



**Investor Presentation**  
**September 2024**



# Disclaimer

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*This presentation contains forward-looking statements, including statements that relate to, among other things, the effect of the COVID-19 public health emergency on the Company's operations, its employees and other stakeholders, including on customer demand, supply chain, and delivery schedule, the size of the Company's sales pipeline and the ability to satisfy orders thereunder, the Company's ability to satisfy its ongoing debt obligations, anticipated increased collaboration with OEMs and OEM channels constituting a source of sales growth for the Company, anticipated continued increase in sales momentum in fiscal 2024 through OEMs and directly to large global companies, including Fortune 500 companies, the future direction of the Company's business and products, including E-bus, E-truck and Energy storage applications and additional intellectual property protection, the Company's ability to source supply to satisfy demand for its products and satisfy current order volume, technology development progress, all trademark logos and trademarks are owned by the respective Company's, pre-launch plans, plans for product development, plans for shipment using the Company's technology, production plans, the Company's markets, objectives, goals, strategies, intentions, beliefs, expectations and estimates, and can generally be identified by the use of words such as "may", "will", "could", "should", "would", "likely", "possible", "expect", "intend", "estimate", "anticipate", "believe", "plan", "objective" and "continue" (or the negative thereof) and words and expressions of similar import. Although the Company believes that the expectations reflected in such forward-looking statements are reasonable, such statements involve risks and uncertainties, and undue reliance should not be placed on such statements. Certain material factors or assumptions are applied in making forward-looking statements, and actual results may differ materially from those expressed or implied in such statements. Important factors that could cause actual results to differ materially from expectations include but are not limited to: natural disasters, unusually adverse weather, epidemic or pandemic outbreaks, cyber incidents, boycotts and geopolitical events; the COVID-19 outbreak will not have significant further effects on the Company's supply chain or operations; that current customers will continue to make and increase orders for the Company's products, and in accordance with communicated intentions, that the Company's alternate supply chain will be adequate to replace material supply and manufacturing. Additional information about material factors that could cause actual results to differ materially from expectations and about material factors or assumptions applied in making forward-looking statements may be found in the Company's Annual Information Form for the year ended September 30, 2023 under "Risk Factors", and in the Company's most recent annual Management's Discussion and Analysis under "Qualitative And Quantitative Disclosures about Risk and Uncertainties" as well as in other public disclosure documents filed with Canadian securities regulatory authorities. The Company does not undertake any obligation to update publicly or to revise any of the forward-looking statements contained in this document, whether as a result of new information, future events or otherwise, except as required by law. These and other risks and uncertainties related to Electrovaya's business and the assumptions on which the forward-looking information is based are described in greater detail in the sections entitled "Risk Factors" in its Annual Report on Form 40-F filed with the U.S. Securities and Exchange Commission and the Ontario Securities Commission in Canada. Electrovaya assumes no obligation to update or revise any forward-looking statements, except as required by applicable laws. These forward-looking statements should not be relied upon as representing Electrovaya's assessments as of any date subsequent to the date of this presentation.*

# Electrovaya: Batteries with Superior Safety & Longevity

## Electrovaya's Infinity Technology Leads the Industry for Longevity (Cycle Life) and Safety



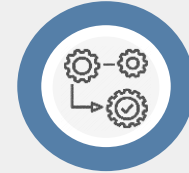
### Industry Challenge

- Legacy lithium-ion tech faces safety and longevity issues, failing in heavy-duty applications.
- Safety recalls hit major names like LG, Akasol, and Proterra.



