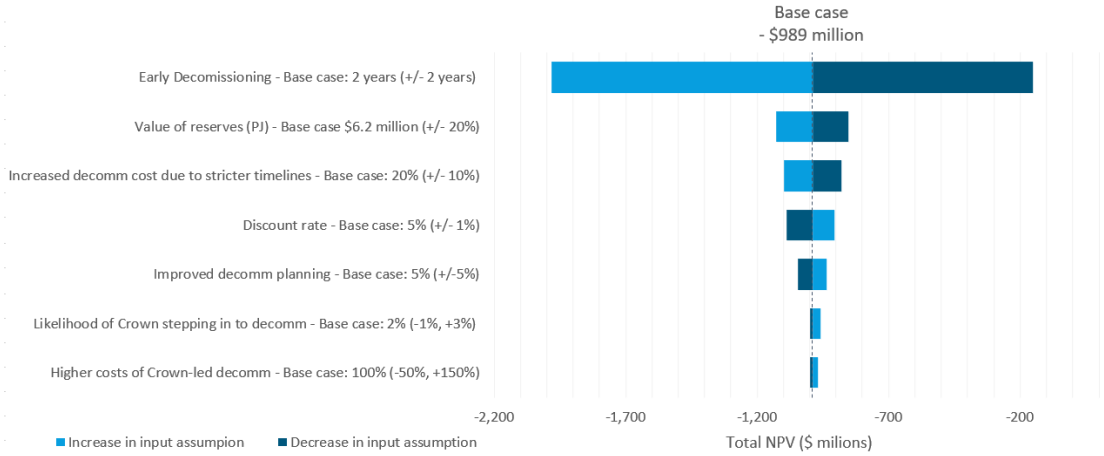
- Decommissioning occurs on a different timeline? The base case assumes two years earlier
- Value of reserves is different? The base case assumes $6.218 million per PJ.
- The probability that the Crown has to step-in to complete decommissioning is different? The base case assumes 2 percent likelihood (one in 50 cases)
- The Crown's costs to decommission are different? The base case assumes the Crown's costs are an additional 100 percent of the private sector costs
- The benefits from improving planning for decommissioning are different? The base case assumes a 5 percent reduction petroleum permit holders' decommissioning costs
- The increase in decommissioning cost due to stricter decommissioning timelines is different? The base case assumes a 20 percent increase in petroleum permit holders' decommissioning costs.

Cost exceeds benefits in all scenarios

None of the 'what if' scenarios we tested produced a situation where the overall proposal become net-beneficial. In Figure 4.1, we present the sensitivity of the total NPV to key variables.

[13] Damodaran, K, Country Default Spreads and Risk Premiums, available at: https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html

Figure 4.1: Total NPV resulting from sensitivity testing of key cost and benefit variables



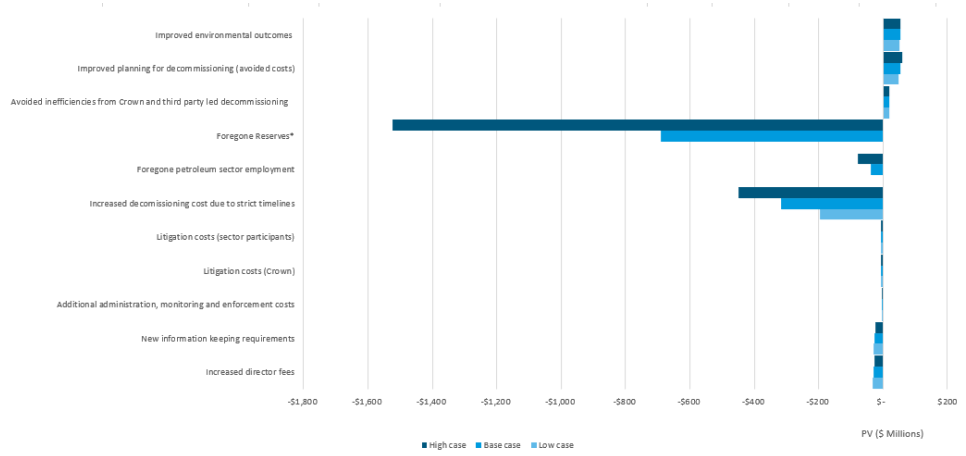
4.1.1 Changes to the decommissioning timeline

The decommissioning timeline impacts nearly all costs and benefits associated with this proposal. As the timeline is brought forward, petroleum fields operate for less time which reduces compliance costs for both permit and licence holders, and the Crown. However, it also brings forward decommissioning costs which grow due to less heavy discounting.

We investigate this impact by testing the following variables:

- Low case: petroleum decommissioning is not brought forward (0 years) relative to the counterfactual
- Base case: petroleum decommissioning is brought forward by 2 years, relative to the counterfactual
- High case: petroleum decommissioning is brought forward by 4 years, relative to the counterfactual

Figure 4.2: Sensitivity of all quantified benefits and costs to changes in the decommissioning timeline (bar chart)



Changes in the decommissioning timeline have the largest impact on the following costs, and all are impacts are presented in Table 4.1 below:

- **Increased decommissioning cost due to strict timelines**—This cost ranges between $197 million in the low case, and $450 million in the high case. This effect is due to discounting. As decommissioning is pulled forward, these costs (which are very large) are less heavily discounted
- **Foregone reserves**—This cost ranges between no cost in the low case and $1.5 billion in the high case
- **Foregone petroleum sector employment**—This cost ranges between no cost in the low case, and $78 million in the high case. This cost increases in proportion to the amount of years that petroleum decommissioning if brought forward (relative to the counterfactual).

Table 4.1: Sensitivity of all quantified benefits and costs to changes in the decommissioning timeline (table)

Variable	Low case (0 years)	Base case (2 years)	High case (4 years)
Benefits	*Present value (NZD)*	*Present value (NZD)*	*Present value (NZD)*
Avoided inefficiencies from Crown and third party led decommissioning	$19,700,000	$19,700,000	$19,700,000
Improved planning for decommissioning (avoided costs)	$49,200,000	$54,300,000	$59,800,000
Improved environmental outcomes	$51,600,000	$52,500,000	$53,500,000
Costs			
Increased director fees	-$32,400,000	-$30,000,000	-$27,500,000
New information keeping requirements	-$28,900,000	-$26,600,000	-$24,100,000
Additional administration, monitoring and enforcement costs	-$1,600,000	-$1,500,000	-$1,300,000
Litigation costs crown	-$6,400,000	-$6,000,000	-$5,500,000
Litigation costs sector participants	-$6,400,000	-$6,000,000	-$5,500,000
Increased decommissioning cost due to strict timelines	-$196,900,000	-$318,000,000	-$449,900,000
Foregone petroleum sector employment	$-	-$37,000,000	-$78,200,000
Foregone reserves	$-	-$690,800,000	-$1,523,200,000
Total Net-Present value	-$152,200,000	-$989,400,000	-$1,982,000,000

4.1.2 Benefit sensitivity: avoided inefficiencies from Crown and third party led decommissioning

We test two variables which drive the size of this benefit:

- The probability that the Crown or third parties have to step in to perform decommissioning in the counterfactual, and
- The inefficiency cost when the Crown and third parties incur when they perform decommissioning (relative to petroleum industry participants).

Changes in either of these variables significantly impact the overall size of the benefit. The benefit ranges between approximately $9.8 million in the lowest case, and $49 million in the highest case.

We tested each variable independently. Apart from the tested variable, we hold all other variables constant (using base case variables). The results are presented in tables Table 4.2 and Table 4.3 below.

Table 4.2: Sensitivity of the 'avoided inefficiencies from Crown and third party led decommissioning' benefit to changes in the step-in probability

	Low case (1 percent)	Base case (2 percent)	High case (5 percent)
Avoided inefficiencies from Crown and third party led decommissioning	$9,800,000	$19,700,000	$49,200,000

Table 4.3: Sensitivity of the 'avoided inefficiencies from Crown and third party led decommissioning' benefit to changes in the Crown and third parties' increase in decommissioning costs

	Low case (50 percent)	Base case (100 percent)	High case (200 percent)
Avoided inefficiencies from Crown and third party led decommissioning	$9,800,000	$19,700,000	$39,400,000

Compounding these variables will increase the magnitude of change

Compounding the variables will increase the size of this benefit. This is due to the nature of this benefit. If the step-in probability is high in the counterfactual, then there will be more decommissioning events. If the increase in the Crown or third parties decommissioning cost is also high, then this compounds the size of the benefit.

We did not compound sensitivity assumptions in this case. If we did, we would expect a higher benefit. However, it is very unlikely that this benefit would be large enough to exceed the significant costs resulting from the proposed regime.

4.1.3 Benefit sensitivity: Savings from improved planning for decommissioning

The following sensitivities were tested:

- Low case: improved planning reduces decommissioning costs by 2 percent relative to the counterfactual
- Base case: improved planning reduces decommissioning costs by 5 percent relative to the counterfactual
- High case: improved planning reduces decommissioning costs by 8 percent relative to the counterfactual

The cost saving assumption drives a significant increase in the benefit. This is due to the underlying size of decommissioning costs. Decommissioning is a costly activity, and even a small percent decrease produces a large cost saving.

Table 4.4: Sensitivity of the 'Improved planning for decommissioning' benefit to changes in the cost saving assumption

	Low case (2 percent)	Base case (5 percent)	High case (8 percent)
Improved planning for decommissioning (avoided costs)	$21,700,000	$54,300,000	$86,800,000

4.1.4 Cost sensitivity: Increased decommissioning cost due to strict timelines

The following sensitivities were tested:

- Low case: strict timelines increase decommissioning costs by 10 percent relative to the counterfactual
- Base case: strict timelines increase decommissioning costs by 20 percent relative to the counterfactual
- High case: strict timelines increase decommissioning costs by 30 percent relative to the counterfactual

Due to the large size of the total decommissioning liability, changes to the percentage used to calculate this liability will lead to significant impacts.

