A Canada-US Critical Minerals & Materials Supply Chain...*What Now?*

On March 4th, Accelerate and Osler, Hoskin & Harcourt LLP convened a round-table of leading Canadian mining and battery midstream executives and experts to discuss the future of the Canada-US critical minerals relationship. The conversation, which took place during the annual PDAC conference in Toronto, was held against the backdrop of continuous threats of sweeping tariffs on all Canadian exports to the United States. While the potential impacts of an unprecedented Canada-US trade war were a topic of discussion, our expert round-table focused on what a path forward to developing a North American critical minerals ecosystem could look like in the current context.

The China Challenge

Both the US and Canada are highly dependent on Chinese processed minerals and materials including the pre-cursors (cathode and anode material, refined and purified metals, battery cells) needed to produce EV batteries locally. While South Korea and Japan, both countries Canada has strong trading relationships with, also produce battery materials global supply-chains are dominated by China. Building secure supply for North America will require Canada to activate its mineral resources and for both the US and Canada to ramp up minerals processing. This is a major challenge considering that Chinese EV and battery supply chains are at least 5 years ahead of those in North America. Additionally, the low cost to produce battery materials in China, achieved through massive state-subsidies, vertically integrated supply-chains, and lesser emphasis on environmental and social impacts cannot be replicated in North America.

While in the long term, it may be possible to decouple North American EV supply chains entirely from China, this cannot be done in the short to-medium term. Chinese materials producers are on the leading edge of chemical engineering and other technological innovations that Canadian and US producers are now challenged to replicate and/or leapfrog. While Canada does have innovators in materials and battery production, replacing even part of the global Chinese share of the market is a significant challenge and, while our discussants believed that operational expenses for mining, processing and midstream projects in Canada could be competitive with China, the real barrier lies in the significant difference in capital expenses.

Concurrently, Canada and the US are imposing tariffs on Chinese electric vehicles, materials, and components, all measures designed to insulate the North American industry, but which also carry challenges for technology transfer.

Waking Canada's "sleeping giant"

Canada is a sleeping giant when it comes to critical mineral resources. The key to unlocking economic growth and positioning the country as an irreplaceable partner in North American supply chains is by waking that giant. Helpfully, there is a view that the current environment of tariff threats may actually create the impetus for Canada to unlock this potential, which would entail breaking down interprovincial trade barriers, addressing permitting overlap and timelines, improving our ports and other infrastructure, and focusing on ways to boost Canadian productivity.

A significant growth challenge, specific to EV supply chains, is in overcoming the loss of knowledge regarding how to design and implement major project developments in ways that most parts of the country have not seen in a generation. Building significant industrial capacity for heavy chemical processing and minerals processing has not been done in most regions in the past thirty to forty years. Where expertise in this sort of project development exists, such as in Northern Alberta's oil sands, different provincial accreditation rules and other barriers have made it difficult to facilitate East-West knowledge transfer. Furthermore, the government expertise needed to permit these projects and efficiently facilitate the permitting process is perceived as lacking.

When it comes to permitting times, we heard many of the same concerns voiced by Accelerate and other groups: there needs to be simplified permitting processes with jurisdictional duplication eliminated. Furthermore, permitting variance for different types of projects within the supply chain can hold up overall project growth.

Crucially, there is frustration that Canada's inability to move forward with major projects has combined with lagging productivity to create a negative view of Canada as a good jurisdiction in which to invest. In addition, financial industries and downstream purchasers are seen as being cautious – or even skeptical - of innovation in midstream processing and see the best path to financial return as "copying and pasting" what is already being done in China (which, given the high levels of subsidization and environmental impact, is not possible in North America).

This stifles much needed capital investment. Different public mechanisms to fund projects should be explored, such as replicating US Defence Production Act investments into critical minerals and materials projects that could help crowd in private capital and help Canada meet or support NATO defence spending targets. Creating critical minerals strategic reserves or contracts for difference, tools explored by Accelerate in a recent paper, were also raised as important and could be tied to both Canada and the US's defence needs (although it was noted that stockpiling

minerals would need to be accompanied by growth in processing capacity). All in all, a clear, innovative action-oriented strategy centred on urgency is needed. This will build resource strength for Canadians and aid in our negotiations with the US.

In the United States: guessing at what comes next

The challenge for our roundtable, and anyone else trying to anticipate US policy under the new administration, is unpredictability. It is unclear who oversees the critical minerals file as no clear "Czar" has been appointed in the US and the topic covers multiple departments including defence, trade, and energy. Nonetheless, it is important to understand the "America First" mentality and actions of the administration so far, including their positioning of critical minerals uniquely as a defense asset. Building strong Canadian minerals and materials supply chains and tying them to our continental industrial and defence needs, were seen as the sorts of actions that will improve Canada's relationship with the current administration. Of course, even if the response from the US cannot be predicted these actions would still have positive benefits for Canada.

For Canadian EV supply chain projects, many of which have benefited from investment by the US federal government and are looking at the US as a future market for their materials, there is an urgent need to push through the uncertainty and stay focused on mid to long term objectives. Mining projects, materials production and cell production projects are all operating on longer timelines than the life of the current administration, so continuing to make progress on improving the Canadian supply chain is the best bet in the immediate term.

Going forward

Current Canada-US trade and political dynamics are highly volatile but discussants at our roundtable agreed that the fundamentals behind the development of North America's critical materials and materials supply chains remain unchanged. First, the need for these resources and products – whether for clean technologies such as EVs and batteries or for defence technology purposes – is only growing; second, critical mineral development will remain key to Canada's future industrial development; and third, the geopolitical risk of permanently ceding control of these supply chains to one country (in this case China) is unacceptably high. For these reasons, it remains in Canada's interests to rapidly build out our capacity to produce and process these assets, and it is in the clear interests of both countries to collaborate on critical mineral and materials development.