General Corporate Presentation

March 24th, 2023

Toronto Stock Exchange (TSX:EFL) & (OTCQB:EFLVF)

Disclaimer

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 2023 and 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 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, the Company's application for a listing on NASDAQ and its ability to be listed thereon, 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: 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, that the Company's interpretation of the effect of any comfort given to Litarion's auditors of the Company's financial support for Litarion's operations is correct, that Litarion's insolvency process will proceed in an orderly fashion that will satisfy Litarion's debt without a significant negative effect on the Company or its assets, actions taken by creditors and remedies granted by German courts in the Litarion insolvency proceedings and their effect on the Company's business and assets, negative reactions of the Company's existing customers to Litarion's insolvency process, general business and economic conditions (including but not limited to currency rates and creditworthiness of customers), Company liquidity and capital resources, including the availability of additional capital resources to fund its activities, level of competition, changes in laws and regulations, legal and regulatory proceedings, the ability to adapt products and services to the changing market, the ability to attract and retain key executives, the granting of additional intellectual property protection, and the ability to execute strategic plans. 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, 2022 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.

Our Mission

To accelerate the energy transition with safer and better batteries through technology advancement

Technology Solutions

Electrovaya complementary technologies targeting the various EV applications.
Infinity batteries provides industry leading *longevity* and SSBs provides 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 late stage development

Highest Energy Density

Based on proprietary separator and electrolyte technology

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

Electrovaya at a Glance

Focused Lithium Ion Solutions based on proprietary competitive advantages

Success Based on Innovation

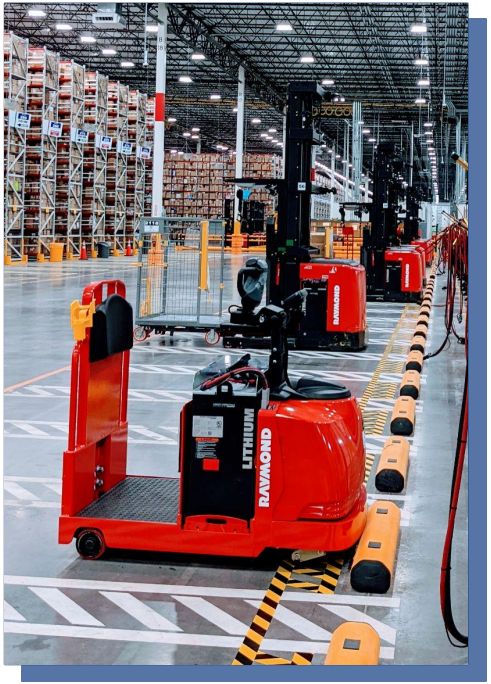
Industry Leader
1st to provide the safest multi-million-mile batteries'

Top-tier Customer Base
Fortune 100 customers and leading OEMs

Unparalleled Experience
25+ years of experience

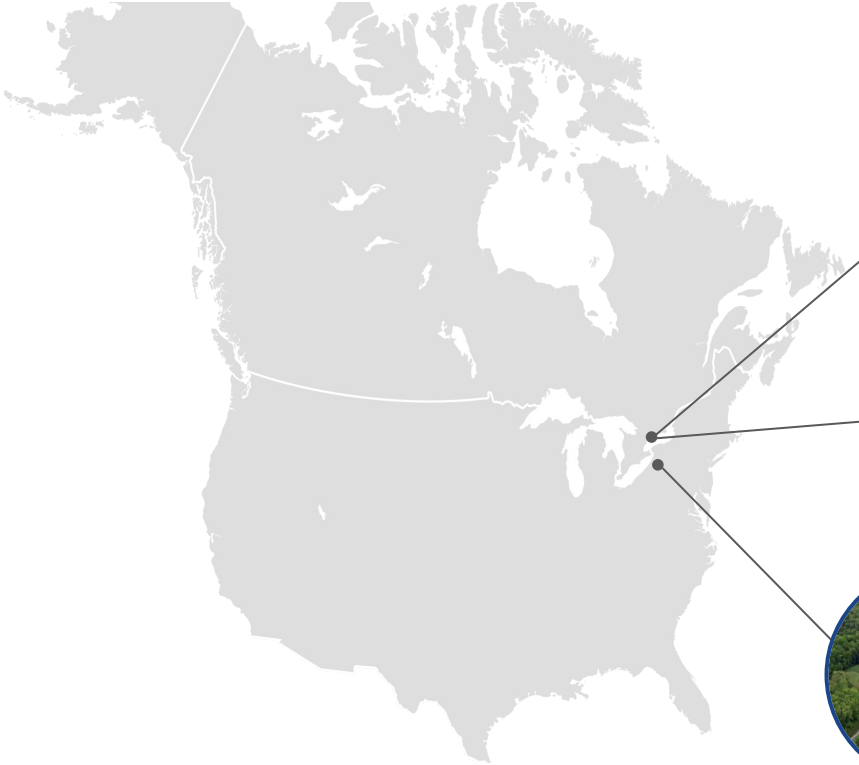
Advanced Technology
100+ Patents including electrode processing, separator technology and solid state battery technologies

