Submission by



to the

# **Economic Development, Science, and Innovation Committee**

on the

## **Crown Minerals Amendment Bill**

23 January 2023

#### CROWN MINERALS AMENDMENT BILL - SUBMISSION BY BUSINESSNZ ENERGY COUNCIL—

#### **INTRODUCTION AND GENERAL COMMENTS**

- 1. The BusinessNZ Energy Council ('BEC')<sup>1</sup> welcomes the opportunity to provide feedback to the Economic Development, Science, and Innovation Committee on the Crown Minerals Amendment Bill (referred to as the 'Bill').
- 2. Currently, the purpose statement of the Bill, 1A (1), reads: "The purpose of this Act is to promote prospecting for, exploration for, and mining of Crown owned minerals for the benefits of New Zealand." Among several amendments to the Bill, 1A (1) amends "promote" to "manage." Clause 5 of the Bill is also amended, replacing "attract permit applications, including by way of" with "from time to time offer permits for application by public tender."
- 3. As clearly written, the aim of the amendment is to no longer promote mining of Crown owned minerals in New Zealand. Instead, the Bill only outlines the management of mining Crown owned minerals. This submission outlines the fundamental importance of extracting minerals, both for the living standards of all New Zealanders, and in particular, the growing importance of supplying sufficient minerals which are required for the world's energy transition out to 2050 and beyond.
- 4. BEC acknowledges the importance of sustainable and responsible mining practices, including transparency about the impacts of extracting minerals. Accountable mining participants, who are environmentally and socially responsible, ensure mining can continue to hold a social licence to operate. The importance of a social license should not be discounted. It secures the public's confidence, while also attracting investment into the sector. BEC notes that existing legislation, outline rigorous environmental safeguards that industry must comply with. The strategic, environmental, and economic importance of extracting minerals safely and responsibly reinforces the necessity for New Zealand to play an active role in the prospecting and exploration of crown owned minerals. Therefore, BEC opposes the amendment to the Bill, and supports the promotion of extracting crown-owned minerals.
- 5. The amendments to the Bill is out of step with the current trend experienced worldwide. Over the past few years, twenty-five countries have adopted close to 100 new policies that aim to ensure an adequate supply of critical minerals which are needed during the energy transition.<sup>2</sup> These countries recognise that without maintaining reliable supply, energy technologies could increasingly become more limited and expensive slowing the ambitions set within the Paris Agreement. The United States, Japan, Finland, Canada, and Spain are among the many countries that have taken significant action to secure the supply of critical minerals by promoting extraction, introducing research funding and rigorous strategic planning, financial support to accelerate development, and easier permit regimes to name only a few.
- 6. Australia has acknowledged that minerals are vital to the country's economy, strategic interests, and climate technologies. Over the past few years, Australia has launched strategies and roadmaps, mapping initiatives, mineral security partnerships, loan guarantees and R&D funding. Australia recently formed the Major Projects Facilitation Agency, creates a single-entry point for regulatory approvals in the aim of encouraging investment. In New Zealand, on the other hand, BEC believes the Amendment to the Bill, sends a strong anti-mining signal. This is likely to create a chilling effect on investment within the sector. Moreover, the amendment could exacerbate the myth that mining cannot be environmentally responsible while at the same time, conflating mining with climate change. BEC emphasises that action on climate change requires a myriad of technologies most of which contain critical minerals. New Zealand holds a significant opportunity to extract these valuable resources and do its part in helping to supply minerals needed to reach global net-zero targets.

<sup>&</sup>lt;sup>1</sup> Background information on the BusinessNZ Energy Council is attached as Appendix One.

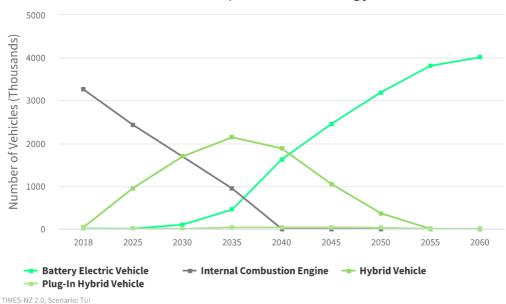
<sup>&</sup>lt;sup>2</sup> Critical Minerals Policy Tracker, the International Energy Agency, IEA (2022)

