AQUA METALS

# LEADING A REVOLUTION

IN CLEAN METALS & BATTERY RECYCLING

NASDAQ: AQMS

**2025**

# DISCLAIMER

This presentation 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 pilot recycling plant, our ability to recycle lithium-ion batteries and the expected benefits of recycling lithium-ion batteries. 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 be able to acquire the funding necessary to develop our recently acquired five-acre campus; (2) the risk that we may not be able to develop the recycling facility on the five-acre campus within the expected time or at all; (3) even if we are able to develop the recycling facility, the risk that we may not realize the expected benefits; (4) the risk that licensees may refuse or be slow to adopt our AquaRefining process as an alternative 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; and (6) those other risks disclosed in the section "Risk Factors" included in the company's Annual Reports of Form 10-K. 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.

# INVESTOR HIGHLIGHTS

## Patented recycling solution that has the potential to deliver the best economics and lowest environmental impact

### SURGING DEMAND

EVs, mobile devices, solar storage, everything uses batteries, and demand is rapidly growing.

### BATTERY COMPONENT DEFICIT

Aqua Metals is building the necessary infrastructure to electrify the economy – and Asia is leading the race.

### ENVIRONMENTAL DISASTER

Legacy recycling methods are dirty, hazardous, and inefficient. Current lithium-ion recycling produces far more carbon pollution and landfill waste than valuable material recovered.

- Innovative solution with operational pilot proving technology, and plans for commercial-scale campus
- Massive and growing global addressable market
- Greenfield opportunity for partnerships and strategic alliances
- Strong IP protection: 73 global patents; 43 patents pending
- Adaptable business models (build & operate, joint venture, license)
- Li AquaRefining has the pathway to net-zero operations
- AquaRefining recovers all valuable materials, including Lithium Carbonate or Hydroxide, which are not recovered by competing methods

# A PIONEER IN SUSTAINABLE LITHIUM BATTERY RECYCLING

## ESSENTIAL FOR CLEAN ENERGY:
Pioneering the first sustainable lithium battery recycling technology, vital for the energy transition and clean energy economy.

## RAPID MARKET GROWTH:
Company is positioned to capitalize on the booming domestic battery manufacturing and growing EV sales, which are growing demand for battery materials and recycling operations.

## INNOVATIVE TECHNOLOGY:
Proven at pilot scale, the first commercial-scale recycling facility using our groundbreaking AquaRefining™ process is underway – targeting production in 2025.

## MARKET POTENTIAL:
Over 1.2TWh of battery manufacturing expected in North America alone by 2030, driving immense growth opportunities to recycle from and supply to domestic manufacturing.

## CLOSED-LOOP ECOSYSTEM:
Partnering with leading companies in battery manufacturing and materials to produce low-carbon, incentive-eligible battery metals domestically for the first time.