High Revenue Growth
>4x since 2019 with projected 100% growth in FY2023



Electrovaya Batteries Powering vehicles at a Fortune 100 Customer site

About Electrovaya: Our locations



- Headquarters: 63,000 Sq feet Facility in Mississauga, ON
- Pack assembly & engineering development
- Capacity is approx 150 MWh (300 MWh by 2023)

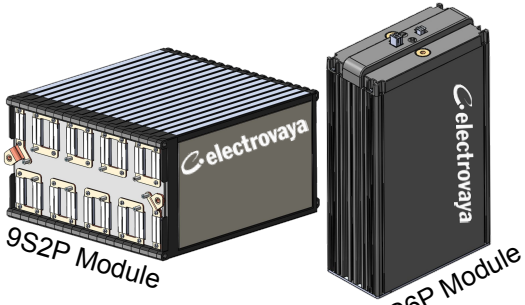
- Electrovaya Labs: 25,000 Sq feet facility in Mississauga, ON
- Cell technology development & scale up

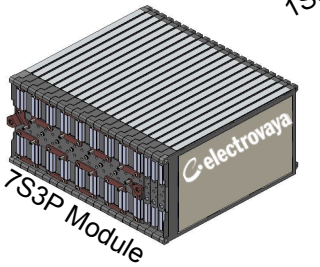
- US Manufacturing Hub: 130,000 sq feet and 52 acres facility in Jamestown, NY
- Cell & module assembly
- Planned overall capacity >1 GWh/yr
- Powered by low cost hydro energy (~$0.05/kWh)

Electrovaya Capabilities

Electrovaya expertise and capabilities includes designing and manufacturing lithium ion batteries cells / Modules / Packs / Battery systems and other battery-related products (BMS)

