AQUA METALS

LEADING A REVOLUTION

IN CLEAN METALS & BATTERY RECYCLING

NASDAQ: AQMS

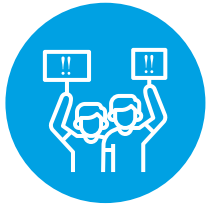
February 2024

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 the lowest environmental impact



Surging demand

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

Component deficit

The minerals for making modern batteries are rare, expensive, and frequently mined in unfriendly regions. The US does not have a domestic supply chain and China is increasingly creating a monopoly.

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
Only electro-hydrometallurgy recycler in North America

Adaptable business models (build & operate, joint venture, license)

Only Li-Ion recycling method with pathway to net-zero operations

AquaRefining recovers all valuable materials, including Lithium Hydroxide and Manganese Dioxide, which are not recovered by competing methods

The World Is Powered By Batteries

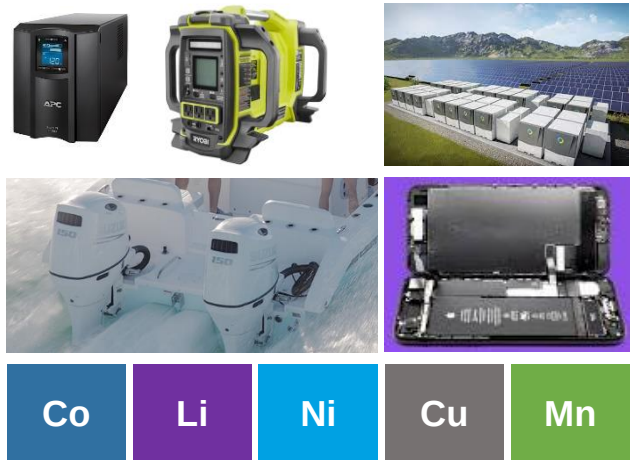
Lead-Acid Batteries (LAB)

- Most of LABs are used in EVs/cars, forklifts, cranes, data centers and e-bikes
- LAB market is about $65B globally
- 95%+ of LABs are recycled, but at massive environmental cost through smelting, one of the top polluting industries in the world
- Typical LAB contains 60 to 80 percent recycled lead and plastic
- LAB market expected to rise at 5.2% CAGR from 2021-2031 [1]

Pb | PbO_2 | $PbSO_4$ | H_2SO_4

Lithium-ion Batteries (LiB)

- Energy storage, microgrids, electric vehicles, and mobile electronics driving use-cases
- Only 5% of LiBs are recycled globally, from an estimated 8M tons/yr waste stream
- 145M EVs predicted to be on the roads globally by 2030
- Typical 10-year LiB life span, with an est. 6.5M tons available for recycling 2025-2030
- Legacy recycling processes generate polluting emissions and chemical waste streams
- Legacy process can not recover lithium hydroxide
- Demand for LiB expected to grow from $44B to $94B by 2025 [2]
- Global battery demand for lithium and nickel will be 12-13x of the current size, 2x of the current size for cobalt by 2040E [3]



Co | Li | Ni | Cu | Mn

1 Future Market Insights; 2 CNBC, March 2022; 3 Goldman Sachs

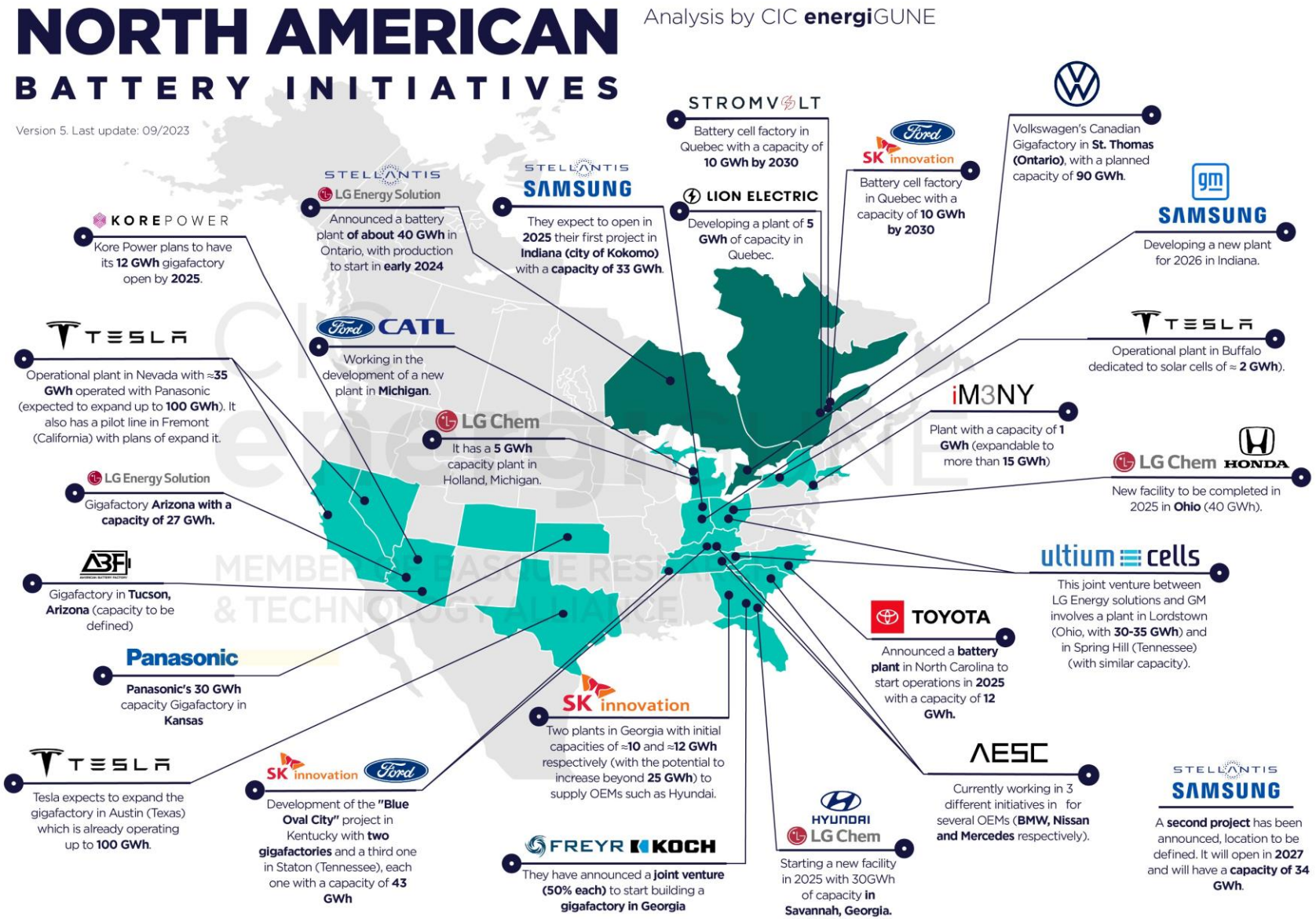
Rapid Expansion of North American Battery Industry

By 2030, the US alone is projected to have nearly 1 terawatt hour of lithium battery cell manufacturing

- $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



Expensive, Scarce Components in Li-ion Batteries

As demand for EV batteries grows, countries are racing to build domestic supply chains
99% of raw and component materials for LiBs are produced outside the U.S.

