



Submission to the Ministry of Business, Innovation and Employment on “A draft minerals strategy for New Zealand to 2040”

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To: MBIE by email resourcesfeedback@mbie.govt.nz

From: Richard Tacon, Chief Executive Officer Privacy of natural persons

Name of Submitter: Bathurst Resources Limited and BT Mining Limited

INTRODUCTION

Bathurst Resources Limited (Bathurst) is New Zealand’s largest coal mining company, producing more than 2 million tonnes of coal each year, for export and domestic markets. We employ more than 600 people around the country.

A New Zealand registered resources company with its operations throughout New Zealand, we are New Zealand’s leading coal producer providing coal for local steel making, cement manufacture, and to domestic dairy and food processing industries and exporting high quality metallurgical coal to international steel makers.

We are committed to responsible mineral extraction and supply, from our existing and developing assets in New Zealand and Canada. Responsible resource use lies behind all of Bathurst’s activities and its approach to sustainable development and management of its social and environmental performance. This means everything the company does is guided by a commitment to shareholders, employees, local communities, and, importantly, the environment. Bathurst’s commitment is backed by significant investment of time and money to ensure social and environmental effects are managed from design and planning through to production and eventually rehabilitation of mining sites.

We currently operate mines in Southland (Takitimu), the West Coast (Stockton), and in the Waikato region (Maramarua, Rotowaro).

Bathurst is the also the 65% owner of BT Mining Ltd which owns the export mine at Stockton and domestic producers Rotowaro and Maramarua mines. Bathurst is the 100% owner of Takitimu mine. Our corporate office is in Wellington, and we are listed on the Australian Securities Exchange (ASX).

Today more than 80 per cent of our production is used for steelmaking, including by a New Zealand steel mill. Our Stockton resource is well known for its excellent quality. Having low ash and high fluidity in a blast furnace, these coals are highly sought after by international steelmakers. Our high-quality, thermal-grade coals help fuel many iconic South Island food, dairy and lime businesses.

Bathurst also has investments in two steelmaking coal assets in British Columbia, Canada.

Bathurst welcomes the opportunity to submit on “[A draft minerals strategy for New Zealand to 2040](#)” (strategy). We support the submissions on the strategy made by Straterra and by Minerals West Coast.

This submission focusses on the importance of coal to the New Zealand and global economies.

CONTENTS

Key points	Page 2
Coal is vital to the NZ and global economies	Page 2
Uses of coal	Page 3
CO ₂ emissions benefits of Stockton coal	Page 5
Socio-economic impacts on the West Coast	Page 5
Climate change policy implications	Page 6
Recommendations	Page 7

KEY POINTS

- Coal today is vital to the New Zealand economy and the world economy, and this will remain so for many decades to come.
- For coming decades coal demand will continue for steelmaking, energy, and as a chemical feedstock including into advanced materials and renewable energy technologies.
- Bathurst aims in the future to achieve more than 90 per cent of its earnings from coal for steelmaking, with our current levels being at 80 per cent.
- We work closely with our domestic customers to continue supplying them with coal for as long as they need coal, during any transition away from coal.
- Stockton export coal provides for our overseas customers to reduce their CO₂ emissions from steel manufacturing.
- A 2023 survey shows that Bathurst, and the wider mining and quarrying industry makes an important contribution to the West Coast region, including by providing well paid jobs, economic activity, and engagement in the community.
- New Zealand policy settings today discriminate against coal mining, despite coal accounting for less than 6 percent of the country's greenhouse gas emissions.
- Our recommendations are aimed at appropriate recognition of, and provision for coal exploration, mining and processing, in the strategy.

COAL IS VITAL TO THE NZ AND GLOBAL ECONOMIES

In 2023 global coal consumption was 8.7 billion tonnes, 2.6 percent up on the previous year, reported by the [International Energy Agency](#) in its Coal Mid-Year Update. The IEA predicts this demand to rise to 8.74 billion tonnes during 2024. China today consumes more than half the world's production of coal.

Reported in Mining.com on 28 July 2024, the IEA says driving this consumption growth was low growth in hydro generation, and higher demand for electricity, particularly in China.

By 2026 the IEA predicts that China and India alone will be responsible for 70 percent of global coal consumption, as OECD countries seek to reduce their reliance on coal.

In 2022 New Zealand consumed around 1 million tonnes of coal, according to MBIE's Energy in New Zealand 2023 publication, or roughly 0.01 percent of global consumption.

That year New Zealand produced around 2.64 million tonnes of coal, or around 0.03 percent of global production, assuming global production and demand to be the same.

Inference: despite the 2015 Paris Agreement for global climate change action, the world continues to use coal as it always has done since the Industrial Revolution – as a metallurgical input into steelmaking, an energy source, and as a chemical feedstock for advanced materials and renewable technologies.

USES OF COAL

Metallurgical input into steelmaking

In 2023 world crude steel production was 1.9 billion tonnes (World Steel Association). Of this figure, 71 percent was primary steel production, almost all of which uses certain types of coal as a metallurgical input. The remainder is recycled steel using an electric arc furnace.

