Phase I Vista Test Underground Mine (VTUM) and Vista Mine Phase II Expansion Projects: Comments from Environmental Defence

May 26, 2021

Re: Phase I Vista Test Underground Mine and Vista Mine Phase II Expansion Projects

We are writing to express serious concerns about the Phase I Vista Test Underground Mine and Vista Mine Phase II Expansion Projects by Coalspur Mines (Operations) Limited. The proposed expansion would increase output by an average additional 4.2 million tonnes of coal each year. Thermal coal is widely recognized as one of the most harmful fossil fuels and its mining, transportation, and combustion can have severe impacts on the environment and human health.

The serious health and environmental impacts of thermal coal mining are not in dispute. Considering the project's impacts on Canada's environmental and climate commitments, as well as the impacts on Indigenous Peoples, **Environmental Defence strongly recommends that this project undergo a full impact assessment.**

Climate Impacts

Vista is already one of the largest thermal coal mines in Canada. The Vista Mine Expansion Phase will result in significant downstream greenhouse gas ("GHG") emissions. The total production of the mine, should the expansion go ahead, could produce anywhere between 22 million tonnes and 33 million tonnes of carbon dioxide a year, including downstream emissions.

It is critical that the impact assessment consider all lifecycle emissions of the mining, export and end use of the thermal coal, including emissions resulting from burning coal in importing countries. Research shows that the total amount of emissions from Canada's exports of fossil fuels is greater than all GHG emissions that occur within Canada.[1]

The Government of Canada has recognized that "phasing out traditional coal power is one of the most important steps in tackling climate change and meeting the Paris Agreement commitment". In the recent G7 Climate and Environment Ministers' Meeting Communiqué, G7 countries including Canada stated that since "coal power generation is the single biggest cause

[1] Lee, M. (2017) Extracted Carbon Re-examining Canada's Contribution to Climate Change through Fossil Fuel Exports. Canadian Centre for Policy Alternatives. Online: https://www.policyalternatives.ca/publications/reports/extracted-carbon

of global temperature increases, we commit now to rapidly scale-up technologies and policies that further accelerate the transition away from unabated coal capacity and to an overwhelmingly decarbonized power system in the 2030s."[2]

A significantly greater quantity of coal is already being mined than is consistent with a safe emissions pathway. According to the 2019 Production Gap report, by 2030 countries intend to produce 150% (5.2 billion tonnes) more coal than is consistent with a 2°C pathway, and 280% (6.4 billion tonnes) more than is consistent with a 1.5°C pathway. Global coal production would need to decrease annually by 11% between 2020 and 2030 to align with a 1.5°C-consistent pathway.[3]

By signing the Paris Agreement, Canada made a commitment to do its fair share "to limit global average temperature rise to well below 2 degrees Celsius (2°C) above pre-industrial levels and to pursue efforts to limit the increase to 1.5°C." According to the latest report from the International Energy Agency (IEA), *Net Zero by 2050: A Roadmap for the Global Energy Sector*, there is no room for new coal mines or the expansion or extension of existing mines in a net-zero roadmap that limits global warming to 1.5 degrees.[4] According to a Climate Analytics report, coal power generation must peak by 2020, be reduced to 80% below 2010 levels by 2030 and be phased out before 2040 in order to meet targets set out by the Paris Agreement.[5]

Furthermore, the expansion of thermal coal extraction on Canadian soil is incompatible with Canada's commitment to the Powering Past Coal Alliance (PPCA). As co-chair of this alliance, Canada has an obligation and responsibility to accelerate the fossil fuel phase out of coal fired power stations.

A full impact assessment is required to examine the impacts of the projects on Canada's climate commitments and the pathway to a climate-safe future, including assessing the downstream emissions related to the extracted thermal coal.