Table 4.5: Sensitivity of the 'Increased decommissioning cost due to strict timelines' to changes in the cost increase assumption

	Low case (10 percent)	Base case (20 percent)	High case (30 percent)
Increased decommissioning cost due to strict timelines	-$209,500,000	$318,000,000	$426,600,000

4.1.5 Cost sensitivity: Value of reserve per PJ

The following sensitivities were tested:

- Low case: value of reserves are 20% less than our valuation
- Base case: value of reserves are $6.218 million based on recent transactions

- High case: value of reserves are 20% more than our valuation

Due to the large value of reserves that would remain in the ground, the value of reserves would lead to a significant impact

Table 4.66: Sensitivity of the 'Value of foregone reserves' to changes in the value of reserves

	Low case ($4.975 million per PJ)	Base case ($6.218 million per PJ)	High case ($7.462 million per PJ)
Increased decommissioning cost due to strict timelines	-$552,600,000	-$690,800,000	-$829,000,000

Appendix A: Proposed changes to the Petroleum Decommissioning Regulatory Regime

The current petroleum decommissioning regulatory regime is described in section A.1. The proposed changes are described in section A.2.

A.1 Current petroleum decommissioning regime

The Crown proposes a range of changes to the CMA and associated regulations (as well as the Petroleum Act 1937) which aim to strengthen the decommissioning requirements on permit and licence holders, thereby reducing the risk that these liabilities fall to the Crown and third parties. The government's proposed changes are contained in the *Crown Minerals (Decommissioning and Other Matters) Amendment Bill* ("the Bill"), and the *Discussion Document: Proposed Regulations to support the Crown Minerals (Decommissioning and Other Matters) Amendment Bill 2021* ("Proposed Regulations").

These changes will materially impact the petroleum decommissioning regulatory regime. This section begins with an overview of petroleum sector regulation generally before describing specific parts of the regime that will be impacted by the proposals.

A.1.1 Overview of New Zealand's petroleum sector regulation and the challenges of decommissioning

The New Zealand petroleum sector regulatory regime requires permits and licences and generally creates obligations for decommissioning at the end of the life of a petroleum asset.

A permit or licence is necessary to operate a petroleum producing asset in New Zealand

A party must hold either a permit or a licence to legally prospect, explore, or mine for petroleum resources in New Zealand. The difference between a permit and a licence is described below:

- **Permit**—Permits are granted by the Minister of Energy and Resources under the CMA.[14] Most petroleum well operators operate under permits.
- **Licence**—Licences were granted by the Minister under the Petroleum Act 1937. This Act predated the CMA.[15] Licences that were issued under the Petroleum Act 1937 continue to be governed by that Act. No new licences can be issued: an applicant must instead seek a permit under the CMA.

The Ministry of Business Innovation and Employment (MBIE) regulates permits and licences: it advises the Minister, leads petroleum sector policy development, and undertakes monitoring and enforcement activities.

[14] Section 25 CMA.

[15] CMA Tranche 2 discussion document, page 75.

Permit and licence holders are governed by conditions set out in their licence or permit, as well as obligations outlined in the CMA (or the Petroleum Act in respect to petroleum licences) and supporting regulations.

Permit and licence holders must decommission their petroleum assets as determined by the petroleum decommissioning regulatory regime

Decommissioning occurs at the end of the life of a petroleum asset. It involves removing structures, equipment, pipelines, and cables from the well site, or otherwise leaving objects in a state suitable for abandonment (as agreed by the relevant regulator). Decommissioning also includes plugging and abandoning the well, and site remediation.

Decommissioning is governed by a patchwork of laws and regulations, which we call the petroleum decommissioning regulatory regime. This regime spans:

- CMA and associated regulations which govern timing and responsibility for decommissioning (MBIE is the regulator)[16]
- Health and Safety at Work Act 2015, which authorises decommissioning work programmes (WorkSafe is the regulator)
- Resource Management Act 1991 which regulates the extent of decommissioning to minimise environmental impacts on land and within 12 nautical miles offshore (Regional councils are the regulator)
- Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 which authorises marine decommissioning activity (the Environmental Protection Authority is the regulator).

The Crown and third parties are exposed to decommissioning related liabilities in certain circumstances

If the permit or licence holder financially defaults, or for whatever reason, manages to avoid its decommissioning obligations, the costs of meeting these obligations fall to the Crown or third parties (such as regional councils or landowners) as a last resort.[17] These costs can be significant: for example, the Crown had to appropriate $349 million to meet the costs of decommissioning the Tui oil field due to the permit holder's default.

The Crown and third parties are also potentially exposed to post-decommissioning liabilities. These liabilities have a chance of materialising any time after a well has been plugged and abandoned. For example, a previously plugged well might begin leaking hydrocarbons which requires site remediation and environmental clean-up. The Crown and third parties may have to meet these costs if they were unable to transfer this risk to permit or licence holders through commercial negotiations.

A.1.2 Permit and licence holder's obligations to decommission

Permit holders under the CMA, and licence holders under the Petroleum Act 1937 are generally subject to decommissioning obligations. Where the permit holder is two or more persons (such as a joint venture), each person is jointly and severally liable for

[16] Licences issued under the Petroleum Act 1937 continue to be governed by that Act.

[17] These parties are not legally liable for the liability. However, the Tui Tamarind situation shows the Crown's willingness to voluntarily assume this liability when no other party is available to undertake decommissioning.

decommissioning.[18] The extent of this obligation varies between permits (due to differing permit conditions) and licences (which are subject to an explicit statutory decommissioning obligation).

CMA permit holders must satisfy decommissioning-related permit conditions and good industry practice

Decommissioning obligations arise implicitly from the obligation on all permit holders to act in accordance with good industry practice.[19] The CMA defines good industry practice as "acting in a manner that is technically competent and at a level of diligence and prudence reasonably and ordinarily exercised by experienced permit holders engaged in a similar activity and under similar circumstances."[20] This standard will require some form of decommissioning, although the extent of this implicit decommissioning obligation (such as the standard to which infrastructure must be decommissioned) remains uncertain.

Permit conditions can further specify permit holder's decommissioning requirements, such as the extent of the decommissioning responsibility and the duration of that responsibility.[21] Most permits include some form of decommissioning obligation, although conditions vary between permits as the Minister of Energy and Resources sets conditions on a permit-by-permit basis. The only constraint on the conditions the Minister can set is that they must accord with good industry practice.[22]

Petroleum Act licence holders must decommission

Licences issued under the Petroleum Act 1937 are subject to an explicit statutory obligation to remove any "chattel, machinery, or other property" placed on land throughout the course of the licence.[23] This is a legacy provision, which applies to licences issued before the CMA superseded the Petroleum Act 1937.

Decommissioning liability attaches to the current permit or licence holder

Decommissioning liability is tied to the petroleum licence or permit. Consequently, liability attaches to the existing holder of the licence or permit.

If a holder transfers out of its interest in a permit or a licence, it is no longer subject to decommissioning liabilities.[24] This liability travels with the permit and attaches to the new holder. Similarly, if the permit is surrendered or revoked, former holders cannot be subject to decommissioning obligations.

A.1.3 Permit and licence holder's obligations to meet post-decommissioning costs

Post-decommissioning costs refers to costs incurred in maintaining and remediating a decommissioned petroleum well. This residual risk of post-decommissioned well failure extends indefinitely into the future.

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[18] Section 33(3) CMA.

[19] Section 33(1) CMA.

[20] Section 2 CMA.

[21] Section 33(1)(a)

[22] Article 8.9(2) Petroleum Programme 2013.

[23] Section 25(3) Petroleum Act 1937

[24] Permit holders can transfer out of their permit via section 41 CMA. Petroleum licence holders can transfer their licence under section 15 Petroleum Act 1937. In both cases, the holder must secure agreement for the transfer from the relevant Minister.

Currently, permit and licence holders are under no obligations in respect to post-decommissioning costs.[25] There is no statutory duty for permit and licence holders to ensure the long-term integrity of their decommissioned wells, nor is there a mechanism requiring permit and licence holders to financially contribute towards managing this future risk.

The residual risk associated with post-decommissioning costs is borne by the Crown (in respect to offshore wells) and landowners (in respect to onshore wells). Landowners can shift risk back on permit or licence holders as part of negotiated land access arrangements between landowners' and permit or licence holders.[26] All permit holders must secure land access with the landholder under the CMA.

Under the Resource Management Act 1992, resource consents can require petroleum permit holders to provide a bond and obtain public liability insurance to ensure operators meet the costs of decommissioning.[27] However, once a permit holder fulfils their decommissioning obligations, the bond is returned to the permit holder, and there is no ongoing obligation for the permit holder to hold public liability insurance.

A.1.4 Permit and licence holder's financial security obligations

Financial security refers to disciplines, arrangements, and contracts such as parent companies guarantees and bonds, which ensure that permit and licence holders have the financial resources to carry out decommissioning. Financial security obligations vary between permits because this obligation is determined by permit conditions set by the Minister of Energy and Resources on a permit-by-permit basis.

The CMA and the Petroleum Programme 2013 limits the range of financial security that can be imposed by permit conditions

The Minister of Energy and Resources' ability to require financial security through permit conditions is constrained by:

- **Legal uncertainty**: the CMA refers to bonds and monetary deposits which can be used to guarantee compliance with permit conditions.[28] However, there is legal uncertainty regarding whether the Minister can impose other kinds of financial guarantees (for example, parent company guarantees) through permit conditions.[29]
- **The Petroleum Programme 2013**: states that petroleum permits will not normally require monetary deposits or bonds.[30]

Even if a permit holder is required to, and successfully arranges suitable financial security, it may not help the Crown as it has no powers guaranteeing access to the financial security.[31]

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[25] See generally Ministry of Business, Innovation & Employment (2017) "Managing third party risk exposure from onshore petroleum wells"

[26] See paragraph [46] 2017 discussion document.

[27] Section 108 Resource Management Act 1991

[28] Section 25 CMA.

[29] RIS 2020 page 24

[30] Article 11.1 Petroleum Programme 2013. The Petroleum Programme is a legislative instrument issued under the CMA which constraints the exercise of powers granted to the Minister and the Chief Executive under the CMA.

[31] Page 24 RIS 1.

Finally, the Crown has limited windows to impose financial security. Financial securities are imposed on permit holders via permit conditions. Permit conditions are set when the permit is first issued. The only way to change permit conditions is if the permit is transferred to a new permit holder. Therefore, the Crown has limited ability to proactively require financial security if, for example, the financial situation of the permit holder materially changes during the life of the permit.

A.1.5 Regulator's powers to monitor permit and licence holders' ability to fund and carry out decommissioning

The CMA provides limited tools for MBIE to monitor a permit or licence holder's ability to carry out decommissioning.