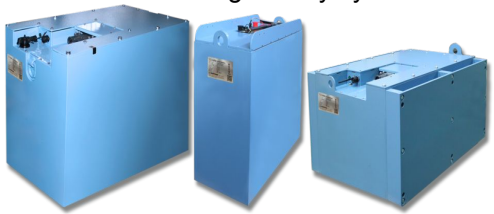
Cell → **Module** → **Pack**





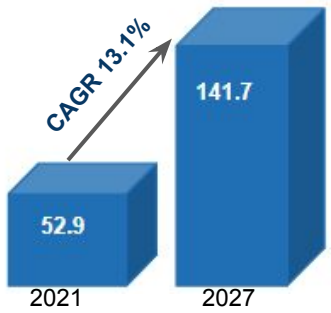
High Voltage battery systems

Material handling battery systems

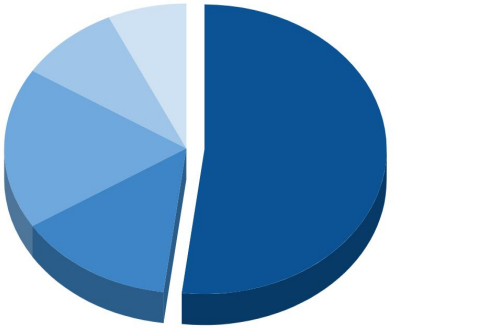


Market Opportunity Summary: Infinity Platform

Global Lithium-Ion battery Market size



Market size USD Billion



Source: Maximize Market Research 2021

North American TAM

~US$ 9 Bil
CAGR 10.4%
2022-2030

~US$ 0.45 Bil
CAGR 40.28%
2022-2027

~US$ 3 Bil
CAGR 26.39 %
2020-2026

~US$ 1 Bil
CAGR 24.4%
2021-2027

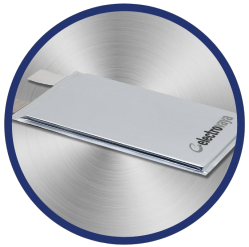
Source: Grand View Research

North American Market Challenges

- Supply chain issues
- Technology challenges: Safety & lifetime
- Expensive battery technology

Infinity Batteries: Proven technology

Lithium-ion ceramic cells with highest cycle life and safety setting the industry standards.



Li-Ion Ceramic Technology*

Heavy Duty Vehicles

Material Handling Equipments

OEM Partners (not a full list)

RAYMOND

Autonomous Guided Robots

OEM Partners (not a full list)

JABIL badger technologies

Electric Trucks and Buses

Coming Soon 2023

- **High Cycle Life**
  Lowest Cost of Ownership
- **Safety**
  Zero Fire Incidents
- **High Reliability**
  Performance in 24/7 applications

**An earlier iteration of our lithium-ion ceramic technology has also been used in ~20,000 Daimler Smart cars (no active cooling).*

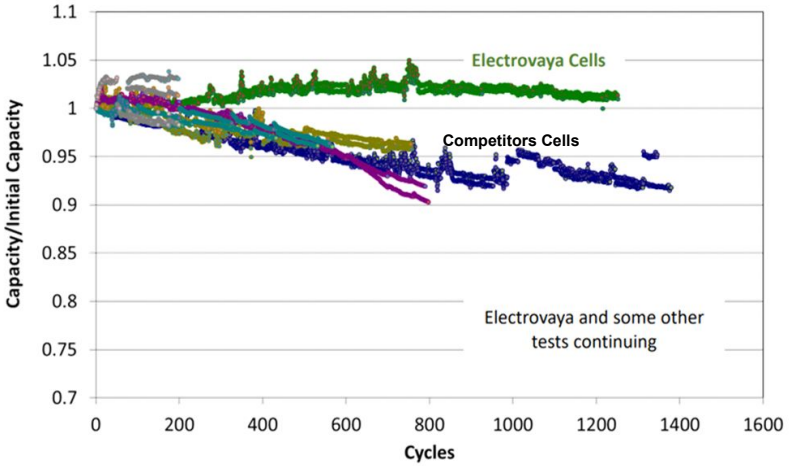
**There have been no known battery safety incidents in these vehicle or the 5000+ Material Handling/AGV battery systems*

electrovaya

Multi-Million-Mile Batteries

Electrovaya Patented Technology provides the longest Cycle life in Industry: Electrovaya batteries can operate for >25 years with 1 cycle/day

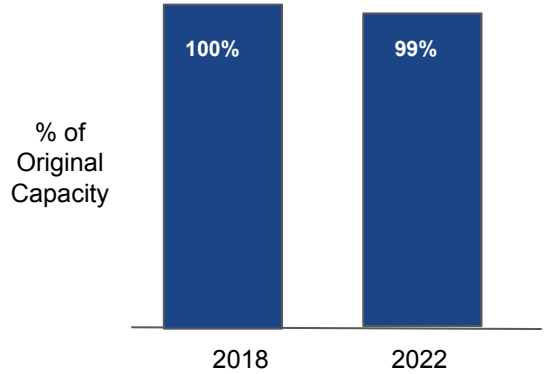
Third party testing:
Electrovaya batteries lifetime VS competitors



