Battery X Metals Announces Amended Agreement with Global Top 20 Ranked University to Accelerate Eco-Friendly Battery-Grade Material Recovery Technology

News Release Highlights:

- ***Extended Research Partnership with Global Top 20 Ranked University: Battery X Metals has amended and extended its collaboration with a global Top 20 ranked university to advance the development of its proprietary eco-friendly battery-grade material recovery technology.***

- ***Proprietary Eco-Friendly Battery-Grade Material Recovery Technology: The collaboration focuses on optimizing Battery X Metals' proprietary eco-friendly froth flotation process, a sustainable and energy-efficient method for recovering critical battery-grade materials such as graphite, lithium, nickel, and cobalt from black mass. This technology aims to enhance battery-grade material recovery while reducing environmental impact and energy consumption.***

- ***Commitment to Clean Energy Transition & Sustainability: Battery X Metals' innovative lithium-ion battery recycling technology aligns with global efforts for cleaner energy by ensuring a steady supply of critical battery materials essential for electric vehicle (EV) battery production. This eco-friendly process supports both sustainability and economic growth in the clean energy transition.***

VANCOUVER, British Columbia – September 24, 2024 – **Battery X Metals Inc. (CSE:BATX) (OTCQB:BATX) (FSE:R0W, WKN:A3EMJB)** ("**Battery X Metals**" or the "**Company**") is pleased to announce that its wholly-owned subsidiary, Battery X Recycling Technologies Inc., has entered into an amended research collaboration agreement (the "**Agreement**") with a global Top 20 ranked university (the "**University**"). As one of North America's largest and most advanced centers for mining engineering education and research, the University's Institute of Mining Engineering will collaborate to further advance the company's proprietary battery-grade material recovery technology. This Agreement, effective August 1, 2024, extends the partnership through June 30, 2025.

The Problem

The global shift toward electrification is driving the clean energy transition, with lithium-ion batteries playing a central role in reducing reliance on fossil fuels[1]. Lithium-ion battery demand is projected to surge by 670% by 2030[2], with energy storage requirements rising from 700 GWh in 2022 to 4.7 TWh[2], primarily due to EVs[2]. Regulatory initiatives, such as the US Inflation Reduction Act and Europe's "Fit for 55" program, along with the EU's 2035 ban on internal combustion engine vehicles[1], are accelerating this growth. Yet, less than 5% of lithium-ion batteries are currently recycled[3]. EVs and battery storage will make up about half of the mineral demand growth from clean energy technologies over the next 20 years, spurred by the surging demand for battery materials[4] like graphite, lithium, nickel, cobalt, manganese, and copper.

The Solution

Battery X Metals aims to address this critical need with its proprietary froth flotation technology, which is being developed to recover essential battery-grade materials, such as graphite, lithium, nickel, cobalt, manganese, and copper, from the residual material of end-of-life lithium-ion batteries, known as "black mass," a highly sought-after resource. The Company, in collaboration with the University, is working to validate this technology for the efficient recovery of graphite and oxides from black mass, with the intent to commercialize it upon successful validation.

Whereas, traditional battery recycling methods, such as hydrometallurgy and pyrometallurgy, affect graphite and metals differently. In hydrometallurgical processes, leaching agents dissolve metals like cobalt, nickel, and lithium for recovery. However, graphite, being non-metallic, is often left behind or degraded during the process, making its recovery both challenging and costly[5,6]. Additionally, hydrometallurgy can break down metal oxides into ionic forms, meaning an extra step is required to reconstitute the oxides for reuse if needed[6,7]. In pyrometallurgical processes, high-temperature smelting is employed, where graphite is burned off entirely, which makes its recovery impossible[5,8]. Moreover, pyrometallurgy reduces metal oxides to pure metal, necessitating a further oxidation step if oxide recovery is required[7,9]. While these methods efficiently recover metals such as cobalt and nickel, other valuable materials, including lithium and aluminum, are often lost in the slag, limiting their recoverability[7,8].

Battery X Metals is focused on recovering critical battery materials in a sustainable way, avoiding the use of leaching agents, smelting, or breaking down metal oxides. This approach aims to ensure the preservation and availability of essential materials, such as graphite, lithium, lithium, nickel, cobalt, manganese, and copper, for electric vehicle (EV) battery production and other clean energy applications. By bypassing the environmentally harmful impacts associated with traditional recycling methods, Battery X Metals aims to address the growing demand for lithium-ion battery materials while significantly reducing the environmental footprint and energy consumption of the recycling process.

