AQUA METALS

LEADING A REVOLUTION

IN CLEAN METALS & BATTERY RECYCLING

NASDAQ: AQMS

March 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

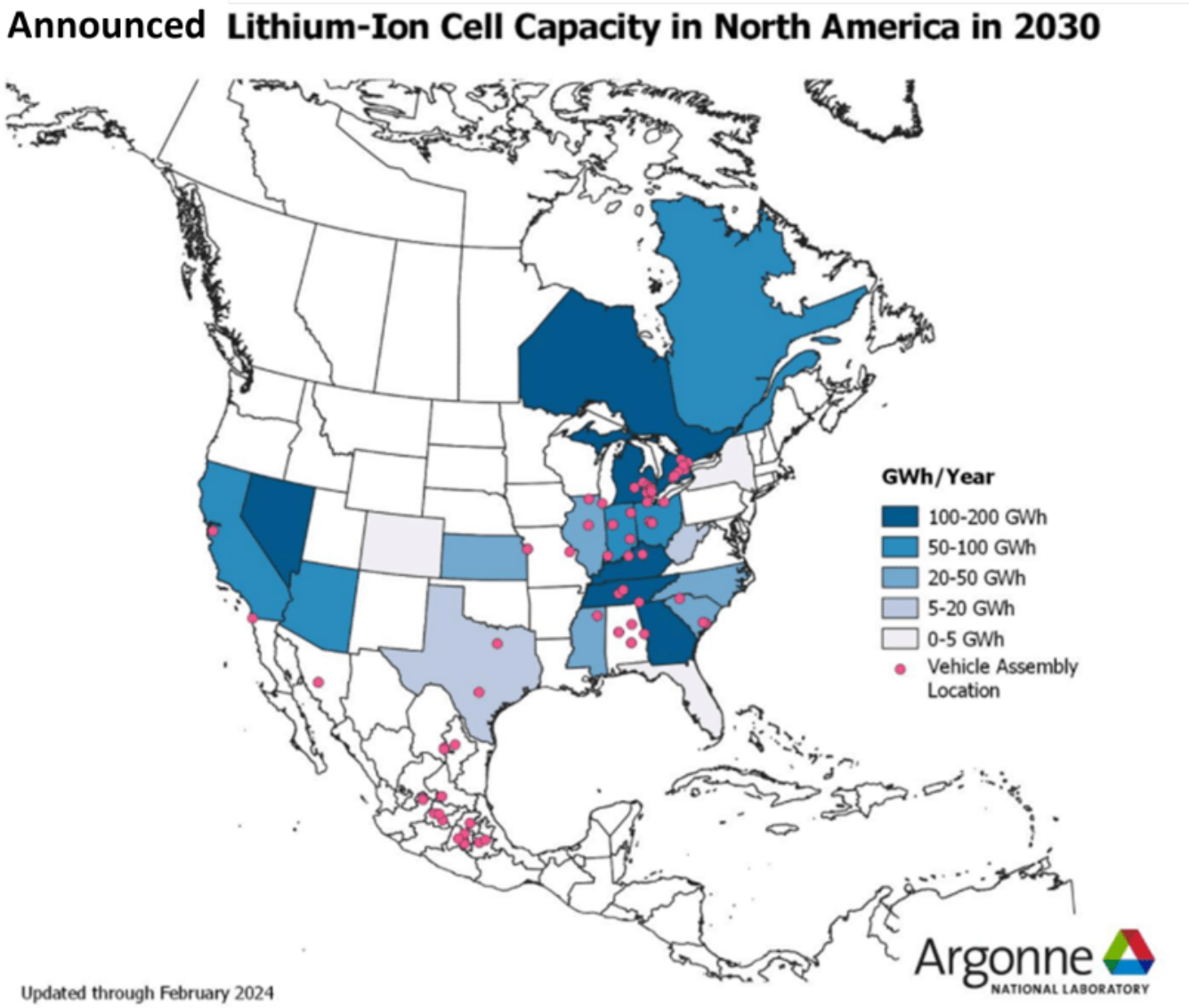
BY 2030…

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.