#### **Minerals and prosperity**

- 7. Extracted minerals are fundamental to modern society. Minerals are required in a plethora of crucial products that humans have come to rely on. They reside in infrastructure: the lime in concrete, copper in electrical wiring, iron and chromium in steel, zinc, magnesium, and titanium in house paint. They are in most modes of transport: iron, lead and molybdenum in cars, aluminium, niobium, and titanium in aircraft. Minerals are in dentist drills, smart phones, computers, GPS, and heaters.
- 8. Not only are minerals fundamental to modern society, but they are also crucial for life, partially explaining New Zealand's 82-year life expectancy, the population's quality of life and general health. MRI and X-ray machines, diagnostic tracers, pacemakers, cancer treatments, medical devices, surgical tools, medicines, baby powder and ultrasound machines, all contain valuable extracted earth minerals. Without extracting minerals, society and life would simply be unrecognisable.

#### Minerals for the transition

- 9. Building the required technologies that will accelerate the world's energy transition, from solar PV to wind farms, requires minerals and a lot of them. The latter requires nine times more minerals than gas fired plants.<sup>3</sup> Another large user of minerals are electric vehicles (EVs). EVs are improving with every proceeding year, with declining prices, improved range, and enhanced reliability. They provide the main solution in reducing emissions associated with transportation, while reducing the costs motorists face, as electricity is far cheaper than fossil fuels. The use of EVs in New Zealand is set to surge, as the price of purchasing and powering an EV is set to be comparable with internal combustion engines by 2030.
- 10. BEC, in collaboration with 60 partners from across business, government and academia, has developed a New Zealand specific model (TIMES-NZ), exploring two possible future energy scenarios: Kea (cohesive) where climate change is prioritised as the most pressing issue, and Tūī (individualistic) where climate change is one of many pressing issues. According to our modelling, the number of hybrid vehicles in New Zealand is set to increase out to 2035, and the number of EVs is set to surge beyond 2035, both in Kea and Tui, as EVs become cheaper.





<sup>&</sup>lt;sup>3</sup> Dancing with Energies - World Energy (WE) October 2022 Edition

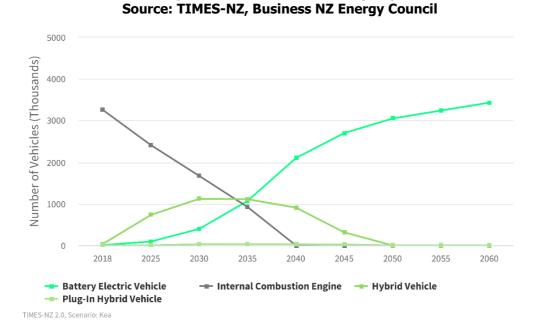
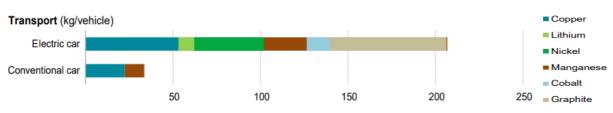


Figure 2: Number of vehicles (Kea)

- 11. Notwithstanding the demand of battery electric vehicles in New Zealand, to achieve net-zero by 2050, the world needs to shift from ICEs to EVs. A growing India, China, and Africa, provides additional demand and complications, as economic development delivers improved living standards, and goods synonymous with prosperity, such as light-weight private vehicles. The International Energy Agency estimates in its Net Zero Emissions by 2050 Scenarios that EVs must represent 60% of total vehicle sales by 2030 to achieve net-zero goals.<sup>4</sup> Globally in 2021, there are about 16.5 million EVs.<sup>5</sup> By 2030, the global stock of EVs needs to expand to 350 million to be on track to meet net-zero.<sup>6</sup> However, to achieve this goal and produce these EVs, requires reliable and adequate supplies of critical minerals.
- 12. A typical electric battery vehicle requires six times the mineral inputs of a conventional car.<sup>7</sup> Batteries need lithium, nickel, cobalt, manganese, copper, and graphite weighting over 200kg on average for each vehicle not to mention the iron, aluminum, and titanium required for the vehicle.