An applicant's financial capability to undertake decommissioning can only be assessed at permit application or transfer

There are only two occasions when MBIE can assess an applicant's financial capability to undertake their work programme (which will include decommissioning activities): when applying for a permit or when transferring a permit between parties.[32]

MBIE has no power to proactively reassess a permit holder's financial capability if it suspects that its circumstances have changed. Furthermore, there is no obligation on permit holders to inform MBIE if there is a material change in their financial circumstances.

MBIE has limited access to field development plans

Petroleum permit holders use field development plans (FDPs) to guide the development of their operations. FDPs will set out the timing, processes, and estimated costs of petroleum field development. These plans will also provide for the timing and costs of decommissioning activities.

The CMA requires applicants to submit their proposed FDP as part of their application for a permit.[33] Once a permit is granted, there is no statutory obligation on the permit holder to update MBIE as the FDP develops.[34]

Some permits include a condition requiring the holder to provide updated FDPs to MBIE. In these circumstances, MBIE has no power to accept or reject updated FDPs.[35]

A.1.6 Penalties for failing to meet decommissioning obligations

If a permit holder fails to meet decommissioning obligations implicit in the duty to operate in accordance with good industry practice, or explicit in permit conditions, it commits an offence under section 100(2)(a) of the CMA.

If convicted of an offence, the permit holder will face a fine not exceeding $20,000, and a fine not exceeding $2,000 for every day that the offence continues.[36]

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[32] Sections 29A and 41 CMA.

[33] Section 29A(2) CMA.

[34] FDPs are live documents which adapt to changing commercial conditions and project geology.

[35] See generally paragraph 363 CMA Tranche 2 discussion document.

[36] Section 101 CMA.

A.2 Proposed petroleum decommissioning regime

The proposed changes to the petroleum decommissioning regime in the Bill and the Proposed Regulations will apply to both CMA petroleum permits, and licences granted under the Petroleum Act 1937. The proposed regime includes five key elements set out in the following:

A.2.1 Permit and licence holder's obligations to meet decommissioning costs

The Bill will impose explicit statutory obligations on permit and licence holders to decommission petroleum infrastructure and plug and abandon wells. It also extends these obligations to prior licence and permit holders in situations where the current holder fails to meet these obligations. Current and former permit holders that are two or more persons will be jointly and severally liable.[37] The new decommissioning provisions introduced by this Bill will override any inconsistent conditions currently contained in permits or licences.[38]

New obligations to decommission petroleum infrastructure

The Bill requires all permit and licence holders to carry out and meet the costs of decommissioning all petroleum infrastructure.[39] Decommissioning is defined broadly as an:[40]

> "activity undertaken under any enactment, and in accordance with any requirements or standards set by or under that enactment or imposed by a regulatory agency, to take out of service permanently petroleum infrastructure or a well used for prospecting or exploring for, or mining of, petroleum."

This obligation allows the decommissioning party to leave objects on-site, provided it secures the consent of the landowner, and the action is consistent with regulatory requirements set down by any regulatory authority. If these conditions are not satisfied, then all objects must be removed.[41]

Decommissioning must be complete by the earliest of either the expiry or surrender of the current permit or licence, or a date specified in licence or permit conditions.[42] If the permit or licence is revoked by the Minister, decommissioning obligations must be satisfied within two years of the revocation notice or a time agreed with the Minister.[43]

New obligations to plug and abandon petroleum wells

The Bill requires all permit and licence holders to carry out and meet the costs of plugging and abandoning all wells drilled or operated under the permit or licence.[44]

A well is plugged and abandoned when the well is sealed in a way that leaves it permanently inoperable, and the sealing complies with regulatory requirements set down by any regulatory authority.[45]

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37 Sections 89P and 89W Amendment Bill.

38 Section 89C Amendment Bill.

39 Section 89K imposes this obligation on permit holders, and section 89L imposes this obligation on petroleum licence holders.

40 Section 89E Amendment Bill. Petroleum infrastructure is defined in section 89F.

41 Section 89E(3) Amendment Bill.

42 Section 89O Amendment Bill.

43 Section 89O(2) Amendment Bill.

44 Section 89R imposes this obligation on permit holders, and section 89S imposes this obligation on petroleum licence holders.

45 Section 89Q Amendment Bill.

Plugging and abandonment must be complete by the earliest of either the expiry or surrender of the current permit or licence, or a date specified as a permit or licence condition.[46] If the permit or licence is revoked by the Minister, plugging and abandonment obligations must be satisfied within one year of the revocation notice, or by a time agreed with the Minister.[47] Broader decommissioning obligations must be satisfied within two years of the revocation notice, or by a time agreed with the Minister.[48]

Liability for previous holders who transfer out of their permit or licence

From the date that the Bill commences, any person transferring ("transferor") out of a permit or licence before decommissioning or plugging and abandonment has occurred will remain liable for decommissioning and plugging and abandonment obligations.[49]

Transferors' potential liabilities are limited to:

- Costs that are not met by the current permit or licence holder, and.[50]
- Decommissioning and plugging and abandonment costs relating to infrastructure and wells that existed at the time of permit or licence transfer. Transferors are not liable for costs associated with new wells and infrastructure introduced by the new permit or licence holder.[51]

Additional powers for the Minister to change, exempt, and defer decommissioning obligations

The Bill empowers the Minister to impose decommissioning related conditions on any permit or licence at any time.[52] Conditions can include specifying dates for starting or completing steps within the decommissioning process.

When setting dates, times, or periods for decommissioning to be complete, the Minister must consider a range of factors, including when economic production under the relevant permit or licence is expected to cease, and in relation to a well, the integrity and the amount of time the well has been inactive.[53]

The Bill also empowers the Minister to exempt permit or licence holders from decommissioning obligations or defer the time for complying with decommissioning or plugging and abandonment obligations.[54] When considering an exemption, the Minister must be satisfied that the requirements are unreasonable or inappropriate in that case, or that events have occurred which make the requirements unnecessary or inappropriate.[55]

When considering a deferral of the decommissioning timeline, the Minister must consider a range of factors, including the economic value of the deferral to the owners of the petroleum

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[46] Section 89V(1) Amendment Bill.

[47] Section 89V(2) Amendment Bill.

[48] Section 89O, Amendment Bill.

[49] Sections 89K(2) and 89R(2) impose decommissioning and plugging and abandonment obligations on a person transferring a permit. Sections 89L(2) and 89S(2) impose decommissioning and plugging and abandonment obligations on a person transferring a licence.

[50] Sections 89N and 89U Amendment Bill.

[51] Sections 89K(2)(b) and 89R(2)(b) Amendment Bill.

[52] Section 89G Amendment Bill.

[53] Section 89H Amendment Bill.

[54] Section 89X Amendment Bill.

[55] Section 89Y Amendment Bill.

well and infrastructure and the likelihood of increased decommissioning costs over the deferral period.[56]

A.2.2 Permit and licence holder's obligations to meet post-decommissioning costs

The Bill will require all permit and licence holders who are subject to decommissioning obligations to also contribute towards the cost of post-decommissioning work.[57] Post-decommissioning work relates to activities carried out to remediate: petroleum infrastructure that has been decommissioned but not removed, wells that have been plugged and abandoned, and environmental damage or health and safety risks resulting from decommissioned infrastructure or plugged and abandoned wells.[58]

The Minister must set the amount to be paid by each permit and licence holder in line with criteria set through regulation.[59] The criteria that determine the amount payable will relate to the riskiness of the post-decommissioning well, infrastructure and environmental and health and safety risks. The Minister may determine whether the payments are made as a lump sum or in instalments. The payments will be pooled in a central government fund and granted to meet costs from residual liability at the Minister's discretion.

The requirement to contribute to the costs of post-decommissioning work relates only to remedial work on infrastructure that is decommissioned and wells that are plugged and abandoned from the commencement of the Bill. The fund will not be used to address outstanding issues such as currently orphaned wells.

A.2.3 Permit and licence holder's financial security obligations

The Bill will require all permit and licence holders to hold one or more financial securities.[60] The Minister will determine the type and the amount of the security. When making this decision, the Minister must consider a range of factors listed in section 89ZF, including:

- Information provided by the permit or licence holder
- the amount necessary to ensure the security can partially or completely cover decommissioning obligations,
- the circumstances of the permit or licence holder,
- the permit or licence holder's administration costs to maintain the security for the required period, and
- any other matters the Ministers considers relevant.

Furthermore, the kind of security must enable the Crown to obtain payment of the secured amount in the event that the holder fails to carry out decommissioning.[61]

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[56] Section 89Z Amendment Bill.

[57] Section 89ZO Amendment Bill.

[58] Section 89ZN Amendment Bill.

[59] Section 89ZP Amendment Bill.

[60] Section 89ZE Amendment Bill.

[61] Section 89ZG(4) Amendment Bill.

The Minister will have the power to alter, through written notice, the amount or kind of security required to be held by a permit or licence holder at any time.[62] Permit and licence holders will be able to object to alteration notices following an appeal process established in the Bill. Objections are heard by the Minister, and the Minister must determine the objection within a reasonable time after its receipt.[63]

Permit or licence transfers are void if the transferee fails to secure the financial security specified by the Minister

Under the Bill, all permit or licence transfers will include a condition requiring the transferee to enter into, or become party to an existing financial security arrangement in accordance with the Minister's directions.[64] If the transferee fails to secure the appropriate financial security, the transfer is void.[65] Where a transfer is void, the original permit or licence holder will continue to be liable for decommissioning obligations.

A.2.4 Regulator's powers to monitor permit and licence holders' ability to fund and carry out decommissioning

The Bill empowers the Minister to assess the financial capability of persons responsible for decommissioning, and request FDPs throughout the duration of a permit or licence.

New powers to assess financial capability

Section 89ZA empowers the Minister to, by written notice, require a permit or licence holder to provide any information the Minister considers necessary to monitor the holder's financial position. This information must be provided within a reasonable time specified within the notice.

Section 89ZB empowers the Minister to assess a permit or licence holders' financial capability to meet decommissioning obligations at any point while the permit or licence is in force. To support the Minister's ability to conduct financial capability assessments, permit and licence holders are required to hold a range of records and information prescribed in regulations.

The Minister will also have a new power to request any information the Minister considers necessary to carry out the financial capability assessment.[66]

Explicit power to request field development plans and asset registers

Section 42B will require permit and licence holders to submit their FDP to MBIE at times (or on the occurrence of events) prescribed by MBIE. The FDP must:

- Detail the planned development of the field over its anticipated productive life, including all anticipated decommissioning work,
- Estimate the cost of planned work (if regulations made under the CMA require cost estimates),
- Be accurate at the date of submission, and

[62] Section 89ZH Amendment Bill.