Temperature: 22°C, Current: 0.5 C-rate, Voltage: 3-4V

E-forklift battery performance from Fortune 100 customer:

Electrovaya's forklift battery capacity after 4 years of continuous operation (equivalent to 192,000 miles of driving)



Competitive Advantage

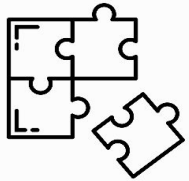
Electrovaya prides itself by providing leading edge Lithium ion battery cells and systems

Longevity

Using patented innovations we provide very stable longer-life power source than other cell chemistries.

Superior Safety

Proprietary fire propagation prevention technology
UL2580 listed
(including fire propagation)



Modular Approach

Performance Oriented System design
Modular battery systems tailored for unique applications requirements

Lowest cost of ownership

Best Cycle Life + superior safety
No battery replacement required
(Up to **12 years warranty**)

Commercial Ecosystem: Material Handling & AGVs

OEM Customers

RAYMOND

JABIL

End Users Examples (not a complete list)

Retail & eCommerce

FORTUNE 100 *Confidential User

Walmart

The Home Depot

Ashley HOMESTORE

LOWE'S

Food distribution

MARS incorporated

Unilever

MAPLE LEAF

Mondelēz International

Manufacturing

P&G

PVH

PHILLIPS-VAN HEUSEN CORPORATION

Logistics

CEVA LOGISTICS

interstate warehousing
a Tippmann Group Company

Material Handling Sales Cycle: Anchor Customers

Electrovaya continues to seed new large end customers while growing the demand with additional key customers. To date the company has received orders from 10 Fortune 100 Companies and many more Fortune 500 companies.

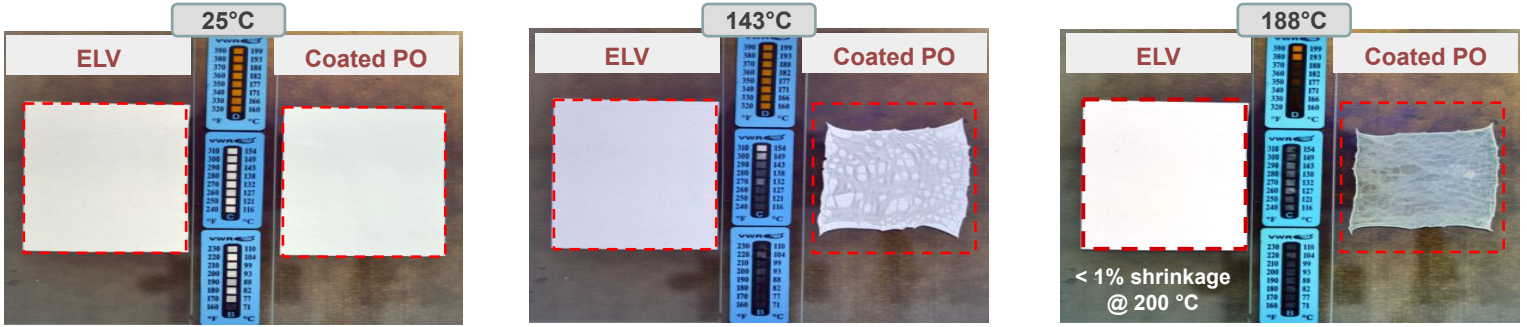
Customer Type	Opportunity size	Year 1	Year 2	Year 3
Fortune 100 (Retail)	> US$ 200 mil	US$ 2 mil 2021	US$ 16 mil 2022	Expected*
Fortune 500 (Retail)	> US$100 mil	US$ 2 mil 2022	US$ 15 mil* 2023	TBD
Fortune 100 (Retail)	> US$ 100 mil	US$ 3.4 mil 2023	TBD	TBD

*Indications for further orders to be placed in the current year

Superior Safety

Multi-level cell and system safety technology with end result being a non-propagating battery design

