**electrovaya** 

Investor Presentation

**January - 2025** 

NASDAQ : ELVA TSX : ELVA



### **Safe Harbor Statement**



#### **Forward-looking statements:**

This presentation contains forward-looking statements and forward looking information (collectively, "forward-looking statements"), including statements that relate to, among other things, the size of the Company's addressable market and target verticals and applications, margin performance capabilities of new target operating segments, future operating jurisdictions including plans for manufacturing expansion in the United States and Japan, the ability to take advantage of manufacturing incentives for United States based manufacturers, the development of new products including solid-state batteries, the characteristics thereof, and the need for separator technology therein, 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, intentions to refinance existing debt facilities, anticipated continued increase in sales momentum in fiscal 2025, the future direction of the Company's business and products, technology development and other statements regarding the Company's markets, objectives, goals, strategies, intentions, beliefs, plans, 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 are necessarily based on assumptions and involve risks and uncertainties, and undue reliance should not be placed on such statements. As a result actual results may differ materially from any result or expectation expressed or implied in forward-looking statements. Material assumptions on which forward-looking statements herein are based include that the Company's customers will complete new distribution centres in accordance with communicated expectations, intentions and plans, anticipated new orders based on customers' historical patterns and additional demand communicated to the Company and its partners, but not yet provided as a purchase order, expected decreases in input and material costs combined with stable selling prices in FY 2025, that the Company will be able to deliver ordered products on a basis consistent with past deliveries, that the Company's customer counterparties will meet their production and demand growth targets, the Company's ability to successfully execute its plans and intentions, including with respect to the entry into new business segments and verticals as well as servicing existing customers, the availability to obtain financing on reasonable commercial terms, including refinancing existing debt and completing the announced financing with the Export-Import Bank of the United States, the impact of competition and new technologies on the Company's relationships with its suppliers, customers, lenders and other third parties will be maintained, market growth for lithium-ion battery applications, the Company's ability to service debt obligations and adhere to negotiated debt covenants, the regulatory, legal and political framework governing taxes and environmental matters in the jurisdictions in which the Company conducts and will conduct its business and the interpretations of applicable laws, the Company's future research and development levels and future production levels, and the Company's operating costs and expected capital expenditures. Important factors that could cause actual results to differ materially from expectations include but are not limited to the impact of political decisions in the United States and elsewhere on trade and with respect to government incentives for manufacturing, natural disasters, unusually adverse weather, epidemic or pandemic outbreaks, cyber incidents, boycotts and geopolitical events, including the imposition of tariffs or trade controls that could impact the Company's cross-border business, market demand among the Company's customers and target markets for lithium-ion batteries as well as those additional risk factors found in the Company's base shelf prospectus dated September 17, 2024 and any supplement thereto, and the documents incorporated by reference therein. The Company does not undertake any obligation to update or 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 forward-looking statements should not be relied upon as representing Electrovaya's assessments as of any date subsequent to the date of this presentation. 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, 2024 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 at a Glance**





#### **Infinity Technology - Safety & Longevity**

The Company believes that its batteries provide industry leading **safety & longevity** validated by third party & field data

Proprietary **ceramic separator technology** -30+ patents **Perfect Safety Record** - 30,000+ batteries deployed with no safety events



#### **Blue Chip Customers & Partners**

14 **Fortune 100 clients** across mission critical operations- selecting Electrovaya on **Performance & Safety** 

Leading **OEM Partners** in USA & Japan across market segments



#### **Large Addressable Market**

\$100+Billion Market

Material Handling | Energy Storage | Aerospace Defense | Commercial Vehicles



#### **Domestic Manufacturing**

#### **US cell and systems**

Manufacturing in Jamestown, New York, and Engineering & Systems manufacturing in Mississauga, Ontario.



#### **Inflection Point - Financial Results**

**Route to Profitability:** Achieved operating profit, positive cash flow, and five consecutive quarters of positive EBITDA, with TTM EBITDA reaching \$5.1M.

**High Growth:** With a 100% organic CAGR over two years, TTM revenue is \$49.5M, approaching the \$50M breakeven point.

# **Customers and Partners** - Infinity Batteries





**Strategic Partnership** 



Sumitomo Corporation Power & Mobility Co., Ltd.