[63] Section 89ZK Amendment Bill.

[64] Section 89M(3) Amendment Bill

[65] Section 89M(5)(a) Amendment Bill.

[66] Section 89ZC Amendment Bill.

- Comply with any requirements (such as form or information) specified in regulations.

Proposed Regulations by MBIE impose further requirements on the content of FDPs:[67]

- Summary of decommissioning activities and the end state
- Times for when decommissioning will occur
- A summary of adjacent fields and interdependence
- Summary of any installation or pipeline intended to be left behind, and
- Details of current marine or resource consents and any plans, and any plans to acquire marine or resource consents in the future.

Section 89ZD will further require permit and license holders to submit Asset Registers which must provide an accurate list of all petroleum infrastructure and wells which must be decommissioned.

A.2.5 Penalties for failing to meet decommissioning obligations

The Bill introduces new pecuniary and criminal penalties for persons who fails or attempt to avoid their decommissioning obligations.

Pecuniary penalty

Section 89ZZO introduces a pecuniary penalty that can apply to any person who fails or attempts to avoid obligations to meet decommissioning, plugging and abandonment, and financial security obligations under the CMA.

The amount of any pecuniary penalty must not exceed $500,000 for an individual, or $10 million for a body corporate.

Criminal penalty

Section 89ZZQ introduces an offence if a person knowingly acts (or fails to act) in a way that will result in that person being unable to meet their decommissioning and plugging and abandonment

If convicted of this offence, an individual is subject to imprisonment for a term not exceeding 2 years, and/or a maximum fine of $1 million. A body corporate convicted of this offence will be liable for the greater of:

- A maximum fine of $10 million, or
- A fine not exceeding three times the cost of decommissioning.

[67] Paragraph 79 DD.

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Appendix Three: Legal opinion from Professor Philip Joseph

PHILIP A JOSEPH LLB (Hons) (Cantuar), LLM (Br Col), LLD (Cantuar)
BARRISTER | PROFESSOR OF LAW

20 August 2021

Mr John Carnegie
Chief Executive
Energy Resources Aotearoa
john@energyresources.org.nz

Dear Mr Carnegie

Crown Minerals (Decommissioning and Other Matters) Amendment Bill

Mr Joshua O'Rourke issued instructions for me to advise Energy Resources Aotearoa on the constitutional implications of the above Bill. In particular, he sought my advice on whether, and, if so, to what extent, the Bill is retrospective in application.

I now have pleasure in forwarding my advice.

Yours sincerely

Philip Joseph

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PHILIP A JOSEPH LLB (Hons) (Cantuar), LLM (Br Col), LLD (Cantuar)
BARRISTER | PROFESSOR OF LAW

Executive summary

1 There are troubling features about the Crown Minerals (Decommissioning and Other Matters) Amendment Bill (**the Bill**). The main objection to the Bill is its retrospective application to the industry's permit and licence holders.

2 Legislation generally should be prospective in operation and not retrospective. This Bill is objectionable to varying degrees as a result of its retrospective effect. It imposes onerous new obligations on current permit and licence holders and establishes significant new liabilities.

3 The Bill raises a fundamental rule of law concern: it is retrospective in operation. The new obligations and liabilities it imposes on stakeholders were not part of the legal landscape when stakeholders were granted their petroleum permits or licences. The Bill operates retrospectively, although the new obligations and liabilities do not take effect until the occurrence of future events (decommissioning).

4 The Bill alters fundamentally the legal and economic environment in the energy resources industry, and has damaging impacts on current permit and licence holders. Under the Crown Minerals Act 1991 (**the CMA**), permit (and thereto licence) holders were granted the right to conduct their operations "on the conditions stated in their permit" (CMA, s 30(1)–(3)).

5 The Ministry of Business, Innovation and Employment (**MBIE**) created the problem the Bill now seeks to address. MBIE did not follow any consistent practice in granting permits and licences. Some permits and licences impose on stakeholders decommissioning obligations, others do not. Nevertheless, the Bill will penalise all operators in the industry, including those whose permits or licences impose decommissioning obligations. The Bill's prescriptive requirements far exceed current decommissioning obligations under industry permits or licences.

6 The Bill introduces extensive civil pecuniary and criminal liabilities for breach of the Bill's decommissioning obligations. The penalties regime is new to the industry and will retrospectively affect current permit and licence holders. The penalties imposed are draconian for what the Ministry of Justice terms "public welfare regulatory offences".

7 The criminal offences established raise serious issues of principle. They are couched as strict liability offences. The Bill relieves the prosecution of the standard burden of proof of proving the elements of the offence beyond reasonable doubt. Liability is presumed unless the defendant can prove the existence of a statutory defence or absence of guilt.

8 The sovereign/country risk the Bill poses is contrary to the Petroleum Programme 2013 which says sovereign risk should be minimised.

9 It is constitutionally objectionable to impose on the industry the following matters: the "trailing" liability (the continuing liability of operators who transfer their permit/licence to other industry operators), the need to establish compulsory financial security, and the obligation to contribute to a post-decommissioning fund. These are *retrospective* impositions that demonstrably alter the industry's legal landscape. It is contrary to the rule of law for governments metaphorically to shift the goal posts after the ball has been kicked.

Decommissioning

10 MBIE explains what decommissioning entails. The ministry's *Departmental Disclosure Statement*, Part One: General Policy Statement at 3, states: "Decommissioning is the process of taking petroleum infrastructure and wells out of service, which may include the removing of infrastructure, plugging and abandoning, and undertaking necessary site restoration activities." Clause 89E of the Bill itemises the various activities entailed in decommissioning petroleum infrastructure.

11 MBIE acknowledges the costs decommissioning will impose on industry players. Its *Departmental Disclosure Statement*, Part Two: Background Material and Policy Information at 7, reads: "The policy to be given effect by this Bill may impose additional costs on petroleum companies that do not currently follow good industry practice, and do not provide for an adequate discharge of their decommissioning operations." This statement is a concession that decommissioning costs are not currently part of the legal regime under the CMA (except where individual permits/ licences expressly provide for those costs to be borne by the operator).

Statutory lacuna

12 The law is silent on the need for permit and licence holders to decommission end-of-life wells and infrastructure. The Explanatory Note to the Bill acknowledges the lacuna under the CMA. This reads:

> "The Crown Minerals Act 1991 (**CMA**) does not currently explicitly provide for petroleum permit and licence holders' decommissioning responsibilities, the length of time for which they are responsible, and the consequences for failing to carry out decommissioning. Existing requirements for decommissioning under the CMA have largely evolved on a case-by-case basis, and are defined in individual permit conditions."

13 MBIE concedes that many current permits specify no conditions concerning decommissioning. Some do but some do not (MBIE *Departmental Disclosure Statement*,

Part Four: Significant Legislative Features at 13). MBIE's concession acknowledges that the Bill's effect will be retrospective in imposing new obligations, conditions and liabilities.

14 Section 30(1)–(3) of the CMA declares, in explicit language, that a permit holder has *the right* to prospect, explore or mine (as the case may be) "*on the conditions stated in the permit*" (emphasis added). When permits or licences are issued, the conditions define the permit or licence holder's rights. The Bill will fundamentally alter that position retrospectively, notwithstanding that decommissioning may occur in the future.

Retrospectivity

15 The *Legislation Guidelines: 2018 edition* are promulgated by the Government's Legislation Design and Advisory Committee (**LDAC**). The LDAC Guidelines (Chapter 1 "Good legislative design") identify "three fundamental objectives of high quality legislation". One objective is that (bold in the original): "Legislation should be **constitutionally sound** – by this we mean that legislation should reflect the fundamental values of a democratic society." The Bill woefully fails that objective.

16 The Bill is retrospective and is constitutionally objectionable. The *Legislation Guidelines: 2018 edition*, Chapter 4: Part 7 "The Presumption against retrospectivity" state that "[l]egislation should not affect existing rights". Chapter 12 reiterates that legislation "should not interfere with accrued rights and duties". The LDAC Guidelines state that the presumption against retrospectivity "is part of the rule of law" (Chapter 4: Part 7).

17 The rule of law implications are manifest. The Legislation Act 2019, s 12 states categorically: "Legislation does not have retrospective effect." Section 12, however, must be read subject to s 9(1). The rule against retrospectivity applies unless the legislation in question provides otherwise or the legislative context requires a different interpretation. Here, there is no question that the Bill has retrospective application. The Explanatory Note to the Bill states that the Bill applies to all *current and future* petroleum permit and licence holders.

18 The Bill imposes new substantive obligations and liabilities that are not part of the existing legal landscape of the energy resources industry. These obligations and liabilities take effect when decommissioning occurs at the end-of-life of a permit or licence. Although these obligations and liabilities speak to future events (decommissioning), they fundamentally alter the legal position of current stakeholders.

19 In *Yew Bon Tew v Kenderaan Bas Mara* [1983] 1 AC 553 at 558, the Privy Council rehearsed the classical definition of retrospectivity. Lord Brightman said a statute is retrospective if it "creates a new obligation, or imposes a new duty … in regards to events already passed". See also Bennion's definition of "objectionable" retrospectivity (FAR Bennion *Statutory Interpretation* (supplement to 3rd ed, 1999) at p 236). Bennion wrote (emphasis in

original): “Changes relating to the past are objectionable … if they alter the legal nature of an act or omission *in itself*.”

20 To base new legal consequences on a past event is to change the legal nature of the event itself (Bennion’s definition of retrospectivity). The Crown granted stakeholders in the industry permits and licences (a past event) that gave them the right to operate under the terms of their permits/ licences. Now, the Bill visits new legal consequences (obligations and liabilities) upon those permits and licences. These legal consequences are contingent on future events happening (decommissioning at a permit’s or licence’s end) but they fundamentally alter the legal nature of the past event (the Crown’s grant of permits and licences). The changes the Bill proposes are *retrospective*.

21 The leading text on statutory interpretation in New Zealand acknowledges that retrospective legislation can speak to, and be contingent upon, the happening of future events (JF Burrows and RI Carter *Statute Law in New Zealand* (4th ed, LexisNexis NZ Ltd, Wellington, 2009) at 587). The authors state (emphasis in original): “[R]etrospective laws *alter the future legal consequences of past actions and events*.” Apropos the Bill, the words “future legal consequences” would signify trailing liability, compulsory financial security and the post-decommissioning fund, and the words “past actions and events” would signify the earlier Crown grant of petroleum licences under the CMA.