#### Figure 3: Minerals used in electric vehicles vs conventional vehicles Source: International Energy Agency, 2021

13. To produce all the EVs needed globally, mineral demand for EV use and battery storage will grow by 30 times current levels to 2040.<sup>8</sup> Lithium production will need to grow 40-fold, graphite production will need to expand 25-fold, cobalt by 21-fold, nickel by 19-fold and rare earth for 7fold.<sup>9</sup> Some may dispute the need for more minerals by explaining the likely improvement of

<sup>&</sup>lt;sup>4</sup> By 2030 EVs represent more than 60% of vehicles globally, International Energy Agency, (2022)

⁵ Ib́id, p1

<sup>&</sup>lt;sup>6</sup> Ibid, p1

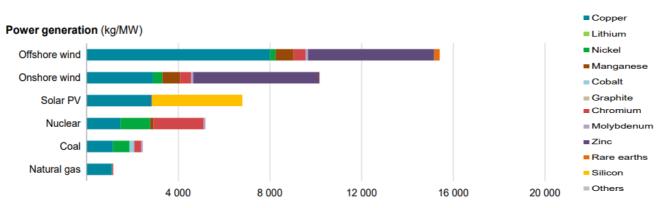
<sup>&</sup>lt;sup>7</sup> Dancing with Energies - World Energy (WE) October 2022 Edition

<sup>&</sup>lt;sup>8</sup> The Role of Critical Minerals in Clean Energy Transitions, International Energy Agency, p8 (2022)

<sup>9</sup> Ibid, p9

recycling technology. BEC agrees that recycling will play an important role in alleviating additional supply. However, in the short to medium-term, recycling is limited globally.

14. Other renewable technologies – required to decarbonise New Zealand's energy sector – are also material and mineral intensive, requiring significant quantities of both.



## Figure 4: Minerals used in power generation Source: International Energy Agency, 2021

- 15. As shown above in figure 4, solar PV requires large quantities of silicon and copper. Technological development and cost reductions are expected over the coming two decades. Despite expected improvements, the IEA estimates a tripling of copper demand for solar PV by 2040.<sup>10</sup>
- 16. Wind turbines consist of many materials: concrete, steel, iron, polymers, aluminum, fiberglass, copper, zinc, and rare earth minerals. In the offshore wind sector, about 60% of all turbines, are a particular type, known as direct-drive permanent-magnet synchronous generators (DD-PMSG).<sup>11</sup> These turbines require more rare earth minerals than other types of turbines used for onshore wind. DD-PMSG turbines are lighter and more efficient but contain twice as much copper as other onshore turbines.<sup>12</sup> They also require large quantities of rare earth minerals: neodymium and dysprosium. Demand for these two minerals is set to more than triple by 2040.<sup>13</sup>
- 17. On the flipside, the growing size of offshore and onshore turbines is reducing the need for some materials. In 2010, the global weighted average of onshore wind turbines was 1.9MW. Eight years later, the average size was 2.6MW.<sup>14</sup> Manufacturers are now offering 5MW onshore turbines. The size of offshore wind turbines has also grown from the average capacity of 5.5MW in 2018, to current designs offering up to 10-14MW.<sup>15</sup> On the horizon, manufacturers are promising the development of 20MW turbines.<sup>16</sup> As turbines become taller and lighter, their capacity factor grows and their mineral intensity per MW of electricity declines. For instance, a 3.45 MW turbine, compared to a 2MW turbine, contains 15% less concrete, 50% less fiberglass, 50% less copper and 60% less aluminum.<sup>17</sup>
- 18. As demand is set to increase substantially, and supply remains constrained, the price of green technology could increase. Global supply constraints could be exacerbated if countries initiate antimining policies that restrict mines, impose overly onerous regulations, and adopt language within legislation that creates risk and repels mining investment.