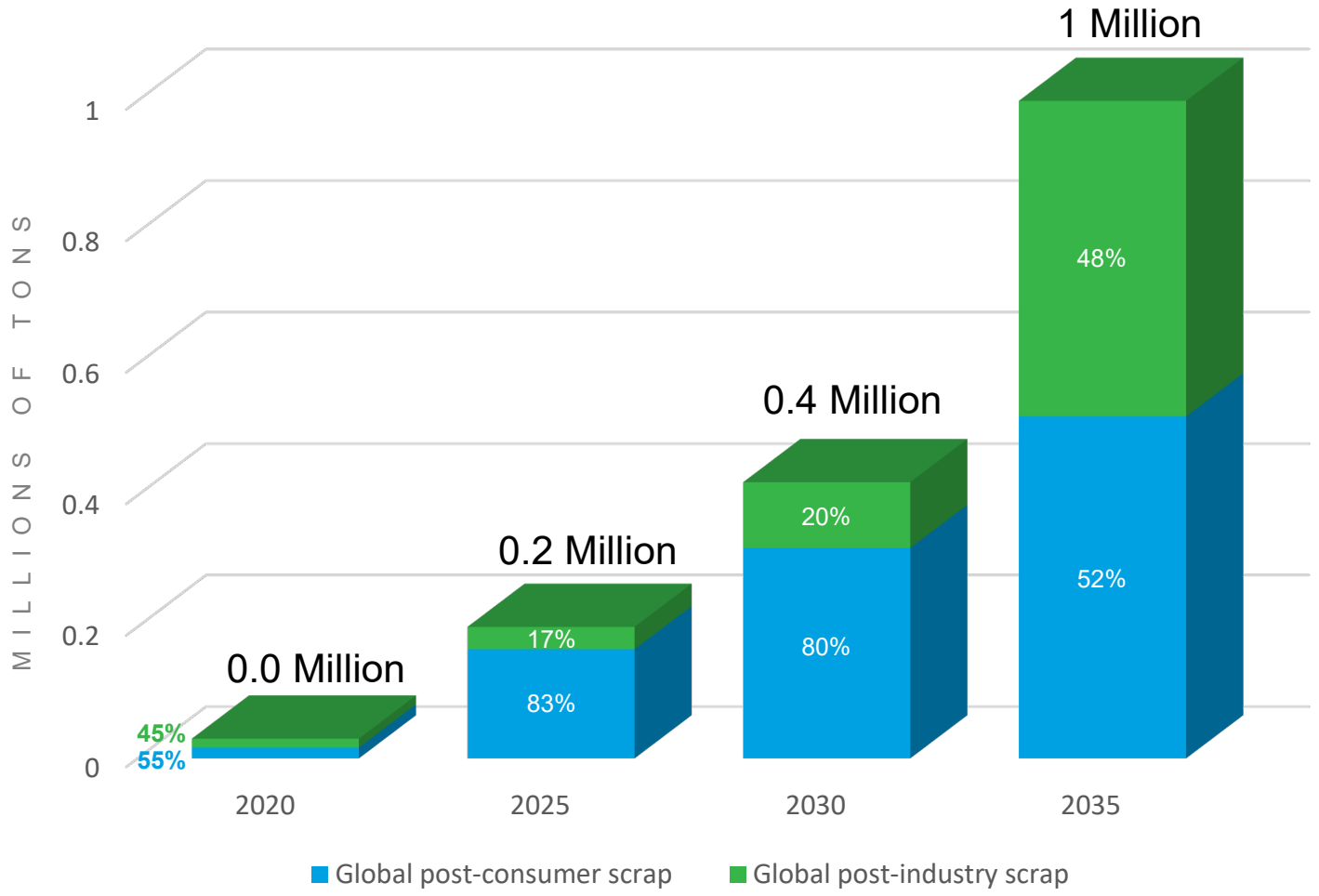
- Creating immense demand for critical minerals
- Requiring significant new battery EOL and recycling infrastructure
- This planned build out will produce more material for recycling than processing capacity