### Our Solution

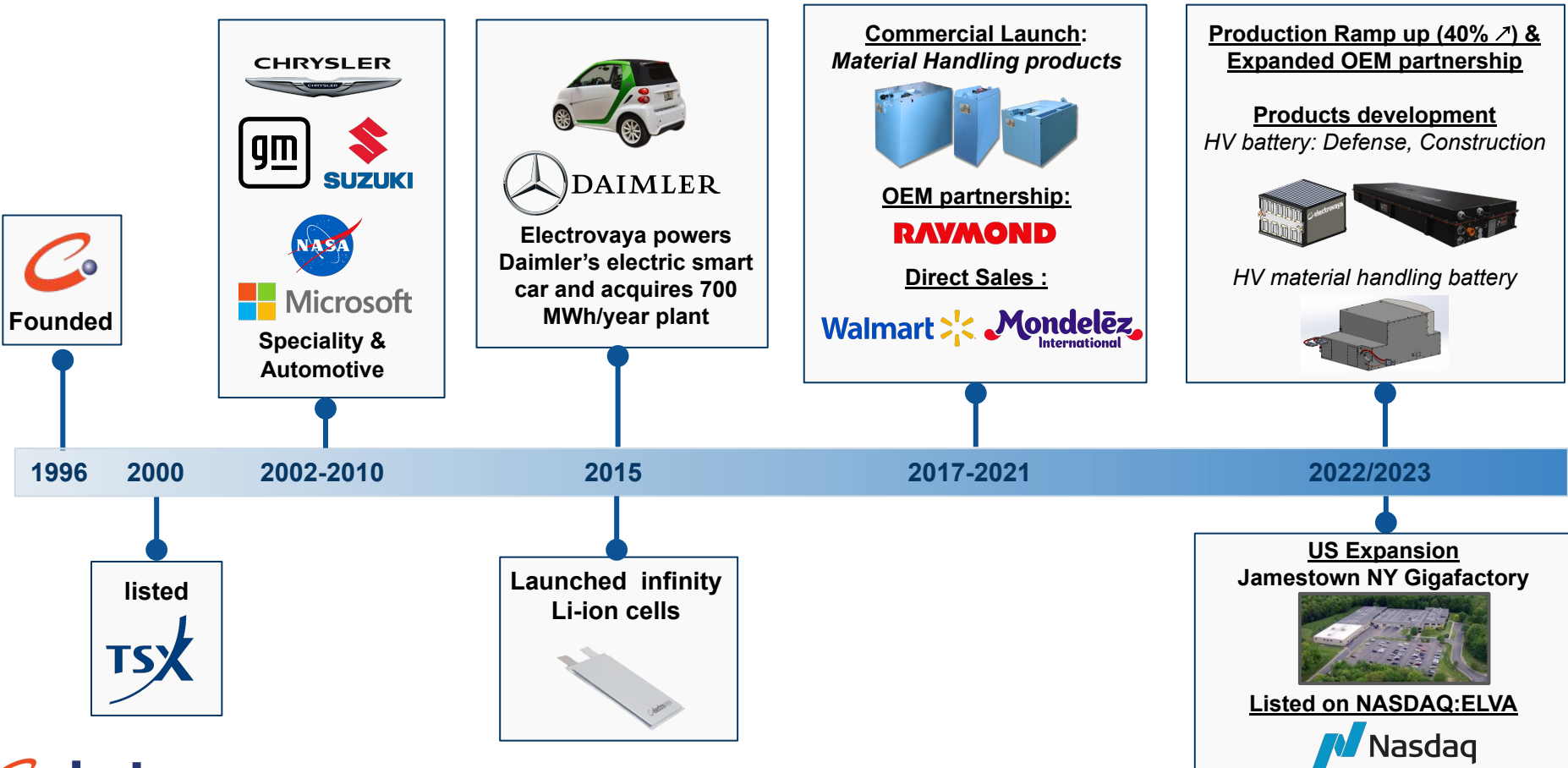
- **Longer Lifetime:** Our Infinity Technology offers the highest cycle with over 4X the life of typical batteries of the same chemistry
- **Improved Safety:** Our batteries use a proprietary ceramic separator membrane that significantly improves safety
- **Heavy Duty Applications:** Mission critical applications incl. Material handling, Construction & mining equipment



### Proven Execution

- **Scaled:** Deliveries of battery systems increasing more than 100% YOY
- **Proven:** Proven technology and manufacturability - >6 years of field data with major customers
- **Reliable:** Operating in mission critical 24/7 warehouse operations at the largest companies in the world (>14 Fortune 100 end users)

# Building Legacies: Electrovaya history



# Investment Highlights

Electrovaya is a pure play, North American lithium-ion battery technology and manufacturing company on track for rapid growth



## Industry Leader

Providing the **safest**<sup>1</sup> & **longest lasting**<sup>2</sup> lithium ion battery technology

1 Proprietary ceramic separator tech

2 Longevity or cycle life 4X typical tech



## Premium Product Performance and NextGen Technology

### Infinity Technology

Significant competitive advantages provide **pricing power** and **higher gross margins**

### Solid State

Battery technology developments will be **game-changing**



## Large Addressable Heavy Duty Market

\$18 Billion market with rapid growth<sup>1</sup>

1 Data obtained through MarketWatch



## High Growth with Clear Path to Profitability

100% Organic CAGR over 2 Years  
FY2023 revenue up 171%



## North American Footprint

**Reshoring production to US** improves capacity, security and gross margins



## Top-tier Customer Base

More than 12 Fortune 100 end customers and the largest OEM partner in the material handling industry



## Unparalleled Experience

25+ years of experience  
100+ patents



**Route to Profitability**  
**Inflection Point:** Trailing 12 months with \$4.8M in EBITDA

# Our Products: Complementary Technology Solutions

Complementary technologies targeting a number of EV applications

Infinity Batteries provide industry leading longevity and SSBs provide industry leading energy density

## Infinity Batteries

**Commercial today**  
Global partners & users

Superior Safety & Lowest Cost of  
Ownership

Based on proprietary separator and  
electrolyte technology

E-forklift, E-trucks, E-bus and Energy  
Storage Systems

## Solid State Batteries

**In development stage**

Highest Energy Density

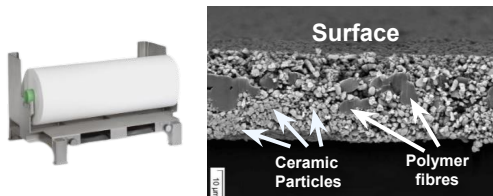
Based on proprietary separator and  
electrolyte technology

Passenger EVs, Over the road (OTR)  
trucking, aerospace

# Technology Portfolio

## Proprietary Technology

### Fully Ceramic Separator



Patented unique ceramic separator offers increased thermal stability, unparalleled safety with high power capabilities. (32 patents)

### Unique cell assembly process

Unique cell design, electrode processing, manufacturing process, and optimised electrolyte formulation for ultra long cycle life at RT and high temperature applications.



