

SUBMISSION ON ACCELERATING RENEWABLE ENERGY AND ENERGY EFFICIENCY

BIRCHFIELD COAL MINES

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To: Ministry of Business, Innovation and Employment
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Introduction

1. Birchfield Coal Mines Ltd (BCM) has emailed you a submission because we do not wish to be constrained by your set of questions. We have our own framing of the issues, and wish to have the freedom for our voice to be heard in this consultation. At the end of our primary submission, we have provided answers to your questions.
2. BCM is a family owned and operated coal mining company based on the West Coast of the South Island. Coal is supplied into a range of primary industries and essential services including hospitals and schools throughout the South Island. BCM makes a significant contribution to the West Coast economy through the employment of highly-skilled people in relatively high-paying jobs. Many of these employees are also active in their communities and have families that support these same communities.
3. BCM understands the Government intends to move to a net zero carbon New Zealand by 2050. We call on the Government to uphold its commitment to a just transition that is orderly and careful, that leaves no one behind, that provides continued economic prosperity for New Zealand.

Executive summary

4. Birchfield Coal Mines has serious concerns over the *Accelerating Renewable Energy and Energy Efficiency* discussion document, focusing on Section 4: Phasing out fossil fuels in process heat.
5. The company's concerns are in summary:
 - Insufficient cost-benefit analysis or rigorous analysis of proposals;
 - Lack of understanding of technology alternatives to coal in the South Island as a source of industrial and commercial process heat, i.e. biomass and electricity;
 - Disproportionate emphasis of the Government in its policy proposals on coal, given the very small percentage of coal in New Zealand's greenhouse gas emissions inventory;
 - Concern over the use of non-market instruments, i.e. sanctions on the use of coal as process heat, when New Zealand already has an emissions trading scheme;
 - A command-and-control approach to policy, e.g. milk powder producers can instead make and sell cheese, not supported with any analysis; and
 - Concern over the Government setting *ad hoc* policies, making it difficult for coal suppliers and consumers to manage their business risks.

6. Taken together, the implementation of Section 4 will lead to the contraction or closure of many South Island businesses and other entities that use coal, adversely affecting Birchfield Coal Mines as a coal supplier.
7. All of the Government's proposals in Section 4 are opposed.
8. Birchfield Coal Mines recommends the Government to rescind Section 4 of the discussion document, and restrict its policy interventions to reform of the New Zealand Emissions Trading Scheme. We elaborate on our views in more detail below.

Detailed submissions

Lack of cost-benefit analysis or rigorous analysis of proposals

9. Section 4 contains few or no costings of the Government's proposals or analysis, and unsubstantiated assertions.
10. In claiming that "carbon prices in excess of \$60/t CO₂-e are required to make widespread coal-to-biomass and some coal-to-electricity projects economic", the Government's analysis omits the possibility that such a carbon price could put many industries out of business. An example of such an industry would be small-scale horticulturalists, such as tomato growers. This would see the need to import tomatoes from Australia or further afield. There has been no consideration of the carbon leakage associated with this unintended consequence.
11. At issue is the overall low level of carbon pricing globally, and less than 80% of global emissions face any carbon price, the World Bank reports in its series, State and Trends in Carbon Pricing. This obviously affects New Zealand's international competitiveness.
12. The statement - "For low-temperature requirements, cost effective new capacity or capacity expansion can be met through good process design and electrification" - contains no robust, peer-reviewed analysis to support this assertion.
13. In response to this statement - "The age of equipment: having to retire equipment early creates stranded assets. However, we note that many boilers run long past retirement age." - we say that if boilers are running, they are by definition not of retirement age.

Lack of technology alternatives to coal in the South Island for process heat

14. In the case of South Island milk powder production, there is currently no alternative to coal as a source of medium-temperature industrial process heat, and there is no evidence there is likely to be by 2030.
15. Woody biomass contains moisture, and cannot be used on its own in a boiler unless first dried, presumably using wood or coal, or a combination.
16. Electricity is too expensive except, perhaps, for some low-temperature applications, and, in any case, the capacity is lacking.
17. In conclusion, the phasing out of coal for low and medium-temperature process heat will lead to the contraction and closure of many South Island industries, including hothouse horticulture, dairy and other food processing, wool scouring, leather processing, timber drying, manufacturing of building materials, breweries, museums and like buildings, and community swimming pools.