Mineral	Pricing and demand growth[1]	Supply shortfall risks	Geopolitical challenges
COBALT Co	• **Currently $28,690/MT** • 9.26% CAGR 2021-2025.	• Cobalt market to move into deficit by 2024.	• US sees cobalt a strategic and critical to U.S. security. • More than 2/3s mined cobalt comes from politically sensitive DRC.
NICKEL Ni	• **Currently $15,930/MT** • Nickel usage in EV battery sector predicted to increase 62% in 2022; 26% in 2023. • 7.3% CAGR 2021-2028.	• Class I nickel, essential for electric vehicle batteries, is expected to face a shortage for the next three to five years (Oregon Group). • Ongoing LME market volatility.	• Indonesia a major supplier; converts low-grade ore with high-carbon footprint to LiB quality. • Russia accounts for ~17% of production capacity.
MANGANESE Mn	• **Currently $2,000/MT** • High purity manganese needed for EVs. • Predicted 43% CAGR in next 5 years.	• Manganese dioxide is a critical link in the LiB supply chain that is driving EV adoption. • Many battery producers shifting to NMC vs. NCA batteries.	• US is 100% dependent on manganese imports. • China #1 miner and dominates manganese ore and concentrate imports, with 75% of imports.
COPPER Cu	• **Currently $8,300/MT** • Demand estimated to grow 53% by 2040, driven by the electrification of transport and infrastructure (BNEF).	• By 2027, nearly 600,000 MT of additional copper needed to match EV demand (IDTechEx). • Forecasted deficit of 9M mt by 2030 (BMO Capital markets), and 14M mt by 2040 (BNEF).	• Supply chain issues at key copper Latin American countries, dearth of new mines.
LITHIUM Li	• **Currently $15,350/MT (LiOH)** • 20.6% CAGR 2020-2025. • Lithium use up 4x since 2010 (BNEF).	• Global LI market predicted to move into deficit starting in 2025. • Typically produced as lithium carbonate, requires additional refining.	• China dominates lithium refining. 96% of Australia's exports go to China; largest importer of Chile's lithium carbonate.

1 Pricing based on London Metal Exchange, www.lme.com, and company estimates.

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 for LABs and expanding to LiBs

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

Current Recycling Outlook Not Sustainable

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


Smelting process for LiB recycling

Hydrometallurgy

- Chemical intensive, embedded emissions
  - Trainloads of consumable chemicals required (i.e., NaOH, H_2O_2)
  - Embedded emissions from chemicals production & transport
  - More sodium sulfate & other waste than valuable material recovered

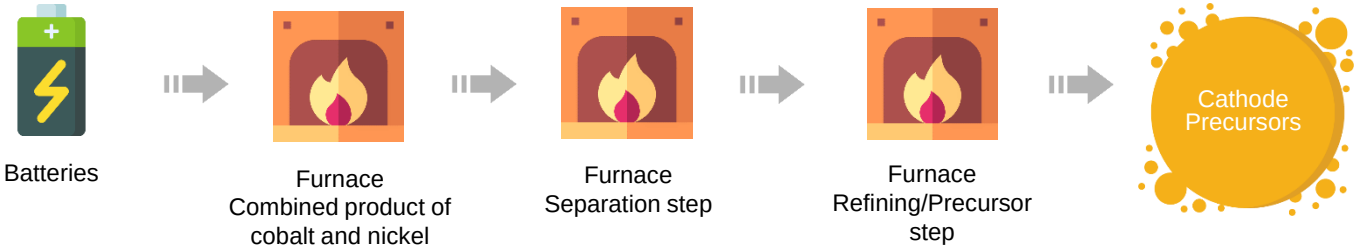

Chemical storage for hydromet


Massive crystallizer for Na_2SO_4 waste

Current LiB Recycling Technology Comparison

PYRO

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

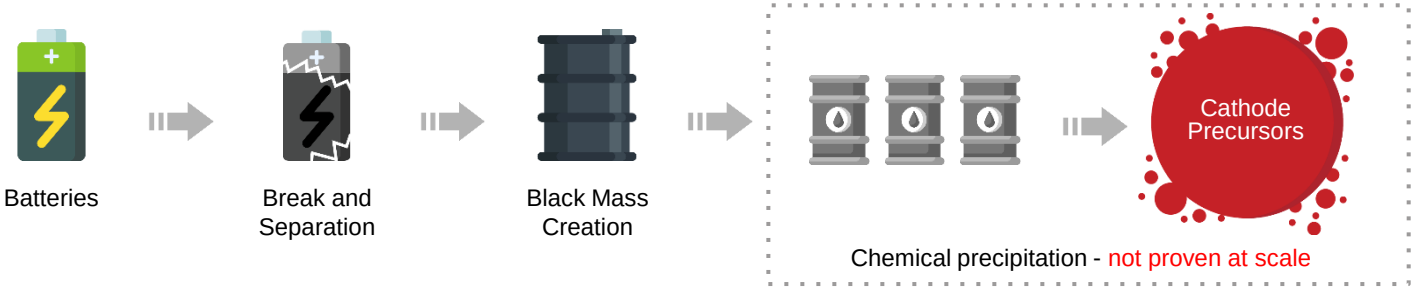


Co	X	Ni	Cu	X

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

HYDRO

Not commercially proven. High waste streams and high embedded emissions in one-time-use chemcials