## Cell Chemistries for various applications

### NMC

Lithium  
Nickel-Manganese-  
Cobalt Oxide  
(NMC)

- Ultra long cycle life
- Balanced Power-Energy
- Superior safety
- Flexible form factor

### LFP

Lithium  
Ferrophosphate  
(LiFePO<sub>4</sub>)

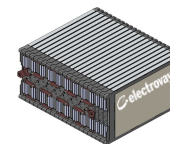
- Ultra long cycle life
- High Power
- Superior safety
- Lower cost

## Unique Capabilities

### Cells



### Modules & BMS



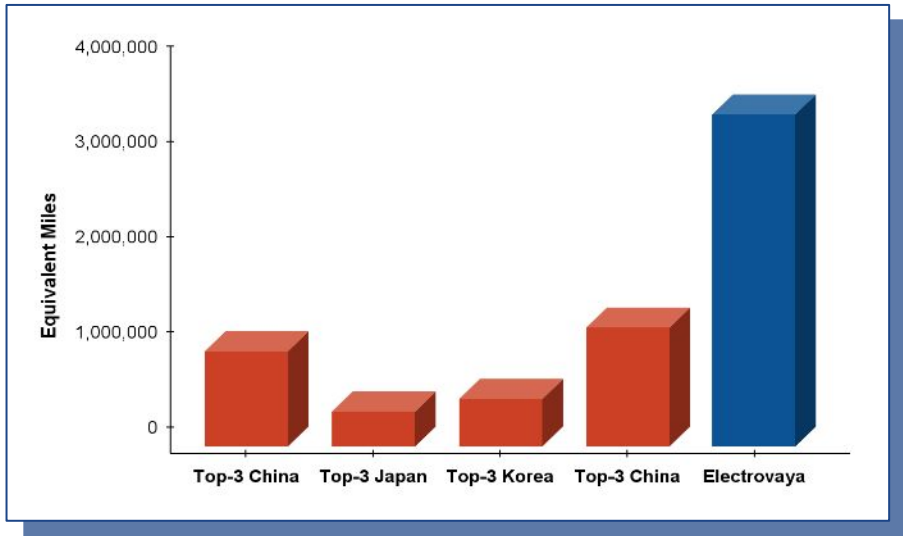
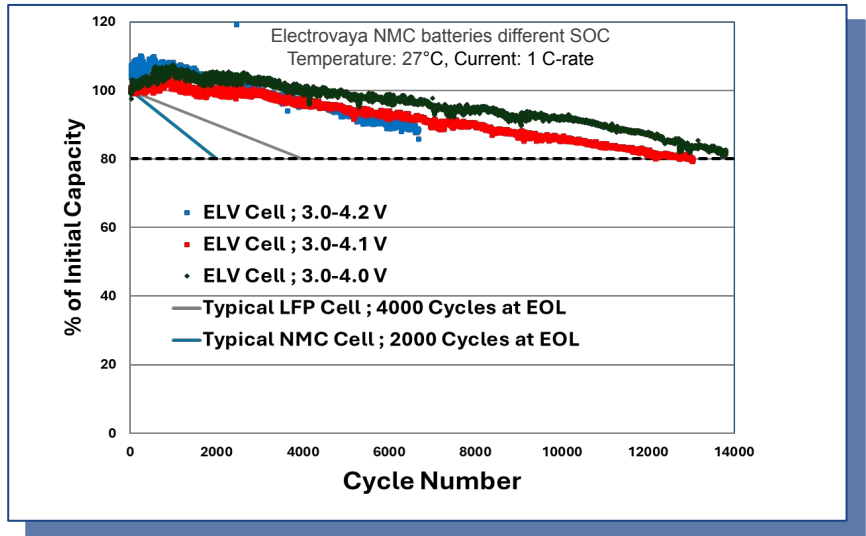
### Packs