# RAPID EXPANSION OF NORTH AMERICAN BATTERY INDUSTRY

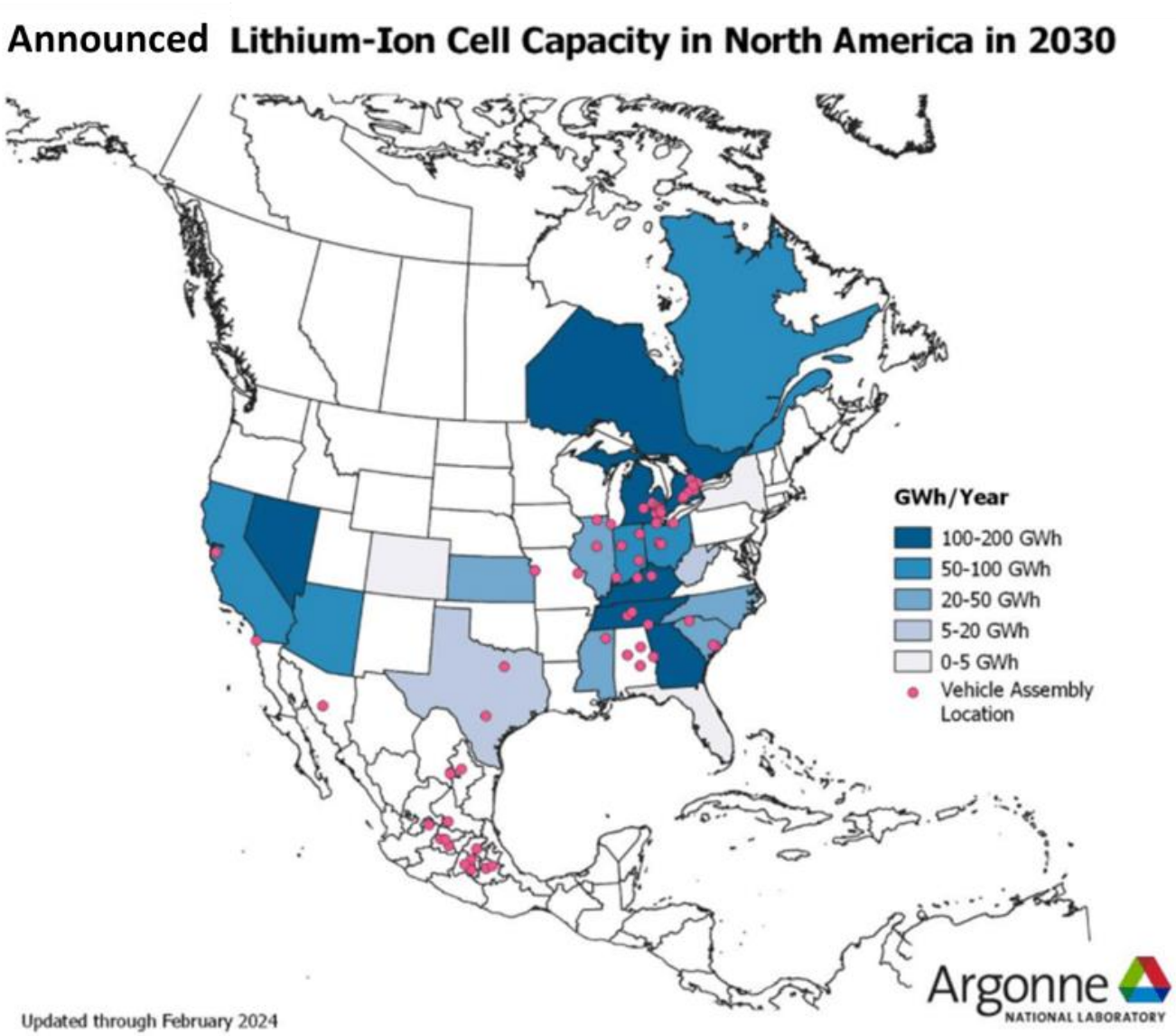
## BY 2030…

US alone is projected to have nearly 1.2 terawatt hour of lithium battery cell manufacturing.

- Enough for 16M electric vehicles each year
- $92B total investment and counting
- 80+ processing & manufacturing facilities

Supply chain for lithium batteries is growing rapidly throughout North America.