<sup>15</sup> Ibid, p64

<sup>&</sup>lt;sup>10</sup> The Role of Critical Minerals in Clean Energy Transitions, International Energy Agency, p57, (2022)

 $<sup>^{\</sup>rm 11}$  Ibid, p66

<sup>&</sup>lt;sup>12</sup> Ibid,.p66

<sup>&</sup>lt;sup>13</sup> Ibid, p66

<sup>&</sup>lt;sup>14</sup> Ibid, p64

<sup>&</sup>lt;sup>16</sup> Ibid, p64

<sup>&</sup>lt;sup>17</sup> Elia, A. et al. Wind turbine cost reduction: A detailed bottom-up analysis of innovation drivers, Energy Policy, 147, (2022)

#### More mines are desperately needed

- 19. Out to 2050, the number of new mines must expand further to fulfill the projected demand for green technologies. The International Energy Agency estimates that the world needs around 50 new lithium mines, 60 new nickel mines, and 17 new cobalt mines by 2030.<sup>18</sup>
- 20. Countries around the world have realised the need for additional mines. They have been proactive, outlining measures to promote investment in domestic mining. Several countries are concerned that inaction will slow the progress made over the past ten years in reducing the costs of green technologies. One technology that has notably improved, and has reduced in cost, is batteries. Since 2010, technology learning and economies of scale, reduced the cost of lithium-ion batteries by 90%, from \$1,191 to \$131 kWh.<sup>19</sup> Technological improvements have meant that the cost of minerals, as a proportion of the batteries' cost, has grown, as the technology component has become cheaper. Minerals now account for 50 to 70% of a battery's total cost, up from 40% to 50% five years ago.<sup>20</sup> Additional mineral scarcity provides a risk of slowing the cost reductions witnessed among batteries while slowing the subsequent uptake of EVs and other solutions requiring batteries.
- 21. Over the last two years, the price of minerals have risen significantly, slowing the trend in cost reductions caused by technological improvements. The price of lithium increased 123% year-on-year in November 2022.<sup>21</sup> Currently, prices remain 10x above the historical average.<sup>22</sup> In November 2022, prices sat close to \$74,000 per tonne.<sup>23</sup> Nickel and copper have also experienced significant price inflation over the past two years. Worsening mineral prices meant Tesla and BYD increased prices by between 2 to 5% in March 2022.<sup>24</sup> The consequences unleashed on Europe's energy sector following the invasion of Ukraine, has spurred an acceleration towards more renewable sources solar, wind and hydrogen providing optimism about the long-term cost of renewable technology. However, in the short term, among many factors, this creates concerns about the adequate supply of critical minerals.
- 22. BEC reiterates that without sufficient mineral supply to balance increasing demand over the longterm, the world's ability to produce most of the required green technologies becomes severely constrained. The next confronting question that must be resolved is what countries possess critical minerals and what countries can develop them responsibly. BEC believes New Zealand satisfies this criterion and possesses a lucrative opportunity to help alleviate some of the mineral scarcity experienced worldwide, both today and in the future.

#### The case for mining in New Zealand

- 23. New Zealand's mining sector is valuable, not only in terms of its output, but its employment across the country, especially in regional New Zealand. In 2021, mining contributed more than \$3.4 billion to the country's economy (1.0% of GDP), employing close to 6,000 people.<sup>25</sup> Mining represents the highest labour productivity among all New Zealand's industries. For every one person employed in the industry, they contribute \$580,000 towards the country's economy. This is nearly five times the national average for all other forms of employment.<sup>26</sup>
- 24. Extracting minerals are also crucial for other aspects of New Zealand's economy and society. Close to \$390 million worth of rock, gravel and sand was extracted in 2021, to be used for buildings, roading and other purposes.<sup>27</sup> In the same year, more than \$470 million worth of gold was

<sup>25</sup> Infometrics, employment and economy overview (2021)

<sup>&</sup>lt;sup>18</sup> Lazenby, Henry, Hundreds of new mines required to meet 2030 battery metals demand, IEA report (2022)

<sup>&</sup>lt;sup>19</sup> Lee, Timothy B, *Battery prices have fallen 88 percent over the last decade*, (2020)

<sup>&</sup>lt;sup>20</sup> *The Role of Critical Minerals in Clean Energy Transitions,* International Energy Agency, p11, (2022)

<sup>&</sup>lt;sup>21</sup>Lucas, Alec, *Lithium Market Update: Elevated prices are creating favourable dynamics for miners.* (2022)

<sup>&</sup>lt;sup>22</sup> Ibid, p1

<sup>&</sup>lt;sup>23</sup> Ibid, p1

<sup>&</sup>lt;sup>24</sup> Dancing with Energies - World Energy (WE) October 2022 Edition

<sup>&</sup>lt;sup>26</sup> Ibid, p1

<sup>&</sup>lt;sup>27</sup> Annual minerals industry statistics and survey, New Zealand Petroleum & Minerals (2021)

extracted – a valuable commodity for electronics.<sup>28</sup> New Zealand extracts large quantities of limestone, which is used in industry, agriculture, and the production of cement. The country needs cement for critical infrastructure, preparing for climate change. Carbon dioxide is also injected into concrete, capturing the carbon in the concrete slab.