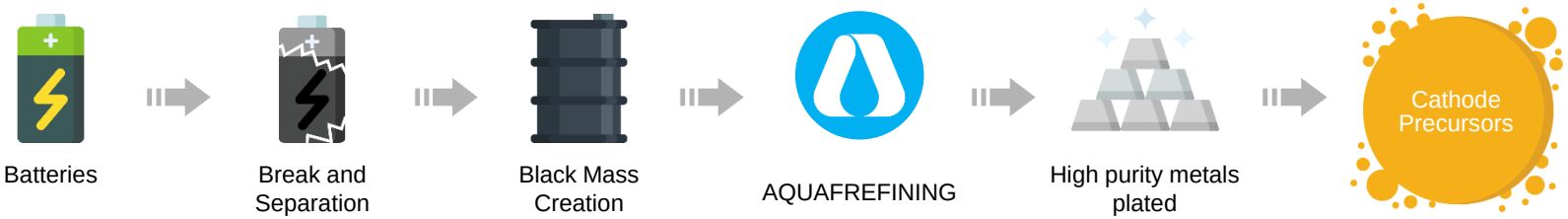


$CoSO_4$	Li ?	$NiSO_4$	$CuSO_4$	$MnSO_4$

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

AQUAREFINING

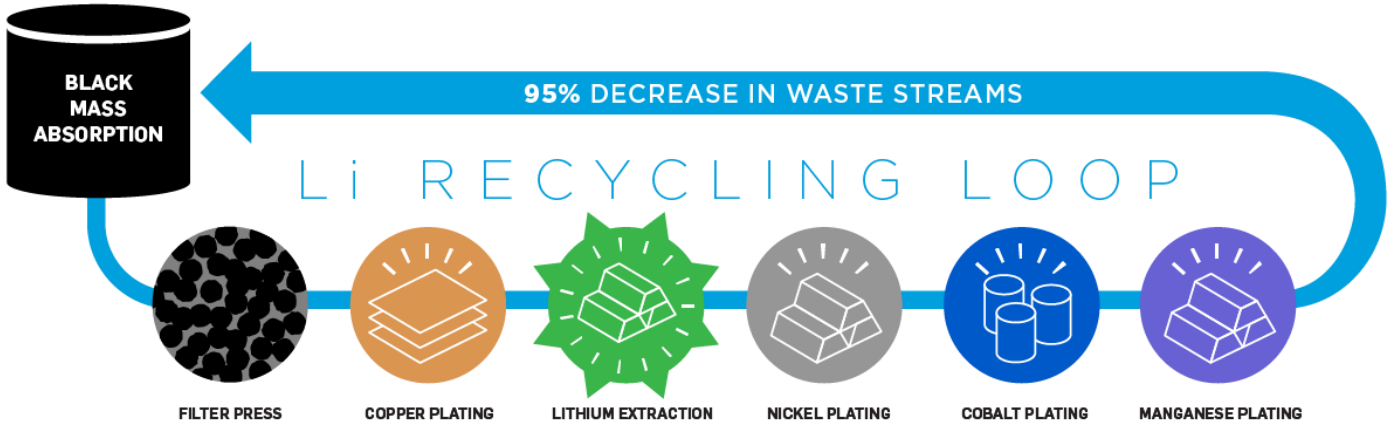
Expected to be economically and environmentally superior, producing higher quality product with better yield.



Co	LiOH or Li_2CO_3	Ni	Cu	MnO_2

- 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)

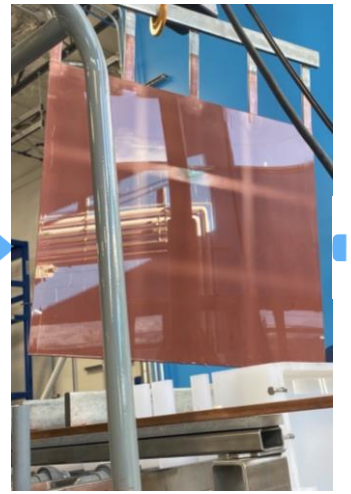
Li AquaRefining: First Sustainable LiB Recycling



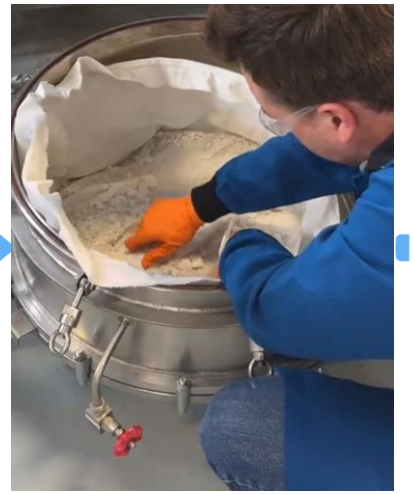
Li AquaRefining™ recovers critical materials using electricity in a closed-loop system

- 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

Sourced Black Mass



Pure Copper Plating



Lithium Crystallization (LiOH - Pictured) or Carbonation (Li2CO3)