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 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

CURRENT LIB RECYCLING TECHNOLOGY COMPARISON

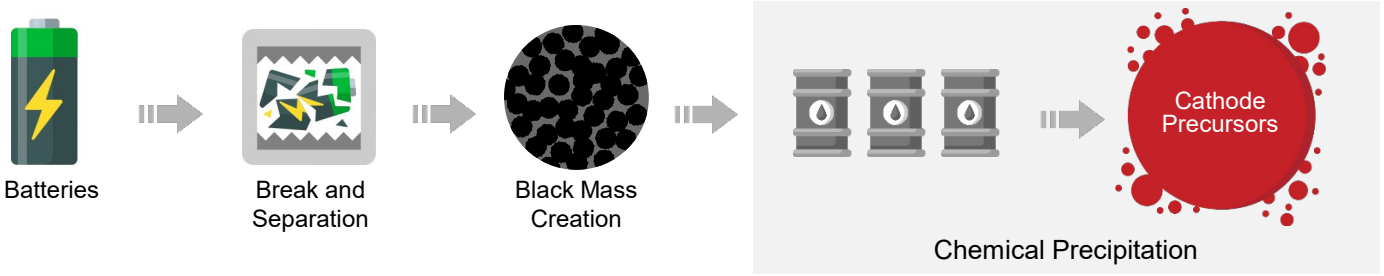
PYRO

Smelting approach is currently a multistep pyro. Emissions will be unsustainable long term as recycling volume increases.

- Significant carbon pollution, toxic emissions
- Produces metal alloys needing further refinement
- **Does not recover** lithium or manganese

HYDRO

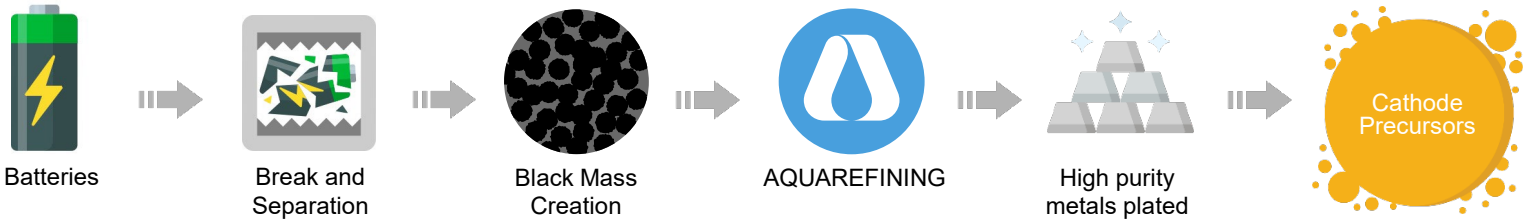
Operating only in Asia. High waste streams and high embedded emissions in one-time-use chemicals.



- Unproven at scale, high risk pathway
- Recovers sulfates & salts, not pure metals
- Immense **embedded emissions in chemicals**
- Tons of unmitigated sodium sulfate waste

AQUAREFINING

Expected to be economically and environmentally superior, producing higher quality product with better yield.