18. None of the suggestions or arguments we are making are new; the Government has heard them previously. Its subsidisation of the energy conversion from coal for schools and hospitals suggests the Government knows at heart that a ban on coal for low and medium-temperature heat is not economic.
19. The conclusion is inescapable, therefore, that the Government wants to shut down industries, without providing any credible alternative ways for people in regions to earn a livelihood. This is incompatible with the just, careful and orderly transition to which the Government has committed.
20. Tourism is not a credible alternative to coal-using industries, as is suggested from time to time. It is a low-wage industry as a whole, as is well known, and its expansion in New Zealand will only further decrease New Zealand's labour productivity.

Disproportionate emphasis of the Government on coal

21. Globally, coal is a significant contributor to greenhouse gas emissions, and accounts for 38% of electricity generation, as the International Energy Agency has reported.
22. New Zealand is very different in this respect. Coal accounts for 4% of New Zealand's total GHG emissions, based on the Ministry for the Environment's greenhouse gas inventory. In 2017 our country's GHG emissions were 80.9 million tonnes of CO₂e, of which coal in process heat accounted for 2.2 MtCO₂e, or 2.74%.
23. The question has to be asked: why the focus on coal? Even if the Government did manage to achieve a decrease in CO₂ emissions from coal in New Zealand, it would make very little difference to our total emissions, against the risk of economic contraction of many industries.

Concern over the use of non-market instruments

24. The Government appears to have little faith in carbon pricing when it says, "While it is important to maintain policy efforts on ensuring an effective NZ-ETS and carbon price signal, it is possible, for the reasons above, that the price signal alone will not be sufficient to deliver a timely transition that prevents the lock-in of high-emission and long life assets that run the risk of becoming stranded over time".
25. This approach does not make sense. Either the Government supports the NZ ETS or it abolishes the scheme, and replaces it with, for example, a carbon tax.
26. On this topic, there is already a carbon tax on coal producers under the Energy Resource Levy Act 1976. This legislation is archaic, outdated and obsolete, developed during a very different time of government policy, since replaced by the largely free market system under the David Lange-led Labour government. The ERLA should be repealed.

Command-and-control approach to policy

27. On page 41 of the discussion document, the Government says: "For medium-temperature requirements, however, banning the use of coal for capacity expansion has the potential to impose significant costs on industry. This will depend whether or not industry is looking to expand its production capacity in the short term, and whether production of lower emissions goods is a viable option (e.g. a factory making cheese rather than milk power)."

28. The implicit suggestion, repeated on the following page, is that milk powder producers can instead make and sell cheese, not supported by any analysis. Lacking in this discussion is what cheese milk powder producers should make, in what quantity, who will buy it, and what prices to charge them.
29. The point is that it should be industry's decision what products they produce, given the economic context and government policy settings.
30. We are concerned by this statement, "There is also a risk that if the carbon price rises faster than a business's expectations, that emissions-intensive assets will become stranded before the end of their economic life". That is a risk for businesses to take. In the same vein, it is possible that businesses investing in biomass or other alternatives to coal may be acquiring assets that will become stranded in the future, to be replaced by some other technology. This is not an area for Government intervention.

Concern over a precedent for *ad hoc* policies

31. If the Government does force through the climate change policy proposals opened for consultation on 19 December, the question has to be asked: what's next?
32. In attempting an answer, one can speculate, based on decisions such as the ban on all new oil and gas exploration in New Zealand (except on Taranaki non-conservation land). It is now widely acknowledged that this hasty and ill-considered decision will lead to a global increase in greenhouse gas emissions, the opposite of what the Government intended.
33. The failure of the Government to rescind this decision, now enshrined in legislation, suggests the Government is willing to be reckless in developing climate change policy.
34. It could, for example, force New Zealanders to buy electric vehicles, regardless of the cost, or the availability of EVs, or of the electricity supply needed to accommodate a stepped-up influx of EVs.
35. Taking a helicopter view, the lack of a coherent and transparent strategy on climate change action makes it difficult for coal suppliers and consumers to manage their business risks.
36. The document, *Transitioning to a Low-emissions Future – the Government response to the Productivity Commission's Low Emissions Economy report*, released on 3 August, looks to present a coherent strategy, however, BCM has concerns with the proposed pathways. They include:
 - The pressing ahead with ETS reforms despite lack of access to international carbon markets;
 - Policy proposals that risk inadequate supply of New Zealand Units out to 2030, in which marginal abatement costs could rise to the point where business contract or close (more on this topic below);
 - The assumption that research, development and innovation, internationally and in New Zealand will deliver economic, lower-carbon energy alternatives to fossil fuels by 2030;
 - The principle of "creative destruction" in which lower-emissions businesses are helped to thrive versus higher-emissions businesses, risking a failure to achieve a just transition;
 - Some of these developments occurred ahead of appointments to the Climate Change Commission, whose independent advice could otherwise have been sought.
37. In January this year the Ministry for the Environment presented a *Marginal Abatement Cost Curves Analysis for New Zealand* for critique and feedback, if desired. This is a comprehensive and well-