- 25. There are several misconceptions surrounding the extraction of critical minerals, especially in the context of mining in New Zealand. BEC recognises the reasonings that underpin the argument that mines should not be pursued, or at least not promoted. The public can be wary of allowing mines based on their appearance. Mines can be visibly intrusive and undoubtedly noticeable on the landscape. Open-pit mines appear to be desolate holes, scaring land and stripping away any identifiable features of the environment in its 'natural form.'
- 26. However, BEC acknowledges that concerns about mining are not just a matter of natural aesthetic. Development may cause potential concerns about the surrounding ecosystem and the impacts upon local flora and fauna. However, in the context of New Zealand, several pieces of legislation complement the Crown Minerals Act in providing environmental safeguards and protecting local flora and fauna.
- 27. Under the Resource Management Act (RMA), to open a new mine, consents are required. This regime sets out a process where decision-makers outline conditions to ensure the environmental, economic, and social impacts of mining are acceptable to wider society. The RMA process provides a mechanism for residents, and the public, to engage with decision-makers when they weigh the trade-offs associated with developing a mine. This democratic process allows all perspectives to be considered, and all potential costs and benefits to be weighed appropriately. Mining participants engage with communities, iwi, and other stakeholders before seeking approval. This ensures they have a role in influencing the direction of the project.
- 28. Notwithstanding the RMA, mining participants comply with permits to move wildlife, under the Wildlife Act 1953, if required. The Heritage New Zealand Pouhere Taonga Act 2014 ensures the preservation of historically important sites and land. They must comply with access arrangements under the Crown Minerals Act and receive concessions from the Department of Conservation for developing mines on conservation land.
- 29. BEC acknowledges that the land used for mining will not entirely return to its previous state. The RMA recognises that a degree of residual negative impact is to be accepted, and trade-offs apply when comparing the costs and benefits of a mining project. However, New Zealand's mining companies are committed to shrinking the environmental impacts of their activities. New Zealand's mining companies know the importance of retaining a social license. Retaining a social license is in their best interest, enabling them to remain and operate in the country. New Zealand's biodiversity and valuable natural environment is a well-established collective good. The protection of New Zealand's biodiversity is a high priority for many. BEC believes mining participants, that operate in New Zealand, recognise this collective priority to protect New Zealand's environment.
- 30. In many cases, participants go beyond what is require from them. They seek a balance or a net positive impact when it is possible. Once the development begins, companies engage in rehabilitation, with topsoil and waste rock. After the closure of a mine, companies work to return the land to its former state. Previous forest land is replanted, wildlife is relocated back to the area, and companies invest in pest control. Previous farmland is rehabilitated and returned to farming purposes. Occasionally, a quarry or mine is developed into a pond or original wetlands are restored. The actions taken by mining companies in New Zealand native forest planting, wetland restoration, riparian planting, pest control, fencing out livestock, to name only a few are experienced less frequently across the world, and in many cases, do not occur at all.
- 31. Comparatively, New Zealand's environmental safeguards, aimed at alleviating the potential negative impacts of mining, are robust and rigorous. Health and safety rules protect mining workers

<sup>&</sup>lt;sup>28</sup> Annual minerals industry statistics and survey, New Zealand Petroleum & Minerals (2021)

from dangerous conditions, and outline precautions to reduce the likelihood of events that threaten the health and safety of workers. New Zealand's labour laws ensure workers are not mistreated and exploited. However, the same cannot be said amongst the large producers of critical minerals.

