January 27, 2021

Aqua Metals Submits Provisional Patent for New Capability Streamlining Link from AquaRefining to Battery Manufacturing

Expected to Create Key Active Battery Material Directly from AquaRefining

Process Intended to Generate Savings While Further Improving Environmental Impact

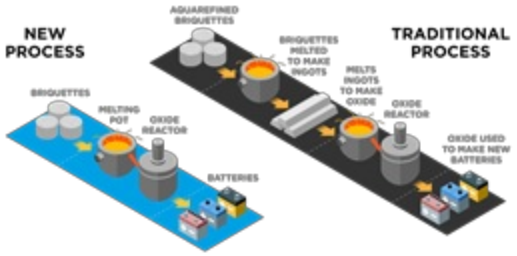
MCCARRAN, Nev., Jan. 27, 2021 (GLOBE NEWSWIRE) -- Aqua Metals, Inc. (NASDAQ: AQMS) ("Aqua Metals" or the "Company"), which is reinventing lead recycling with its AquaRefining™ technology, announced today that initial testing of a new methodology for producing battery manufacturing ready active material directly from the AquaRefining process has demonstrated promising results. A provisional patent has been filed to protect the new process, which is expected to provide added economic and environmental benefits for AquaRefining licensees.

The active material, lead oxide, is the key ingredient used in a battery and comprises over half of a battery's lead content. The traditional method utilized to produce oxide for lead batteries is a four-step process: (1) smelting lead recovered from used batteries or AquaRefining into lead briquettes; (2) refining that lead to the proper purity; (3) casting the lead into ingots and (4) remelting those ingots to be placed in an oxide reactor for oxide manufacturing. Aqua Metals' innovative approach would help the $65 billion lead acid battery industry bypass steps 2 and 3 (refining and ingoting), resulting in significant savings in time, money and emissions as the AquaRefined lead briquettes would transition directly to the melting stage at the oxide manufacturer.

"Because AquaRefining achieves such high purity (currently 99.996+%), it provides the opportunity to bypass the refining stage and take briquetted AquaRefined lead directly to the battery manufacturing process," said Steve Cotton, President and CEO of Aqua Metals. "Bypassing the refining and ingoting steps would enable recyclers that license and deploy AquaRefining equipment to reduce costs from labor and processing time as well as reduce the environmental impact of recycling and manufacturing new batteries. By helping to efficiently bridge this resource-intensive gap between the battery recycling and the battery manufacturing processes, our new capability can potentially bring additional environmental and cost benefits for our future customers."

"Aqua Metals worked with a well-established lead oxide manufacturer for testing. Results from our initial production are very promising and we are engaged in ongoing R&D for this new, innovative process," Cotton added. "A provisional patent has been filed for this procedure and we have already engaged in discussions with some of our potential licensees for AquaRefining to consider utilizing this transformative process. We expect this development to be a very attractive added benefit, both to battery recyclers and manufacturers."

Figure 1



New process illustrates reduced processing and materials handling that results in reduction in resources and cost for recyclers and battery manufacturers.
https://www.globenewswire.com/NewsRoom/AttachmentNg/5f2496c8-53e4-4c49-9a48-091afc3fa665

Figure 2

Ultrapure spongy metal from the AquaRefining electrolyzers are then compressed into briquettes which the Company believes can now go directly to new battery manufacturing.
https://www.globenewswire.com/NewsRoom/AttachmentNg/516964b5-c21a-4d63-af9a-12ac120bcc01

Aqua Metals Webcast

Aqua Metals will host a webcast today, January 27, 2021 at 2:00 p.m. EST (11:00 a.m. PST). Company management will discuss today's news and the BASF partnership announced on January 25, 2021. In addition, a comprehensive Company update will be provided. To access the webcast or to ask questions during the live event, please pre-register at the following link: https://event.webcasts.com/starthere.jsp?ei=1418041&tp_key=15848c88f4. An archived version of the webcast and presentation will be available on the investor relations section of the Company's website (https://ir.aquametals.com/ir-calendar) following the event.

About Aqua Metals

Aqua Metals, Inc. (NASDAQ: AQMS) is reinventing lead recycling with its patented AquaRefining™ technology. Unlike smelting, AquaRefining is a room temperature, water-based process that emits less pollution. The modular systems are intended to allow the Company to vastly reduce environmental impact and scale lead acid battery recycling production capacity by supplying equipment, services and licensing the AquaRefining technology to partners. This could help meet the growing demand for lead to power new applications including stop/start automobile batteries which complement the vehicle's main

battery, lead acid batteries which are in electric vehicles, Internet data centers, alternative energy applications including solar, wind, and grid scale storage. Aqua Metals is based in McCarran, Nevada. To learn more, please visit www.aquametals.com.

Aqua Metals has used, and intends to continue using, its investor relations website (https://ir.aquametals.com), in addition to its Twitter, LinkedIn and YouTube accounts at https://twitter.com/AquaMetalsInc (@AquaMatalsInc), https://www.linkedin.com/company/aq metals-limited and https://www.youtube.com/channel/UCvxKNWcB69K0t7e337uQ8nQ 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 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 the benefits of our new methodology for producing battery manufacturing ready active material and the future of lead acid battery recycling via traditional smelters. Those forward-looking statements involve known and unknown risks, uncertainties and other factors that could cause actual results to differ materially. Among those factors are: (1) the risk that we may not complete the development of our new methodology for producing battery manufacturing ready active material, (2) the risk that we may not realize the expected benefits from the new methodology; (3) the risk that we may not be able to satisfactorily demonstrate to potential licensees the technical and commercial viability of our V1.25 electrolyzer and AquaRefining process; (4) the risk that licensees may refuse or be slow to adopt our AquaRefining process as an alternative to smelting in spite of the perceived benefits of AquaRefining; (5) the risk that we may not realize the expected economic benefits from any licenses we may enter into; (6) the risk that we may not be able to access additional capital as and when needed; (7) the fact that we have not generated any significant revenue to date, thus subjecting us to all of the risks inherent in an early-stage company; (8) the risk that our patents and any other patents that may be issued may be challenged, invalidated, or circumvented; (9) changes in the federal, state and foreign laws regulating the recycling of lead acid batteries; (10) our ability to protect our proprietary technology, trade secrets and know-how and (11) those other risks disclosed in the section "Risk Factors" included in our Quarterly Report on Form 10-Q filed on October 22, 2020 and subsequent SEC filings. 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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Source: Aqua Metals