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Aqua Metals Achieves Significant Improvements to its Sustainability Focused Battery Recycling Technology

Completion of V1.25L Electrolyzer Program results in Doubling AquaRefining Throughput, Improving Equipment and Operating Costs for Licensees, and the Potential Economics to Aqua Metals

MCCARRAN, Nev., Dec. 28, 2020 (GLOBE NEWSWIRE) -- Aqua Metals, Inc. (NASDAQ: AQMS) ("Aqua Metals" or the "Company"), which is reinventing lead recycling with its AquaRefining™ technology, announced it has completed its V1.25L electrolyzer program on time and under budget, achieving lead production that is 100% greater compared to the V1.0 electrolyzer deployed at the AquaRefinery during commercial production in 2018 and 2019. The Company previously guided a 20% increase of throughput, yet the V.125L electrolyzer surpassed that guidance by 500%. The V1.25L program concluded with a multi-day 24/7 endurance run that ended on December 24th.

These results should positively impact capital and operating expenses for our future equipment supply and licensee customers. The doubling of throughput results in a 50% reduction in the number of electrolyzers needed for equivalent lead production. V1.25L also has a lower build cost and reduced assembly time compared to the V1.0 electrolyzer, which correlates to a 50% decrease in capital expenditures for Aqua Metals equipment installations. In addition, electrolyzer operating expenses have been reduced by greater than 60% compared to the V1.0 electrolyzer, with the combined impact of improvements in automation and increased throughput. The current design has a single button start and stop functionality with no manual interaction required during operation, along with automated maintenance capability. The 60% reduction in operating expenses and 50% reduction in capital expenditures greatly exceeds the targets that were set in early 2020.

"We are very pleased with the results of the V1.25L program which was completed on schedule and under budget," said Steve Cotton, President and CEO of Aqua Metals. "The results give us the ability to communicate a greater value proposition to future customers and should positively impact our economics of equipment supply and licensing agreements. We chose to focus our 2020 efforts on product improvement in support of accelerating our strategic shift to an equipment plus services supplier and a licensor of our technology. We believe the improvements realized with V1.25L position us quite well as product ready in the ongoing discussions we've been having with recyclers all over the globe."

"I am extremely proud of the Aqua Metals team," Cotton added. "Our dedicated staff has performed beyond expectations. The economic improvements to AquaRefining that we achieved strengthens our position tremendously to help the lead battery industry go greener and safer. Cleaner recycling makes lead batteries a truly sustainable solution for an energy

storage market that is becoming an increasingly critical part of the fast-developing sustainable energy-based economy."

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/aqua-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 the V1.25 electrolyzer; 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 realize the expected benefits from our V1.25 electrolyzer; (2) the risk that our insurance recovery from our claims relating to the November 2019 fire at our TRIC facility and proceeds from the sale of legacy assets will not be sufficient to fund our accelerated licensing strategy; (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 will have to engage in additional sales of our equity securities in order to fund our future operations; (7) the risk that further funding, by any means, may not be available at all; (8) 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; (9) the risk that our patents and any other patents that may be issued may be challenged, invalidated, or circumvented; (10) the risk that we may not be able to

successfully conclude our proposed joint development agreement with Clarios or, if we do, realize the expected benefits of such agreement; (11) changes in the federal, state and foreign laws regulating the recycling of lead acid batteries; (12) our ability to protect our proprietary technology, trade secrets and know-how and (13) 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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