- 32. BEC believes, if New Zealand, and other developed countries, instate barriers to mining critical minerals or outline measures that discourage mining as inadvertently created with the introduction of the amendment to the Bill this will likely exacerbate the current supply vacuum of critical minerals. Developing and emerging markets are likely to fill this vacuum. This raises deep concerns about the environmental practices within these countries and the mistreatment of their workers.
- 33. Critical minerals necessary for the energy transition remain concentrated in a handful of countries. Three-quarters of all lithium, cobalt and rare earth minerals are concentrated in the three countries. China extracts over 60% of all rare earth minerals, while processing 80% of rare earth minerals, over 50% of lithium, and over 60% of all cobalt.<sup>29</sup> The Democratic Republic of the Congo (DRC) extracts most of the global supply cobalt.<sup>30</sup>
- 34. The DRC's labour laws are not enforced and virtually powerless. In the mining hub of Kolwezi, thousands of children are estimated to work in the mines.<sup>31</sup> Thousands more are scattered across the country, and the entire region. Over 140,000 to 200,000 people work in the country's dangerous mines, with inadequate equipment and protection.<sup>32</sup> Most earn less than \$10 per day.<sup>33</sup> Health and safety regulations are again, powerless. Mortality on mining sites is high. Tunnel collapses and underground fires are regular occurrences.<sup>34</sup> In one incident, in June 2019, a landslide killed forty people.<sup>35</sup>
- 35. Southern Congo sits on an estimated 3.4 million tons of cobalt which is almost half the world's known supply.<sup>36</sup> The entire African continent is blessed with critical minerals. However, the continent is cursed with corruption, terrorism, and political instability. This could threaten the reliable supply that developed, and developing countries need to provide economic growth, and for the latter, to escape poverty. BEC acknowledges that New Zealand has little control over the forces influencing global mineral supply.
- 36. However, if the economics of extracting minerals is favourable, the best location for extraction is in countries like New Zealand with solid labour laws, extensive health and safety rules, and environmental safeguards. BEC acknowledges New Zealand's mineral sector is comparatively small, and any new developments will make a small contribution to ease global supply limitations. Nevertheless, New Zealand can still, and should, provide some highly-valued supply including potentially lithium and cobalt in an environmentally and socially responsible manner. For this to transpire, investors must feel confident about investing in New Zealand. The development of mines involves hundreds of millions of dollars in investments. BEC is concerned that the amendment and the existence of debating such proposition sends a message to mining participants to invest elsewhere. These companies, like most, if not all businesses, dislike risk. Prudent and forward-looking businesses will act accordingly to mitigate or alleviate risk. On the flipside, elevated risk repels investment as more lucrative opportunities exist elsewhere.
- 37. As noted, New Zealand holds valuable mineral resources, ranging from gold, copper, silver, tantalum, coal, natural gas, and tungsten. Depending on the economic feasibility, among other

<sup>&</sup>lt;sup>29</sup> The Role of Critical Minerals in Clean Energy Transitions, International Energy Agency, p28-31

<sup>30</sup> Ibid, p12

<sup>&</sup>lt;sup>31</sup> Niarchos, Nicolas, *the dark side of Congo's cobalt rush*, the New Yorker, p1 (2021)

<sup>&</sup>lt;sup>32</sup> *How the world depends on small cobalt miners*, the Economist (2022)

<sup>&</sup>lt;sup>33</sup> Ibid, p1

<sup>&</sup>lt;sup>34</sup> Ibid, p1

<sup>&</sup>lt;sup>35</sup> DR Congo's faltering fight against illegal cobalt mines, Al Jazeera, p1 (2022)

<sup>&</sup>lt;sup>36</sup> Niarchos, Nicolas, *the dark side of Congo's cobalt rush*, the New Yorker, p1 (2021)

factors, New Zealand can also potentially mine cobalt and lithium, while continuing the supply of, limestone and silver – to name a few. This could enhance the economic wellbeing of all New Zealanders. The Crown's right to all minerals on Crown land, commenced under the Land Act of 1948, ensured that minerals were developed for the benefit of all New Zealanders. The Crown Minerals Act's wording – 'for the benefit of all New Zealanders' – provides clarity that the extraction of crown minerals is indeed for the benefit of all New Zealanders. BEC is concerned that the amendment departs from the original intent of the Act, where extracting minerals can be positive and should therefore be promoted.