# Multi-Million-Mile Batteries - Performance Advantage



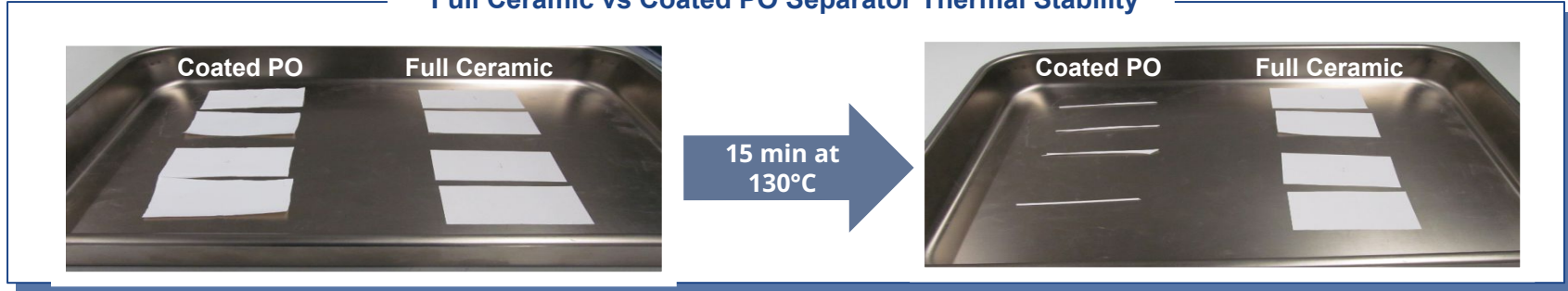
*\*Cycle equivalent:  
14,000 cycles is equivalent to 3,500,000 miles for 250-mile range car*



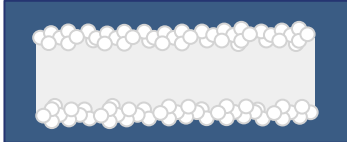


# Product Differentiation: Ceramic Separators

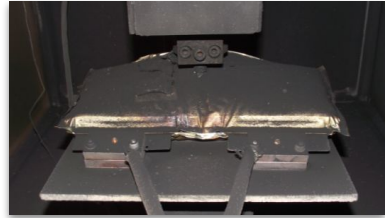
## Full Ceramic vs Coated PO Separator Thermal Stability



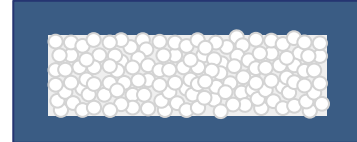
Ceramic-Coated PO Separator (Competitors)



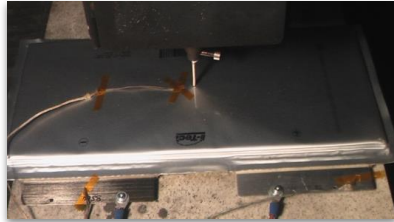
Nail Penetration test



Fully Embedded Ceramic Separator (Electrovaya)






Nail Penetration test



# Market Opportunity: Infinity Batteries

Take-away message? A multi-billion dollar addressable market for batteries that are safe, efficient, have a long useful life and low cost of ownership?

APPLICATION	USAGE	MARKET SIZE
 <p>Mining /Construction Vehicles / Locomotive/ Airport Ground Service Equipment (GSE)</p>	12-20 hrs/day	<p>Combined ~ \$9.6 Billion Addressable Market*</p> <hr/> <p>~ \$4.5 Billion Addressable Market*</p> <hr/> <p>~ \$4.2 Billion Addressable Market*</p>
 <p>E-Forklifts/ Warehouse</p>	20-24 hrs/day	
 <p>Stationary energy storage</p>	12-20 hrs/day	



**Battery Requirements:** Efficiency, Lifetime, Safety & Cost of Ownership

\*Data Numbers Obtained Through MarketWatch / IDTechEx

# Electrovaya Batteries Powering ...

Warehousing Vehicles



Large AGVs



Defense Trucks



Large Industrial Vehicles



Small AGV



E-Bus



# Our Customers: Infinity Batteries (MHEV)

## Example OEM Customers

**RAYMOND**

**Bastian**  
SOLUTIONS

**JABIL**

## End Users Example *(not a full list)*

Retail & eCommerce

**Walmart**

**THE HOME DEPOT**

**TARGET**

**LOWE'S**

\*Confidential F100 ecommerce company

Food Distribution

**MARS**

**Unilever**

**MAPLE LEAF**

**Mondelēz**  
International

Manufacturing

**MICHELIN**

**SIEMENS**

**3M**

Logistics

**Lineage**

**FedEx**

**CEVA**  
LOGISTICS



# Opportunities - New Verticals

With a strong foundation built in the Materials Handling space, we are beginning a **transition to new vertical industries** in 2024 and beyond

## Mining & Construction



- Near continuous operation
- Highest cycle-life demand in EV industry
- High priority for battery safety