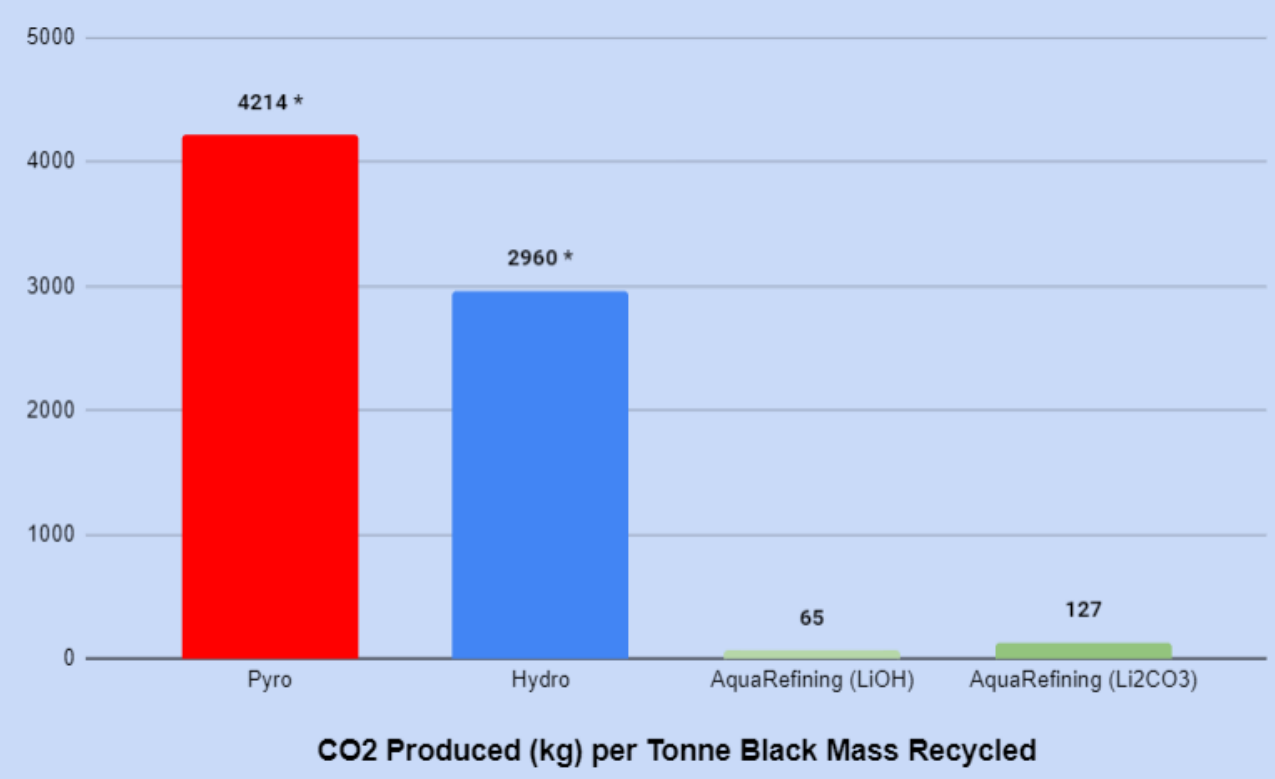
Pure Nickel Plating

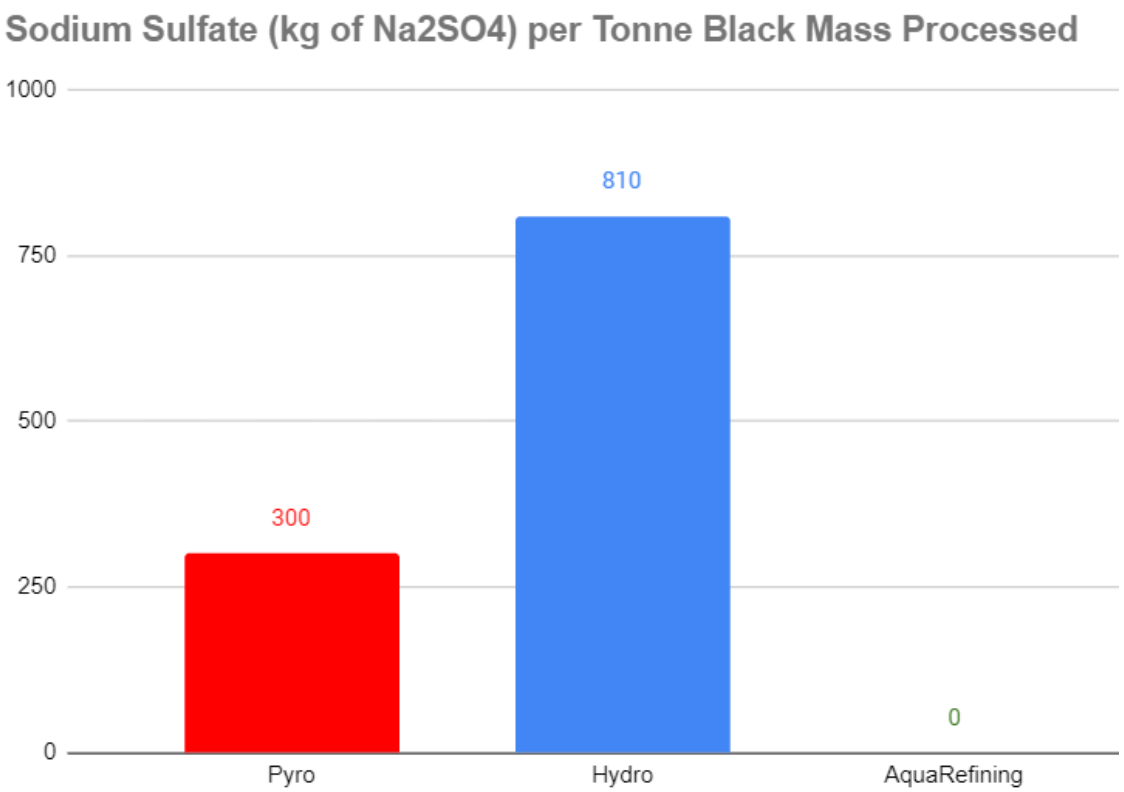
Pure Cobalt & Manganese Dioxide Co-Plated

Game Changing Environmental Performance

Electrifying lithium battery recycling to reduce emissions and waste

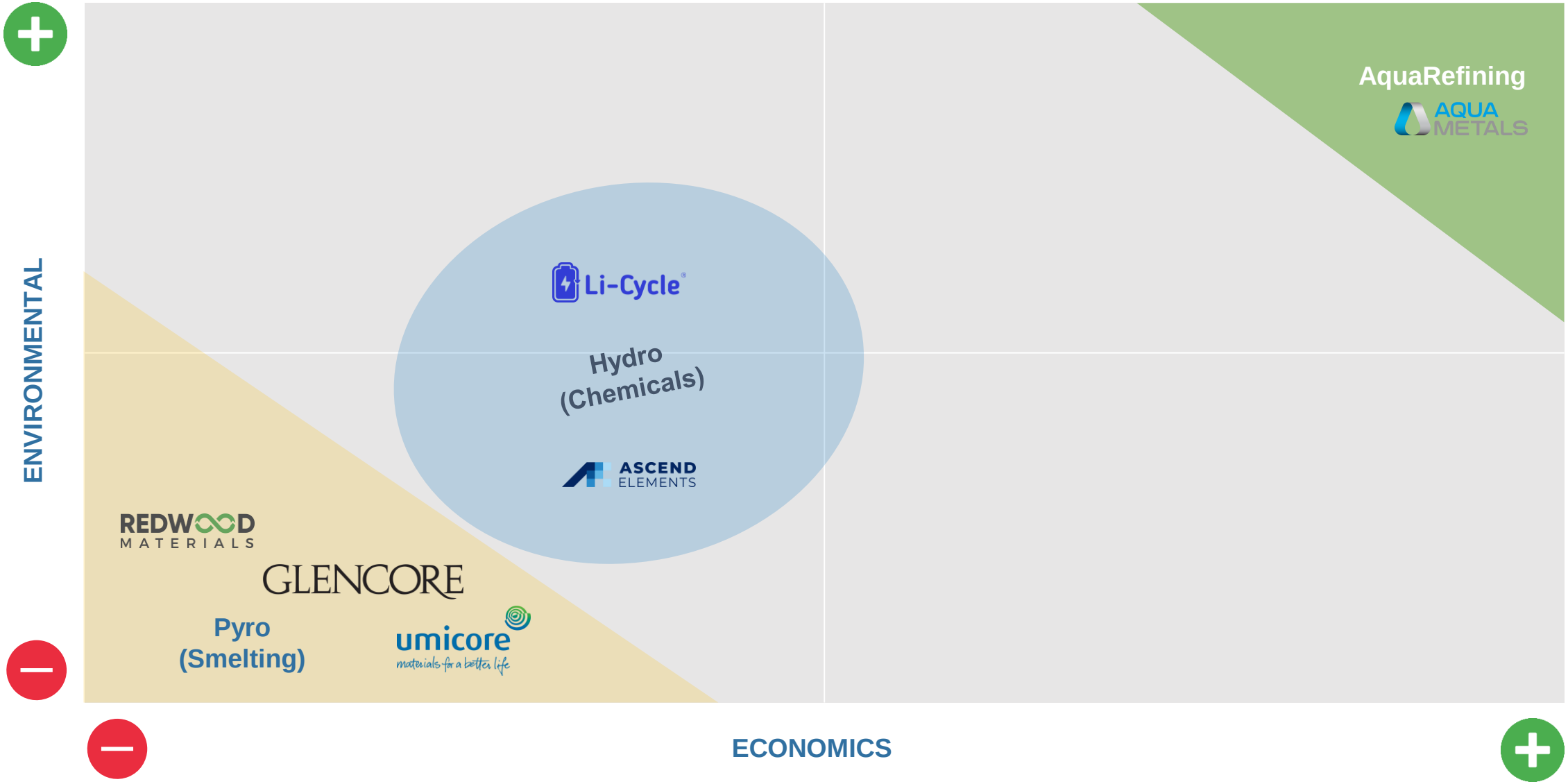
- Aqua Metals' Li AquaRefining technology uses dramatically less energy – powered by electricity, instead of fossil fuels
- Much lower emissions per tonne recycled than pyro- and hydrometallurgical processes
- AquaRefining also produces substantially less waste than competing solutions – and no sodium sulfate