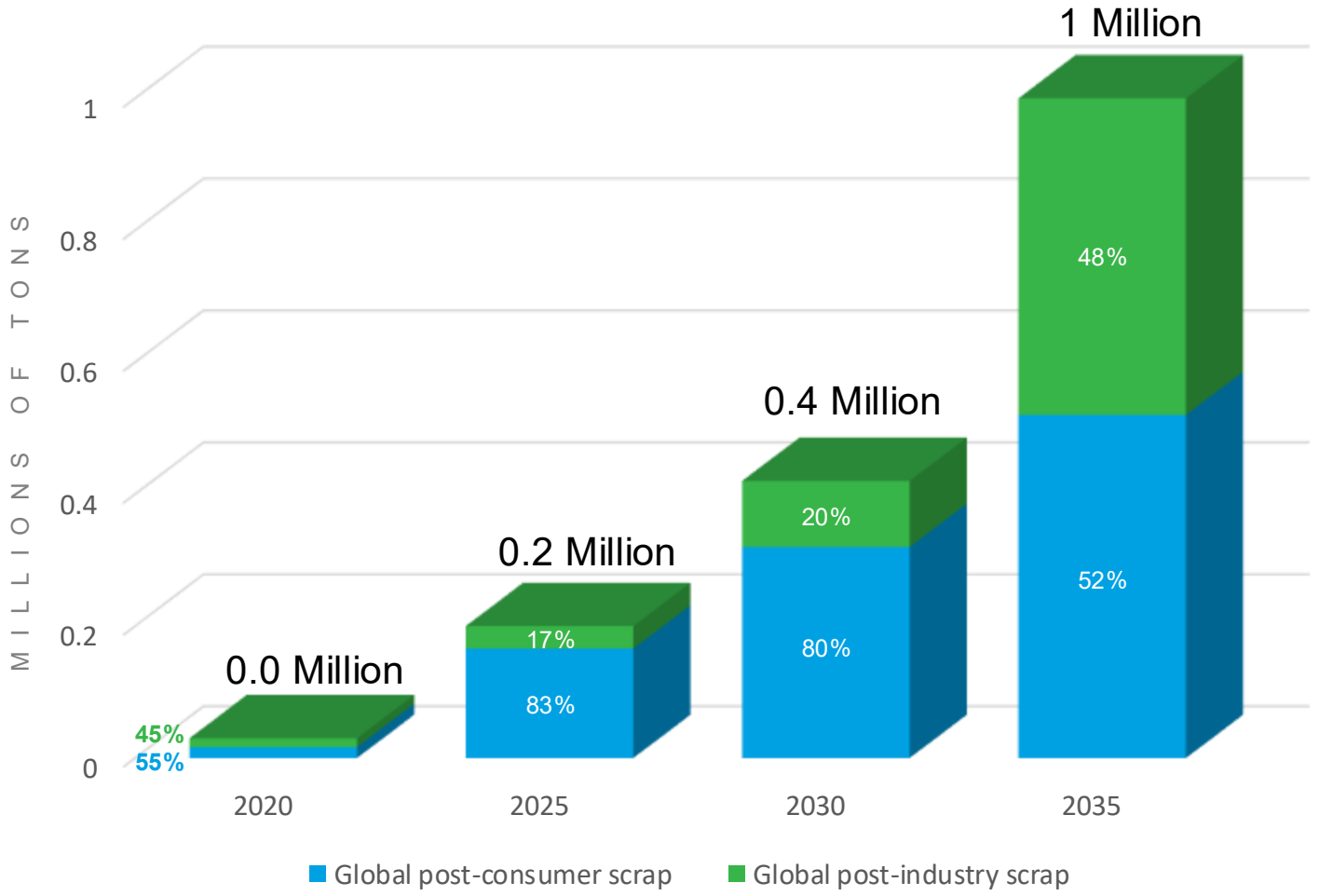
- Creating immense demand for critical minerals
- Requiring significant new battery EOL and recycling infrastructure
- This planned build out will produce more material for recycling than processing capacity.



# END-OF-LIFE + MANUFACTURING SCRAP GROWING RAPIDLY

**Nearly one million tons of cumulative scrap will be available from our supply chains 2025-2030.**

Total cathode material supply per scrap origin, 2025-2036 in millions tons.


DATA FROM BOSTON CONSULTING GROUP

# THE NEXT GENERATION RECYCLING PROCESS

**REPLACES FURNACES AND HEAVY CHEMICAL USE** with 100% electricity-powered and closed-loop recycling, creating fundamentally non-polluting, cost-efficient solution that generates minimal waste

**PROVEN PILOT OPERATIONS** Demonstrated effective and efficient performance for AquaRefining at Pilot scale

**STRONG IP PROTECTION:** 73 global patents 43 patents pending

**RECOVERS THE HIGH-VALUE METALS** lost in smelting (like lithium and manganese), and produces high purity products

**SAFER WORK ENVIRONMENT:** less hazardous materials, eliminates constant trainloads of chemicals

**THE ONLY RECYCLING PROCESS THAT:** Produces lithium hydroxide directly (or Li2CO3), reclaims high purity metals (not salts), regenerates chemicals used in closed-loop system, and has a clear pathway to net-zero operations

# LEGACY RECYCLING PROCESSES NOT SUSTAINABLE

## Furnaces and trainloads of chemicals are not clean or profitable solutions

### PYROMETALLURGY

Energy intensive, fossil-fuel powered

- Furnaces incinerate & oxidize valuable materials (even electric)
- Creates slag and alloys needing further refining
- Requires additional steps to salvage lithium, manganese, graphite

### HYDROMETALLURGY

Chemical intensive, embedded emissions

- Trainloads of consumable chemicals required (i.e., NaOH, H2O2)
- Embedded emissions from chemicals production & transport
- More sodium sulfate & other waste than valuable material recovered