Health impacts

When coal is mined and shipped on trucks, barges and trains, nearby communities are exposed to airborne coal dust (PM2.5), which is linked to respiratory illness.[6] Other impacts include toxic contaminants in runoff rainwater that can end up in environmentally sensitive waters and risks

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[2] G7 (2021) G7 Climate and Environment Ministers' Meeting Communiqué. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/988551/g7-climate-environment-communique.pdf

[3] SEI, IISD, ODI, Climate Analytics, CICERO, and UNEP, The Production Gap: The discrepancy between countries' planned fossil fuel production and global production levels consistent with limiting warming to 1.5°C or 2°C (2019), online: https://wedocs.unep.org/bitstream/handle/20.500.11822/30822/PGR19.pdf

[4] IEA (2021), *Net Zero by 2050*. Online:: https://www.iea.org/reports/net-zero-by-2050

[5] PA Yanguas Parra et al. (2019) Global and regional coal phase-out requirements of the Paris Agreement: Insights from the IPCC Special Report on 1.5°C. Climate Analytics. Online: https://climateanalytics.org/media/report_coal_phase_out_2019.pdf.

[6] Kentucky Environmental Foundation (2018) Health Impact Assessment of Coal and Clean Energy Options in Kentucky, Online: https://www.pewtrusts.org/-/media/assets/2018/08/kef-coal-and-clean-energy-hia.pdf

relating to fire and spillage from accidents which are often of great concern to local communities.[7] For years communities and Health Authorities in BC's Lower Mainland have raised concerns over the numerous health impacts on surrounding residential neighbourhoods from coal ports and open-top coal trains.[8]

In October 2013, Western Canadians experienced the potentially devastating impacts of thermal coal mining on the local environment and in particular their drinking water. The Obed Mountain coal mine spill, which occurred when a tailings dam collapsed, released 670 million litres of toxic coal tailings into the Athabasca River system. Over the following month a ploom of the contaminated water worked its way downstream and north into the NWT forcing drinking water closures and measurable impacts on drinking water.[9]

The exported thermal coal would adversely impact the health of communities of Canada's trading partners. Coal-fired power plants are a contributor to a range of harmful airborne toxins and air pollutants. When compared to other electricity generating options, coal power produces unmatched volumes of sulphur dioxides (SO2), nitrogen oxides (NOx), fine particulate matters (PM2.5) and mercury — to name only the most harmful pollutants associated with coal. The health impacts of these emissions include increases in respiratory ailments, diseases and premature death, and the development of asthma during childhood. Health impacts also include chronic cardiovascular and respiratory diseases, including lung cancer, heart failure and cardiac arrest, and neurological disorders (attributed to exposure to mercury).[10][11][12] Coal-fired power plants produce more than 100 million tons of coal ash every year globally. Coal ash contains radioactive elements, minerals, and heavy metals such as arsenic, mercury, cadmium, and lead.[13] More than half of that waste ends up in ponds, lakes, landfills, and other sites where, over time, it can contaminate waterways and drinking water supplies.[14]

Impacts on Indigenous Rights

Concerns have been raised by local First Nations, including the Louis Bull Tribe. The Tribe is signatory to Treaty No. 6 and the Vista Mine is in their traditional territory. Louis Bull holds

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[7] Kerr, J. (2019) Canada should not be shipping coal overseas for the U.S. Vancouver Sun, online: https://vancouversun.com/opinion/op-ed/james-kerr-canada-should-not-be-shipping-coal-overseas-for-the-us.

[8] Tam, C. (2013) British Columbians fear expanding coal industry poses health hazards, Global News, Online: https://globalnews.ca/news/629644/british-columbians-fear-expanding-coal-industry-poses-health-hazards/

[9] Cooke, C. et al. (2016) Initial environmental impacts of the Obed Mountain coal mine process water spill into the Athabasca River, Science of the Total Environment, Online: https://www.sciencedirect.com/science/article/pii/S0048969716304831

[10] Israël, B. (2017) Four Things You Need to Know About How Coal Affects Human Health, The Narwhal. Online: https://thenarwhal.ca/four-things-you-need-know-about-how-coal-affects-human-health/

[11] Union of Concerned Scientists (2019) Coal Power Impacts, Online: https://www.ucsusa.org/resources/coal-power-impacts