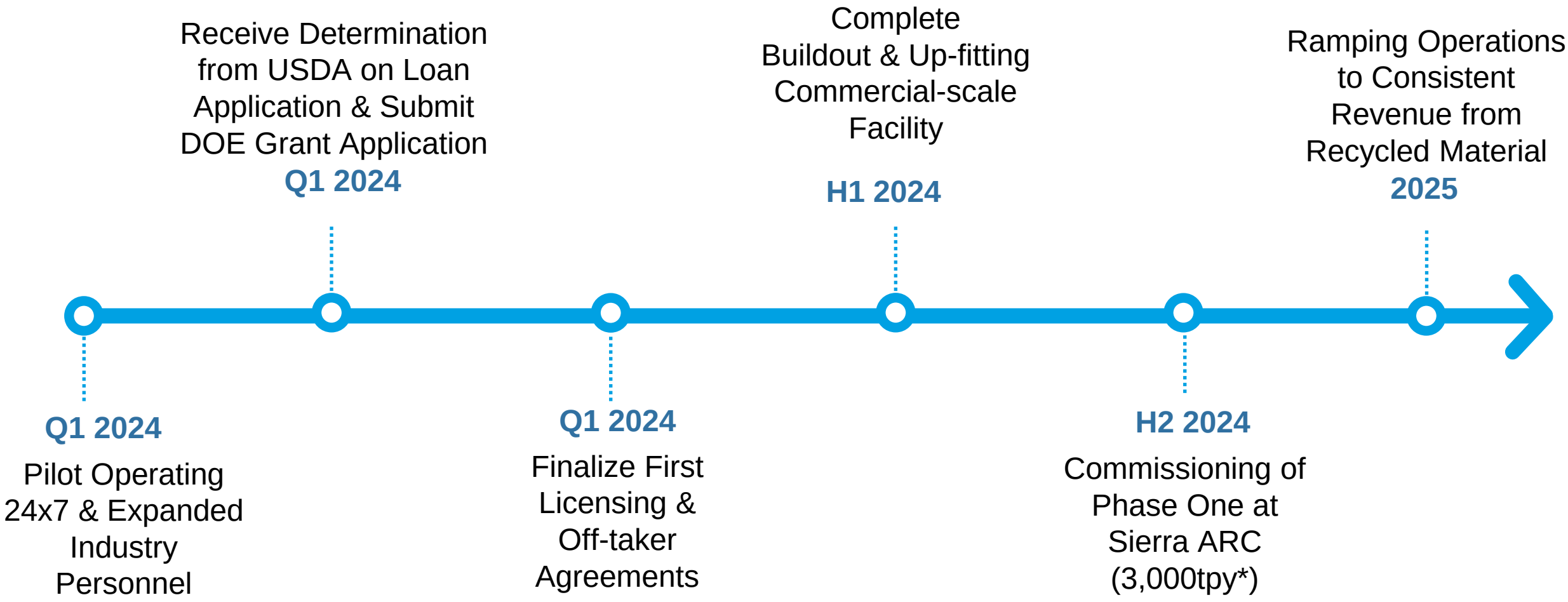


*Based on Argonne National Labs battery life-cycle model —EverBatt

Competitive Landscape Lithium Recycling



Aqua Metals' Commercial-Scale Timeline



Li AquaRefining™ Pilot Recycling Facility Update

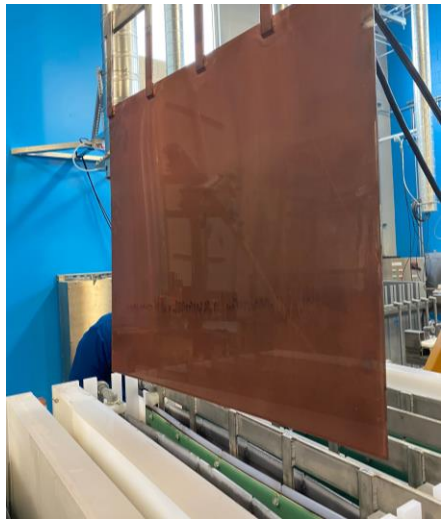
Li AquaRefining Pilot Plant Operations Update

Only sustainable lithium battery recycler with operational Pilot in North America – Scaling to **24x7 Operations in Q1**

Proven ability to recover valuable materials from black mass, samples being distributed

Only facility natively producing lithium hydroxide or carbonate - eliminating costly & polluting refining

Regenerative Process: No trainloads of chemicals or waste storage necessary, and no sodium sulfate (Na_2SO_4)



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:

- Today, AquaRefining shows 83% reduction in carbon emissions compared to hydrometallurgy – and can uniquely reduce climate impacts even further

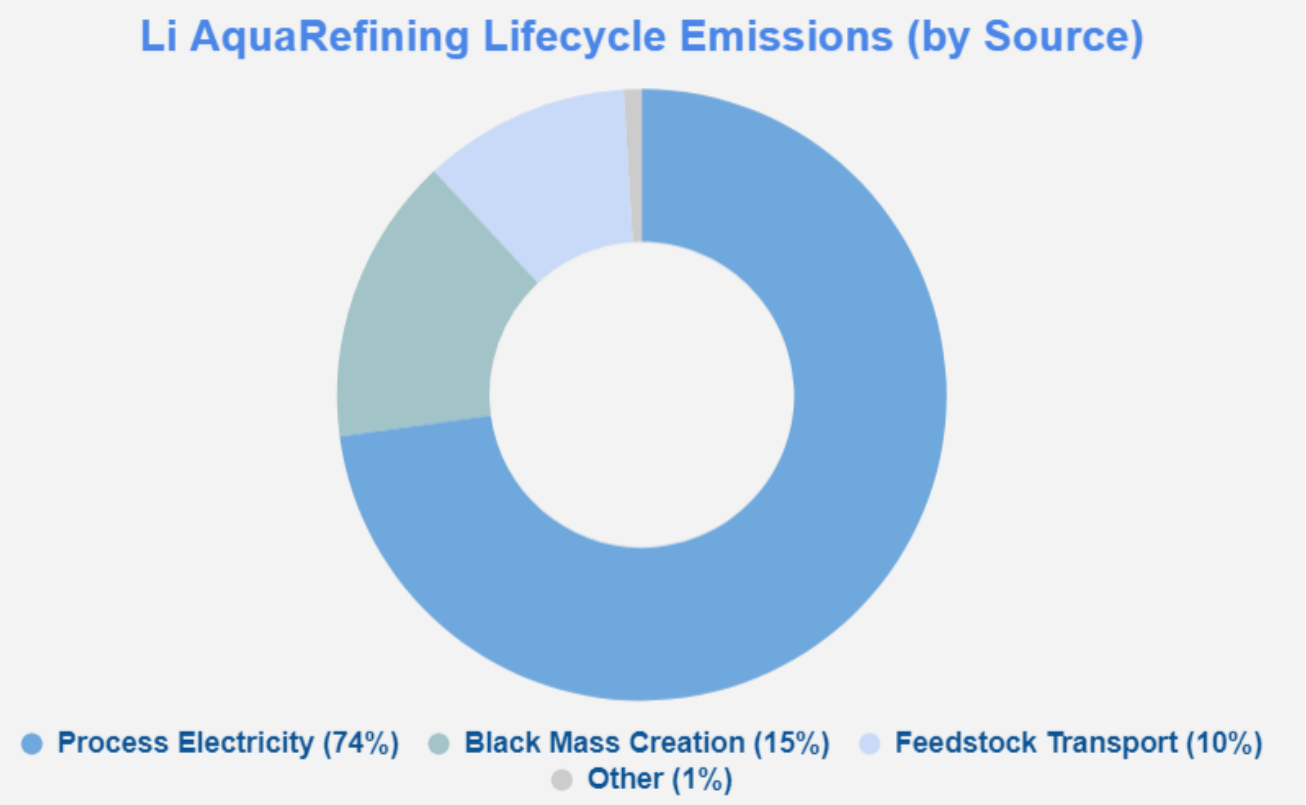
~75% of emissions from NV grid electricity