Smelting process for LiB recycling

Chemical storage for hydromet

Massive crystallizer for Na2SO4 waste

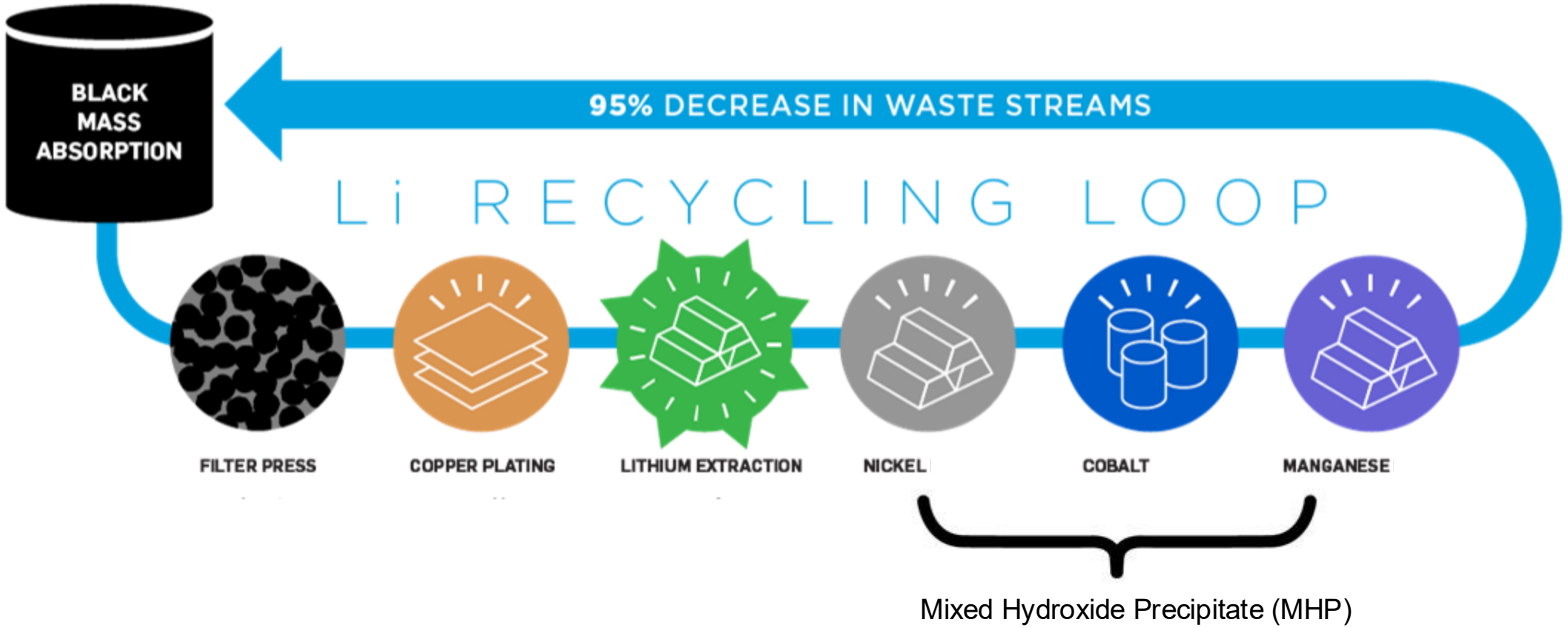
# Sierra ARC – Lithium Carbonate & MHP Production

## To scale rapidly, Aqua Metals will produce battery-grade lithium and MHP for growing markets

99% less CO2 than pyro or mining and no polluting furnaces

95% less chemicals than hydro, regenerative process lowers costs and emissions

recovery rate of all valuable metals, including battery-grade lithium carbonate and mixed hydroxide precipitate (MHP)