## Defence



- High use applications
- Highest demands for battery safety and reliability

## Airport Ground Equipment (GSE)



- High use application
- High priority for battery safety

## Locomotive

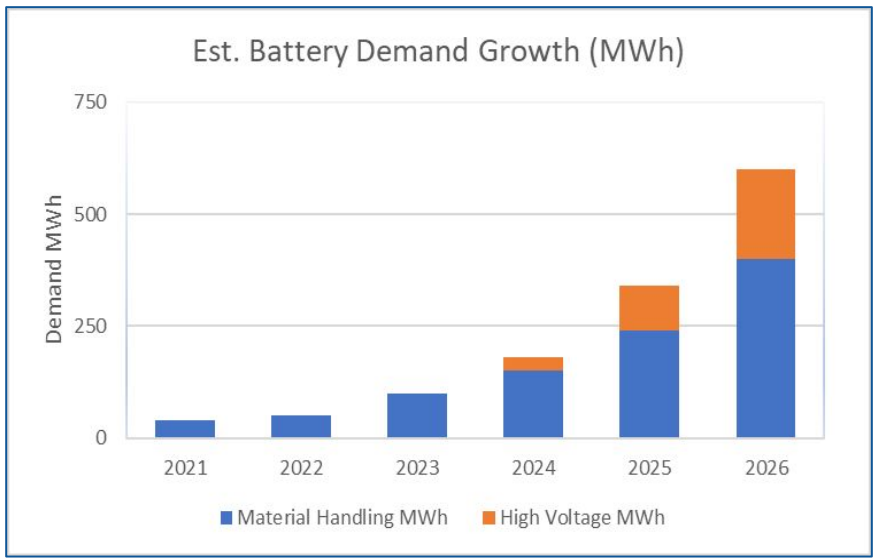


- High use application
- High priority for battery safety & reliability

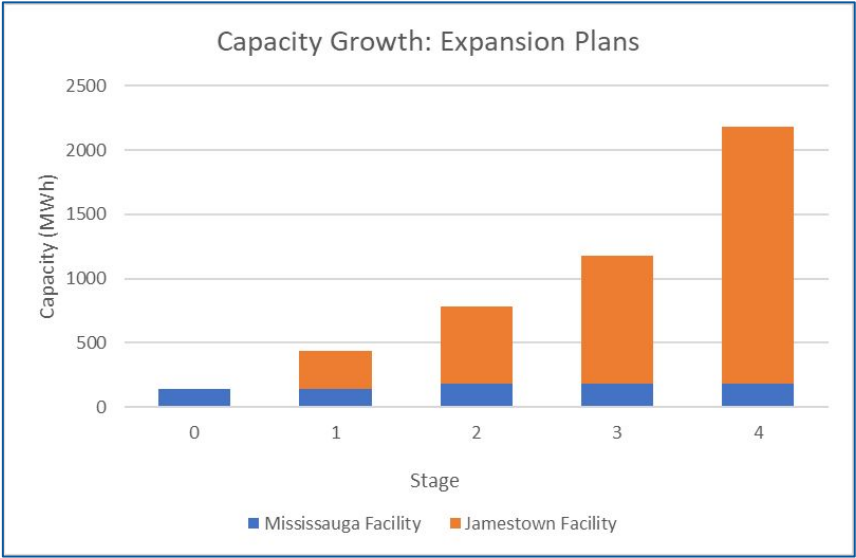
# Market Demand: Near-term Exponential Growth for MHEV

Expanding our capacity to scale our business and meet anticipated growth in demand

Demand is expected to grow rapidly over the next 3 Years



We are executing plans to **expand our manufacturing capacity** to ~500MWh in 2025 and >2GWh by 2029



\*Demand data from lift truck OEM

# Expansion Plan- Jamestown Factory

**130,000 sq ft**

Industrial facility

**\$0.05/kWh**

Low energy cost

**100%**

Renewable Energy

**3 Hours**

Distance to HQ and Key Customers



# Our Products: Technology Solutions

Complementary technologies targeting a number of EV applications

Infinity Batteries provide industry leading longevity and SSBs provide industry leading energy density

## Infinity Batteries

**Commercial today**  
Global partners & users

Superior Safety & Lowest Cost of Ownership

Based on proprietary separator and electrolyte technology

E-bus, E-forklift, E-trucks, Energy storage systems

## Solid State Batteries

**In development stage**

Highest Energy Density

Based on proprietary separator and electrolyte technology

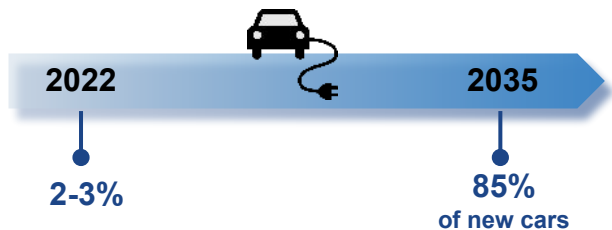
Passenger EVs, Over the road (OTR) trucking, aerospace







# Our Products: Next Gen-Solid State Batteries (SSB)

Solid State Promises Much Higher Energy Density = More Range, Less Weight, Less Cost