considered piece of work, which draws the reader's attention to many assumptions which have to be made around calculating the marginal abatement costs for different sectors of New Zealand. They include: lead time for uptake of technologies, emissions from electricity generation, future availability of woody biomass, future electricity generation capacity, response of markets to government policies, and the discount rate (which records the time value of money).

38. Generally speaking, the cost of reducing a marginal tonne of CO₂e for industries ranges from \$50 to \$200 in the analysis. On the face of it, these estimates seem reasonable. They are also likely to be cost-prohibitive for many industries, taking into account New Zealand's international competitiveness, in a world where more than 80% of GHG emissions are not priced, according to the World Bank.
39. In 2018 Straterra commissioned the then CRL Energy, now Verum Group, to assess the coal-related production costs of certain sectors. For steel it was 15% of total production costs, tomato growing (11.2%), and cement and some dairy processing, both 7.4%.
40. Assuming a coal price of \$100/tonne, emissions of 1.6 tonnes of CO₂ per tonne of coal consumed, a marginal abatement cost of \$200/tCO₂e, and, crucially, that alternative low-emissions technologies actually exist, the energy costs to these businesses could treble, impacting significantly on profits.
41. Steel-making is of course protected via industrial allocation under the ETS, and is exempt from the present policy proposals, as are cement and lime manufacture, and these measures are acknowledged. On the other hand, hothouse horticulture and dairy processing look to be seriously- threatened industries on the above analysis.
42. The irony is, of course, that closing these businesses in New Zealand will lead to the production of their commodities overseas, most probably in jurisdictions with little or no price on carbon, with potentially a greater production of emissions overall. The world's climate would not benefit, and the New Zealand economy would be adversely impacted.

Answers to questions

Q4.1 Do you agree with the proposal to ban new coal-fired boilers for low and medium temperature requirements?

No. South Island dairy processors, as just one example of an industry, will not be able to switch away from medium-temperature coal-fired boilers at any price, because the technology does not exist, at scale. Separately, it may not be commercially viable even if a switch could be made. Refer to our primary submission.

There is no basis for thinking that viable, alternative technologies will exist for South Island coal consumers by 2030.

Q4.2 Do you agree with the proposal to require existing coal-fired process heat equipment for end-use temperature requirements below 100 degrees Celsius to be phased out by 2030? Is this ambitious or is it not doing enough?

It is too ambitious. Again, this is an issue of availability of alternative technologies - in particular, woody biomass and electricity capacity - and the elevated costs of these alternatives compared to coal. Hothouse horticulture could be adversely affected. Note also that CO₂ is pumped into greenhouses to speed plant growth, improving the economics.

Q4.3 For manufacturers: referring to each specific proposal, what would be the likely impacts or compliance costs on your business?

BCM will lose customers as a result of the Government's proposals because they will be forced to contract or close.

It should concern the Government that affected business activities will move offshore, most likely to jurisdictions such as Australia, with little or no price on carbon, and New Zealand will import their products, with no benefit to the world's climate, and adversely affecting the New Zealand economy.

Q4.4 Could the Corporate Energy Transition Plans (Option 1.1) help to design a more informed phase out of fossil fuels in process heat? Would a timetabled phase out of fossil fuels in process heat be necessary alongside the Corporate Energy Transition Plans?

We don't know. It is not clear what a Corporate Energy Transition Plan expert could realistically do to make biomass and electricity more available, and commercially viable. Refer to our primary submission for an explanation of our concerns.

Q4.5 In your view, could national direction under the RMA be an effective tool to support clean and low GHG-emitting methods of industrial production? If so, how?

No. The RMA should be left out of this discussion, because it is a piece of legislation to do with resource management in New Zealand, not addressing the global issue of climate change.