# GAME CHANGING ENVIRONMENTAL & ECONOMIC PERFORMANCE

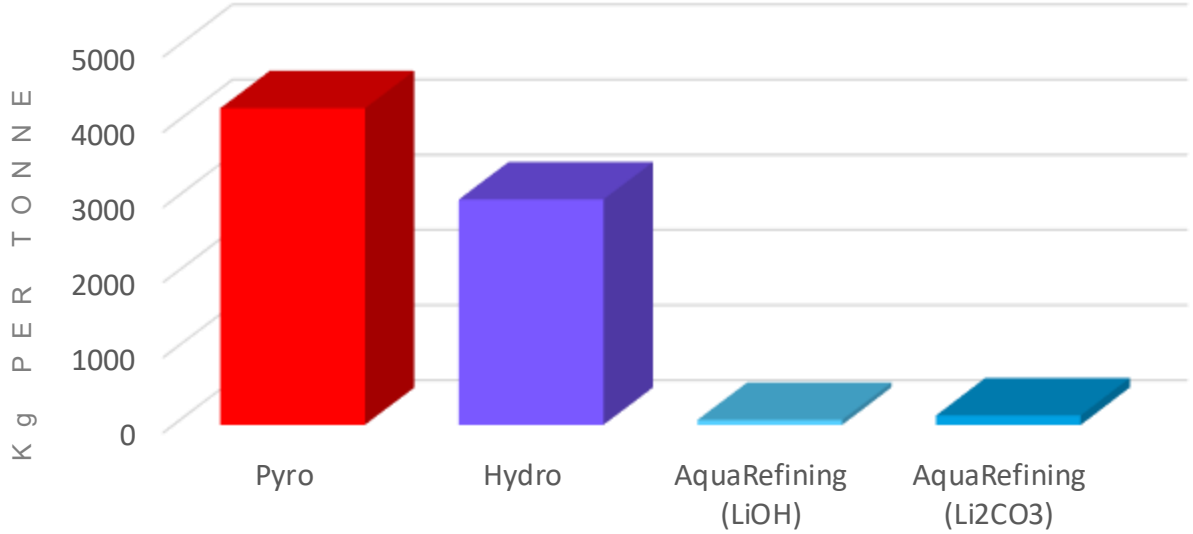
## Electrifying lithium battery recycling to reduce emissions and waste

Aqua Metals' Li AquaRefining technology uses dramatically less energy – powered by electricity, instead of fossil fuels

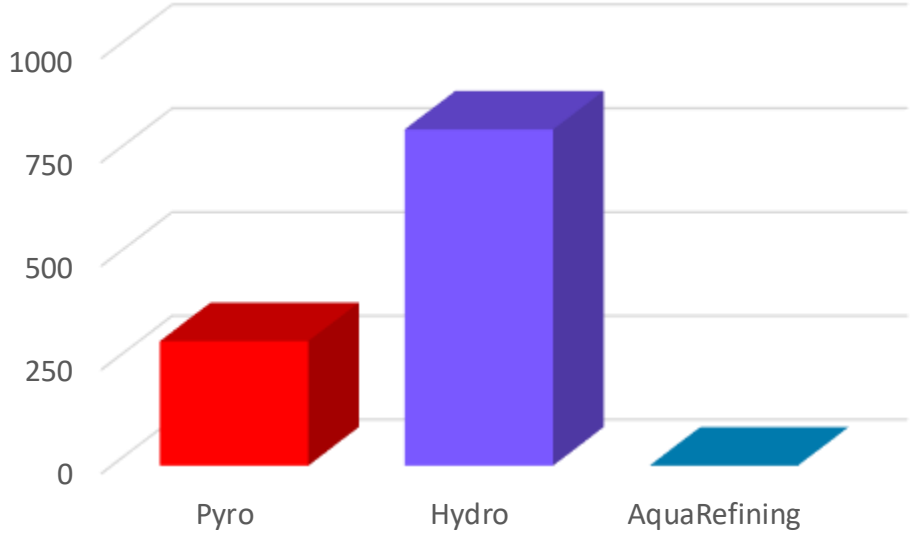
Much lower emissions per tonne recycled than pyro- and hydrometallurgical processes

AquaRefining also produces substantially less waste than competing solutions – and no sodium sulfate

