Submission on MBIE Draft Critical Minerals List

Coal Action Network Aotearoa

Introduction

Coal Action Network Aotearoa (CANA) is a group of climate justice campaigners committed to ending coal mining and burning in Aotearoa New Zealand. Formed in 2007, we recognise the mining and burning of coal as the primary threat to Earth's climate system. CANA promotes climate justice by advocating and acting for a just transition to an Aotearoa free of coal mining and use. We work with local communities threatened by new coal mines and coal projects, and with allies across the climate justice and environmental movements. We are a member of the New Zealand Climate Action Network. Our target date for coal mining and use in Aotearoa to end is 2027.

We have been involved in legal action, direct action and lobbying to achieve these goals. Our members and supporters are members of local communities with experience of the negative effects of coal mining and use, climate activists and scientists. We work with communities around the motu, other activist groups, and central and local Government to achieve our aims.

Submission

New Zealand does not need a critical minerals list

1. New Zealand does not need a critical minerals list or other legislation to prioritise minerals supply. The List is a ruse by the mining industry to prioritise mining as an industry and therefore justify relaxing social, cultural and environmental restrictions on mining.

2. It is notable that New Zealand has not had a critical minerals list in the past. The concept of a critical minerals list comes from recommendations by Straterra, the industry organisation representing mining in New Zealand in a November 2023 Briefing to Ministers. Under "Actions" in that briefing (page 7), Straterra lays out its recommendations:

   • *Straterra would like to see this Government act with urgency to release a critical minerals list and work with industry on a critical minerals strategy, capitalising on New Zealand's potential.*

   • *We would like to see the New Zealand Government invest in research and development of critical minerals, as governments in other jurisdictions are doing. There is potential for collaborative work.*

   • *We believe the Government needs to reduce the regulatory burden to attract investment in mining and processing, which in turn will open manufacturing opportunities and will have New Zealand well placed to benefit from demand that outstrips supply of critical minerals.*

   Straterra's interest here is purely commercial. They resort to scaremongering to support the need for a critical minerals list, stating: "*Some minerals have become "critical" as the world pursues renewable energy targets and clean technology, and demand for them vastly outstrips supply. China is the largest producer of many of the world's critical minerals."* In fact, as will be discussed later in this submission, there is no shortage of critical minerals. It is just a matter of price.

3. New Zealand does not need a critical minerals list because it has almost no industry which manufactures products from minerals on the list. The necessity of other countries for a supply of minerals is based upon their domestic manufacturing and military uses. New Zealand imports nearly all its manufactured goods and military hardware.

4. Most countries that have critical minerals strategies, (the European Union, United States, United Kingdom, Japan, Germany, Canada, and Australia) also have significant manufacturing industries. Japan briefly suffered from an export ban of rare earths by China in 2009-2010 due to a diplomatic dispute, leading to a global recognition of the need for a secure supply of minerals critical to manufacturing (i.e., critical minerals strategies). The shortage of rare earth elements to Japan was quickly met by accelerated supply from other countries, however.

   In the case of Australia, which does not have a significant manufacturing industry, the purpose of its strategy is clear from the first page: "*The Critical Minerals Strategy 2023–2030 sets out the government's vision to grow Australia's critical minerals sector.*" It is a commercial strategy.

5. The Wood Mackinzie *New Zealand Draft Critical Mineral List* (September 2024) states that "critical minerals" include those: *"in demand by New Zealand's international partners to enable us to benefit from international economic opportunities, contribute to the diversification of global mineral supply chains and improve the pipeline of the end-use products for which these minerals are essential."* No other country's critical minerals strategy includes this justification for a critical minerals list. New Zealand has no obligation to help supply "critical minerals" to trade partners. The purpose for including this definition to the list is purely to broaden the number of minerals that might be considered "critical", so as to take in what New Zealand might mine.

6. With the exception of gold, silver and some iron sands, New Zealand processes very few of its mineral ores to make metals and other products. Most ores are sold overseas for processing. If they go overseas, they are not available domestically as a "critical mineral". We can find no strategic raw minerals needed for our domestic industries that we don't already mine.

7. The purpose of the list is purely commercial; there is no strategic purpose to it. The list is a way to award special legal status to mining in order to favour that industry. There is no reason why mining products should enjoy special legislative status relative to other export industries, such as dairy, meat, wool, timber or horticulture.

