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Clearing the Air on Teck Frontier (Extended ABlawg Edition)

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Decision Commented On: *Teck Resources Limited, Frontier Oil Sands Mine Project, Fort McMurray Area*, [2019 ABAER 008/CEAA Reference No. 65505](#)

A lot of ink is currently being spilled over the federal government's upcoming decision to approve – or not – Teck Resources' Frontier oil sands mine project. Premier Jason Kenney and members of his Cabinet insist that the Frontier project is [critical to Alberta's economic prosperity](#). The Mining Association of Canada's Pierre Graton stresses that Teck completed a "[world-class, independent and rigorous assessment](#)" and that the project was determined to be in the public interest by the joint review panel (JRP) that reviewed it. Environmental groups argue that approval is [fundamentally inconsistent with Canada's climate change commitments](#). The project is being framed as both a test of Prime Minister Trudeau's resolve to combat climate change and a referendum on the federal government's support for Alberta's economic interests and its commitment to national unity.

Our purpose here is not to take sides but rather to lay out the facts and relevant legal context as clearly as possible so that Albertans and indeed all Canadians can come to their own informed views about the desirability, or not, of this project and what, if any, larger importance to attach to the federal Cabinet's eventual decision.

The [JRP](#) did indeed conclude that Frontier is in the "public interest," but that conclusion speaks only to the provincial side of the story. Under the federal regime enacted by the previous Conservative government, the *Canadian Environmental Assessment Act, 2012*, [SC 2012, c 19, s 52](#)) (since repealed and replaced by the *Impact Assessment Act*, [SC 2019, c 28, s 1](#)), the JRP was restricted to determining whether the project is or is not likely to result in "significant adverse environmental effects" (JRP Report, Appendix 2, Agreement to Establish a Joint Review Panel, Terms of Reference, Article 20). The JRP concluded that such effects are likely, and further that they "weighed heavily" upon its assessment (JRP Report at xiii). Although [Premier Kenney has said](#) that approval should have been automatic, the legislation plainly requires that Cabinet first determine whether such effects are "justified in the circumstances" (*CEAA, 2012*, s 52).

How significant are the adverse environmental impacts? Frontier is among the most destructive oil sands projects assessed to date. The project is large both in production and surface disturbance, and the JRP concluded that numerous significant adverse environmental effects were likely, including on wetlands, old-growth forests, wetland and old-growth reliant species at risk (including Canada lynx and woodland caribou), the Ronald Lake bison herd, and the asserted rights, use of lands, and culture of Indigenous groups who use the project area. These effects will be exacerbated when combined with other existing, approved, and planned projects

in the area. Further, because they will require an inter-basin transfer of water, Frontier's surface water management and mine closure plans are currently prohibited by Alberta's *Water Act*, [RSA 2000, c W-3](#) (s 47) and will require a special act of the provincial legislature in order to proceed.

Frontier's remediation and reclamation plans, which like all of its predecessors must address the contentious issue of the project's [tailings](#), are marked by a high degree of uncertainty. Teck's plan would see 240 million cubic meters (about 100,000 Olympic-sized swimming pools) of fluid fine tailings accumulate on the landscape by 2037. Tailings ponds and other oil sands reclamation liabilities [are a serious problem in Alberta](#). The JRP acknowledged these concerns and the possibility that, without regulatory reform, "the province is at risk of having to pay substantial amounts of public money" (JRP Report at para 4719). Substantial is right. Teck estimates that reclamation liabilities on the site will peak at \$4.3 billion in 2037 and that \$2.9 billion of reclamation liability will remain when the mine ceases production in 2066. Teck's reclamation plan requires "45 to 65 years or more" of post-closure care. Sixty-five years after mine closure would be the year 2131. These plans are directly relevant to Cabinet's decision, since tailings ponds affect migratory birds and endangered species and are [known to seep into groundwater and adjacent waterways](#), all of which fall under federal jurisdiction.