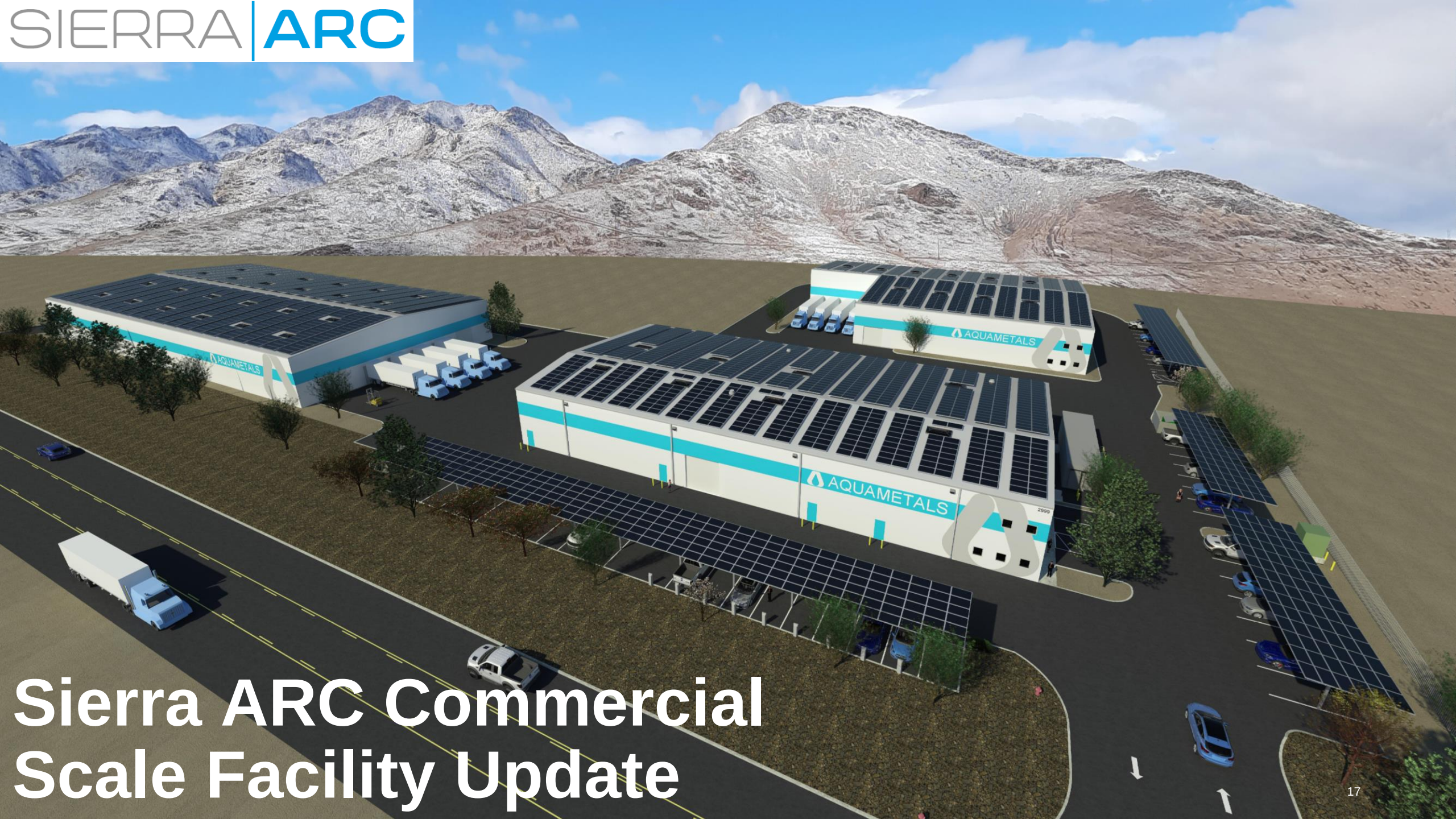
- Sourcing carbon-free electricity lowers CO_2 even further – beyond capabilities of hydro
- Currently off-setting emissions, securing VPPA for future commercial operations

~25% from black mass creation & transport from our supply chain

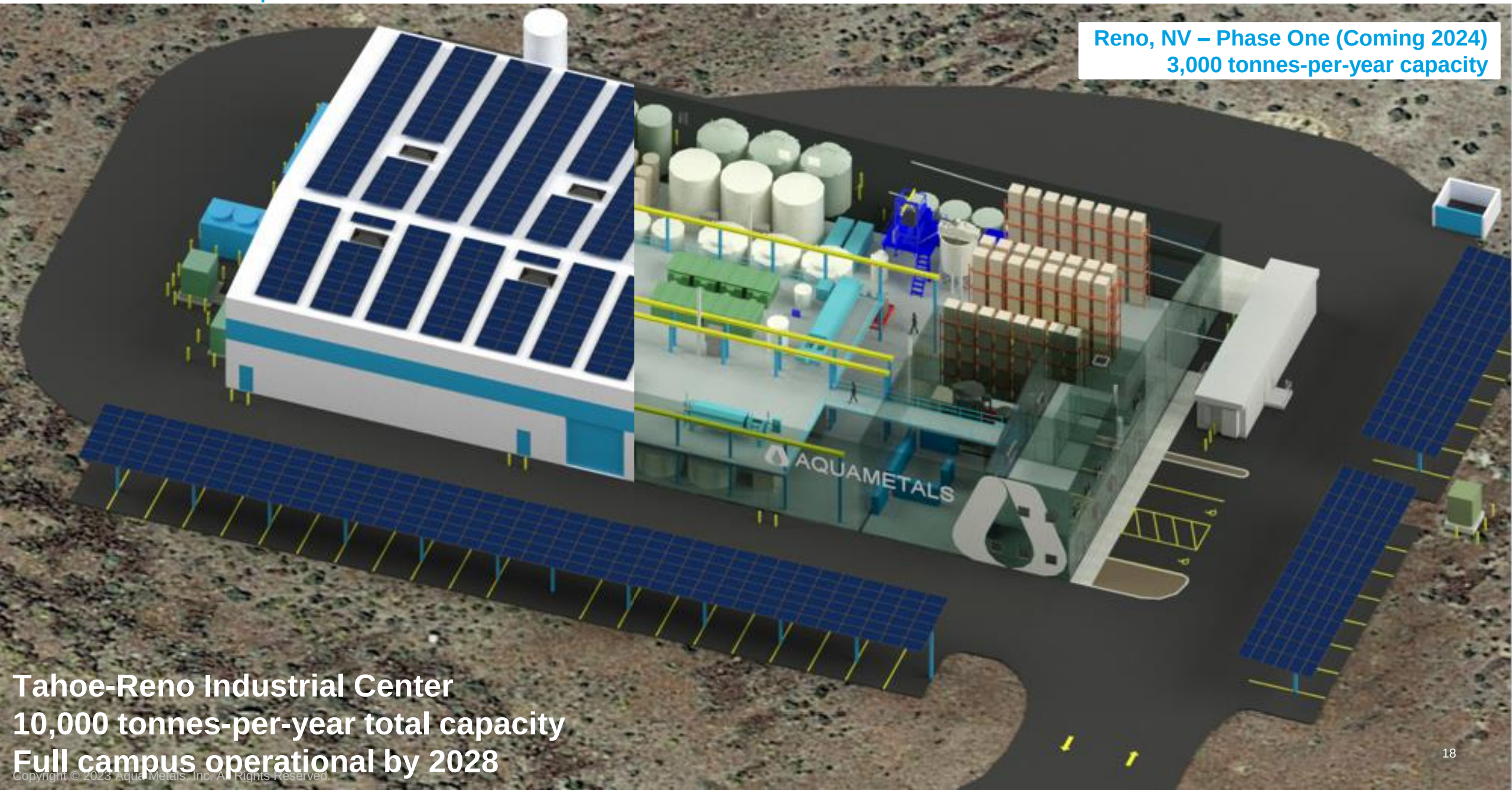
- Partnerships with low-carbon black mass producers actively reducing emissions