- Produces **high-purity metals** for any pCAM/CAM
- Eliminates need for trainloads of chemicals
- **No sodium sulfate waste** streams to landfill
- Multiple pathways (LiOH, Li2CO3, salt conversion)

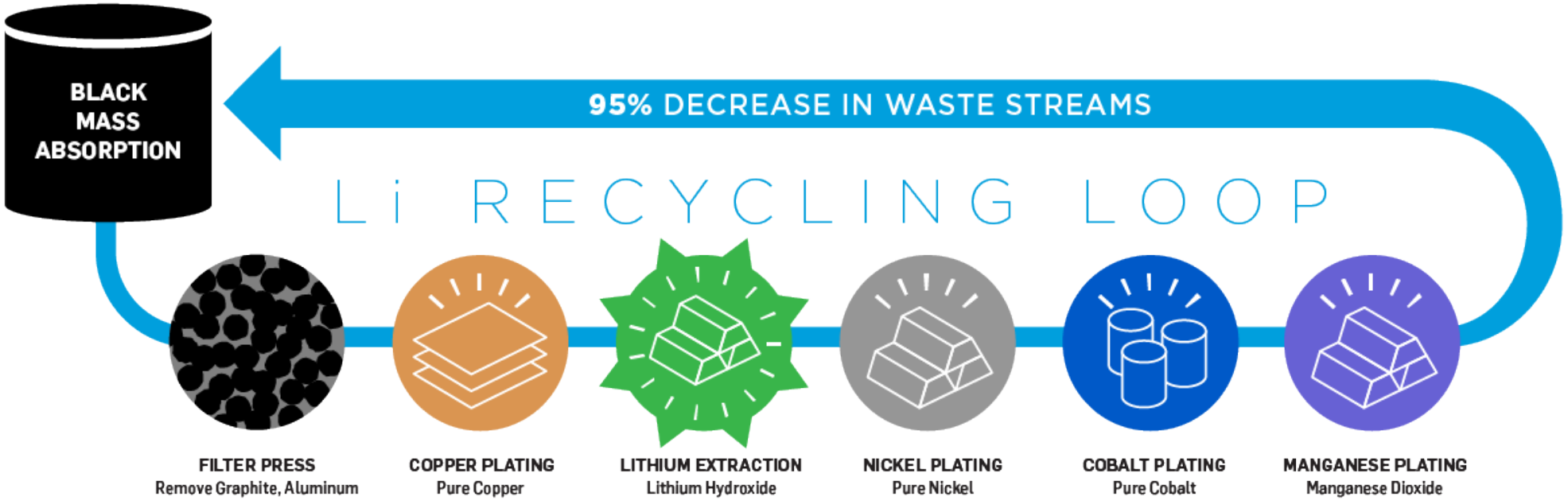
AQUAREFINING: DRIVING CLOSED LOOP PROCESS WITH RENEWABLE ELECTRICITY vs ONE-TIME USE CHEMICALS

Li AquaRefining™ recovers critical materials using electricity in a closed-loop system

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

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

95%+ recovery rate of all valuable materials



GAME CHANGING ENVIRONMENTAL & ECONOMIC PERFORMANCE

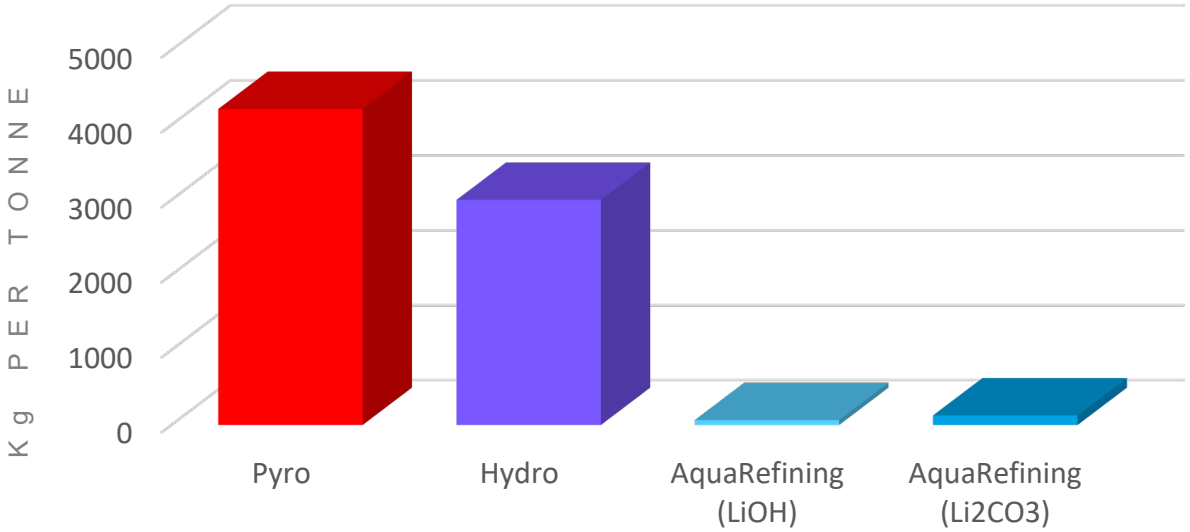
Electrifying lithium battery recycling to reduce emissions and waste