## Strategic significance

38. Critical materials are also strategically important in the future. As noted, the supply of minerals remains highly concentrated among a few countries. This increases the risks posed by potential trade conflicts, supply chain disruptions and other geo-political tensions. The diversity of supply is important for the resilience of the world's economy. This importance has been evident following the Ukraine War. Energy is being used as a weapon. The withholding of energy resources by Russia has been launched to coerce European countries. BEC believes mineral security is energy security. Minerals are vital to decarbonising New Zealand's economy. A lack of global mineral supply is a risk to energy security, sustainability, and subsequently affordability. New Zealand can choose to participate in increasing supply – that is socially and environmentally responsible – or it can abdicate the responsibility and opportunity. BEC reiterates the concern that the amendment to the Bill, sets New Zealand on a path towards the latter, while we should advocate for the former, and promote supply.

## Hydrocarbons and future permitting concerns

- 39. Clause 5 amends "attract permit applications, including by way of" with "from time to time offer permits for application by public tender." This amendment provides significant uncertainty for entities seeking new permits in the future.
- 40. BEC supports reducing New Zealand's dependency on fossil fuels out to 2050 and beyond, to ensure New Zealand meets its net-zero targets. As additional renewable electricity projects come online, the volumes of hydrocarbons, like natural gas, needed to firm New Zealand's electricity generation will undoubtedly decrease. However, hydrocarbons will still play an important ongoing role in New Zealand's energy mix, especially during dry years and peak hours. Our TIMES-NZ model shows New Zealand's electricity system is likely to need natural gas, with fast-start gas peakers playing a role beyond 2030, both in Kea and Tūī, ensuring a reliable back-up to intermittent sources.<sup>37</sup>
- 41. Notwithstanding the continued need for natural gas for electricity generation, gas is and will continue to be vital for some industrial, commercial, and agricultural uses. Many users will divert to electricity and other renewable sources, such as woody biomass. Others who need several properties sourced from gas, may divert to hydrogen or biogas. However, until alternative sources become commercially viable, while being technically and physically suitable, gas will be needed for processes that are energy intensive and require high temperatures. Our TIMES-NZ model shows the ongoing need for natural gas in industrial and commercial sectors. The model observes 50 and 90 PJ of natural gas demand remaining in New Zealand in 2035. Both scenarios show approximately 50 PJ of natural gas remaining in 2050.<sup>38</sup>
- 42. BEC believes amending the wording of clause 5 is inconsistent with the acknowledgement that hydrocarbons will be essential during New Zealand's energy transition. Providing permits to prospect and extract from 'time to time,' does not acknowledge the inherent risk and uncertainty coupled with prospecting and extracting natural gas. Both are time and capital intensive. It can be complex and expensive. Engineering and logistical challenges can arise. This risk, and expense, throughout the development process increases the risk premium of extracting natural gas.

<sup>&</sup>lt;sup>37</sup> New Zealand Energy Scenarios <u>TIMES-NZ 2.0</u> – BusinessNZ Energy Council and the Energy Efficiency & Conservation Authority

<sup>&</sup>lt;sup>38</sup> Ibid, p1

However, 'above ground risk,' including regulatory and political factors, can exacerbate risk and limit the production and development of natural gas. BEC believes clause 5 adds unnecessary uncertainty and additional risk. The wording 'time to time' sends a clear signal that permitting is not desired and will be offered based on varying circumstances that remain unclear and sit within the decision-maker's discretion.

43. BEC reiterates that capital competes with alternative uses globally. Estimated returns from a project are discounted against technical, commercial, and above ground risk. The amendment to the Bill's purpose statement, combined with the change to clause 5, is likely to exacerbate current uncertainty, and deteriorate investor sentiment towards extracting natural gas in New Zealand. BEC notes that there is currently a higher risk hurdle for investing in gas production in New Zealand. This potential outcome concerns the BEC, as ongoing investment in natural gas is essential. Natural gas can only be recovered and delivered if investments continue to be made. Enerlytica estimates that \$200 million a year in ongoing investments, averaged across all Taranaki fields, is required to ensure gas is brought to market.<sup>39</sup> The absence of adequate investment creates the risk that insufficient quantities of gas will be delivered to major gas users.