Lower climate emissions by design, and a clear pathway to net-zero LiB recycling





Sierra ARC Commercial Scale Facility Update



Reno, NV – Phase One (Coming 2024)
3,000 tonnes-per-year capacity

Tahoe-Reno Industrial Center
10,000 tonnes-per-year total capacity
Full campus operational by 2028

SIERRA | ARC

AQUA METALS

Concrete Pour & Build Out (December 2023)

Aqua Metals Business & Partnerships Updates

Aqua Metals Converting Black Mass into Revenue

TAM: $150B based on 7.5M/MT of black mass x $20,000 of extractable value

LiB Recycling – An Exponentially Growing Market Opportunity

- LiB recycling predicted to hit $6.55B by 2028 with 18.5% CAGR vs. $1.7B in 2020 (Fortune Business Insights)
- 2025-2030, an estimated 6.5M tons of EV batteries will reach end of life and need to be recycled, surpassing 1M tonnes per year and growing from there
- Upcoming DOE grant status, applying for $100M+ opportunity through MESC, expect formal opening in Q4 2023

Strategic Partnerships

- Strategic investment and partnership with Yulho Materials for a large-scale licensing agreement in South Korea, with plans for Asia and the EU
- 6K Energy Partnership to develop battery metals conversion technology from known pathway, long-term supply agreement for PlusCAM (13,000tpa CAM factory)
- LOI with Dragonfly Energy Corporation has qualified Aqua Metals' lithium hydroxide for use in Dragonfly batteries for its planned solid-state LiB Gigafactory
- Meeting with and providing samples to manufacturers and suppliers from throughout the battery supply chain, with more announcements forthcoming

Circular Supply Chain: Strategic Partnerships

Domestic Battery Supply Chain Off-Takers

6K ENERGY

Innovative Battery Materials Manufacturer (CAM/pCAM)

Building 13,000tpa PlusCAM facility in Jackson, TN

Partners:
- Off-taker for recycled Li, Ni, Co, MnO_2
- Sustainable battery materials conversion for CAM & pCAM

DRAGONFLY ENERGY

Leading LFP Battery & Energy Storage Company

Lithium Ferro Phosphate (LFP) & Solid-State Battery Tech

Partners:
- Regional (NV) supply chain & off-taker for recycled lithium
- Validated Aqua Metals materials as part of advanced manufacturing process

- 3,000+ tonnes of black mass already secured to reach and operate at commercial scale
- Negotiating off-take agreements with domestic battery & EV companies
- Completing first licensing agreement for AquaRefining internationally

Global Licensing (Li AquaRefining)

YULHO

Leading Battery Materials Co. in South Korea
SK's largest black mass facility, expanding to 24,000tpa
Partners: Licensing Li AquaRefining (Asia, EU), Established partner w/ SK's battery & EV companies

6K Energy & Aqua Metals Partnership

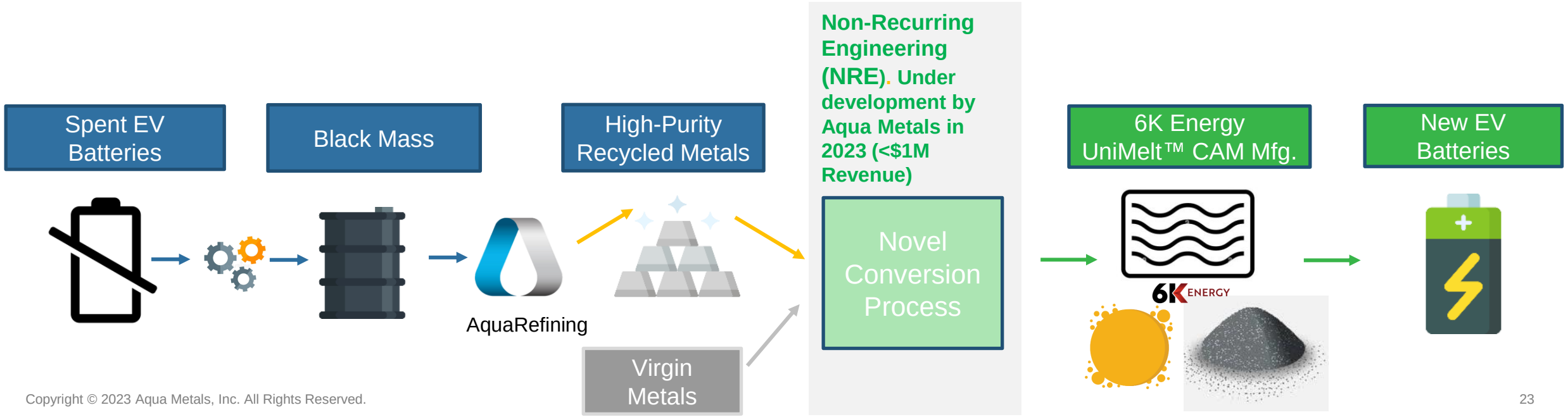
Develop low-carbon battery material conversion technology and establish long-term supply agreement for 6K Energy's 13,000tpa PlusCAM™ factory

Highlights:

- Non-recurring engineering agreement funded by 6K Energy (<$1M in 2023)
- Material conversion process is low-risk, known pathways commercially proven
- Companies to co-locate future pilot facility and factory alongside PlusCAM™ in Jackson, TN

About 6K:

- $50M U.S. Dept. of Energy (DOE) grant & other funding towards $200M PlusCAM™ factory in Jackson, TN
- High-profile leadership team, Board, and strategic investors
- Volta Energy Technologies, Koch Strategic Platforms, Albemarle Corp.

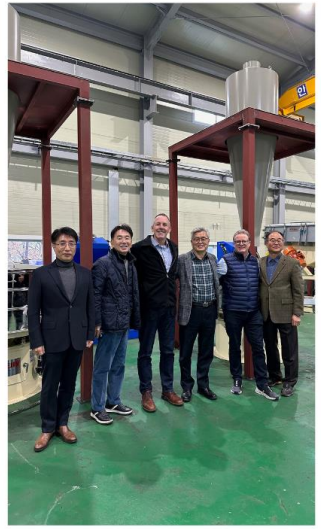


Yulho & Aqua Metals Partnership

South Korea-based Yulho has become a strategic investor in Aqua Metals and will be licensing AquaRefining technology.