22 It is formalist to contend that, because these new obligations and liabilities are directed at future events (decommissioning), they do not apply retrospectively to affect the legal position of current stakeholders. This (formalist) conception of retrospectivity provides a convenient template to excuse objectionable (retrospective) legislation. It suggests there can be no retrospectivity if new obligations or liabilities take effect upon the occurrence of future events. This conception does not work even on its own terms. New obligations or liabilities, while triggered by future events, often do (as here) retrospectively alter the legal incidents of past events.

23 The Bill is fundamentally altering the legal nature of past events (the permits and licences the Crown granted fixing the legal rights and obligations of permit/licence holders). Parliament is imposing legal liabilities and obligations where no such liabilities or obligations operated previously.

24 Sometimes, it may be necessary in the public interest for Parliament to legislate retrospectively. Parliament did so, for example, following the Christchurch Mosque shootings. The Arms (Prohibited Firearms, Magazine, and Parts) Amendment Act 2019 banned semi-automatic and pump action firearms and shotguns, and certain large capacity magazines. The legislation retrospectively revoked rights under gun licences issued under the Arms Act 1983. But that legislation must be distinguished from the instant matter. All firearm owners subject to the new law received just compensation for the loss and use of their firearms (see the Prohibited Firearms Buy-Back Scheme introduced under the Arms (Prohibited Firearms, Magazines and Parts) Amendment Regulations 2019.

25 The Bill is distinct in nature from the Crown Minerals (Petroleum) Amendment Act 2018, which prohibited any new offshore petroleum permits being issued. That Act recognised and protected the rights of current permit holders by preserving their permits in force, notwithstanding the amendment Act. The Bill, in contrast, neither recognises nor protects the rights of current permit and licence holders. Rather, it retrospectively overrides their rights by imposing new substantive obligations and liabilities on permit and licence holders.

26 The Bill fails the objective that legislation be "constitutionally sound" (LDAC Guidelines, Chapter 1 "Good legislative design"). Even the officials who promoted the Bill were alive to its retrospective reach. They acknowledged (Agency Disclosure Statement http://disclosure.legislation.govt.nz/bill/government/2021/47):

> "The requirement to carry out and fund decommissioning, and to provide a financial security, could be perceived as the creation of new obligations retrospectively as they apply to actions taken in the past (for example, wells that have already been drilled), as well as prospectively to actions that will occur in the future (any new wells)."
>
> "The requirement to provide payments towards any post-decommissioning work will also apply to existing operations and could be considered the creation of a new obligation retrospectively."

27 A final issue of retrospectivity concerns cl 89A(b). This clause breaches a legitimate expectation that existing applications for petroleum permits will be determined according to the law in force at the time the application was lodged. Clause 89A(b) reads:

> **89A Application of this subpart**
> This subpart applies to –
>
> …
>
> (b) any person who applies for a permit before commencement if the application has not been determined on commencement:

"Commencement" as used in cl 89A(b) means the commencement in force of the Bill.

28 Under cl 89A(b), an application for a petroleum licence lodged under the CMA before the Bill commences in force is nevertheless to be processed and determined under the Bill, as though its provisions were in force as law at the time the application was lodged. This retrospective application contravenes the standard expectation that applications are determined under the law applying when the application was lodged, even if new law commences in force before the application is processed.

29 Clause 89A(b) is at odds with other environmental legislation. For example, the Resource Management Act 1991 (cl 8(3) of Schedule 12) and the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (cl 1(1) of Schedule 1) require that all

pending applications be processed and determined as if amendment legislation had not been made (that is, applications are to be determined under the law in force when the application was lodged).

30 The Regulatory Impact Statement explaining the Bill's provisions does not provide any justification for the Bill's departure from the usual rule, that applications will be determined under the law in force at the time they are lodged.

Substantive new provisions

31 I am instructed that Mr Justin Smith QC is examining the Bill's provisions and their likely legal effect. This advice focuses on the retrospective effect of the Bill and its impact on stakeholders. That said, it is helpful to outline the major elements of the Bill to gauge the inevitable impact it will have. The changes it will foist on the energy resources industry will skew the industry's market dynamics. The Explanatory Note to the Bill itemises the following principal changes.

32 The Bill introduces an "explicit statutory obligation" for all current petroleum permit and licence holders to carry out decommissioning in accordance with relevant requirements under "other legislation, standard-setting processes, or consents". All wells must be plugged and abandoned, and all infrastructure removed. Permit and licence holders will be required to meet "the full financial costs of the decommissioning activities" (class 89K–89L).

33 The Bill introduces civil pecuniary and criminal penalties for stakeholders who fail to meet their obligations. The criminal penalty will run in parallel with civil penalties where an egregious breach of the Bill's obligations occurs. Persons convicted of a criminal offence are punishable by imprisonment for a term not exceeding two years, or a fine not exceeding $1 million, or both. A company that commits an offence is liable to a fine not exceeding $10 million or three times the cost of decommissioning (whichever sum is the greater) (cl 89ZZQ). These are particularly severe penalties for what the Ministry of justice calls "public welfare regulatory offences" ("Consistency with the New Zealand Bill of Rights Act 1990: Crown Minerals (Decommissioning and Other Matters) Bill", Ministry of Justice, 9 June 2021, at [31]).

34 The criminal offences are couched as strict liability offences and raise serious issues of principle. The Bill relieves the prosecution of the standard burden of proof of proving the elements of the offence beyond reasonable doubt. Liability is presumed unless the defendant can prove the existence of a statutory defence or absence of guilt (see MBIE's *Departmental Disclosure Statement*, Part Four: Significant Legislative Features at 14). The penalties upon conviction for these offence show them to be truly *criminal* rather than *regulatory* offences, calling for the standard protection of the criminal law presumption of innocence.

35 The Bill supplements the above penalties with civil pecuniary penalties. Such penalties must not exceed $500,000 for an individual and $10 million for a company (cl 89ZZO). The combination of civil pecuniary and criminal penalties provides a heady cocktail. Criminal proceedings may be commenced against a person or company whether or not proceedings for pecuniary penalties have also been instituted (cl 89ZZS).

36 The Bill establishes the continuing liability of a permit or licence holder which transfers the licence (or any interest in it) and the transferee fails to meet the decommissioning obligations of a permit or licence holder. The transferor is treated as continuing to be the permit or licence holder, notwithstanding the transfer of the licence to the transferee (cls 89K–89N).

37 The Bill bolsters the minister's power to monitor a permit or licence holder's financial position and plans for field development. The minister is given coercive powers to investigate and determine the permit or licence holder's financial capability to complete decommissioning work, as and when needed (cls 89ZA–89ZC).

38 The Bill obliges permit and licence holders to establish and maintain adequate financial security for funding decommissioning activities, as the minister may determine (cls 87ZE–89ZK). The obligation imposed under cls 87ZE–87ZK is mandatory and does not reserve to the minister any discretion to waive the statutory requirement. All permit and licence holders must establish and maintain adequate financial security, regardless of their current financial capability to decommission petroleum infrastructure. The provisions leave no room for a risk assessment approach.

39 The Bill requires permit and licence holders to cover the costs of any post-decommissioning work to the amount that the minister determines (cls 89ZL–89ZQ).

Sovereign/country risk

40 "Sovereign risk" and "country risk" are terms often used interchangeably, as denoting the same thing. Technically, they are different concepts: sovereign risk refers to the risk that a government might default on its debt (sovereign debt) or other obligations, whereas country risk refers to the risk of investing in a market where governmental interventions may adversely affect operating profits and asset values. These expressions have now come to be used interchangeably.

41 The Petroleum Programme 2013 preferred the expression "sovereign risk". It defined the expression as:

> "… the risk that the government may unexpectedly change significant aspects of its policy and investment regime and the legal rights applying to investors to the detriment of investors."

Through its retrospective nature, the Bill presents a classic example of the realisation of sovereign/country risk that the Petroleum Programme 2013, in Section 1.3(6), says should be minimised.

Own goal

42 The question that must be asked is whether this Bill is an "own goal". The CMA is intended to promote a public good by attracting capital investment in the energy resources industry. The purpose section of the CMA reads (emphasis added):

> **1A Purpose**
>
> (1) The purpose of this Act is to promote prospecting for, exploration for, and mining of Crown owned minerals *for the benefit of New Zealand*."

43 The Petroleum Programme 2013 states (para [1.3(4)]) that the Crown itself did not want to undertake those activities. It explained (emphasis added):

> "An underlying premise of the [CMA] is that the government wants other parties, such as public and private corporations, to undertake prospecting for, exploring for and mining of Crown owned minerals, including petroleum. The government does not wish to undertake these activities itself, although it may from time to time undertake seismic survey or other prospecting activities *for the purpose of providing information to promote interest in New Zealand's petroleum estate*" (<https://www.nzpam.govt.nz/assets/uploads/our-industry/rules-regulations/petroleum-programme-2013.pdf).

44 This Bill is retrospective, coercive and punitive, and will achieve exactly the opposite of what the CMA seeks to promote – investment in the petroleum industry.

Dr Philip A Joseph
Professor of Law
University of Canterbury
Barrister at Law

18 August 2021

Appendix Four: Legal opinion from Justin Smith QC

Justin Smith QC

18 August 2021

John Carnegie
Chief Executive
Energy Resource Aotearoa
PO Box 25259
Wellington 6140

Dear John

Instruction for Energy Resources Aotearoa: Advice on Crown Minerals Reforms

Introduction

1. On instructions from Energy Resources via Greenwood Roche I am asked to provide my opinion on certain aspects of the Crown Minerals (Decommissioning and Other Matters) Amendment Bill introduced in the House in June this year. The matters on which my advice is sought are in a brief to me dated 21 July and they include the following:

   (1) the appropriateness (in terms of good legislative practice) of implementing a perpetual liability regime in the Crown Minerals domain, given the New Zealand legal and corporate context;

   (2) whether it is appropriate to implement a perpetual liability regime discretely through amendments to the Crown Minerals Act or whether it would be more suitable to do this through broader (and more considered) company law reform;

   (3) whether a perpetual liability regime can be properly enforced against a company no longer in existence with retired directors and officers; or a materially different looking company (e.g., different Board, shareholders and management);

   (4) contractually speaking, how liability will be dealt with, and whether issues can be foreseen; and

   (5) whether the changes would make it harder for directors and officers to get insurance and/or lead to prohibitive insurance costs.

