

Electra Launches Battery Materials Recycling Demonstration Plant at its Ontario Refinery Complex

Toronto, Ontario – (December 22, 2022) – **Electra Battery Materials Corporation (NASDAQ: ELBM; TSX-V: ELBM)** (“Electra”) today announced the launch of a demonstration plant designed to recover and recycle high-value elements found in lithium-ion batteries, including nickel, cobalt, lithium, copper, and graphite at its refinery complex north of Toronto.

“The launch of our black mass recycling demonstration plant caps a year filled with a number of significant achievements for Electra,” said Trent Mell, Electra’s CEO. “With the outlook for electric vehicle adoption in North America becoming increasingly bullish as a result of the recent passage of the U.S. Inflation Reduction Act and the considerable investments made by automotive companies to electrify their fleet, the need for a domestic supply of battery-grade materials supply whether through primary refining or recycling processes becomes critical.”

Mr. Mell added, “Pending completion of the demonstration plant and a review of project economics, success would pave the way towards commercialization and the buildout of a 5,000 tonne per annum black mass processing facility within our battery materials park in Ontario using existing infrastructure, personnel, and lab facility. Combined with our planned production of cobalt, nickel, and manganese sulfates, commercialization of our black mass recycling capabilities will diversify our cash flow and customer base.”

“Consistent with our timelines, our project team has done an excellent job in preparing what will be the first of its kind facility in North America to recover critical metals contained in end-of-life electric vehicle and other lithium-ion batteries,” said Mark Trevisiol, Electra’s Vice President of Project Development. “The launch of the black mass demonstration plant is indicative of Electra’s metallurgical expertise and potential of our refinery complex to address North America’s requirement for battery-grade materials.”

Electra will process up to 75 tonnes of black mass material in a batch mode using its proprietary hydrometallurgical process in the demonstration plant. Electra expects to complete the demonstration plant in Q1 2023 and will provide regular updates. Pending the successful completion of the demonstration plant, Electra will assess whether to continue processing black mass throughout 2023 with material supplied by its business partners or from third parties.

In advance of the launch of the black mass demonstration plant, Electra completed process development and engineering on recycling black mass material. Electra previously sourced black mass samples from suppliers in North America, Europe, and Asia, studied the feed characteristics, and developed a hydrometallurgical process to recover contained lithium, nickel, cobalt, manganese, copper, and graphite. The test work was conducted using the facilities of SGS Labs in Lakefield, Ontario and engineering was completed using the combined resources of Electra technical personnel, process design engineers of Hatch Associates, and mechanical and electrical engineering support by Bestech.

Electra’s battery recycling strategy is the second of a phased development plan for an integrated battery materials park in Ontario that will recycle lithium batteries, produce cobalt, nickel, and manganese sulfates from primary feeds and before supplying the battery-grade material to third-party cathode precursor manufacturers. In 2023, Electra will commission North America’s only cobalt sulfate refinery that will have an initial production capacity of 5,000 tonnes of contained cobalt per annum.

Electra's proprietary hydrometallurgical process has a low carbon footprint and produces stable non-acid generating residue, thereby reducing environmental impacts while meeting or exceeding water discharge effluent criteria as stipulated by both federal and provincial regulations.

About Electra Battery Materials

Electra is a processor of low-carbon, ethically-sourced battery materials. Currently commissioning North America's only cobalt sulfate refinery, Electra is executing a multipronged strategy focused on onshoring the electric vehicle supply chain. Keys to its strategy are integrating black mass recycling and nickel sulfate production at Electra's refinery located north of Toronto, advancing Iron Creek, its cobalt-copper exploration-stage project in the Idaho Cobalt Belt, and expanding cobalt sulfate processing into Bécancour, Quebec. For more information visit www.ElectraBMC.com.

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