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

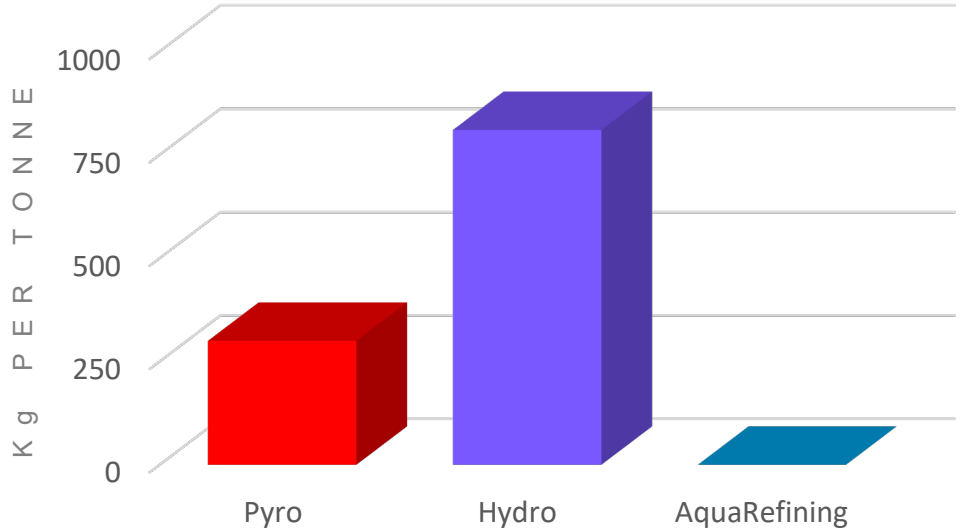
Much lower emissions per tonne recycled than pyro- and hydrometallurgical processes

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)

PLANNED SIERRA ARC COMMERCIAL SCALE FACILITY (10,000tpa)

Tahoe-Reno Industrial Center

SIERRA | ARC

SUSTAINABLE LIB RECYCLING PIONEERS

Electrifying the next generation of lithium battery recycling

AquaRefining: a regenerative form of electro-hydrometallurgy

An innovative application of electroplating – recover critical metals by plating them in electrochemical cells

No furnaces, vastly reduced one-time-use chemicals, no Na2SO4 waste, and regenerates proprietary solution

Low-Carbon: No direct emissions, sourcing clean electricity to power operations & processes

Pilot operating for over one year many times 24 hours a day and produces in spec product

SUSTAINABLE LIB RECYCLING PIONEERS

Electrifying the next generation of lithium battery recycling

Recovers pure metals (Co, Cu, Ni) instead of battery metal salts, achieving LME purity

- Ability to deliver to various CAM/battery manufacturers, not spec'd to one customer
- De-risks revenue model as compared to working salts into battery grade specs
- Pure metals valuable in multiple industries
- 5X cost reduced shipping advantage shipping pure metals vs. wet salts