   (6) whether the Bill is retrospective in effect.

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(7) the effect of the post decommissioning provisions.

2. The point of this advice is not to discuss how entities in the Crown Minerals regime will manage to comply with the proposed provisions nor, directly, whether the proposed provisions "ought" to be enacted. Rather, this is a purely legal opinion focusing on the effect in law of the proposed provisions if they were to be enacted together with, to some extent, a contextual analysis of the call or justification for some of the provisions to the limited extent that this is relevant to analysing their legal effect.

Summary of Advice

3. Incorporating the main points arising under each of the questions that have been asked the following is an overall summary:

(a) The proposed perpetual or trailing liability regime is extreme in terms of the obligations it places on former permit holders and the civil and criminal liability the holders themselves and their directors are exposed to.

(b) There is no statutory precedent for the imposition of this type of regime in New Zealand.

(c) The Bill's proposed trailing liability regime does not sit well with the New Zealand Legislation Design and Advisory Committee Guidelines (LDAC Guidelines): for the various reasons in this advice it does not achieve a "proportionate" and "reasonable" response to the issue the Bill is designed to address.

(d) The time periods over which trailing liability may be imposed are inconsistent with the norms of statutory liability periods particularly under New Zealand's Limitation Act.

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

(f) It imposes liability for events outside the control of permit holders and for acts or omissions involving no fault but where the high levels of penalty involved as *maxima* (both for corporate defendants and directors) imply fault.

(g) The director liability regime is particularly harsh. Again, it imposes liability for fault on what in reality is a strict liability offence in respect of matters where fault does not or may well not exist.

(h) It (the director liability regime) potentially exposes past directors of defunct companies to criminal liability where, not merely is there no fault by a director, but, for a number of reasons, the director could not possibly have been at fault or changed the outcome comprising the offence.

(i) The trailing liability has no logical necessity. The Bill imposes on transferees the same financial capability checking and liability regime as it does for the initial permit holders. Once a permit has been transferred in these circumstances there is no reasonable pretext to double the Crown's protection by continuing the initial owner's liability.

(j) The enforcement provisions are not normative in terms of New Zealand legislation. They are overreaching.

(k) The Bill is retrospective in effect (it alters the rights of permit holders retrospectively).

(l) Director liability will be sufficiently severe to deter competent directors from accepting appointments.

(m) The post decommissioning regime is inappropriately vague as to the amounts of likely payments or any principles relevant to their determination. It is also uncertain as to the ability of transferring licence and permit holders to make payments or, where they have made them, obtain refunds. The same applies to the liability of transferees to assume responsibility for post decommissioning costs.

Question 1 – the appropriateness (in terms of good legislative practice) of implementing a perpetual liability regime in the Crown Minerals domain, given the New Zealand legal and corporate context

Introduction

4. The proposed perpetual (or "trailing") liability is extreme. There may be, in fact are, overseas examples of the use of this legislative tool. But that establishes precisely nothing.

5. The use of these regimes (in the relatively few jurisdictions where they have been adopted and which are cited as examples[1]) does not provide an automatic justification for their use in New Zealand. Without doubt, in overseas jurisdictions where trailing liability is used there will have been factual circumstances, policy drivers and political circumstances which contribute to the justification for the use of these legislative tools. Whether the same conditions exist in New Zealand so as to underlie the adoption of a trailing liability regime and whether, even then, the adoption of that regime is apt remains an open question. The only way of answering it is to carry out a ground up assessment of whether such an extreme regime in New Zealand is justified. As said, the fact that it is deployed elsewhere is no substitute for this assessment.

6. In the absence of a ground up assessment of New Zealand's particular regulatory needs, the Bill appears to be a disproportionate response to an isolated issue, namely the necessity for the decommissioning of the Tui oil field to be undertaken by the Crown rather than the permit operator of that field. The liability scheme, in particular, does not seem to have been drafted with New Zealand's regulatory landscape in mind; namely, the comparatively small and shallow market, the permit regime (in which the Crown plays an active part in permitholder vetting and approval, setting of permit conditions and on-going permit compliance monitoring), and the nature of the corporate structures engaged in the industry.

7. I note that this approach is inconsistent with the LDAC Guidelines. Those provide that legislation ought to be "proportionate, reasonable, rational, and consistent with New Zealand's constitutional principles",[2] and that legislative change should arise from a "clearly defined" policy objective when it is "really needed", having ensured that the objective is not already met by other statutory, common law or non-legislative solutions.[3]

8. Because of the variety of issues posed by the trailing liability content of the Bill, I will divide this question into a number of subject headings:

(a) The proposed regime itself;

(b) Statutory precedents for such a regime;

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1 E.g. the Australian Government response to the liquidation of Northern Oil and Gas Australia Pty Limited group of companies and issues arising with reference to the Northern Endeavour FPSO cited in MBIE's discussion document *Discussion on the Proposed Regulations*.

2 LDAC Guidelines 2018, ch 1, p 7.

3 Chapter 1, p 11 and chapter 2, p 14.

(c) The issue of limitation periods;

(d) The Bill's imposition of criminal liability;

(e) Criminal liability of directors;

(f) Pecuniary penalties;

(g) Other means of security compliance;

(h) Normative enforcement provisions.

The proposed regime itself

9. In the situation of most concern a transferor may transfer a permit or license to another party (which it has no reason to believe will not, or will not be able to, fulfil the other obligations which the Bill proposes to introduce) and yet the transferor, itself, will remain liable to perform those obligations. It will remain liable to do so notwithstanding that it has not only ceased to own the assets in question but has also lost any ability to affect, control or otherwise influence the management of those assets. Granted, the transferor is not liable in respect of new infrastructure the transferee puts in place but it is quite possible that the infrastructure transferred is materially changed after the transferor company ceases to have control of it. This could occur through deterioration or damage occurring in the hands of the transferor. Or it could come about through the transferor's alteration of the infrastructure making it difficult to establish which entity was responsible for what infrastructure. In either event the cost of decommissioning changes to a higher cost. There are clearly likely to be demarcation issues between what is the responsibility of a former operator and a more recent operator.

10. The situation is rendered somewhat more extreme in a number of other (reasonably likely) scenarios. The transferee itself may transfer to a second transferee. In that scenario the latest transferor becomes liable but the Ministry of Business, Innovation and Employment (**MBIE**) may then, at its option, enforce against one or both of the preceding transferors both of which remain liable. The first in time will by then have lost even the remotest means of control or of influencing regulatory compliance in respect of the asset concerned.

11. The imposition of liability on property owners in respect of regulatory compliance in respect of the management or use of the property concerned where they no longer own the property (and may have long since ceased to do so or where there may be several transferees who have since taken ownership and possession of the property) would be a truly novel and draconian provision in New Zealand. So far as I am aware it has not been enacted anywhere else in New Zealand law. Its distinctive feature is that it imposes civil liability for the occurrence of an event in respect of which the transferor is simply not responsible in any factual or moral sense.

12. This would be the statutory equivalent of holding a former landowner liable for a nuisance they simply did not commit. Or, for example, holding a former property owner liable for failing to fence a swimming pool when it is the subsequent owner (or owners) who has failed to maintain fencing in compliance with required standards.

13. Ordinarily, the justification for such a draconian measure, whatever it is, would be expected to subsist in the form of extreme public interest necessity, which is unable to be adequately addressed by any other means. On the face of it, utilising the balance of the provisions in the Bill for the purposes of analysis, as we will see, this simply is not the case. In other words, there are other provisions in the Bill which would adequately cope with the mischief the legislators wish to address.

Statutory precedents

14. As already indicated, there are none for the proposed trailing liability regime. Under the Goods and Services Tax Act 1985 groups of companies are registered as a single person for GST purposes. Members of the group have joint and several liability for tax payable by the group even if the member which would be liable is no longer part of the group (s.55(7)(g)).

15. This is the nearest analogue in New Zealand's statutes for a form of trailing liability that I can readily find. There may be others. But the obvious contrast with the Bill's proposed trailing liability regime is that liability of others in the group continues in respect of a departed group member only for GST which has become payable for a taxable period in which the member which is no longer part of the group *was* a group member. The rationale for trailing liability in a context such as this is clear and unobjectionable. In addition, it will usually have been within the control of one or more members of the group whether and in what circumstances the departing member left.

16. A statute with loosely comparable aims as those in the Bill is the Exclusive Economic and Continental Shelf (Environmental Effects) Act 2012. Former owners of offshore installations do not face a trailing liability regime. The legislature (understandably) has been content with the provisions in the EEZ Act which require a decommissioning plan and, where stipulated as a condition, security in the form of a bond to secure performance or a requirement to keep in place public liability insurance. There are no restrictions on transfer of consents.

Limitation periods

17. A useful analogue for the reasonableness of trailing liability as proposed in the Bill is statutory limitation periods. Under the Limitation Act 2010 the basic limitation period is 6 years from the event giving rise to the claim. This has always been the applicable period (including under predecessor legislation) for claims at common law, equity or for statutory liability. After that time any proceeding is time barred.

18. An exception exists in respect of delayed knowledge dates. The applicable period within which to issue is then 3 years from the late knowledge date. There is now a long stop date of 15 years. Cases involving delayed knowledge dates are the exception, not the norm. Typically involved are cases of latent damage or fraud where the injury or loss was not discoverable within the 6 years following the relevant event. In fraud cases the period of non-discovery may have been extended through attempts at covering up the conduct by the fraudster.

19. There are varying justifications that have been put forward for limitation periods but that stated in the purpose section of the current Act, s 2, probably suffices: it is "…to encourage claimants to make claims for monetary or other relief without undue delay by providing defendants with defences to stale claims." Stale claims are a mischief: the evidence in support of them becomes progressively unreliable as time goes on. Equally, a defendant is harder pressed to provide evidence by way of defence as time passes. Open ended liability (which makes persons always subject to the threat or possibility of litigation) is seen as something which should be curbed.

20. Yet, putting aside liability for pecuniary penalties and criminal liability, the civil liability which would arise under the proposed trailing liability regime is intrinsically a form of liability which runs counter to New Zealand's long legislative history of providing defences to stale claims and *not* permitting open ended (in time) liability except in certain well-defined instances. The Bill's trailing liability regime could see a permit holder transferring a permit which has decades yet to run, meaning the period of potential liability under the proposed trailing regime could be a quarter of a century or more.