**Example OEM Customers** 









End Users Example (not a full list)





























# Electrovaya Powered - Mission Critical & 24/7



Total 28,000+ Infinity Battery systems deployed

Powering over 200 warehouses & logistic centers

Empowering mission-critical operations

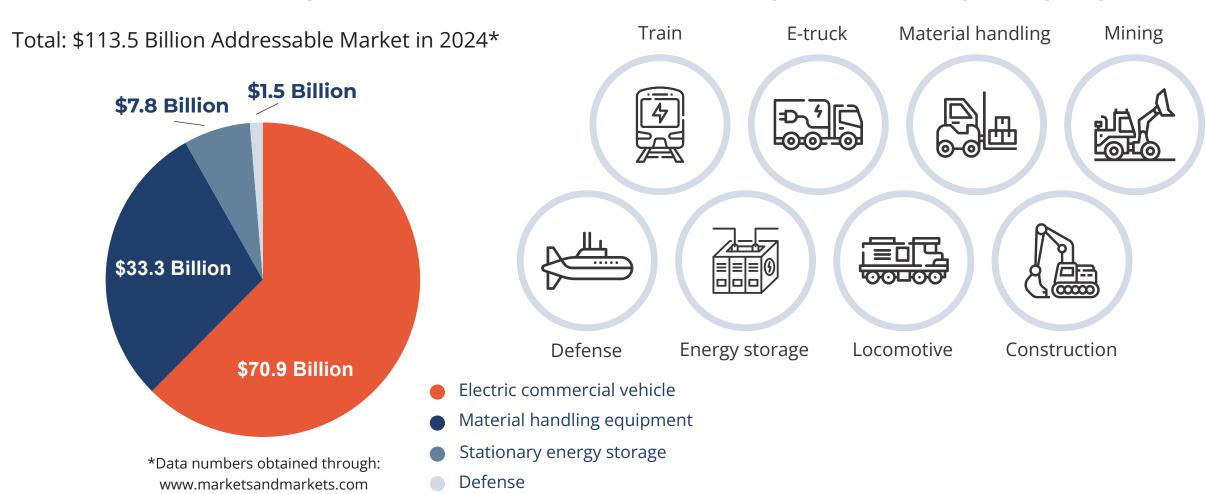


### **Addressable Markets are Extensive**



#### **MARKET SIZE**

#### **TARGET APPLICATIONS**



# **Opportunities** - New Target Verticals



# With a strong foundation built in the Materials Handling space, we are beginning a transition to new vertical industries in 2025 and beyond



#### **Mining & Construction**

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



#### **Defense**

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



#### **Data Center / Energy Storage**

- High use application
- High priority for battery safety



# **Locomotive Airport & Ground Service**

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

# **Tailored Solution for Mission Critical Operations**



### Infinity Technology Leads the Industry for Longevity 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**

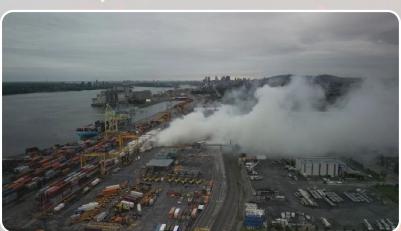
- Scaled: Deliveries of battery systems have increased more than 100% YOY
- Proven: Proven technology and manufacturability - >6 years of field data with major customers
- Reliable: Operating in mission critical 24/7 warehouse operations at some of the largest companies in the world
   (>14 Fortune 100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

# Infinity Technology - Safety is Top Priority



# Fires are a common risk with typical lithium-ion batteries





#### **CALIFORNIA NEWS**

Warehouse containing lithium-ion batteries burns in Riverside County



by: Austin Turner Posted: Nov 7, 202-Updated: Nov 7, 20 国 16 Sep 2024

Electric semi-truck lithium battery fire took 189,000 litres of water to extinguish, according to NTSB reports

**Energy Transition** 

Fire burns for five days at huge lithiumion energy storage facility

Lithium-ion battery fires are rare but extremely hard to put out and have blackened image of key clean energy tect Breaking News

9 electric buses destroyed by suspected lithium battery fire in Taichung City

# Infinity Technology - Safety is our Top Priority



# INFINITY BATTERIES PROVIDE ADDITIONAL PREVENTION TO FIRE PROPAGATION



# Fire Propagation Test





No flames escaped the battery enclosure

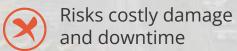


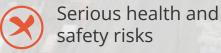
No internal propagation, the fire was contained within the faulted sub-module