In the case of primary steel, the presence of coal – or its modified form, coke - in a blast furnace is essential to the chemical reactions that smelt iron ore into iron containing carbon, which is then refined to control the carbon content to deliver steel having desired characteristics in terms of strength, toughness, ductility, elasticity etc.

Research and development is underway around the world to substitute direct-reduction technologies for coal in steelmaking, and a prominent technology concerns the use of hydrogen. In terms of reducing CO₂ emissions from steel production – which averages 1.91 tonnes of CO₂ equivalent per tonne of steel (World Steel Association) – the hydrogen used would have to be “green” hydrogen, i.e. produced using renewable electricity.

Today the use of hydrogen in steelmaking is in its infancy. By way of context, Siemens intends to build a green hydrogen steel plant for EWE in Emden, northern Germany, which is due to start producing steel from 2027, at a rate of 26,000 tonnes per year (reported by Reuters on 26 July 2024). To enable this contract, EWE received a subsidy of 500 million euro (NZ\$915 million). The total cost of building the plant was not disclosed.

If 1,000 new such plants were built every year around the world, it would take 50 years to replace all coal in primary steel production, potentially requiring subsidisation to the tune of NZ\$1 trillion per year, or NZ\$50 trillion in total.

The plausibility of the above scenario aside, it illustrates the challenge ahead in removing coal from global steel manufacture. Consider also that a five-megawatt wind turbine requires on average 900 tonnes of steel, and an average EV contains 0.9 tonnes of steel.

In New Zealand, a steel mill plans to install over the next three years an electric arc furnace to recycle scrap steel, and to reduce the company's need to manufacture primary steel. Among purposes is to reduce the embodied carbon of steelmaking in New Zealand. Note that the steel mill will still require coal for new steel manufacturing to meet New Zealand's steel demands as there is not enough scrap steel available in the country. Bathurst is well positioned to continue supplying that coal.

Inference: For decades to come, coal will remain essential to steel production worldwide, noting that steel is vital to almost every aspect of modern society, including the manufacture of renewable energy technologies, e.g. wind turbines and electric vehicles.

Bathurst policy: our aim in the future is to earn more than 90 percent of our coal sales from coal for steelmaking, with our current levels being at 80 per cent.

Energy source

Globally, a major use of coal is in electricity generation, especially in parts of the world that do not have access to hydro or geothermal electricity as New Zealand does.

In New Zealand, coal was used for 2.9 percent of electricity generation in 2022, according to MBIE's Energy in New Zealand 2023, while gas provided 9.9 percent. (New Zealand's ranks 4th in the world for the percentage of renewable electricity generation.)

In contrast, according to the IEA, coal fires around one-third of global electricity generation.

The other major use for coal as energy globally is in industrial process heat, e.g. 90 percent of the world's cement and 61 percent of the world's aluminium (FutureCoal).

In New Zealand, Bathurst supplies coal into dairy and other food processing and lime production, noting a transition is underway for many industrial coal users away from coal, and noting this will take time.

Bathurst policy: we work closely with our industrial process heat customers to supply them with coal, for as long as they need coal, during their transition away from coal.

Chemical feedstock

Less well known are the myriad uses that coal is put to in many technologies; consider the following as an illustration:

- Semi-conductors – used in all electronic devices, and in applications such as solar panels
- Carbon fibre – wide range of uses, including in sporting equipment, eg golf club shafts
- Advanced composite materials – wide range of uses, e.g. bicycle frames
- Carbon black – used to make magnetic tape, in a wide range of applications
- Activated carbon – used in filters, in many applications
- Carbon foam – used in moulds for making carbon fibre products and rocket nozzles, and in high thermal insulation, fuel cell electrodes, catalyst supports, and filters
- Carbon rollers – used in various manufacturing processes, e.g. the printing industry
- Anodes for the electrolytic reduction of alumina to produce aluminium (70 kilograms of coal tar pitch consumed for every tonne of aluminium produced, FutureCoal)
- Critical minerals – the processing of impurities in certain types of coal can deliver sought-after minerals such as silicon metal

A proportion of Bathurst's exports of Stockton coal goes into many of the above applications.

Our coal also is used in well-known uses of steel such as car manufacturing, boat building, and in flat-rolled steel products and galvanised steel which are central to the building, construction, manufacturing and agricultural industries.

CO₂ EMISSIONS BENEFITS OF STOCKTON COAL

Overseas steelmakers using Stockton coal avoid emitting 315,000 tonnes of CO₂ per year because of the unique properties of Bathurst coal. This study was published in our [FY22 annual report](#), and was verified by SGS Laboratories Limited.

Our overseas customers use Stockton coal as a blend with other coals to achieve fuel savings from steelmaking. This comes about from the low-ash and other properties of Stockton coal. We quantified the reduction in CO₂ emissions by using our coal exports to a customer in India as a case study. Other benefits include a slower rate of slag formation, an improvement in coke strength in a blast furnace, and lower costs of steel production.