Electrovaya Ceramic vs Coated PO Separator

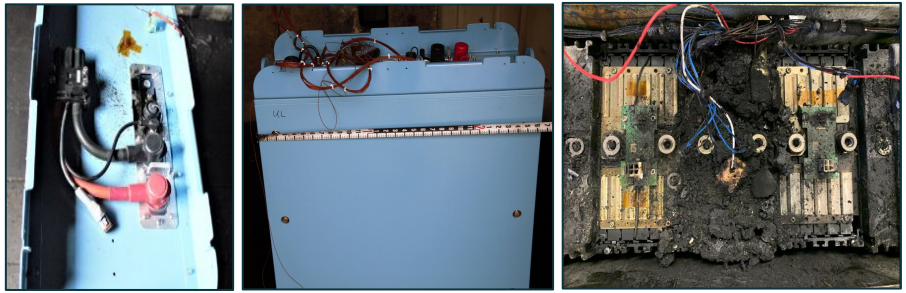


Third Party fire propagation test

An Electrovaya 24V battery AFTER fire propagation testing for UL

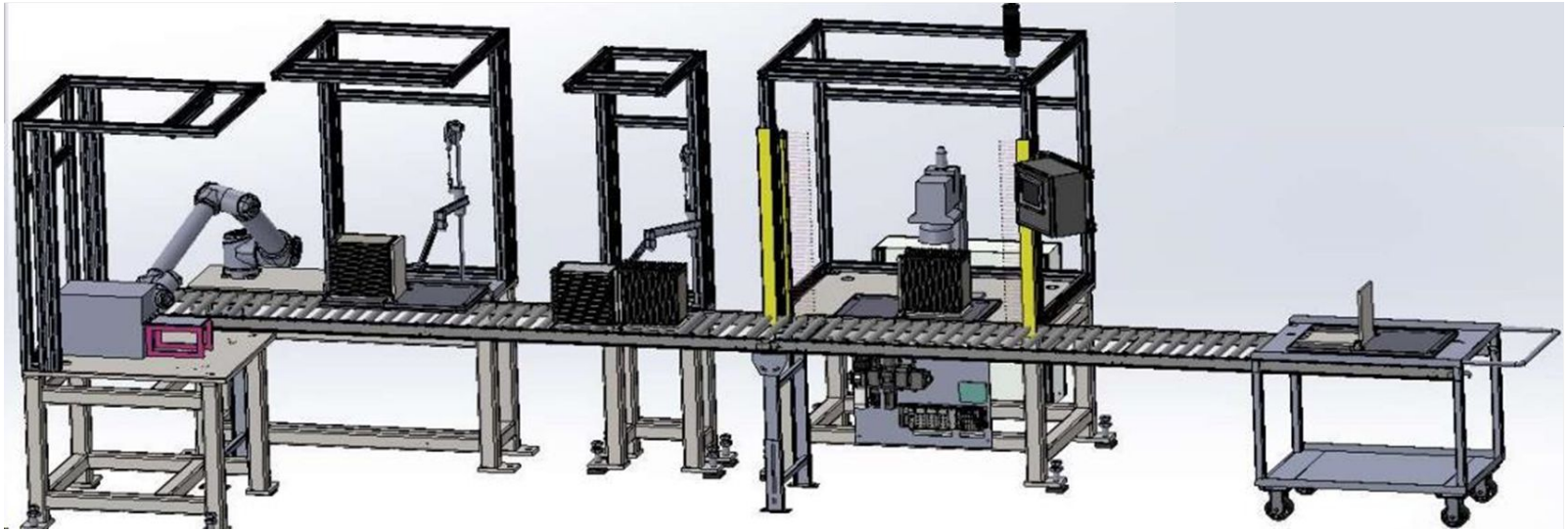
- Individual cell in fully charged battery pack was forcibly heated to +200°C
- No internal propagation, the fire was contained within the faulted sub-module
- No flames escaped the battery enclosure

Test conducted by UL in early 2020, UL comment about the fire propagation test results: "best results seen in lithium ion battery regardless of the chemistry"



High Voltage battery systems - Approach

- ➔ Electrovaya is currently focusing on launching a new product line: ***High-Voltage Battery Systems.***
- ➔ Targeted : E-Buses, E-Trucks & ESS
- ➔ Goal: to provide domestically produced battery systems with cutting edge safety and performance.