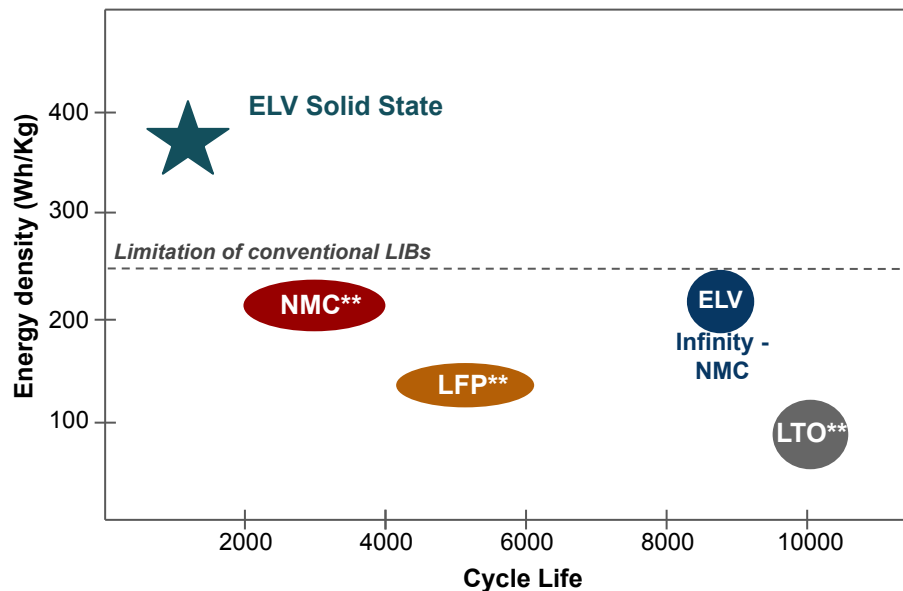
EV penetration in the global vehicle market



Battery Requirements for E-cars adoption

-  Energy Density > 350 Wh/Kg (>750 Wh/L)
-  >10 years lifetime
-  Superior Safety
-  Cost < 100 \$/Kwh for cells

Solid State Batteries offer 2X Energy Density over conventional lithium ion batteries = more range, less weight, less cost