Highlights:

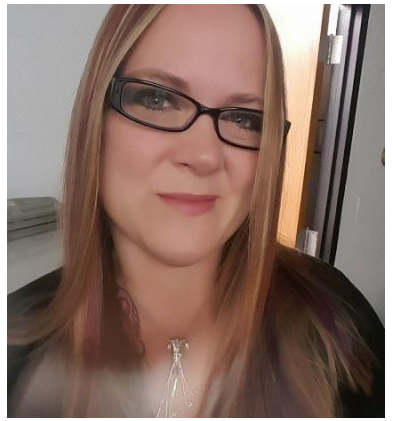
- 25-year history, established in South Korea's advanced technology industries
- Rapidly growing storage solution and battery materials company (Yulho Materials), able to deliver high-quality black mass
- Established relationships with South Korea's largest battery & EV companies
- Currently processing hard-to-get manufacturing scrap and EOL batteries from tier-one mfg. and building SK's largest black mass facility (8,000 tonnes), expanding to 24,000 tonnes
- AQMS Leadership recently visited, toured facilities, signed R&D MOU with prestigious Hanyang U, and met with EV and Cell manufacturers



Expanded Industry Personnel & Expertise

Robert St. Louis
Vice President of Operations
- 20+ Years Ops Experience
- Led Operations for Veolia
- Innovative Regenerative Mfg. Solutions

Brandi Controneo
Director of Human Resources
- 15+ Years HR Experience in Mining/Minerals, Sustainability
- Former Redwood Materials



Kim Horn
Senior HR Business Partner
- Veteran, 15+ Years in HR
- Former Redwood Materials, Patagonia

Francis Dakubo
Research & Development
- Metallurgical & Mineral Process Engineer
- Experienced R&D Leader
- Former Li-Cycle, Rio Tinto

Financials

As of September 30, 2023	
Cash and cash equivalents	**$25.6M**
Working capital	**$23.1M**
Quarterly burn rate (approx.)	**$3.0M**

Additional Sources of Capital	
USDA non-dilutive loan financing – potential	**$25.0M targeted**
Other non-dilutive loan financing – potential	**$25.0M targeted**
U.S. Government grants – potential	**$5.0M - $100.0M range**

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.

Dave McMurtry
Chief Business Officer

Experienced Silicon Valley high-tech executive; expertise in renewable energy and international markets development

Responsible for leading the team in exploring and strategically pursuing multiple paths to scalable growth for LI AquaRefining.

Global experience includes working in more than 80 countries on five continents.

Previously CEO of the Global Stars Foundation at the Al Dabbagh Group. For the last 25 years, Dave has held multiple executive positions, including with Intuit Inc, and Habitat for Humanity International.

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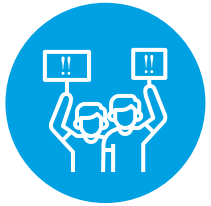
Patented recycling solution that has the potential to deliver the best economics and the lowest environmental impact



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Greenfield opportunity for partnerships and strategic alliances

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NASDAQ: AQMS

WWW.AQUAMETALS.COM

Appendix


AQUA
METALS
FINANCIAL
OVERVIEW

Consolidated
Balance Sheets

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

	September 30, 2023	December 31, 2022
ASSETS		
Current assets		
Cash and cash equivalents	$ 25,598	$ 7,082
Accounts receivable	76	12
Lease receivable	—	15,527
Inventory	891	278
Assets held for sale	—	47
Prepaid expenses and other current assets	172	263
Total current assets	26,737	23,209
Non-current assets		
Property, plant and equipment, net	12,387	7,343
Intellectual property, net	326	461
Investment in LINICO	2,000	2,000
Other assets	532	489
Total non-current assets	15,245	10,293
Total assets	$ 41,982	$ 33,502
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 987	$ 1,075
Accrued expenses	2,256	1,780
Building purchase deposit	—	3,250
Lease liability, current portion	312	307
Note payable, current portion	34	5,899
Total current liabilities	3,589	12,311
Non-current liabilities		
Lease liability, non-current portion	38	275
Note payable, non-current portion	2,916	—
Total liabilities	6,543	12,586
Stockholders' equity		
Common stock; $0.001 par value; 200,000,000 shares authorized; 108,200,351 and 107,771,785, shares issued and outstanding as of September 30, 2023, respectively and 79,481,751 shares issued and outstanding as of December 31, 2022	108	79
Additional paid-in capital	249,036	220,114
Accumulated deficit	(213,189)	(199,277)
Treasury stock, at cost; common shares: 428,566 and nil as of September 30, 2023 and December 31, 2022, respectively	(516)	—
Total stockholders' equity	35,439	20,916
Total liabilities and stockholders' equity	$ 41,982	$ 33,502

Consolidated
Statement of Operations

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Product sales	$ 25	$ —	$ 25	$ 4
Operating cost and expense				
Plant operations	1,770	833	4,316	3,026
Research and development cost	389	490	1,359	1,561
General and administrative expense	2,815	2,611	8,670	7,615
Total operating expense	4,974	3,934	14,345	12,202
Loss from operations	(4,949)	(3,934)	(14,320)	(12,198)
Other income and (expense)				
Gain on disposal of property, plant and equipment	—	5	23	595
Interest expense	(87)	(9)	(518)	(22)
Interest and other income	489	53	903	166
Total other income, net	402	49	408	739
Loss before income tax expense	(4,547)	(3,885)	(13,912)	(11,459)
Income tax expense	—	—	—	(2)
Net loss	$ (4,547)	$ (3,885)	$ (13,912)	$ (11,461)
Weighted average shares outstanding, basic and diluted	101,617,856	77,402,763	89,103,988	74,871,423
Basic and diluted net loss per share	$ (0.04)	$ (0.05)	$ (0.16)	$ (0.15)

Consolidated
Statement of Cash Flows

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

	Nine Months Ended September 30,	
	2023	2022
Cash flows from operating activities:		
Net loss	$ (13,912)	$ (11,461)
Reconciliation of net loss to net cash used in operating activities		
Depreciation and ROU asset amortization	770	736
Amortization of intellectual property	135	135
Fair value of common stock issued for director fees	96	—
Fair value of common stock issued for consulting services	12	12
Stock-based compensation	1,880	1,737
Warrant expense	181	—
Amortization of deferred financing costs	119	—
Gain on disposal of property, plant and equipment	(23)	(595)
Changes in operating assets and liabilities		
Proceeds from leasing of building	12,278	636
Accounts receivable	(64)	131
Inventory	(612)	95
Prepaid expenses and other current assets	91	(19)
Accounts payable	322	(35)
Accrued expenses	1,181	383
Other assets and liabilities	(232)	(427)
Net cash provided by (used in) operating activities	2,222	(8,672)
Cash flows from investing activities:		
Purchases of property, plant and equipment	(6,142)	(2,290)
Proceeds from sale of equipment	70	1,432
Equipment deposits and other assets	(222)	(322)
Investment in LINICO	—	(500)
Net cash used in investing activities	(6,294)	(1,680)
Cash flows from financing activities:		
Proceeds from issuance of common stock, net of transaction costs	22,947	—
Proceeds from employee stock purchase plan	14	—
Payments on note payable	(6,000)	—
Proceeds from note payable, net	2,931	5,886
Cash paid for tax withholdings on RSUs vesting	(1,092)	—
Proceeds from ATM, net	3,788	5,622
Net cash provided by financing activities	22,588	11,508
Net decrease in cash and cash equivalents	18,516	1,156
Cash and cash equivalents at beginning of period	7,082	8,137
Cash and cash equivalents at end of period	$ 25,598	$ 9,293