Advanced automated module assembly line at the Mississauga facility. Commissioning April 2023

High Voltage battery systems - Launching 2023

Advanced customized packaging technology for demanding application

High Voltage Batteries

Energy Storage Systems

Electrovaya HV batteries designed for high performance stationary applications.

Electric Buses

Based on OEM benchmarks, Electrovaya batteries should last longer than 16 years.
(Multiple times better performance than standard solutions)

- **High Cycle Life & Safety**
  Lowest Cost of Ownership
- **Modular Design**
  Tailored for specific application
- **Strongest Warranty**
  Up to 12 years

Technology Solutions

Electrovaya complementary technologies targeting the various EV applications.
Infinity batteries provides industry leading *longevity* and SSBs provides 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 late stage development

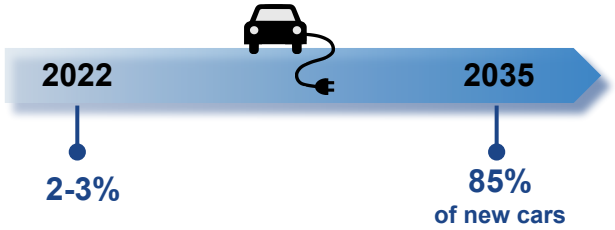
Highest Energy Density

Based on proprietary separator and electrolyte technology

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

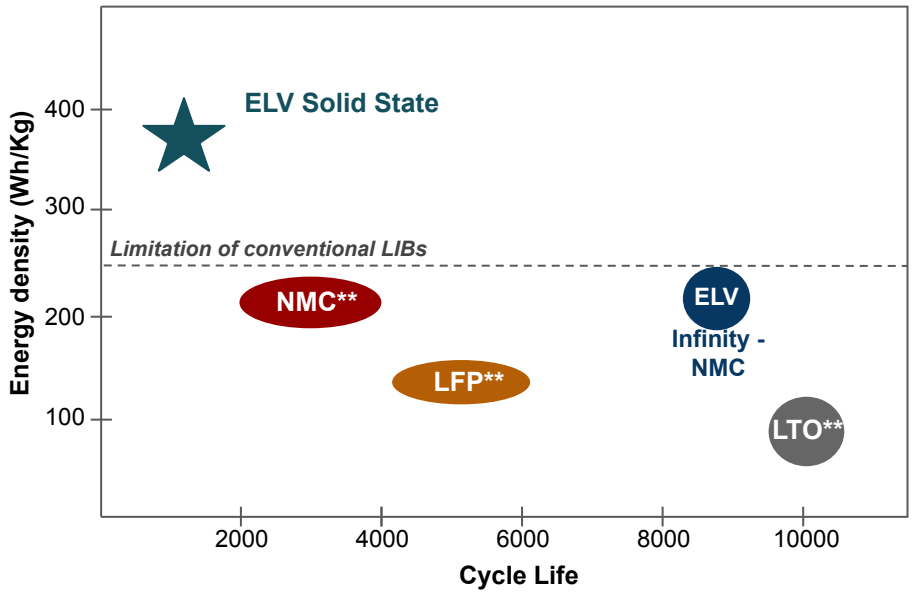
Next Gen-Solid State batteries

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*

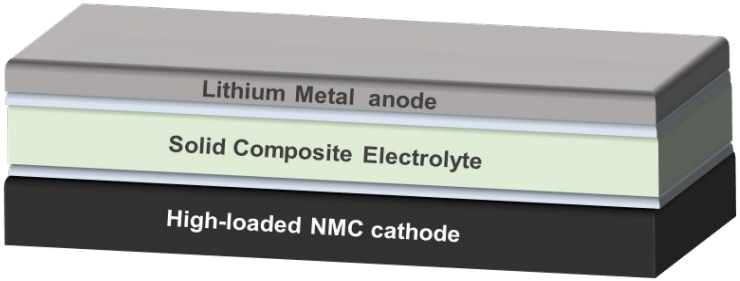