21. There will be the argument, I expect, that long term contracts involve potential liability over extended periods. But that contention hardly holds good here. Even in long term contracts (an operatorship in which the parties have been contractually bound for decades, for instance) liability for breach of contract runs from the date of the breach and then ceases notwithstanding that the contract continues. Secondly, the parties have control of, and engagement in, the subject matter of the contract unlike transferors and transferees of licences and permits who no longer have any form of relationship or interaction, contractual or otherwise.

Criminal liability

22. In addition, the transferor (sole or initial) would retain not merely civil statutory liability but quasi criminal (pecuniary penalties) and, indeed, criminal liability in certain scenarios.

23. In essence, a transferor is criminally liable for failing to meet the costs of decommissioning where a transferee fails to do so. That criminal liability arises under clause 89ZZQ(2) if the transferor should "fail to act … knowing [the] failure to act will result in A [A being a person liable for decommissioning requirements under ss 89K, 89L, 89R or 89S] not being able to meet [their] decommissioning obligations".

24. It might be said that this is not an offence of strict, let alone absolute, liability because of the mental element which is prescribed: "knowing". However, contextually, the mental element only superficially makes the offence one requiring proof of *mens rea*. In fact, proof of the requisite mental element will be readily supplied as a matter of accounting evidence. It will be obvious where a company has not provisioned for and is otherwise unable to afford to meet such costs. It will follow as a matter of course that the directors of the company and the company will "know" or have the requisite knowledge.

25. This criminalises what is essentially civilly actionable conduct e.g., a mere lack of financial provisioning (of course, it is already staggering that the conduct is even *civilly* actionable given it is in respect of assets the entity concerns no longer owns or has control over).

26. In most instances where a civil wrong which is merely actionable is criminalised there is a clearly recognisable and imminent moral hazard which is intended to be militated against. An example is misleading statements to investors under securities legislation. Another is foreseeable injury or death in defiance of a duty to take all practicable steps to ensure safety at work of employees under health and safety legislation. Another is deliberately misleading consumers (rather than merely misleading conduct) under the Fair Trading Act.

27. There are perhaps not countless but, to say the least, many other examples. All of them bar none have an underlying moral and factual rationale which justifies the imposition of criminal liability.

28. A slightly closer look at an example illustrates the point. The Financial Markets Conduct Act 2013 in s.82 prohibits misleading statements in offers of financial products. Offerors face civil consequences. So do directors (for directors see s.534). Section 510 (1) makes it an offence by an offeror if the offeror knows of the misleading nature of the statement. Section 510(2) makes a director of an offeror criminally liable where the director knows the offer is misleading.

29. In the case of securities offerings, as just described, there is an underlying moral and factual pretext for the imposition of criminal (and civil) liability on offerors and their directors. Those persons are directly, or more or less directly, responsible for conduct which may cause loss. They *know* it may cause loss and that it may indeed be significant loss. They know it may be suffered by many people who are largely dependent on the probity of the offeror's or its directors' conduct. There is a direct

nexus between the potential criminal defendants' conduct and the liability they may face.

30. But the Bill's clauses deviate from this norm of law-making rationality. Let us suppose the Bill's methodology was applied to securities law. A parent company (A) sells shares in a subsidiary (B) to a wholly unconnected third party (C). Some years later the subsidiary, still owning largely the same assets and still in C's ownership, is publicly listed with shares being subscribed for, allotted and issued. B then fails and there have been misleading statements in the offer document which are held to have been causative of the investors' losses. The misleading statements were all made by C and its directors. But C and its directors are also all insolvent and not worth suing.

31. Applied to this scenario, the Bill's liability regime would make not only A but also its directors criminally liable for C's and its directors' defaults all of which had nothing to do with A or its directors in any way, shape or form. Except that they (A and its directors) did not provision (and why would they?) for wholly unexpected financial losses caused by unconnected third parties to yet other unconnected third parties in respect of acts or omissions they had no ability or right to control and did not even know of.

32. I appreciate that the Bill's drafters would endeavour to say this analogy is inapt because it involves "new" steps taken by subsequent owners (i.e., a public listing) and the Bill would limit trailing liability for decommissioning obligations to the infrastructure in place when the licence/permit transfer too place.

33. However, the fact is that in relation to existing infrastructure the new owner's acts and omissions are in themselves new steps which are far separated in time and circumstances from any steps the former owner may have taken. In the circumstances the Bill truly would make person A liable for person C's defaults being defaults person A had precisely nothing to do with and could never have controlled.

34. To be precise, the Bill's clause 89ZZQ (1) and (2) quite clearly achieve this result. So that the analysis is not lost or skipped over, subsection (1) says the provision applies if person A "is liable for" carrying out decommissioning or plugging/abandonment or meeting the costs of doing so under clauses 89K, 89L, 89R and 89S. A transferor is indeed liable under these provisions although only if or to the extent the transferee fails to meet the costs: clause 89O. However, this leaves open the possibility that steps taken years before becoming liable and which affect the transferor's ability to later pay if and once it has become liable are caught. Their becoming liable has only occurred on account of acts or omissions of a later transferee over which the transferor had no control: it follows that the transferor has become criminally liable for acts or omissions of others and over whose conduct they had no control or knowledge. This approach is contrary to ordinary conceptions of criminal liability.

35. Even assuming there is a moral and factual connection between the transferor and the failures of an ultimate transferee, it is hard to see how lack of provisioning by an entity (which is the first in what is possibly a chain of transferees) for such losses carries *any* let alone anywhere near the same level of moral hazard as the instances just described a couple of paragraphs above. An initial transferor may have its balance sheet affected for reasons outside its control long after ceasing to hold a licence or permit which has been transferred thus removing its ability to comply with any transferor obligations should they arise. The company then becomes criminally liable for failing to recapitalise to meet contingencies likely to arise in only the most remote of scenarios: an extreme result to anyone familiar with corporations law and aspects of corporate funding. It may be said that the situation should never arise as the transferor should fully provision for the obligations should they arise (for example, by establishing by deed a trust fund so that an adequate sum is held by trustees to expend in the event that decommissioning obligations arise). But that in itself would impose an unreasonable and exorbitant use of corporate funds.

Criminal liability of directors

36. In addition, directors are criminally liable. Not only that, but a director may be liable even if they were not a director who held their appointment at the time of the transferor's act or omission: it is sufficient if the person was a director of the transferor "during a period when [the transferor] was liable for A's decommissioning obligations …". The provisions of the Bill envisage that liability arises on transfer, potentially well before any obligation to discharge it arises. This is clear for example from clauses 89K(2) and 89L(2) and 89M(2) in relation to decommissioning (plugging and abandoning is dealt with in parallel provisions later in the Bill). Clause 89N would provide transferors are only liable to meet costs "if, or to the extent that,…" transferees do not meet them. But given clauses 89K and 89L, there is clearly an argument that the liability exists on transfer even if it is required to be discharged only later (if at all).

37. It is no exaggeration to say that this represents imposition of criminal liability unheralded in the law of New Zealand. It is rendered worse by the seriousness of the penalties envisaged: the proposed offence is imprisonable and in the case of a corporation might involve a fine of at least $10 million (i.e. the greater of $10 million or three times the cost of commissioning is the monetary penalty available in relation to corporations).

38. I note that company directors have a complete defence to criminal liability if they can prove, on the balance of probabilities, that either the director or the company with the decommissioning obligations took all reasonable steps to ensure they met their decommissioning obligations, or that in the circumstances, the director could not reasonably have been expected to take steps to ensure the decommissioning obligations were met. This would not necessarily protect a director in the circumstances described above. A court may well conclude that a director, being on notice of their trailing liability obligations under the Act, ought to have taken steps to ensure the company retained sufficient funds in case those obligations arise at a later date even in circumstances where the director could have had no valid reason to believe those funds would not be available.

Pecuniary penalties

39. Because of the imposition of criminal liability in the circumstances just outlined, the imposition of pecuniary penalties seems (superficially) to be less of a concern. But even if criminal liability was not imposed the imposition of the pecuniary penalty regime in the terms proposed would be immoderate and severe. It applies to transferors who, for a variety of reasons, have had precisely no moral responsibility for failure to comply. It also applies to directors of the transferor given the party provisions of section 89ZZO ("aided, abetted, counselled, or procured …" being the standard phraseology employed) where those directors are *former* directors of the transferor of the permit/license and their acts are retrospectively deemed to have assisted a vastly later (in time) contravention. The potential effect of this provision in the hands of an over enthusiastic enforcement agency ought to be apparent to anyone familiar with the norms of criminal and civil enforcement regimes in the regulatory sphere.

Other means of ensuring decommissioning is performed

40. It is clear that the Bill proposes parallel enforcement means in respect of transfers of licenses and permits. The combined effect of clauses 89G, 89M, 89T and 89ZA to 89ZK is the provision of financial securities and the carrying out of financial capability assessments so as to provide the Minister with a thoroughgoing set of powers to ensure not only compliance but ongoing ability to comply.

41. I need not repeat or set out these provisions. However, it is worth observing that financial capability assessments may be carried out "at any time" and so may the amounts of securities be reviewed and increased at any time or their provisions changed. I also note the absence of any right of independent appeal from the Minister's decision to increase the amount of or otherwise change the securities.

This is contrary to the LDAC Guidelines, which emphasise the need for fairness when designing regulatory tools, including a need to consider the ability of affected groups to challenge unfair decisions.[4]

42. The point emerges that under the proposed provisions where a licence or permit holder never sells its permit or licence the Minister will have what are presumably seen by MBIE as ample powers to ensure future decommissioning compliance. If those powers are sufficient for a person who acquires a licence in the first instance and never transfers it, then it seems opportunistic and unreasonable for the Crown to seek to graft on to those powers the additional ability to sheet home costs to former owners in cases where there have been transfers.

43. That is particularly the case where, in the process of transfer of ownership to a new owner, the Crown will have used the clear statutory means available to it to ensure that the new owner has ability to discharge its statutory obligations in exactly the same way as the Crown ensured the original owner had the means of carrying out its statutory obligations. I note regulation 22.3 of the LDAC Guidelines, which suggests that there "should be mechanisms to hold a regulator to account." This begs the question of who should fairly carry the risk should MBIE fail to exercise its powers to determine that transferees have sufficient means to fund future decommissioning obligations.