### $CO_2$ PRODUCED (KG) PER TONNE BLACK MASS RECYCLED



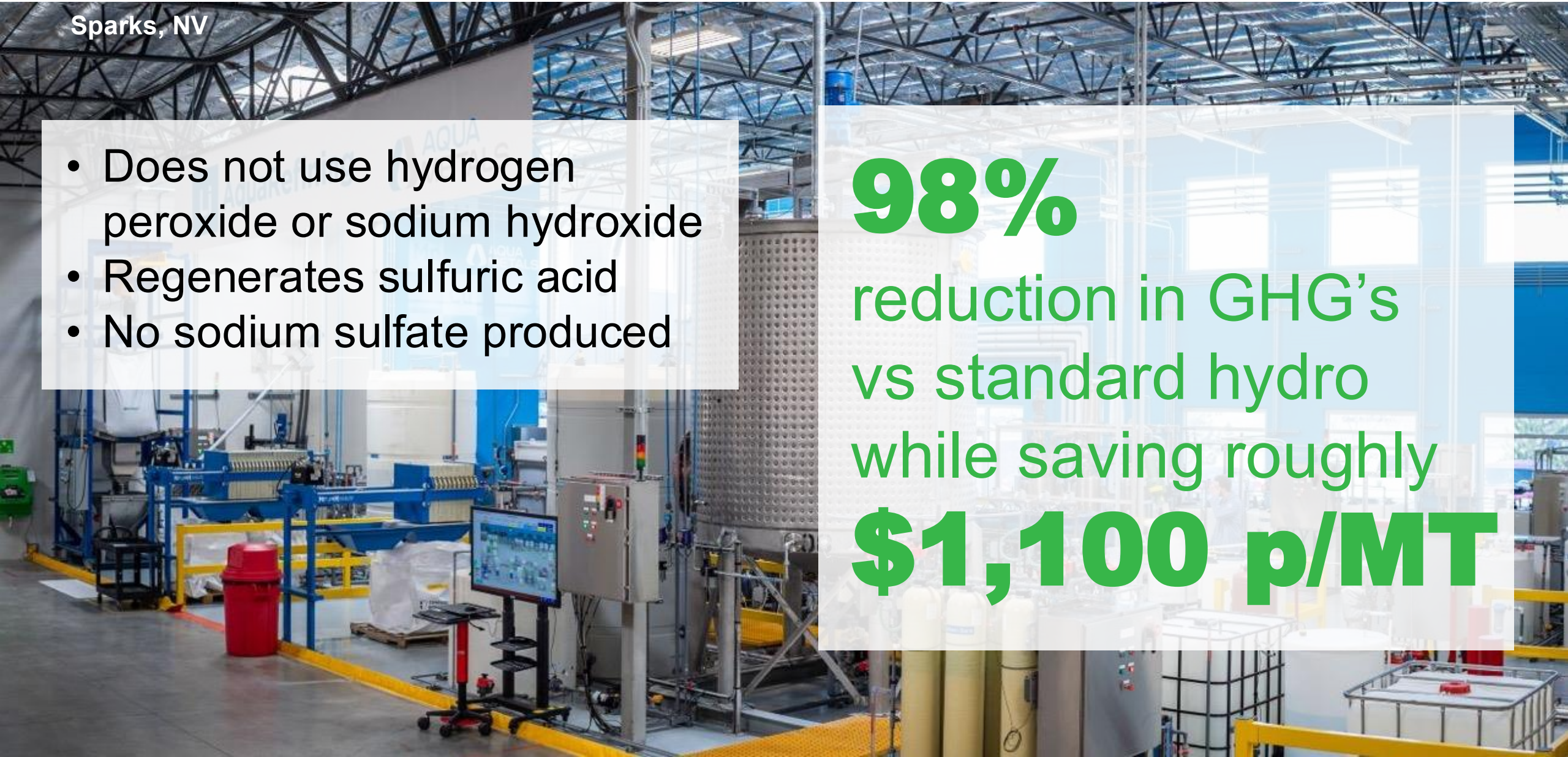

### SODIUM SULFATE (KG OF NA2SO4) PER TONNE BLACK MASS PROCCESSED




*Based on Argonne National Labs battery life-cycle model —EverBatt

# AQUAREFINING PILOT (75-100tpa)

# AQUAREFINING PILOT (75-100tpa) OPERATIONAL FOR 2 YEARS




- Does not use hydrogen peroxide or sodium hydroxide
- Regenerates sulfuric acid
- No sodium sulfate produced

