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Aqua Metals Achieves Major Milestone in Recycled Battery Materials: First U.S.-Sourced Nickel Integrated into Domestic CAM for Testing by a Tier-One Battery Manufacturer

RENO, Nev., March 05, 2025 (GLOBE NEWSWIRE) -- Aqua Metals, Inc. (NASDAQ: AQMS), a pioneer in sustainable lithium-ion battery recycling, has worked with leading industry partners to successfully produce the first-ever cathode active material (CAM) made from 100% domestically sourced, recycled nickel. This achievement represents a critical step toward establishing a cleaner, more secure domestic battery supply chain in the U.S.

Using its proprietary AquaRefining™ process, Aqua Metals recovered high-purity nickel from spent lithium-ion batteries and battery manufacturing scrap. Aqua Metals refined that recycled nickel into battery-grade nickel nitrate, a key precursor in advanced cathode production. One of Aqua Metals' domestic CAM manufacturing partners then utilized an innovative, low-carbon process to convert the nickel nitrate material into battery-grade CAM. This CAM is currently undergoing evaluation by a tier-one lithium battery manufacturer under established qualification protocols, and initial testing was positive and the samples are progressing through the validation process.

Validating Recycled Minerals in Battery Manufacturing

Initial testing has shown that the recycled nickel CAM meets industry-standard chemical and electrochemical specifications set by the battery manufacturer, ensuring compatibility with existing cell production processes. Additional qualification testing will be ongoing to validate long-term performance metrics.

Aqua Metals' and its U.S.-based partner's closed-loop production process reduces the carbon footprint of CAM manufacturing by an estimated 87% versus sourcing this critical resource from China. These results support the environmental and economic advantages of a domestic, sustainable battery materials supply chain.

"This milestone confirms that Aqua Metals' technology enables the reclamation and reuse of critical minerals entirely within the United States, supporting both energy security and the clean energy economy," said Steve Cotton, President & CEO of Aqua Metals. "We have demonstrated that a circular supply chain for battery materials is commercially viable today, and we are committed to scaling this solution to meet the growing demand for sustainable, high-performance battery components."

Onshoring Critical Battery Materials for U.S. Competitiveness

The U.S. lithium battery industry is projected to surpass 1.2TWh of annual cell production capacity by 2030, yet much of the necessary raw materials—especially nickel, cobalt, and manganese—are still imported. Establishing a domestic, circular supply chain for these materials is essential to reducing dependence on foreign sources, mitigating supply chain disruptions, and supporting the sustainability goals of automakers and battery manufacturers.

This effort also aligns with the growing demand for Inflation Reduction Act (IRA)-compliant battery materials, ensuring domestically produced CAM qualifies for federal incentives and strengthens America's role in the global energy transition.

Advancing Sustainable CAM Production with Lower Carbon and Waste

Aqua Metals' AquaRefining™ process eliminates the waste and emissions associated with conventional metal refining methods such as smelting and chemical-intensive hydrometallurgy. The CAM manufacturer involved in this milestone uses a low-carbon, waste-reducing process that eliminates sodium sulfate production, a major environmental burden of traditional CAM manufacturing. Aqua Metals and this manufacturer have established a collaborative framework to continue advancing sustainable CAM production.

By demonstrating a pathway to high-performance CAM with lower costs, reduced waste, and a dramatically smaller environmental footprint, this collaboration provides a scalable model for the future of battery material production.

A Step Toward a Sustainable and Secure Battery Future

The successful production and testing of recycled nickel-based CAM lays the groundwork for further expansion of U.S.-based battery recycling and material production. Aqua Metals remains committed to working with manufacturers to develop a secure, sustainable supply of domestically sourced battery materials, reinforcing its leadership in clean energy innovation.

About Aqua Metals

Aqua Metals, Inc. (NASDAQ: AQMS) is reinventing metals recycling with its patented AquaRefining™ technology. The Company is pioneering a sustainable recycling solution for materials strategic to energy storage and electric vehicle manufacturing supply chains. AquaRefining™ is a low-emissions, closed-loop recycling technology that replaces polluting furnaces and hazardous chemicals with electricity-powered electroplating to recover valuable metals and materials from spent batteries with higher purity, lower emissions, and minimal waste. Aqua Metals is based in Reno, NV and operates the first sustainable lithium battery recycling facility at the Company's Innovation Center in the Tahoe-Reno Industrial Center. To learn more, please visit www.aquametals.com.

Aqua Metals Social Media

Aqua Metals has used, and intends to continue using, its investor relations website (<https://ir.aquametals.com>), in addition to its Twitter, Threads, LinkedIn and YouTube accounts at <https://twitter.com/AquaMetalsInc> (@AquaMetalsInc), <https://www.threads.net/@aquametalsinc> (@aquametalsinc), <https://www.linkedin.com/company/aqua-metals-limited> and

<https://www.youtube.com/@AquaMetals> respectively, as means of disclosing material non-public information and for complying with its disclosure obligations under Regulation FD.

Safe Harbor

This press release contains forward-looking statements concerning Aqua Metals, Inc. Forward-looking statements include, but are not limited to, our plans, objectives, expectations, and intentions and other statements that contain words such as "expects," "contemplates," "anticipates," "plans," "intends," "believes", "estimates", "potential" and variations of such words or similar expressions that convey the uncertainty of future events or outcomes, or that do not relate to historical matters. The forward-looking statements in this press release include our expectations for our continued participation in the production of CAM made from 100% domestically sourced, recycled nickel and the expected benefits from that participation. Those forward-looking statements involve known and unknown risks, uncertainties, and other factors that could cause actual results to differ materially, including, but not limited to, (1) the risk that we do not have any definitive agreements with CAM manufacturers to provide them with recycled nickel from our AquaRefining process; (2) the risk we may not be able to successfully acquire the funding necessary to develop our Sierra ARC facility required to produce recycled nickel in commercial quantities, (3) even if we are to able acquire the necessary funding, the risk we may not be able to successfully develop the Sierra ARC facility or realize the expected benefits from such facility; (4) the risk that we may not be able to acquire the funding necessary to maintain our current level of operations; and (4) those risks disclosed in the section "Risk Factors" included in our Annual Report on Form 10-K filed on March 28, 2024. Aqua Metals cautions readers not to place undue reliance on any forward-looking statements. The Company does not undertake and specifically disclaims any obligation to update or revise such statements to reflect new circumstances or unanticipated events as they occur, except as required by law.

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