AquaRefining also produces either lithium hydroxide or carbonate, depending on application, and manganese dioxide

- Battery grade and validated by lithium battery manufacturer

Electroplated copper recovered from black mass

An LFP cell made from Aqua Metals recycled lithium (Dragonfly Energy)

PILOT RECYCLING OPERATIONS LIFECYCLE ANALYSIS

Independent technical report conducted by global engineering firm ICF International including lifecycle analysis (LCA) of Aqua Metals' AquaRefining pilot

TECHNICAL REPORT CONCLUSIONS:

- AquaRefining has industry leading ~95% reduction in climate emissions vs. virgin mined materials
- 83% reduction in carbon emissions vs. current hydrometallurgy recycling methods

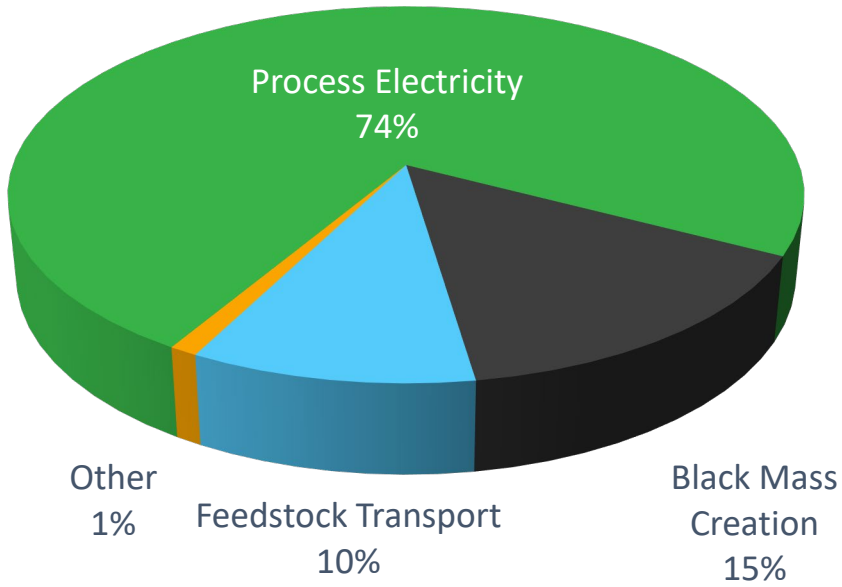
AQUA METALS PATHWAY TO ZERO CARBON:

~75% of current emissions from grid electricity
Sourcing carbon-free electricity lowers CO2 even further – beyond capabilities of other battery recyclers