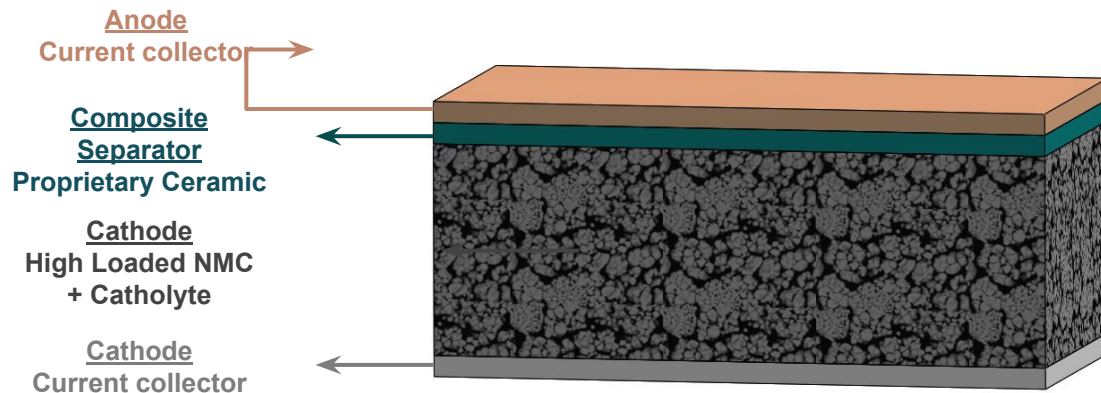


\*\* Competitor data sheets/estimates

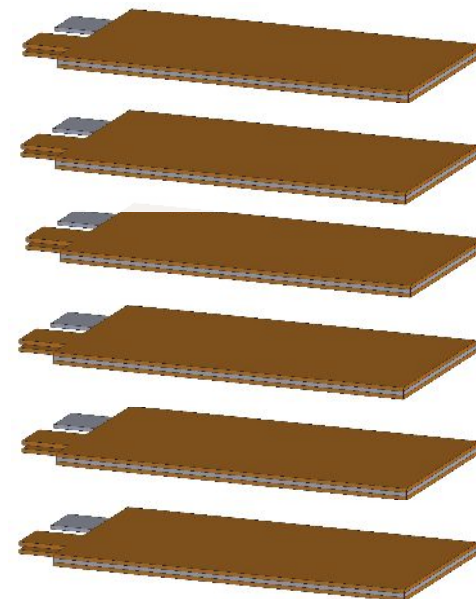
# Our Products: Our Approach with SSB

Our SSB platform incorporates versatile, proprietary technology

Four Solid State Battery Related Patents Have Been Filed

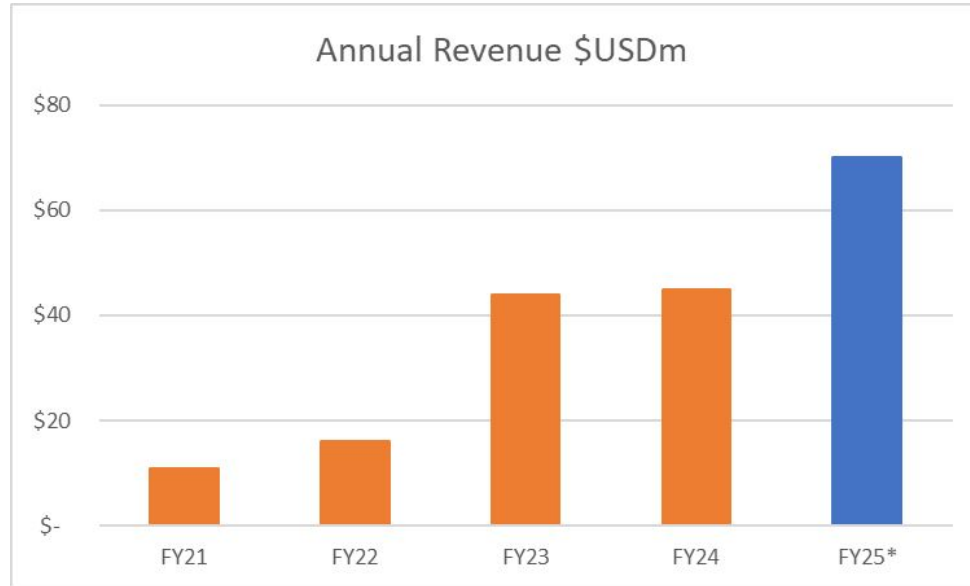


Multi-layer Pouch stack



# Financial Performance: 100% CAGR over 2 Years

Market demand provides **STRONG TAILWIND** for accelerating revenue growth



## Key Revenue and Margin Drivers

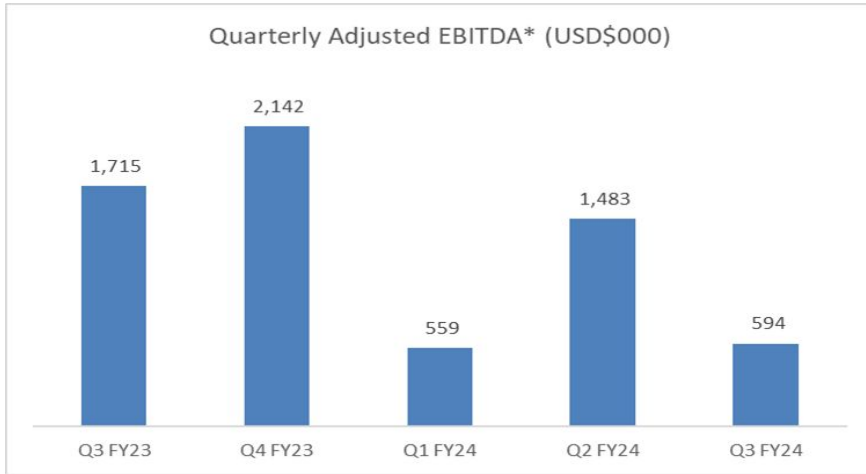
- FY 2023 **revenue more than doubled** due to **increased orders** driven by **strong market demand**
- Expanding capacity provides opportunity to further accelerate revenue growth
- Breakeven ~\$50 million/annum with incremental revenue contributing to net profits
- Margins have improved steadily with Q3FY2024 margins at 34%
- Trailing 12 month adjusted EBITDA at \$4.7 million (10%)

\*FY25 is an estimate and is not to be considered as guidance

# Financial Performance: Profitability Inflection Achieved

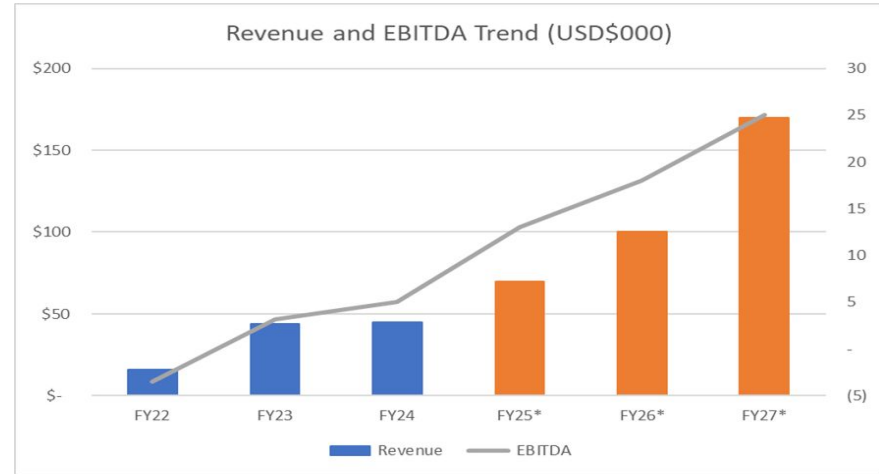
Reaching an inflection point... set to be one of the only profitable battery companies in North America

Quarterly Adjusted EBITDA\* (USD\$000)



- Operational efficiencies and cost savings drove positive EBITDA in FY23 and into FY24.
- **Continuous positive EBITDA (last 5 quarters)**

Revenue and EBITDA Trend (USD\$000)



- Significant growth expected in Revenue and EBITDA
- Jamestown production coming online late 2025
- Expansion into multiple revenue streams

\* Non-IFRS Measure: Adjusted EBITDA does not have a standardized meaning under IFRS. Therefore it is unlikely to be comparable to similar measures presented by other issuers. We believe that certain investors and analysts use Adjusted EBITDA to measure the performance of the business. Adjusted EBITDA is defined as loss from operations, plus finance costs, stock-based compensation and depreciation costs.