**98%**

reduction in GHG's vs standard hydro while saving roughly

**$1,100 p/MT**

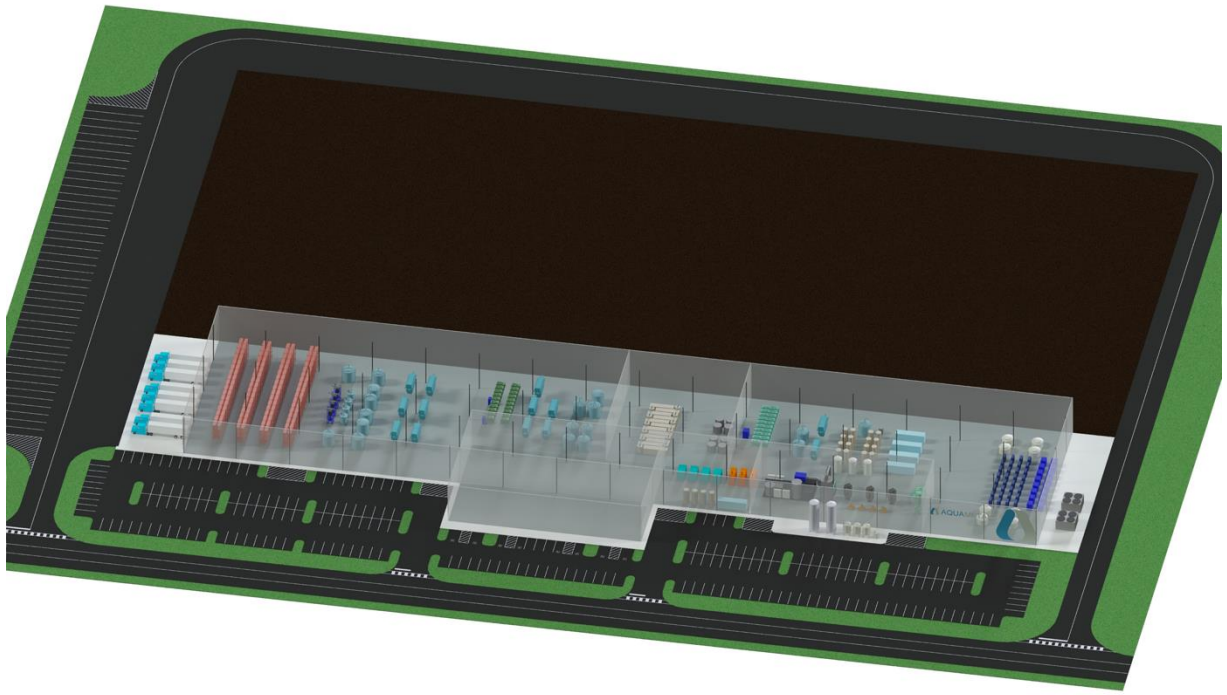
# Proven Performance: Li AquaRefining Pilot 24/7 Endurance Run

Operating first-ever Li AquaRefinery 24/7 in December 2024, demonstrating performance and throughput.

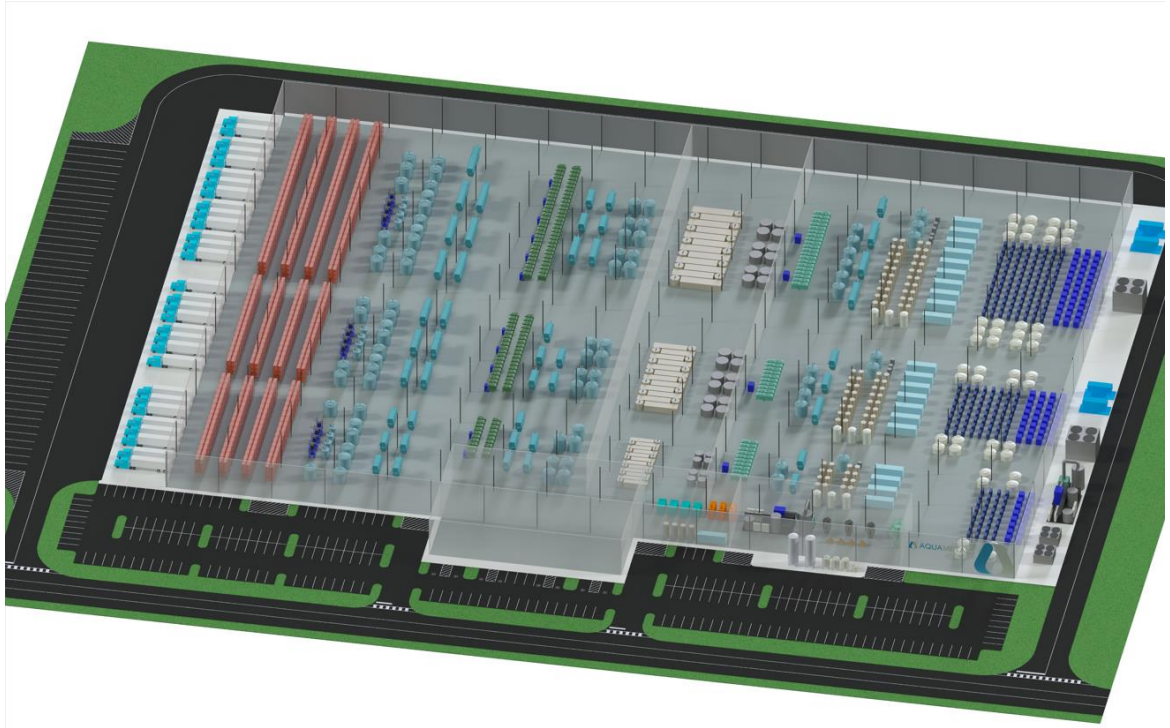
Generating lithium carbonate, nickel, cobalt, and copper from sustainable lithium battery recycling facility.