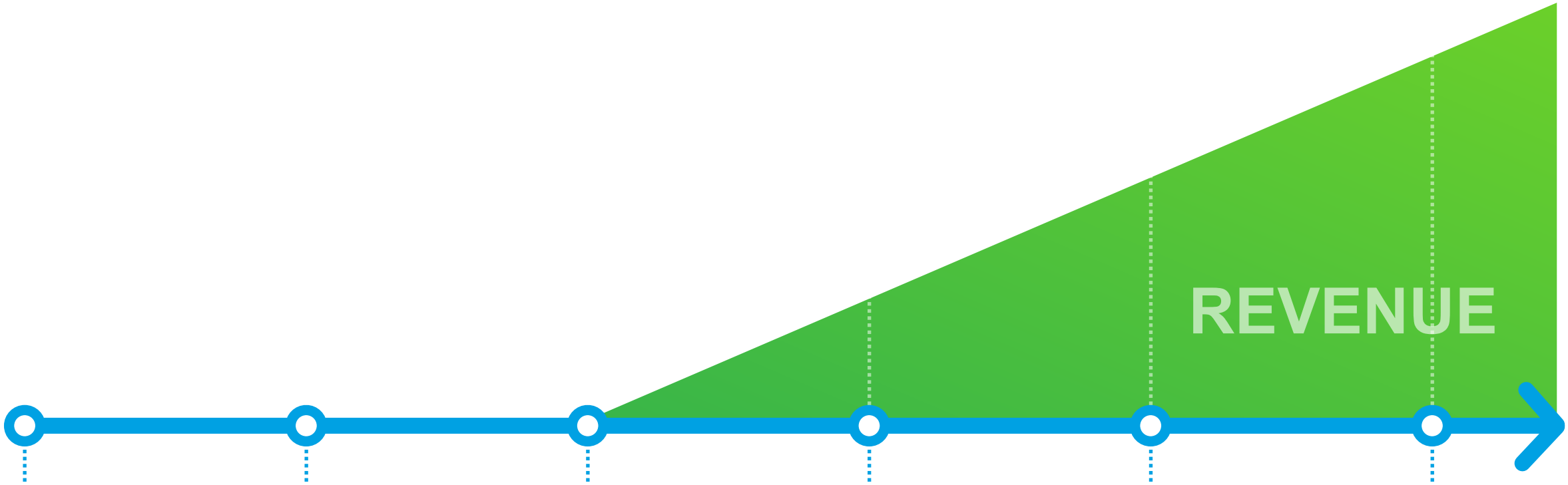
~25% from feedstock creation & transport
Partnerships with low-carbon black mass producers actively reducing emissions

LOWER CLIMATE EMISSIONS BY DESIGN, AND A CLEAR PATHWAY TO NET-ZERO LIB RECYCLING

Li AquaRefining Lifecycle Emissions (by Source)



COMMERCIAL-SCALE TIMELINE



2024
24x5 Pilot Operations

2025
Commissioning of Phase One at Sierra ARC* (3,000tpa)

H1 2026
Ramping Operations to Consistent Revenue from Recycled Material

2026
Groundbreaking for Sierra ARC Phase Two (7,000tpa)

2027
Ramp Phase Two Operations to Consistent Revenue from Recycled Material

2028
Fully Scaled Commercial Operation (10,000tpa)

* Pending completion of project financing for remainder of Sierra ARC buildout in 2025

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.

Judd Merrill

CHIEF FINANCIAL OFFICER

Joined Aqua Metals in 2018 from Klondex Mines Ltd., an international mining company where he was Director of Finance/Accounting, responsible for overseeing the SEC compliance and the management of the Company's $200+ million budget over five subsidiaries.

Spent five years as CFO of Comstock Mining Inc., a publicly traded gold company where he was instrumental in establishing financial modeling and analytics.

Controller at Fronteer Gold Inc. as an assistant controller at Newmont Mining Corp. Began his career at Deloitte & Touche.

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

APPENDIX

FINANCIAL OVERVIEW

AQUA METALS

Consolidated
Balance Sheets

AQUA METALS, INC.
Consolidated Balance Sheets
(in thousands, except share and per share amounts)

	December 31, 2024	December 31, 2023
ASSETS		
Current assets		
Cash and cash equivalents	$ 4,079	$ 16,522
Note receivable - LINICO	100	600
Accounts receivable	—	67
Inventory	251	929
Prepaid expenses and other current assets	214	181
Total current assets	4,644	18,299
Non-current assets		
Property, plant and equipment, net	16,473	10,347
Intellectual property, net	146	281
Other assets	5,102	4,673
Total non-current assets	21,721	15,301
Total assets	$ 26,365	$ 33,600
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 1,227	$ 1,836
Accrued expenses	3,130	2,467
Lease liability, current portion	289	275
Notes payable related-party, current portion	306	—
Notes payable, current portion	3,230	35
Total current liabilities	8,182	4,613
Lease liability, non-current portion	446	—
Notes payable, non-current portion	—	2,923
Warrant liability	1,493	—
Total liabilities	10,121	7,536
Commitments and contingencies (see Note 14)		
Stockholders' equity		
Common stock; $0.001 par value; 300,000,000 shares authorized; 7,760,255 and 7,730,836, shares issued and outstanding as of December 31, 2024, respectively and 5,415,433 and 5,394,005 shares issued and outstanding as of December 31, 2023	8	5
Additional paid-in capital	264,198	249,790
Accumulated deficit	(247,770)	(223,215)
Treasury stock, at cost; common shares: 29,419 and 21,428 as of December 31, 2024 and December 31, 2023, respectively	(192)	(516)
Total stockholders' equity	16,244	26,064
Total liabilities and stockholders' equity	$ 26,365	$ 33,600