This plant in India saw an annual reduction in CO₂ emissions of 145,000 tonnes by using our coal in a blend with Australian coals, compared with not using our coal. Annual steel production from this plant was 3.6 million tonnes of hot metal.

We then extrapolated this result to our total export coal business of around 1.1Mt per year, which equates to an average of 315,000 tCO₂ emissions avoided each year.

Inference: New Zealand export coal for steelmaking provides a measurable contribution to the global effort to reduce greenhouse gas emissions.

Bathurst policy: the Buller Continuation Project will allow us to extend the life of coal production from the Stockton mine and the Buller District.

SOCIO-ECONOMIC BENEFITS OF BATHURST RESOURCES TO THE WEST COAST

In December 2023 we commissioned Aigis Group to update from 2018 a Bathurst operator workforce survey, to understand the socio-economic impacts of Bathurst on the West Coast region. Aigis Group also surveyed the mining workforce generally for its regional socio-economic impacts.

The results in summary are that mining and quarrying and their impact on the region show an ongoing significant contribution to regional GDP, and high labour productivity relative to that of other industries or New Zealand generally.

They also show a stable workforce at Bathurst, and long-term residence on the West Coast. Working families with children are an important part of workforce households, and the workforce also participates in the community by spending locally and joining community activities. The majority own their own homes.

Highlights from the 2023 survey of Bathurst workforce (employee and contractor) respondents (73 per cent) and the company:

- Average time in the industry – 12 years
- Mean residence time on the West Coast – 22 years
- Own or are buying own home – 79 percent
- Housing investment - \$87 million
- Spending in the regional economy - \$8.7 million per year
- Community engagement – 170 responses of 775 in Bathurst households, 271 activities
- Bathurst spent \$75.8 million in 12 months in trading with 127 West Coast businesses
- The company spends locally \$28 million per year.

Mining and quarrying generally on the West Coast contributes to 8.4 percent, or \$218 million of West Coast gross regional product (GRP).

The industry's 640 filled West Coast jobs comprise 3.8 percent of regional employment. Labour productivity is \$340,469 GRP per filled job.

Inference: The results demonstrate Bathurst's and the broader mining and quarrying industry's ongoing importance to the community in the West Coast region.

Bathurst policy: We prioritise hiring locally, and procuring locally.

CLIMATE CHANGE POLICY IMPLICATIONS

Coal-related greenhouse gas emissions in New Zealand were less than 5 million tCO₂e in 2022 (World Energy in Data 2023). That compares with around 80 MtCO₂e per year for New Zealand.

Therefore, domestic coal consumption is responsible for **less than 6 percent** of New Zealand's GHG emissions.

Seen in that light, coal is simply one of many sources of CO₂ and other GHG emissions in New Zealand. Climate change policy should recognise this fact and avoid unnecessary distortions in the economy, as an objective.

The previous two governments acted counter to the above consideration, via:

- A prohibition on renewing resource consents for low and medium-temperature coal-fired boilers from 2037, under the Resource Management Act 1991
- Restrictions against coal mining in or near wetlands, compared with policy settings for mining and quarrying generally, under the National Policy Statement for Freshwater Management 2020 (amended in 2023), and accompanying regulations set out in a national environmental standard
- An unworkable consenting pathway affecting all mining and quarrying in significant natural areas under the National Policy Statement for Indigenous Biodiversity 2023, and extremely broad criteria for designating SNAs

In addition, note the removal of the fixed-price option for purchasing carbon credits from government under the New Zealand Emissions Trading Scheme, and replacement with an auctioning scheme, to raise the New Zealand Unit price.

A body of public opinion laments a current "low" carbon price in New Zealand. The spot NZU price yesterday was \$52.25 (Carbon Match).

Compare that with US\$2 as the average global carbon price (inference drawn from the World Bank's latest [State and Trends in Carbon Pricing](#) report of May 2024).

New Zealand, therefore, has among the highest carbon prices in the world, noting also that only 23 percent of global GHG emissions are covered by any carbon pricing.

Inference: the strategy should take a big-picture view of the climate change issue, and of New Zealand's role in global climate change action, while recognising coal's contribution to modern society, renewable energy technologies, and the lower-emissions transition.

RECOMMENDATIONS

To improve the strategy, Bathurst recommends MBIE to:

- Note Bathurst's support for the Straterra, and Minerals West Coast submissions on the strategy, and the recommendations these organisations have made.
- Explicitly recognise that coal is vital to the New Zealand and global economies, and will remain so for many decades to come.
- Explicitly recognise that New Zealand export coking coal leads to reduced CO₂ emissions from overseas steelmaking.
- Explicitly recognise the role of coal mining, and mining and quarrying generally in regional development, e.g. the West Coast region.
- List among actions in the strategy a review of New Zealand's climate change policy for fitness for purpose, including under non-climate legislation, i.e. the RMA.