Normative enforcement provisions

44. The LDAC Guidelines are a source of guidance reflecting norms of statutory drafting drawn from decades of the New Zealand drafting process. It has multiple chapters relevant to any debate on the Bill's proposed new provisions, particularly trailing liability.

45. As the drafters of the Bill will know, one will look in vain in those Guidelines for any precedent for the drafting of enforcement provisions in any way similar to those that have been discussed above. The Guidelines simply do not contemplate the conversion of civil wrongs into offences rendering liable to imprisonment not only those who have committed the (newly made) offences but also predecessors in title who are wholly innocent of any wrongdoing.

46. The answer to this objection may be that the predecessors in title are *not* innocent given the Bill would enact offences and then prescribe those who are liable. The sophistry inherent in that argument (if made) ought to be obvious. The fact that the legislature casts a duty on a new class of person (transferor) whose conduct is to be regulated in one step and in the next step proscribes breach of the duty and makes it an offence does not alter the fact that what is normative in the exercise of property rights (sale and transfer of an asset with no conceivable liability for the illegal use of the asset, should that occur) now acquires legal consequences enforced by criminal sanction. And it does so in circumstances where the act complained of in respect of the use of the asset is wholly performed by the transferee without knowledge, aid, assistance, control or any form of involvement by the transferor.

Question 2 – Whether it is appropriate to implement a perpetual liability regime discretely through amendments to the Crown Minerals Act or whether it would be more suitable to do this through broader (and more considered) company law reform

47. Granted, it makes no sense to focus on a particular industry in which to initiate such a significant departure from the norms of corporate (including director) liability. However, I would suggest that the idea behind the perpetual liability regime in the Bill, rather than being put off for a consideration of broader company law reform, ought to be abandoned entirely.

[4] LDAC Guidelines at [22.2].

48. It is as silly as it is pernicious and the position does not alter just because it is considered more broadly.

49. Our norms of civil and criminal liability may not be perfect. But they are well understood and they do work. It would be an utter upheaval of our applicable norms to institute liability, civil, let alone criminal, for acts and omissions which do not result from the conduct of (and are therefore not attributable to) the persons sought to be made liable.

50. There would be no general appetite for or interest in this as a matter of company law reform. There would be a virtually unanimous rejection of the idea by anyone sufficiently qualified to comment. This merely emphasises the unusualness of the Bill's current clauses (as regards trailing liability).

Question 3 – Whether a perpetual liability regime can be properly enforced against a company no longer in existence with retired directors and officers; or a materially different looking company (e.g. different Board, shareholders and management).

Introduction

51. I understand it is not the intention of any company which is a member of your organisation to go into liquidation to escape trailing liability. Rather, solvent liquidations, re-arrangements, mergers, amalgamations, acquisitions and sales are a necessary part of commerce and there is a concern that the trailing liability regime will impose practical barriers to transactions conducted in accordance with corporate norms.

Company no longer in existence

52. A company which no longer exists cannot be proceeded against criminally or civilly. The only way it can be proceeded against is if it is restored to, having been removed from, the register of companies. This process and its consequences is dealt with in the Companies Act 1993, s 318 onwards.

53. The point in this discussion is that where (as is often the case) there is an independent and perfectly good reason to amalgamate, remove or liquidate a transferor company, that process would be complicated by the proposed perpetual liability regime in respect of companies that have made provision for prospective liability under the Bill's prospective regime. Those companies are more likely to have transferred their licences or permits to new owners who, themselves, are *less* likely to default on decommissioning obligations.

54. Correspondingly, transferors to entities which are likely to default as transferees (although, under the Ministerial oversight and approval regime proposed this should not occur) are themselves *more* likely to become insolvent, be subject to *involuntary* liquidation or removal from the register through Registrar initiated notices under s 318 *et seq*. This tends to show that any need for the proposed trailing liability regime will probably be matched by its uselessness on the rare occasions it is resorted to.

Retired Directors

55. They will be liable to prosecution or pecuniary penalties but only where they are actually involved. So, for example, to be prosecuted, the defunct company of which they were a director would have needed to have committed an offence under cl 89ZZQ (2). It would do so by having "do[ne] an act" or having "fail[ed] to act" when it (the company) knew the act or omission would result in its not being able to meet its decommissioning obligations. Going out of business with no provisioning would satisfy this requirement but we are here contemplating a guilty company which, having gone out of business and ceased to exist, is beyond the law's reach in any scenario.

56. A director of such a company is liable to prosecution under the next succeeding provision, s 89ZZQ(3) merely by dint of having been a director when the act attributed to the company was performed (with knowledge). This would include a retired director if they were a director at the time of the conduct complained of.

57. To a director, the threat of prosecution let alone actual prosecution and imposition of any of the quite severe penalties the Bill envisages would, no doubt, be a significant deterrent to collapsing a transferor company as a way to get out of trailing liability. But, unfortunately, as is well known, overly strong legislative measures can lead to measures to avoid detection, prosecution and liability rendering non-compliance more rather than less likely.

58. I make the point again that, by contrast, the financial security and financial capability assessment regimes proposed in the Bill in respect of the actual holder of the licence or permit is likely to be sufficient in its own right or at least far more efficacious than any aspect of the trailing liability regime.

Retired officers

59. Their position is not mentioned in the Bill.

A materially different looking company (e.g. new Board, shareholders and management)

60. This makes no difference. The company still exists and irrespective of any restructuring of any sort still has contingent liability. That contingent liability however is (or may be) a severe curb on future projects, developments and the like.

Question 4 – Contractually speaking, how will liability be dealt with, and whether issues can be foreseen?

61. There are, no doubt, countless ways transferor companies would seek to manage the prospective liability as indeed they must in order to comply with the legislation and (legitimately) mitigate risk. I think an experienced Oil and Gas commercial lawyer (rather than a litigator or barrister) would be far better placed than I would be to discuss this and, also, to discuss the detail of the types of steps which might be used. I think that transactional lawyers who do practice in this field are presently looking at the types of measures which would be taken.

62. However, one thing is clear: as a consequence of a trailing liability regime there would be a double up of provisioning in one form or another. It would significantly add to transaction costs as a responsible transferee will want to pay less for an asset given the financial security arrangements it must make whereas the vendor will want to be paid more to cover the provisioning it must undertake.

63. This is largely caused by the Crown "doubling down" as it were on enforcement options by adding an unnecessary trailing liability regime. This is the essential point and I do not think it can be explained better, in fact it would be obscured by, a deviation into the detail of the precise contractual measures which would be used.

Question 5 – Whether the changes will make it harder for directors and officers to get insurance and/or prohibitive insurance costs?

64. The answer is no, so far as indemnity for pecuniary penalties is concerned: clause 89ZZT would make such indemnities void.

65. A statutory liability policy in respect of criminal offending would appear to be left open on the face of the Bill as presently drafted. The cover would be expensive, perhaps prohibitively so. It would be restricted to costs and reparations, not fines.

66. D&O cover must likely increase since the risk to directors in respect of directors duties under the Companies Act must increase with the changes in the law proposed by the Bill.

67. The more pressing concern however is the unattractiveness a directorship of an Oil and Gas company would acquire as a result of the Bill's passing into law. An independent directorship is likely to become particularly unattractive for reasons which, hopefully, do not need explaining. And yet, in a highly regulated/high risk field, it is independent directors whose presence on boards might most be wanted as a matter of policy.

Retrospective Operation

68. I have seen Prof. Joseph's opinion regarding retrospective operation of the proposed legislation. I agree with what he says and his reasons for saying it. I need not add more.

Post Decommissioning

69. Under Subpart 3, any "permit holder" or "licence holder" who is obliged under subpart 2 (Decommissioning of petroleum infrastructure and wells) to carry out and meet the costs of decommissioning must pay the chief executive an amount determined by the minister to meet the cost of any post-decommissioning work required.[5]

70. Post-decommissioning work means:[6]

> … activities carried out in relation to the remediation of –
>
> (a) petroleum infrastructure that has been decommissioned but not removed:
>
> (b) a well that has been plugged and abandoned:
>
> (c) environmental damage or health and safety risks caused by a failure of the decommissioning of petroleum infrastructure or a well referred to in paragraph (a) or (b).

71. "Permit holder" and "licence holder" are not limited to the current permit or licence holder. The liability to pay in cl 89ZO is placed on "Any permit or licence holder who is obliged under **subpart 2** to carry out and meet the costs of decommissioning…". As already noted, under cl 89L(2) (for example) a former licence holder is obliged to meet decommissioning costs and this potentially triggers the liability to make post decommissioning payments notwithstanding that cl 89N suggests that liability in respect of the decommissioning costs is postponed until the current holder (a transferee) has failed to meet those costs. Granted, the obligation is placed on a "permit holder" or "licence holder" so there is a clear argument that the transferor no longer has that status. But that is not clear. At the least, this potential anomaly should be addressed.

72. In addition, there will be decommissioned works which, together with other producing assets, are transferred with licences and permits to new holders/operators and where, in respect of the decommissioned works, post decommissioning payments will have been paid by the transferor. In this case there is no clear mechanism for the transferor to reclaim the post-decommissioning payments they have made. Clause 89ZR(3) suggests that partial and full refunds may be made "in circumstances where a refund is authorised by the regulations". It is not clear what those circumstances will be.

73. This means that transferors will need to claim amounts equal to the payments previously made to the Minister from the transferees as part of the terms of the transactions they enter into. That in turn will prove problematic: the position of the transferee *vis a vis* the Minister as to entitlement to the payments originally made by the transferor if they pass on the permit/licence is left unclear. In these

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[5] Clauses 89ZO and 89ZP.
[6] Clause 89ZN.

circumstances transferees will be unwilling to incur any repayment equating with post commissioning costs as part of the cost of the transaction with the transferor.

74. The amount and nature (lump sum or instalments) are to be determined by the Minister, having regard to prescribed criteria (not yet set) and with regards to the nature of payment, the person's financial capability.7 There is no right of challenge or appeal. That uncertainty is inimical to the business interests of those who hold licences and permits. Absent statutory clarification (as opposed to the matter being prescribed in regulations) no guidance is available on the aims and purposes and therefore the ultimate amounts of post decommissioning payments. This should be specified.

Yours faithfully

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[7] Clauses 89ZP and 89ZQ.