It is questionable whether any country needs a strategic minerals list

8. According to Strateera 2023: "*Critical minerals can be defined as minerals that are essential to the economy, and their supply is limited*." From an academic viewpoint, "*Critical materials is a broad term that refers to raw materials for which there are no viable substitutes with current technologies, which most consumer countries are dependent on importing, and whose supply is dominated by one or a few producers*." (Overland, 2019). The issue with critical minerals isn't a matter of supply, as Strateera suggests, it is a matter strategic control by producers. History suggests that this control is short-lived, however, when those producers attempt to limit exports.

9. The idea of a "critical mineral" is essentially a myth, (Overland, 2019). With mining distributed around the globe and the world essentially a single globalised market, the availability of minerals is just a matter of price. If availability of a certain mineral is restricted by a producer, as happened with rare earth elements to Japan in 2009-2010, the price of that mineral goes up and miners around the world respond by opening existing but previously uneconomic mines to take advantage of the high price. Greater production soon leads to oversupply and the mineral price falls. This happened to US rare earth miner Molycorp, who opened an existing rare earth mine in California in 2012 in response to the Chinese embargo, only to close it again in 2015 when the

price of rare earths dropped due to ample supply. These types of "boom and bust" cycles are characteristic of the mining industry; mineral shortages never last very long. It is just a matter of price.

10. Very few minerals are actually geologically rare. The appropriately named "rare earths" are a good example. As Amory Lovins notes for rare earth elements, "*Rare earths are simply another commodity—unusual, significant, but unable to transcend the realities of economics, innovation, and trade*" (Lovins, 2017). He goes on to say, "*scarcity-centric treatments have unfortunately reinforced a morphing of rare-earth concerns, and of some soberly targeted government research, into a commercial lobbying effort meant to scare us about scarcities of strategic metals, presumably in the hope of eliciting more subsidies to mine them.*"

11. There is another factor: the need for strategic minerals changes with time due to technology and price. As the price of certain mineral goes up, manufactures find ways to substitute it. For example, both the Straterra Briefing to Ministers and the Wood Mackinzie NZ Draft Critical Minerals List mention the rare earth neodymium as necessary for the permanent magnets in electric motors and wind generators. However, there are equivalent modern electric motors and generators that do not use permanent magnets. The induction motors used in Tesla EVs do not contain permanent magnets. Switched reluctance motors, likewise, are made from only iron and copper and are arguably simpler, more rugged and more flexible than permanent magnet motors. In addition, there are now super magnets that don't contain rare earths. The new iron nitride magnets are reportedly more powerful than neodymium magnets and contain no neodymium. Should neodymium still be on a critical minerals list?

Conclusions

12. It is clear that the government's claim for the need for a critical minerals list is nothing more than the result of a successful lobbying effort by the NZ mining industry, so that it can be afforded special treatment in permitting, consenting and environmental regulation. New Zealand has very little industrial need for the great majority of these minerals and very little domestic capacity to refine them into usable products. Most ores would be sold overseas for processing.

13. It will be unfair to the rest of New Zealand's industries to elevate the mining industry to the status of a supplier of "critical minerals". We can see this status being used to justify projects that might otherwise be disallowed on social, cultural or environmental grounds. This clearly creates an unfair advantage for the mining industry. We ask, "Is mining that much more important to the New Zealand economy than other primary industries, such as dairy, meat, wool, horticulture and timber, which otherwise have to follow established regulations?"

14. The lack of strategic justification for this List and its shameless industrial favouritism make it bad legislation. We have little doubt that this legislation will be quickly reversed when the present government comes to the end of its tenure. This is not how democracy is supposed to work. Why are you wasting everyone's time and effort with it? You are supposed to be representing the interests of the people of New Zealand, not mining companies.

References

Lovins, 2017, *Clean energy and rare earths: why not to worry*; Bulletin of the Atomic Scientists, May 23, 2017. (https://thebulletin.org/2017/05/clean-energy-and-rare-earths-why-not-to-worry/#post-heading)

Overland, 2019*, The geopolitics of renewable energy: Debunking four emerging myths*; Energy Research & Social Science 49, p36-40.

Straterra, 2023, *Mining in New Zealand, Opportunities and actions, Briefing to Ministers,* November 2023