[12] Hendryx et al. (2020) Impacts of Coal use on Health, Annual Review of Public Health, 41, 397-417. Online: https://www.annualreviews.org/doi/full/10.1146/annurev-publhealth-040119-094104

[13] Office of the Auditor General of Canada (2015) Risks of releasing coal and coal dust into the environment during transport, Online: https://www.oag-bvg.gc.ca/internet/English/pet_370_e_40485.html

[14] Union of Concerned Scientists (2019) Coal Power Impacts, Online: https://www.ucsusa.org/resources/coal-power-impacts

Aboriginal and Treaty Rights recognized and affirmed under Section 35 of the Constitution. The Tribe outlined to IAAC, in May 2020, the ways in which the mine expansion would cause adverse effects on their Aboriginal and Treaty rights, including but not limited to their right to hunt, fish, trap and gather, and their right to carry out ceremonies in their traditional territories. A federal impact assessment is required to ensure the Government of Canada meets its commitment to a renewed relationship with Indigenous Peoples that is based on the recognition of rights, respect, cooperation, and partnership.

Similarly, the Stoney Nakoda, in their letter in support of requests for designation under the *Impact Assessment Act* of Coalspur Mine Ltd.'s Vista Coal Mine Expansion, lay out their concerns, which include: additional taking-up of Crown land within Stoney Nakoda's traditional territory in Treaty 7; loss of access to land and waters; additional damage to lands, waters and the environment; cumulative impacts to the Stoney Nakoda way of life and Aboriginal and Treaty rights; additional loss of important habitat for culturally significant species, including elk, deer, moose, and fish, including species at risk; and additional increase in greenhouse gas emissions, further exacerbating environmental impacts.

Economic Analysis

In their initial project description, Coalspur has made assumptions about the economic benefits associated with their projects and about the global demand for thermal coal. Coalspur is relying on existing markets in Japan, Korea, and Taiwan - economies which will be expected to eliminate unabated coal power by 2030 and which have made climate commitments which will require decarbonization of their energy systems.

An impact assessment must be based on market analysis of projected demand for thermal coal that is consistent with global decarbonization and achieving the goals of the Paris Agreement. Through its membership in the Powering Past Coal Alliance, Canada is actively working to shift the world away from unabated coal-fired electricity. This includes a phase out of unabated coal-fired electricity in EU and OECD (including South Korea and Japan) countries by 2030. If the Powering Past Coal Alliance's efforts are to be realized, there will be serious questions about the viability of the market for thermal coal in the coming years and decades. In addition, economic considerations about the future of thermal coal markets must include the decreasing cost competitiveness of thermal coal relative to other fuels in a decarbonizing economy.

According to the IEA, thermal coal prices will fall from current levels of $60-135 USD/tonne to $24-60 USD/tonne by 2030.[15] The IEA roadmap calls for a phase-out of unabated coal in advanced economies by 2030 and by 2040 in all countries. Unabated coal demand declines by 90% to just 1% of total energy use in 2050 – an average annual decline of 7% each year from 2020 to 2050. The IEA estimates that up to USD 90 billion of existing coal- and gas- fired capacity could be stranded in 2030 and up to USD 400 billion by 2050.[16]

[15] IEA (2021), *Net Zero by 2050*, IEA, Paris https://www.iea.org/reports/net-zero-by-2050
[16] IEA (2021), *Net Zero by 2050*, IEA, Paris https://www.iea.org/reports/net-zero-by-2050

In addition, investors are increasingly turning away from thermal coal to reduce their exposure to assets at risk of stranding. As of 2019, over 100 significant financial institutions (with assets under management or loans outstanding above US$10 billion), have created or strengthened their policies to divest from, ban, or restrict financing of thermal coal.[17]

[17] Buckley, T. (2019) Over 100 Global Financial Institutions Are Exiting Coal, With More to Come. IEEFA. Online: http://ieefa.org/wp-content/uploads/2019/02/IEEFA-Report_100-and-counting_Coal-Exit_Feb-2019.pdf