## **Efficient allocation of rights**

- 44. Clause 4.2 amends section 1A (2) from "the efficient allocation of rights to prospect for, explore for, and mine Crown owned minerals" to "the efficient processing and consideration of applications for rights to prospect for, explore for, and mine Crown owned minerals."
- 45. BEC believes the amendment should be deleted based on several considerations. Firstly, BEC believes including efficient processing is an unnecessary addition to the Bill, as efficient processing is to be expected and not needed in writing. Secondly, 'efficient allocation of rights' does not contain the obligation to grant a permit per se. Changing the wording of this section does not somehow diminish the Crown's role of promoting the extraction of minerals. Finally, BEC questions the removal of 'efficient allocation.' The efficiency of allocated rights mimics the allocation of resources pertaining to the market. Efficient allocations ensure scarce resources are not wasted and fulfil their highest value for society. Removing 'efficient allocations of rights' is contradictory to the desirable aim of ensuring resources are in fact efficiently allocated.

#### Urgency

46. BEC notes that the Bill was driven through under urgency at the end of 2022. BEC believes there is no strong justification for urgently proceeding with the Bill in its current form without acknowledging its consequences, and without the publication of the Government's policy and list of critical minerals. As outlined in this submission, the Bill will impact investment in prospecting for, and mining of, the critical minerals need for New Zealand's energy transition. BEC would like to see the Bill paused before the Gas Transition Plan is published and the Government's indicated policy on critical minerals is fully conceptualised. This will help provide a more coherent strategy for enabling the Crown, as resource owner, to enable the investment in, and the prospecting of, critical minerals for the benefit of all New Zealanders.

#### Iwi and hapū engagement

47. BEC supports the underlying intent of clause 12 and 13 of the Bill. Engagement with iwi, and or hapū is important. Yet BEC questions the policy problem the amendment is trying to solve. BEC is aware that consultation between industry, iwi and hapū occurs frequently. Māori have strong interests in critical minerals and relationships with the sector. Developing minerals are important, both culturally and economically. Reading the amendments at face value, it would seem the industry has a weak relationship with iwi and hapū. This is not accurate.

<sup>&</sup>lt;sup>39</sup> Gas Market Settings Investigation, Report to the Minister of Energy & Resources, Gas Industry Co. (2021)

48. BEC does not support clause 19, outlining the minimum prescribed content of iwi engagement. Each interaction will vary, and each is undoubtedly complex. A statutory minimum presumes interactions are straightforward and similar. BEC reiterates that relationships with iwi and hapū ought not to be a 'tick-box exercise,' fulfilling regulatory minimums. BEC believes these relationships operate on the foundations of good-faith and trust. Furthermore, BEC questions how iwi, and or hapū, will be resourced to accommodate additional engagement with industry. Iwi and hapū are constrained by other important interests impacting their communities. Despite the importance of industry engaging with hapū and iwi, BEC believes the Crown must shoulder its own responsibility with engagement, rather than solely relying on industry engagement. This should occur after engagement reports have been completed and received.

## APPENDIX ONE – BACKGROUND INFORMATION ON THE BUSINESSNZ ENERGY COUNCIL

The <u>BusinessNZ Energy Council (BEC)</u> is a group of leading energy-sector business, government and research organisations taking a leading role in creating a sustainable, equitable and secure energy future.

BEC is a brand of BusinessNZ and represents the <u>World Energy Council</u> in New Zealand. Together with its members, BEC is shaping the energy agenda for New Zealand and globally.



BusinessNZ is New Zealand's largest business advocacy body, representing:

- Regional business groups: EMA, Business Central, Canterbury Employers' Chamber of Commerce, and Employers Otago Southland
- Major Companies Group of New Zealand's largest businesses
- Gold Group of medium sized businesses
- Affiliated Industries Group of national industry associations
- ExportNZ representing New Zealand exporting enterprises
- ManufacturingNZ representing New Zealand manufacturing enterprises
- Sustainable Business Council of enterprises leading sustainable business practice
- BusinessNZ Energy Council of enterprises leading sustainable energy production & use
- Buy NZ Made representing producers, retailers, consumers of NZ-made goods

BusinessNZ is able to tap into the views of over 76,000 employers and businesses, ranging from the smallest to the largest and reflecting the make-up of the New Zealand economy. In addition to advocacy and services for enterprise, BusinessNZ contributes to Government, tripartite working parties and international bodies including the International Labour Organisation (ILO), the International Organisation of Employers (IOE) and the Business and Industry Advisory Council (BIAC) to the Organisation for Economic Cooperation and Development (OECD).

