Meeting the Growing Need for a North American Battery Materials Supply Chain: Suppling the Cobalt for Your EV

Electra Battery Materials

Electra:



Is uniquely positioned to build **North America's first** fully integrated, localized and environmentally sustainable battery materials park



Has 51% lower GHGs than Chinese peers, in part owing to hydroelectric power grid



Can support primary refining and battery material recycling by leveraging existing infrastructure and equipment



Has a permitted refinery, with operating history, that can supply the EV battery market with US IRAcompliant material



Why Electra?

China dominates processing of EV battery materials, but the U.S. Inflation Reduction Act excludes EVs with Chinese or Russian material from the US\$7,500 vehicle credit.



North American Cobalt Refinery

No battery grade cobalt in North America today 37 battery plants planned for North America LGES - 5-year agreement for 80% of production

Significance

- Governments are looking to reduce the geopolitical risks by supporting development of domestic supply chains
- Technically derisked, with modular design to grow with the EV market





Business Case

Plans for 30% capacity increase in Year 3 with minimal capital expenditure

- Plant commissioned for 5,000t cobalt; crystallizer circuit sized to 6,500t
- Permit amendments to increase production takes ~12 months

Expansion plans supported by demand projections

Progress

Over the past 24 months



Received long lead items Updated lab and operations centre

Electra positioned to close the battery materials loop in North America



Year-long demonstration process has successfully proven capable of producing saleable materials from Black Mass (battery waste)

Hydrometallurgical demonstration plant featuring:

- Recovery of lithium, nickel, cobalt, manganese, and graphite
- Currently optimizing go-forward strategy
- · Hydrometallurgical process and hydroelectric power ensures low GHG emissions

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Electra has a pre-processing strategy:

- First wave of battery scrap from cell plants and manufacturing
- Joint-venture plans with Three Fires Group (TFG), a First Nations-owned investment group, with 2 battery plants on their shareholders' traditional lands



Nickel and cobalt in MHP



Lithium carbonate



The Future of Electra

Electra's growth in conjunction with the market:

- Battery-grade cobalt sulfate production, supported by LGES offtake agreement
- Efficient and environmentally friendly Black Mass hydrometallurgical refining
- No battery grade nickel refining in North America



Nickel sulfate opportunity:

- Nickel sulfate scoping study completed
- Early discussions with nickel supply chain and potential partners for battery-grade nickel sulfate
- Preliminary GHG estimates against global benchmark indicate lower carbon footprint than peers

Global battery grade sulfate capacity (2023) against planned North American battery gigafactory cobalt demand (t Co)



Bécancour:

- Strategic location in "battery valley" with strong government support
- Targeting Phase I metal dissolution line of ~2,000tpa cobalt, with Phase II of 5-10 ktpa
- 100% hydroelectric electricity supply



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