Teck's mine closure plans also call for end-pit lakes to remain on the landscape. These lakes, filled with water drawn from the Athabasca River, are expected to be completely integrated into the local water system, including discharges into the Athabasca River that would require federal permits. The problem is that we still don't know if this is going to work. In what can only be described as a traditional oil sands shrug, the JRP found that the information provided by Teck was sufficient "given end-pit lakes are many years away for the Frontier project and the understanding of end-pit lakes is improving with ongoing research" (JRP Report at xxi). One read of the recent [Alberta Energy Regulator decision for Syncrude's Mildred Lake Mine tailings plan](#) will tell you that our understanding is indeed improving, but not always in a positive way: "The sustainability of [one of the end-pit lakes on the site] with or without tailings placed in the pit is uncertain," the regulator found (at para 909). Hope is not an environmental management plan.

Greenhouse gases will also weigh heavily on cabinet's decision. The JRP did not make a final determination with respect to the project's greenhouse gas (GHG) emissions, estimated at 4.1 million tonnes of CO₂ equivalent (CO₂e) per year. "Determining Canada's ability to meet its international commitments to reduce greenhouse gas emissions is not part of the panel's mandate," we are told (JRP Report at para 149). That is true insofar as it goes, but determining whether these emissions are significant or not definitely was part of its mandate and its omission here hampers Cabinet's decision-making, which is supposed to be informed by the JRP's objective assessment: "By its silence, the [JRP] short circuits the two-step decision making process envisioned by the [Act] which calls for an *informed decision*... For the decision to be informed it must be nourished by a robust understanding of Project effects" (*Pembina Institute for Appropriate Development v. Canada (Attorney General)*, [2008 FC 302 \(CanLII\)](#) at para 79).

How emissions-intensive would this project be? Teck's CEO Don Lindsay recently claimed that "[it's not dirty oil](#)," since "the carbon emissions are half the industry average in North America per barrel." This claim was quickly [picked up by Premier Kenney](#). Frontier barrels, he claimed,

would be “half the carbon emissions of the average North American petroleum project.” These statements are wrong, and mischaracterize [Teck’s own claims that Frontier will be among the lowest GHG intensity oil sands projects](#), with a lower emissions intensity than about half of all oil refined in the United States. A careful read of the evidence supports parts of Teck’s claim – Frontier would rank around the middle of the pack for barrels consumed in the US – but both Lindsay’s and Kenney’s claims that it would be half the intensity of the average barrel consumed are incorrect. In this case, a middle-of-the-pack ranking means Frontier barrels would be just about average emissions intensity, not half the average. [Recent work by IHS Markit](#) places the oil sands average emissions intensity roughly sixty-five percent above projected levels for Frontier (IHS reports the oil sands industry average as 67-69 kilograms per barrel versus Frontier’s claimed 40.4 kilograms per barrel, both in carbon dioxide equivalent emissions.)

What about the other side of the ledger? If built, which Teck itself has [admitted is uncertain even with approval](#), Frontier is estimated to generate \$70 billion in government revenues and create 7,000 full time jobs. Teck uses [highly dubious economic impact analysis](#) to justify the project. That notwithstanding, the same analysis, were it to be re-done today, would almost certainly generate lower values. The figures in the application are based on 2011 oil market projections, and forecast oil prices have declined significantly since that time. While [some have argued that the investment could be viable if average West Texas Intermediate benchmark oil prices are above \\$65 per barrel](#), as long as very small discounts apply to Western Canadian heavy oil below that level, that still positions the project as a multi-billion dollar bet on pipelines being built and oil prices being much higher than we see today for most of the next 50 years.

So what if prices aren’t high? Isn’t that for the company to deal with? Shouldn’t the government let the market sort it out? Not so fast. Whether Frontier’s significant adverse environmental effects are “justified in the circumstances” appears to depend largely on the positive economic ones. The JRP is explicit: “the economic benefits for Alberta and Canada and the expected social and economic benefits for indigenous communities outweigh the adverse environmental effects” (JRP Report at para 4767). The environmental damages or accumulated liabilities on the site don’t change materially with the oil price, but economic benefits do. As oil prices change, so do the taxes, royalties and returns to investors that inform the benefit side of the equation. These likely benefits have dropped – a lot.