FY25-FY27 are estimates and are not to be considered as guidance

# Summary Balance Sheets and Cap Table

## Select Balance Sheet Items (\$USD)

<i>(US\$ in thousands)</i>	<b>06/30/2024</b>	<b>06/30/2023</b>
Cash	\$534	\$723
Trade and other receivables	8,159	5,544
Inventories	12,427	9,201
Other current assets	6,470	6,259
Long-term assets	10,220	10,780
<b>Total Assets</b>	<b>\$37,810</b>	<b>\$32,507</b>
Trade & other payables	\$8,999	\$8,134
Short-term debt	18,164	16,853
Other Liabilities	3,027	5,914
<b>Total Liabilities</b>	<b>\$30,190</b>	<b>\$30,901</b>
<b>Total Equity (Deficiency)</b>	<b>\$7,620</b>	<b>\$1,606</b>
<b>Total liabilities and equity</b>	<b>\$37,810</b>	<b>\$32,507</b>

## CapTable

As of 06/30/2024

Outstanding shares	34,134,165
Outstanding warrants	1,711,924
Outstanding stock options	4,883,788
<b>Total</b>	<b>40,729,877</b>

## Select Equity Items (Nasdaq \$USD)

As of 08/15/2024

Share price	\$2.04
Market Cap	\$69.1M
Insider ownership	~33%

# Management Team



**Dr. Raj S.  
Das Gupta,**  
*CEO, Director*

Raj has been with the company since 2009 and became CEO in 2022 following his previous role as COO. Raj attended Imperial College, London; MIT; and the University of Cambridge, where he received his Doctorate in Materials Science



**John Gibson,**  
*CFO*

John is a Certified Professional Accountant (“CPA, CA”) with over 15 years of experience in public and private corporations and brings significant experience in corporate accounting and finance, strategic and financial planning, internal controls, and systems.



**Dr. Jeremy  
Dang,**  
*VP, Business & Project  
Development*

Jeremy’s client portfolio includes lift truck OEMs and Fortune 500 clients from material handling, and energy storage industries. Jeremy is a Certified Chartered Chemist and Project Management Professional with a doctorate in Chemical Engineering.



**Dr. Elmira  
Memarzadeh**  
*VP, Cell Operations*

Elmira has been with Electrovaya since 2014 and currently manages cell production. She has worked on several development projects with other Engineering departments within Electrovaya as well as Vendors and Clients. Elmira received her PhD in Material Science from the University of Alberta.



**Jason Roy,**  
*VP, Corporate  
Development and  
Investor Relations*

Jason has been with the company since 2018. He brings with him over 18 years of Capital Markets experience, in various roles of Investor Relations, Communications, Business & Corporate Development with both Publicly traded and Private companies.

# Board of Directors



**Prof Carolyn Hansson,**  
Director

Professor Carolyn Hansson CM, FCAE, FRSC has a long and distinguished career in industries such as Lockheed Martin (Martin Marietta), Danish Corrosion Labs and Bell Labs as well in academia (Waterloo, Queens, Columbia & SUNY) and was earlier a member of the Board of a TSX and NASDAQ listed Alternate Energy Company (Hydrogenics).



**Dr Jim Jacobs,**  
Director

Dr. Jacobs' innovations have been instrumental in the development of Electrovaya's SuperPolymer technology. He co-founded the company with Sankar DasGupta in 1996 and was an instrumental part of its IPO in 2000. He served as CTO of the company until 2003. Dr. Jacobs received a BA from Oberlin College, Ohio and completed both his MA and PhD in solid-state physics at the U of Toronto.



**Dr. Sankar Das Gupta,**  
Executive Chairman

Sankar is an entrepreneur and an award-winning scientist with over 50 US patents who is passionate on the urgency to reduce the effects of Climate Change. He has been a member of many committees including the White House Committee on Energy & Environment, chaired by then Vice- President Al Gore. Recently he was an Advisor to the Indian PM on Climate Change and Energy



**Kartick Kumar,**  
Director

Kartick Kumar is a seasoned climate change and sustainability investor. Has two decades of investment and operations experience in energy and decarbonization transition issues across Europe, Asia, Latin America, Africa, and the Middle East. Held a range of senior roles within the World Bank Group, the International Finance Corporation (IFC). Holds degrees in economics and law from U of Cambridge, U of Columbia and the U of Toronto.



**Steven Berkenfeld,**  
Director

Steven is a seasoned industry veteran within both the clean energy and finance industries. Founder and principal of Ecotopia Consulting. Former Managing Director Investment Banking at Barclays of the Environmental and Social Impact Banking Initiative, was co-head of the firm's Cleantech Initiative, led the banking effort for Emerging Industrial Technology companies. Former Chair of the Board of the Sierra Club Foundation, an organizations focused on social impact and sustainability

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## Premium Product Performance and NextGen Technology

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Significant competitive advantages provide **pricing power and higher gross margins**

**Solid State**  
Battery technology developments will be **game-changing**



## Large Addressable Heavy Duty Market

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**Inflection Point:** Trailing 12 months with \$4.8M in EBITDA



# electrovaya

(NASDAQ:ELVA) & (TSX:ELVA)

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