Demonstrating both the economic and environmental advantages of AquaRefining process, further proving out our innovative technology.


# EXAMPLE AQUAREFINING COMMERCIAL FACILITY



Phase 1: 10,000 MT/y



Phase 3: 60,000 MT/y

Aqua Refining modular technology allows for scaled growth and product optionality

# AquaRefining – Diverse Product Suite

Battery-grade
Lithium Carbonate

NMC Cake w/ low Al, Fe, Zn

w/ optional separation systems:

- Nickel cathodes
- Cobalt rounds
- Nickel hydroxide, carbonate or salts

# MANAGEMENT

## Steve Cotton

CHIEF EXECUTIVE OFFICER, PRESIDENT

Rejoined Aqua Metals in, 2018; Previously served as Chief Commercial Officer.

Co-founded Canara, Inc. (formerly Data Power Monitoring and IntelliBatt) in 2001; served as CEO through its sale to a private equity firm in 2012; Then served as Founder and Executive Chairman until 2014.

Led a team to commercialize Sendmail; began his career at Octel Communications through its $1.1B exit to Lucent in 1997.

## Eric West

CHIEF FINANCIAL OFFICER

Eric West was appointed Chief Financial Officer of Aqua Metals in 2025 after serving in senior finance roles since 2018.

He has guided the company through multiple stages of growth, strengthening financial reporting, streamlining controls, and supporting fundraising efforts with banks, funds, and shareholders.

A CPA, Eric previously held finance leadership roles in mining and manufacturing and began his career at Grant Thornton. He holds degrees from the University of Nevada, Reno.

## Ben Taecker

CHIEF ENGINEERING AND OPERATING OFFICER

20+ years of experience in manufacturing and operations leadership.

Spent six years in progressive leadership roles at the Johnson Controls Inc. Lead Acid Battery Recycling Center.

Experience in startups, environmental regulation compliance, process development and operational excellence.

# INVESTOR HIGHLIGHTS

## Patented recycling solution that has the potential to deliver the best economics and lowest environmental impact

### SURGING DEMAND

EVs, mobile devices, solar storage, everything uses batteries, and demand is rapidly growing.

### BATTERY COMPONENT DEFICIT

Aqua Metals is building the necessary infrastructure to electrify the economy – and Asia is leading the race.

### ENVIRONMENTAL DISASTER

Legacy recycling methods are dirty, hazardous, and inefficient. Current lithium-ion recycling produces far more carbon pollution and landfill waste than valuable material recovered.

- Innovative solution with operational pilot proving technology, and plans for commercial-scale campus
- Massive and growing global addressable market
- Greenfield opportunity for partnerships and strategic alliances
- Strong IP protection: 73 global patents; 43 patents pending
- Adaptable business models (build & operate, joint venture, license)
- Li AquaRefining has the pathway to net-zero operations
- AquaRefining recovers all valuable materials, including Lithium Carbonate or Hydroxide, which are not recovered by competing methods


NASDAQ: AQMS

**WWW.AQUAMETALS.COM**