Battery X Metals' Commitment to a Clean Energy Future

"Our ongoing collaboration with the University, one of North America’s largest and most advanced centers for mining engineering education and research, remains a cornerstone of our strategy to develop sustainable, innovative solutions for the lithium-ion battery recycling industry," said Massimo Bellini Bressi, CEO of Battery X Metals. "This amended agreement brings us closer to validating our proprietary eco-friendly technology for recovering critical battery-grade materials, contributing to the EV revolution and clean energy transition."

Collaboration Objectives & Approach

The collaboration between Battery X Metals and the University aims to develop, optimize, and validate the proprietary froth flotation process. This eco-friendly technology is designed to recover critical battery-grade materials, including graphite, lithium, nickel, cobalt, manganese, and copper, from black mass. The process aims to recover spherical graphite and preserve metals in their oxide forms, enabling their seamless reintegration into the battery manufacturing supply chain. Currently in the research and development phase at lab scale, the Company plans to provide updates on projected recovery rates and other relevant details as the research progresses. With the timing of this Agreement coinciding with the start of the school season, the Company anticipates imminent progress and will share updates accordingly.

At present, progress has been made in the research of black mass recycling. Key methodologies, such as particle size distribution (PSD), Zeta potential, and flotation tests, have been conducted on multiple black mass samples provided by Battery X Metals throughout the duration of the study and revealed distinct behaviors, with one sample exhibiting favorable characteristics for larger-scale processing. The research underscores the importance of particle behavior and surface chemistry in optimizing recycling processes, with ongoing refinement of flotation techniques using different collectors.

The University's research team aims to further enhance the technology development by conducting individual flotation tests on each component to further refine the separation process, leveraging the insights from Zeta potential measurements.

This partnership underscores the potential for continuous innovation in sustainable battery material recovery processes, contributing to both environmental sustainability and the broader clean energy transition.

Payment and Intellectual Property Terms

As part of the Agreement, Battery X Metals will provide a total of CAD $56,350 in payments, distributed in three installments to support the continued research:

- CAD $20,000 upon signing the amendment (already paid)
- CAD $20,000 by September 1, 2024 (already paid)
- CAD $16,350 by October 1, 2024

Under the Agreement, and upon receipt of payments above, Battery X Metals retains a non-exclusive, non-transferable, royalty-free license to use any joint intellectual property developed during the collaboration. In addition, Battery X and the University grant the other a reciprocal non-exclusive, non-transferable, royalty-free license to use and exploit the intellectual property developed by the other party during the contract period in the performance of the project for any commercial or non-commercial purposes.

1 EnergyX

2 McKinsey & Company

3 CAS

4 Mining Review Africa

5 MDPI (1)

6 MDPI (2)

7 MDPI (3)

8 MDPI (4)

9 MDPI (5)

About Battery X Metals Inc.

Battery X Metals Inc. (CSE:BATX) (OTCQB:BATXF) (FSE:R0W, WKN:A3EMJB) is committed to advancing North America's clean energy transition through the development of proprietary technologies and domestic battery and critical metal resource exploration. The Company focuses on extending the lifespan of electric vehicle (EV) batteries, through its portfolio company, LIBRT[1], recovering battery grade metals

from end-of-life lithium-ion batteries, and exploring domestic battery and critical metals resources. For more information, visit batteryxmetals.com.

1 49% owned Portfolio Company

On Behalf of the Board of Directors

Massimo Bellini Bressi, Director

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This news release includes certain statements and information that may constitute forward-looking information within the meaning of applicable Canadian securities laws. Forward-looking statements relate to future events or future performance and reflect the expectations or beliefs of management of the Company regarding future events. Generally, forward-looking statements and information can be identified by the use of forward-looking terminology such as "intends," "anticipates," or "believes," or variations of such words and phrases, or statements that certain actions, events, or results "may," "could," "should," "would," or "occur." These statements and information are not historical facts but reflect the Company's current beliefs, expectations, or intentions regarding future events. Forward-looking information in this news release includes, among other things, statements regarding the development and commercialization of Battery X Metals' proprietary froth flotation technology, the potential of the technology in the lithium-ion battery and mining industries, and the expected benefits of the extended research collaboration. In making the forward-looking statements in this release, the Company has applied several material assumptions, including but not limited to, the assumption that the Company will meet its development and commercialization goals, the continued support from research and industry partners, and the ability of the Company to finance its operations. Although management believes that the expectations and assumptions on which such forward-looking statements are based are reasonable, undue reliance should not be placed on these forward-looking statements and information as there can be no assurance that they will prove to be accurate. Actual results may differ materially from those expressed or implied in such statements. The Company does not undertake any obligation to update forward-looking information, except as required by applicable securities laws.