Consolidated
Statement of Operations

AQUA METALS, INC.
Consolidated Statements of Operations
(in thousands, except share and per share amounts)

	Year ended December 31,	
	2024	2023
Product sales	$ —	$ 25
Operating cost and expense		
Plant operations	7,213	6,282
Research and development cost	1,587	1,741
Impairment expense	2,640	4,851
Loss (gain) on disposal of property, plant and equipment	440	(23)
General and administrative expense	11,967	11,638
Total operating expense	23,847	24,489
Loss from operations	(23,847)	(24,464)
Other income and expense		
Interest and other income	376	1,147
Interest expense	(574)	(621)
Change in fair value of warrant liability	(507)	—
Total other income (expense), net	(705)	526
Loss before income tax expense	(24,552)	(23,938)
Income tax expense	(3)	—
Net loss	$ (24,555)	$ (23,938)
Weighted average shares outstanding, basic and diluted	6,419,607	4,696,597
Basic and diluted net loss per share	$ (3.83)	$ (5.10)

AQUA METALS

Consolidated

Statement of Cash Flows

AQUA METALS, INC.
Consolidated Statements of Cash Flows
(in thousands)

	Year ended December 31,	
	2024	2023
Cash flows from operating activities:		
Net loss	$ (24,555)	$ (23,938)
Reconciliation of net loss to net cash used in operating activities		
Depreciation and ROU asset amortization	1,139	1,091
Amortization of intellectual property	135	180
Warrant expense	—	181
Fair value of common stock issued for consulting services	150	12
Fair value of common stock issued for director fees	37	96
Stock-based compensation	2,737	2,534
Amortization of deferred financing costs	73	128
Loss (gain) on disposal of property, plant and equipment	440	(23)
Impairment of equipment deposits	2,640	3,451
Impairment of LINICO investment	—	1,400
Inventory NRV adjustment	283	—
Write off of debt issuance costs	563	—
Accrued interest expense	10	—
Change in fair value of warrant liability	507	—
Changes in operating assets and liabilities		
Proceeds from sale and leasing of building	—	12,278
Accounts receivable	67	(55)
Inventory	396	(651)
Prepaid expenses and other current assets	(33)	82
Accounts payable	(21)	139
Accrued expenses	1,930	209
Other assets and liabilities	(130)	(307)
Net cash used in operating activities	(13,632)	(3,193)
Cash flows from investing activities:		
Purchases of property, plant and equipment	(7,921)	(5,598)
Proceeds from sale of equipment	22	70
Proceeds from note receivable	500	—
Equipment deposits	(4,237)	(4,285)
Net cash used in investing activities	(11,636)	(9,813)
Cash flows from financing activities:		
Proceeds from issuance of common stock, net of transaction costs	7,306	22,947
Proceeds from employee stock purchase plan	54	14
Payments on note payable	—	(6,000)
Principal payments on finance leases	(72)	—
Proceeds from note payable related-party, net	1,500	—
Proceeds from note payable, net	—	2,931
Cash paid for tax withholdings on RSUs vesting	(552)	(1,092)
Cash paid for reverse split fractional shares	(1)	—
Debt issuance costs	(424)	(140)
Proceeds from ATM, net	5,014	3,786
Net cash provided by financing activities	12,825	22,446