Based on calculations done using the methodology from [Boskovic and Leach \(2018\)](#), moving from a [2011 oil price forecast](#) to a [current equivalent](#) would reduce expected revenues from the Frontier project (all else equal) by about a quarter while reducing taxes, royalties and return on capital each by about a third. If oil prices follow the \$65 plus inflation break-even cited by the [Canadian Energy Centre](#), that would reduce revenues by almost two thirds and taxes, royalties and returns to investors by about three quarters. At today’s oil prices, plus inflation, revenues would be reduced by three quarters relative to 2011 forecast levels, and taxes, royalties, and returns on capital would be reduced by about ninety-five percent. Teck’s analysis also includes the impact of spending and wages from the project in calculating economic impacts. If, as has been suggested by the [Canadian Energy Centre](#), the costs to construct and operate the mine would now be expected to be much lower than was the case when the analysis was done, these calculations (not matter how suspect as a tool for use in this context) would also yield

substantially lower expected impacts on the economy from the project than was calculated in the application.

Cabinet's decision is far from automatic. It must weigh the project's significant adverse environmental effects against its (relatively uncertain) benefits and determine whether the former are justified. Proponents also expect it to render a decision that will be able to withstand judicial scrutiny in the event of a legal challenge. In *Council of the Innu of Ekuanitshit v Canada (Attorney General)*, [2014 FCA 189 \(CanLII\)](#), the only case where the Federal Court of Appeal has reviewed such a justification (involving Nalcor's [Lower Churchill hydroelectric project](#)), it held that it would intervene if Cabinet's decision "was taken without regard for the Act's purpose" (i.e. to protect those aspects of the environment that fall under federal jurisdiction) or "had no reasonable basis in fact" (at para 40). While this is a deferential standard to be sure, it is not a blank cheque. In the context of Lower Churchill, where the project as proposed and assessed involved two plants, the Court of Appeal suggested that if the proponent were to forego construction of the larger plant, or if there was an unreasonable delay in its construction, the balancing exercise carried out by Cabinet would be compromised (at para 54). The implications for Frontier seem plain: significant changes in the original circumstances surrounding the project are relevant and can undermine Cabinet's current deliberations.

The caselaw is clear that [material defects in the underlying report](#) can also undermine Cabinet's deliberations if not taken into account. Reliance on clearly outdated price projections may or may not fall in this category; the failure to make a determination with respect to the project's GHG emissions plainly does. According to the Court of Appeal in *Gitxaala Nation v Canada*, [2016 FCA 187 \(CanLII\)](#) (the litigation involving the Northern Gateway project), Cabinet plays a primary role in determining "whether the process of assembling, analyzing, assessing and studying is so deficient that the report submitted does not qualify as a 'report' within the meaning of the legislation" (at para 124). For better or for worse, this approach has now been generalized to all assessments under *CEAA, 2012: Taseko Mines Limited v Canada (Environment)*, [2019 FCA 319 \(CanLII\)](#), at paras 40 – 46). Importantly, the Act provides the Minister of Environment and Climate Change the power to request that the JRP "clarify any of the conclusions and recommendations set out in its report with respect to the environmental assessment" (s 43(f)).

The decision on Frontier is not easy, and it's been made more precarious by those who have turned it into a litmus test for either the government's commitments to action on climate change or to national unity. At its core, it's a problem as old as our environmental assessment system itself: elected officials must decide whether a project's benefits outweigh its significant environmental harms. Whatever Cabinet decides, we should all be able to agree that we'd be worse off if such decisions ever became merely automatic.

An earlier version of this blog appeared on CBC.ca's "The Road Ahead" series:
<https://www.cbc.ca/news/canada/calgary/teck-frontier-cost-benefit-leach-olszynski-1.5460151>

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