** Competitor data sheets/estimates

Solid-State Batteries: Electrovaya's Approach

Solid State battery platform with versatile proprietary technology

Four Solid State Battery Related Patents Filed



Hybrid Lithium Metal SSB	Lithium Metal SSB	"Anode-Free" SSB
Thin Lithium Metal anode	Thin Lithium Metal anode	No Standalone Lithium Electrode
Cathode: Agnostic. Testing with NMC (622/811), proprietary solvent-free thick cathode coating		
Proprietary Composite Ceramic Separator	Proprietary Composite Ceramic Separator	Proprietary Composite Ceramic Separator

Jamestown Gigafactory Update

The Gigafactory Plant in Jamestown, NY will allow Electrovaya to onshore manufacturing and streamline supply chains to support projected battery demands

130,000 sqft
Industrial Facility

100%
Renewable Energy

$0.05/kWh
Energy Cost

<3 hours
Travel to HQ and Key Customer Bases

Update

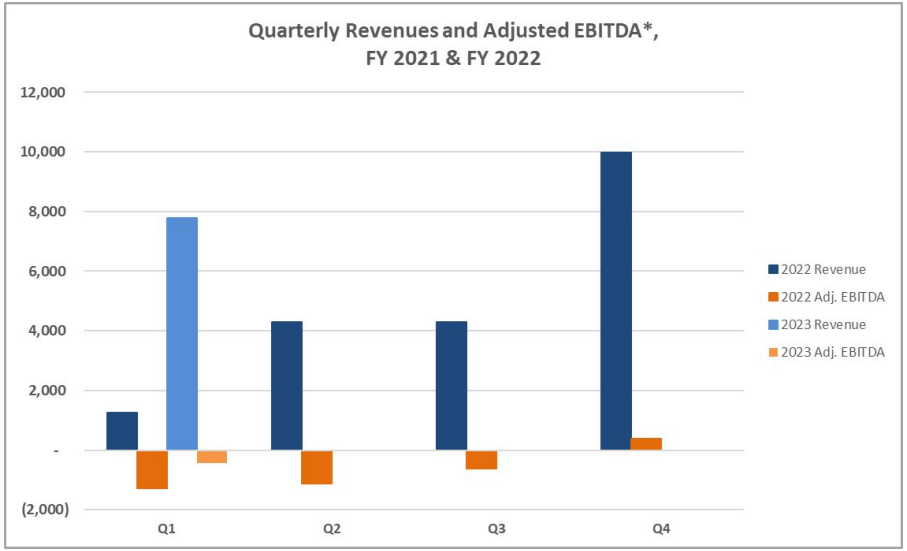
- Term sheet received from a NY State consortium lenders covering 80% of stage 1 costs
- Plant will carry out cell and module assembly and final assembly and test
- Cell and module assembly go live calendar Q1 2025
- Final assembly and test go live in the second half of the 2023
- Hiring drive has started

