The Future of the Eastern Slopes of the Canadian Rockies Hangs in the Balance as the Alberta Government Sways on Coal Mining Policies

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Introduction

Since the late 1800s, Alberta has been mined for coal, the primary source of energy for the province and much of the world until the late 1960s (Alberta Culture and Tourism, n.d.). The Alberta coal industry became regulated in 1976 with the introduction of the Coal Development Policy, a tool that the Government of Alberta would use successfully for 44 years to manage coal mine exploration and site development while protecting sensitive areas on the eastern slopes of the Rockies and providing economic opportunities for the province (Department of Energy and Natural Resources, 1976). However, in 2020, the Alberta Government chose to rescind this policy, resulting in the exploration and the beginning of the development of mine sites in environmentally-sensitive areas (Anderson, 2022). Due to public outrage, the government quickly reversed this move in February of 2021, and in March of 2022, formally walked back its decision to rescind the Coal Development Policy, effectively putting a stop to all exploration and development that had subsequently occurred on the eastern slopes of the Rockies (Anderson, 2022). The Alberta Government's recent fluctuations on coal mining policy are leaving the eastern slopes of the Rockies at risk of becoming a hotbed for environmentally desecrating mining practices that put habitats and water sources at risk, that are subject to change on the whim of whatever government is in power, and that are unlikely to be remediated unless solid policy tools are put in place and adhered to.

Environmental Impacts Associated with Coal Mining in the Eastern Slopes of the Rockies

Mining produces a variety of environmental impacts that depend on the type of mine.

Both surface and underground coal mining are undertaken in Alberta, with surface mining being considerably more destructive than underground mining (Alberta Energy Regulator, 2016; Craig et al., 2011). The environmental impacts associated with both surface and underground mining

include the decimation of species' habitat; the generation of waste rock, noise, and dust; the contamination of water, land, and air with acid mine drainage and processing chemicals; and the continued pollution of the environment if mine reclamation is not completed (Muldoon et al., 2020).

Some coal mines have the potential to produce more environmental impacts than others depending on the sensitivity of the area in which they are located. For example, the proposed Blackstone and Aries mining projects found in Clearwater County on Category 2 lands, owned by Valory Resources and the Ram River Coal Corporation respectively, could negatively impact the habitat of bull trout and grizzly bears (Riley, 2021). Bull trout are classified as "threatened" by the Committee on the Status of Endangered Wildlife in Canada and grizzly bears are designated as "threatened" under Alberta's Wildlife Act (Nature Conservancy Canada, 2022; Alberta Wilderness Association, 2022). The primary concern of habitat destruction in the area surrounds the proximity of the proposed mines to the major rivers in the area, including the Ram River, the North Ram River, and the Clearwater River, which could result in declining water quality through the release of contaminants into surface runoff, surface water, and groundwater (Riley, 2021).

Exploration activities also play a large role in the environmental impact of mining. In the few months between the Government of Alberta rescinding the Coal Development Policy and its decision to reinstate the policy, there was an exploration boom in the eastern slopes of the Rockies that involved activities such as clearcutting, road development, and test mining (Anderson, 2022). Many mining companies undertook the exploratory activities expecting that mine development would provide the money required to support remediation of the explored areas, yet as the Coal Development Policy fell back into place, many mining companies found

themselves unable to afford remediation work (Anderson, 2022). The scars on the land from exploration alone cannot recover without remediation activity and it remains yet to be seen who will pay to reverse these environmental impacts.

The lack of regional plans means that the true cumulative effects of mining the eastern slopes remain yet to be seen or properly addressed as no one government ministry can be expected to prevent the environmental impacts that are caused by activities outside of their jurisdiction (Riley, 2021). This means that, until regional plans are developed for all parts of Alberta that touch the eastern slopes, there will not be a clear picture of the true impacts that mining or exploratory activities have on the environment and sensitive habitats in the area, or even communities near and far from mine sites.

The Government of Alberta's Impact on Coal Mining Practices in the Province

The Alberta Government has jurisdiction over all coal mines within its provincial boundaries (Muldoon et al., 2020). The constitutional basis for this jurisdiction occurs through the Alberta Natural Resources Act of 1929 which transferred control over the lands, mines, minerals, and royalties from the Federal Government to the Government of Alberta (*Alberta Natural Resources Act (S.C. 1930, c.3)*, 1929). As such, the Government of Alberta has the power to implement and enforce or rescind policies and laws on mining practices in the province.

The primary influence of the Coal Development Policy of 1976 was the categorization of land on the eastern slopes of the Rockies which influenced where mining companies were allowed to carry out exploratory and mine site development practices. Category 1 lands are lands where no exploration or commercial development is permitted and include National and Provincial Parks, as well as Wilderness Areas (Bankes, 2021). Category 2 lands may have

limited exploration, though no surface mining is allowed, with some exceptions made for in-situ or underground mines whose surface effects are environmentally acceptable (Bankes, 2021). Category 3 and 4 lands can be considered for exploration and surface, in-situ, and underground mines, though in practice, coal leases have only ever been issued for Category 4 lands (Bankes, 2021). Though not a statute nor a law, the Coal Development Policy was effective and respected by interested mining companies and had legal effects within the Department of Energy (Bankes, 2021). However, the rescindment of the policy in 2020 allowed the Government of Alberta to open all land categories, except Category 1 lands, to exploration and development activities (Bankes, 2021).

