## Ontario Emerges as a Hotspot for EV Battery Investment with Volkswagen's First Battery Plant Outside of Europe

Back in early February, Canada's <u>Prime Minister Justin Trudeau stated</u> that Canada and the United States can collaborate more closely on manufacturing electric vehicles ("EVs") and on supplying critical minerals needed to make batteries for cars and other clean technologies. Canada's mineral wealth "is part of why so many automakers are now looking at setting up their supply chains for zero-emission vehicles in Canada," Trudeau said. I've noted several times before, including the <u>Critical Materials series</u> last July, that there are definitely tailwinds for domestic producers of just about anything that goes into carbon reduction technology.

It appears Prime Minister Trudeau might have known what was coming next because just 6 weeks later <u>Volkswagen AG announced</u> it had picked Canada for its first battery cell plant outside Europe. Some of the reasons given for this choice include:

- VW seeks to benefit from U.S. climate laws such as the Inflation Reduction Act ("IRA") that require 50% of EV battery components be made in North America for vehicles to qualify for tax credits of up to \$7,500.
- The Company declared it is working toward setting up regional supply chains in various jurisdictions, including North America, for EV production due to high transport and logistic costs, supply chain risks, and geopolitical

tensions.

Volkswagen AG stated back in December it was <u>looking for sites</u> for a Canadian plant after <u>signing</u> a Memorandum of Understanding ("MoU") with Canada in August to secure access to key raw materials such as lithium, nickel, and cobalt for batteries.

Despite no dollar figures given for this facility, the Canadian federal innovation minister, Francois-Philippe Champagne, said it was "the largest single investment in the auto sector in the history of Canada". Assuming Mr. Champagne was not embellishing for the press conference, that would suggest this facility based in the city of St. Thomas, around 195 km (120 miles) northeast of Detroit, will be even bigger than the Stellantis, LG Energy Solution (LGES) C\$4.9 billion electric vehicle battery plant in Windsor, Ontario announced in March 2022. I would also assume that would mean the VW facility would have a larger output capacity than the stated annual production of 45 gigawatt-hours for the Windsor plant, but perhaps that's not comparing apples to apples.

## Ontario is a "hot spot" for EV battery investment

In fact, Ontario is becoming quite the hot spot for EV battery investment, both downstream and upstream. Along with the above-noted Volkswagen facility and the Stellantis/LGES joint venture, there have been other declarations in Ontario as well. In Eastern Ontario, not far from Kingston, Belgium-based Umicore announced a C\$1.5 billion investment in an EV battery facility last July. The Umicore plant will combine cathode active materials and precursor material manufacturing for up to one million electric vehicles a year. Then just last month, Canadian-based Magna International, one of the world's largest

automotive suppliers, <u>announced a C\$471 million investment</u>. The investment is comprised of a new C\$265 million EV battery enclosure facility in Brampton along with the expansion of Magna's existing automotive manufacturing facilities in Guelph, Windsor, Belleville, Newmarket, and Penetanguishene.

## EV batteries require minerals

On the upstream side, last September we <u>reported</u> on the LG Energy Solution ("LGES") announcement of agreements with Canadian miners to source materials required to make batteries for EVs. The first was <u>Electra Battery Materials Corporation</u> (TSXV: ELBM | NASDAQ: ELBM), a processor of battery materials, who is currently commissioning North America's only cobalt sulfate refinery located in Ontario. Electra's deal with LGES is a <u>three-year agreement</u> to supply LGES with 7,000 tonnes of battery-grade cobalt from 2023 to 2025. Within 24 hours, LGES also announced an MoU with <u>Avalon Advanced Materials Inc.</u> (TSX: AVL | OTCQB: AVLNF) to provide LGES with at least 50% of its planned initial lithium hydroxide production from its Thunder Bay facility (capacity of 15,000 tonnes per year).

## Final thoughts

Over the past two years, the province of Ontario has attracted C\$16.5 billion in investments by global automakers and suppliers of electric vehicle batteries and battery materials, excluding the latest Volkswagen announcement which we assume is at least C\$5 billion. It appears the government's 10-year plan to transform Ontario's automotive supply chain, called <a href="Driving Prosperity">Driving Prosperity</a>, is having great success. That can only mean good things for the miners and explorers of the critical materials that will be required to supply all these new facilities. It should be a great space to be looking for opportunities as an investor.