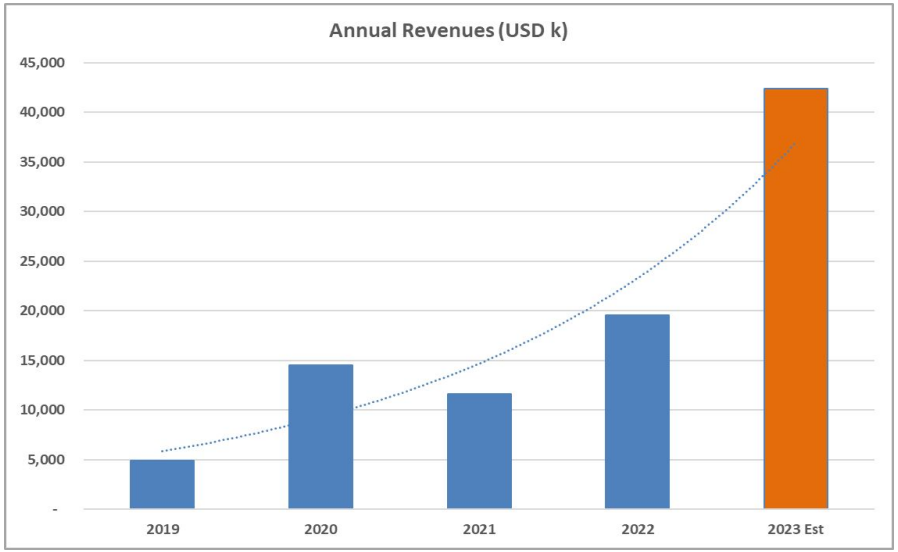
2023 Target Milestones

- Meet or Exceed our Financial Guidance of $42 million in revenue
- Complete Financing for the Jamestown NY Gigafactory
- Profitability for FY 2023
- NASDAQ Listing
- Continue to grow orders, enter new markets and establish new relationships

Financials

FY2023 revenue target ~$42 million (~C$56 million)**





** 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.*

*** Estimated value with noting a risk that supply chain disruptions could impact the timing of revenue. The Company has faced some production delays throughout the 2022 fiscal year due to specific component shortages or delays. Electrovaya has taken steps to mitigate supply chain issues and will continue to closely monitor the situation.*

Capital share structure

Ticker:	**TSX:EFL**
Shares Outstanding* :	**164,836,334**
Share Price* :	**CAD $1.02**
Market Cap* :	**CAD $168,133,061**
Insider Ownership:	**~ 35%**

* Stock price, shares, and market cap are current as of 5:00 PM EST, March 23, 2023

Ticker:	**OTCQB:EFLVF**
Shares Outstanding* :	**164,836,334**
Share Price* :	**USD $0.75**
Market Cap* :	**USD $123,627,251**
Insider Ownership:	**~ 35%**

* Stock price, shares, and market cap are current as of 5:00 PM EST, March 23, 2023

Electrovaya Summary

Pure Play Battery Tech/Manufacturing

Electrovaya is a Pure Play North American Lithium ion Battery Technology and Manufacturing company on track for Rapid Growth

Leading Partners

Electrovaya has strong OEM relationships with some of the leading industrial vehicle manufacturers and numerous Fortune 100 and Blue Chip customers.

Premium Performance

Infinity Technology Products offer significant competitive advantages which allow Electrovaya to sell products at higher gross margins than competitors

Next Gen Technology

Electrovaya Solid State Battery Technology developments will be a game-changing technology

North American Footprint

Plans to Reshore Production into the USA improves capacity, security and gross margins

Growth and Route Profitability

70% increase in revenue from FY21, 115% increase forecast for FY23. EBITDA and Cash Flow positive for FY23 and beyond

Management team

Dr. Raj S. Das Gupta,
CEO, Director

Massachusetts Institute of Technology

UNIVERSITY OF CAMBRIDGE

John Gibson,
CFO

ICAS

University of Glasgow

Dr. Jeremy Dang,
VP, Business & Project Development

UNIVERSITY OF TORONTO

Dr. Elmira Memarzadeh
Director, Engineering Programs

UNIVERSITY OF ALBERTA

Jason Roy,
Director, Corporate Development and Investor Relations

VANIER CÉGEP/COLLEGE

Board of Directors

Prof Carolyn Hansson,
Director

Imperial College London

UNIVERSITY OF WATERLOO

Dr. James Jacobs,
Director

OBERLIN COLLEGE LEARNING AND LABOR

UNIVERSITY OF TORONTO

Dr. Sankar Das Gupta,
Executive Chairman

Imperial College London

UNIVERSITY OF TORONTO

Kartick Kumar,
Director

WORLD BANK GROUP

UNIVERSITY OF CAMBRIDGE

UNIVERSITY OF TORONTO

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