With the re-implementation of the Coal Development Policy in 2021 and the institution of a ministerial order in 2022 that was guided by a committee founded by the government to explore mining practices and effects in Alberta, the province banned new exploration and mine approvals until new land-use plans were developed for the entire province, with existing mines exempt and still allowed to continue operations (Anderson, 2022). Despite the tough stance on mining in the press, the ministerial order has flexibility which allows some mining projects that are in advanced stages of development to proceed through the regulatory process, such as the Tent Mountain project near Crowsnest Pass and the expansion of the Vista Mine near Hinton (Anderson, 2022).

The Government of Alberta's impact on coal mining in Alberta is particularly noticeable as mining companies seek damages for the abrupt cancellation of exploration and mine development, kilometers of the eastern slopes remain un-remediated from exploratory efforts, swaths of once-protected land now bear the scars of having been tampered with, and mining

communities who caught a glimpse at a new life during the short-lived mining boom become frustrated at having a secure future dangled in front of them (Easton & Dryden, 2022).

The Policy Tools Needed to Address Coal Mining Practices in Alberta

Regional Land Use Plans

One of the major policy tools needed to address the coal crisis in Alberta is the implementation of regional land use plans. Despite the adoption of the Land Use Framework in 2008 (which acts to set out an approach to manage public and private lands and natural resources in Alberta) and the Alberta Land Stewardship Act in 2009 (which "enables the government to provide direction and leadership in identifying current and future land-use objectives of the Province, including economic, environmental and social objectives, while respecting private property rights", the only two approved land use plans in Alberta are the Lower Athabasca Regional Plan, which manages the land in the north-easternmost portion of the province, and the South Saskatchewan Regional Plan, which manages the land in the southernmost part of the province as far north as the M.D. of Bighorn and the M.D. of Rocky View (Land Use Framework, 2008; Alberta Land Stewardship Act, 2021). This lack of motivation to create land use plans leaves considerable portions of the eastern slopes of the Rockies open to exploration and mine development without any considerations for the economic, social, or environmental implications that may result (Anderson, 2022).

Harsher Penalties for Mining Companies Unable to Complete Exploratory and Mining Site Remediation

Another policy tool required to address coal mining practices in Alberta is harsher penalties for mining companies who are unable to provide the funds necessary to remediate

exploration and mining sites. Due to the Coal Development Policy being scrapped in 2020, many companies went ahead with coal exploration, creating massive footprints in sensitive areas, while expecting that the return of coal mining would make the company profitable enough to fund reclamation work (Easton & Dryden, 2022). However, with the reinstatement of the Coal Development Policy in 2022, many coal companies are seeking damages in the billions from the Alberta government and the reality is setting in that taxpayers may be required to fund the reclamation work required to remediate kilometers of scarred land (Easton & Dryden, 2022).

The Mine Financial Security Program (MFSP) is supposed to be used by the Government of Alberta to "manage coal and oil sands liabilities by collecting financial security from mine owners, and protect the public from paying for project closure costs, rather than the companies that own them" (Alberta Energy Regulator, 2022). However, the program is only put to use when a mine is in the project closure stage, which means that it doesn't collect securities for exploration work, and no liabilities have been collected by the Alberta Energy Regulator for work already begun at the Isolation South, Cabin Ridge, Elan South, and Tent Mountain mining projects (Easton & Dryden, 2022).

Policy is required to ensure that mining companies, even when cash-flow negative, are capable of carrying out the remediation activities required to reclaim both explored and mined land. Currently, the lack of strength of the current Mine Financial Security Program leaves the province at risk of having to use taxpayer dollars to reclaim exploratory and mined sites if the mine owner is unable to fulfill its remediation obligations (Easton & Dryden, 2022).

Emphasis on Renewable Energy Exploration and Implementation

Finally, policy tools are required to phase out coal exploration and mining while emphasizing renewable energy exploration and implementation. While coal-powered electricity is being phased out of Alberta by 2023, some mining projects, such as the Vista Mine located ten kilometers east of Hinton and having a mining footprint of approximately 1,435 hectares, are currently producing coal for sale to Japan, South Korea, and Taiwan, all of whom still rely on coal-powered electricity (*Affidavit of Michael Beyer*, 2021; Government of Alberta, 2022).

Subsidizing coal mining companies to engage in sustainable energy exploration, criminal charges for company executives who become unable to pay remediation costs, and stiffer regulation of the coal mining industry are ways to phase out the incentive to mine for coal, whether for Canada's consumption or consumption by other countries. Currently, Canada's plan to phase out coal-powered electricity by 2030 which is expected to be accomplished by the end of 2023 is a great start toward reducing the incentive for companies to mine for coal in the province (Government of Alberta, 2022). According to projections by the International Energy Agency, global demand for coal is expected to plateau by 2025, which will leave Alberta in a position where it can choose whether or not to encourage further coal exploration and mining and play a part in the global fossil fuel economy, or whether its efforts are best spent on finding greener ways to power the country and the world (International Energy Agency, 2020).

Conclusion

As coal appears to be seeing the end of its day as a key energy source in both Alberta and the rest of the world, it remains yet to be seen whether coal mining will continue to be an industry in Alberta. The uncertainty over climate change and the easy driver of an economic pillar are two forces fighting to control the Alberta government and have led to an uneasy moratorium on new mine exploration and development that will be moved one way or another

depending on the feelings of the government at a given time. However, it will be up to the Alberta government on how they decide to determine what environmental risks they're willing to take for the sake of the economy, how they want to impact mining in Alberta, and whether or not they can develop strong policies that will curb the undesirable effects of government wallowing. Time will tell how the Government of Alberta chooses to move forward, but one thing remains certain: the future of the eastern slopes of the Rockies hangs in the balance.

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