#### TYPICAL BATTERIES PROPAGATE FIRE



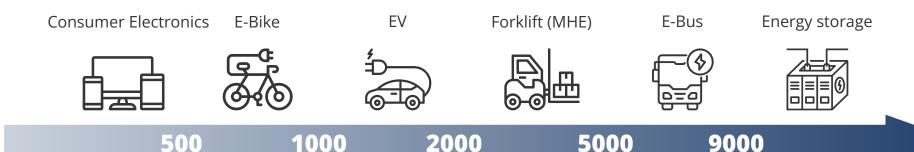






### Multi-Million-Mile Batteries - Performance Advantage

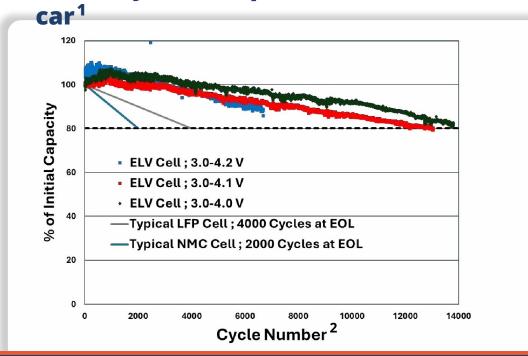


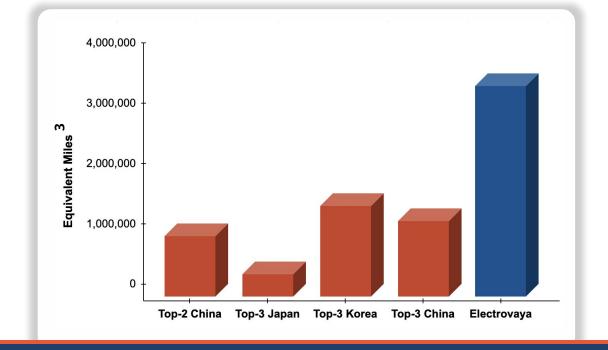


Longevity

#### \*CYCLE EQUIVALENT:

#### 14,000 cycles is equivalent to 3,500,000 miles for 250-mile range





### Leveraging Longevity Advantage - Recurring Revenue



#### Growing

#### **Segments**



#### Lease/Rentals

- Lower upfront costs (with OEM supported residual value)
- Ability to participate in off-lease opportunities
- Rentals are a small but growing offering and in use with Electrovaya's largest end customers

**Approx.** Margins

**Capabilities** 

0-5 yrs: 30%

6-10 yrs: 80%

11 yrs + : 100%

Recurring Revenue Current - <5% Target - >10%



#### SaaS

 Opportunities to increase from data analytics (already in use at major customers), demand response and energy storage Approx.

Margin

Capabilities

>80%

#### **Aftermarket Services**

- Spare Parts & accessories
- Inspections and studies

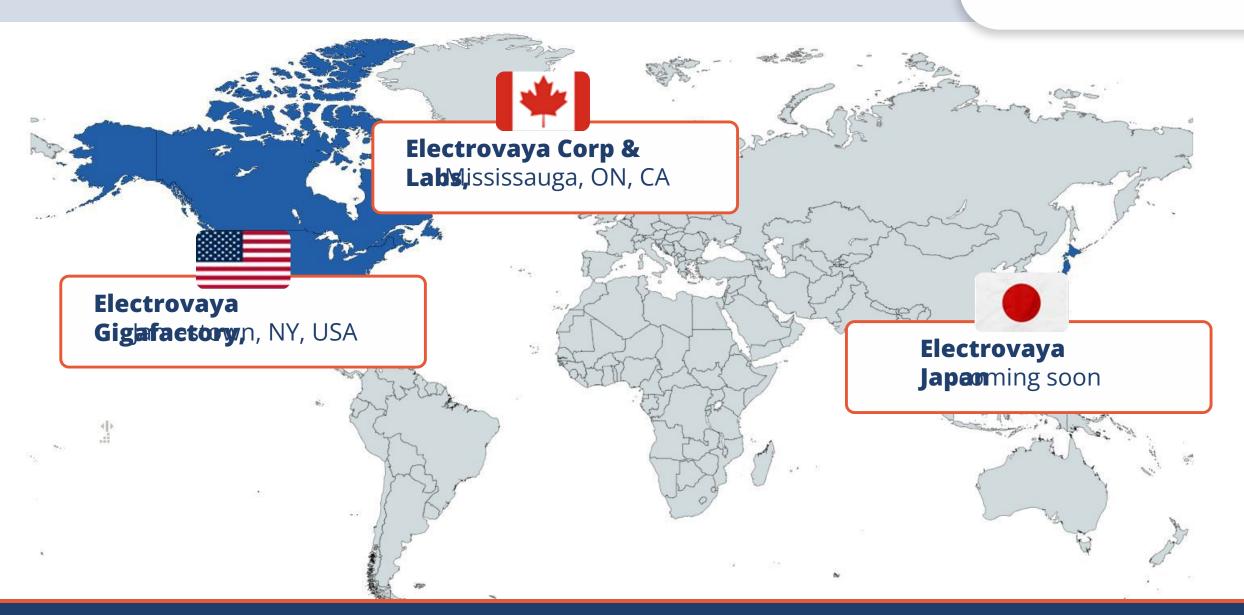
Approx.

Margins

30-50%

# **Global Reach**





# **US Manufacturing Expansion** - Jamestown





#### MADE IN USA

Improves profitability, domestic supply chains and opens more market opportunities

#### **FUNDED**

Fully funded expansion plan with a \$50.8m direct loan from Export Import Bank of the United States (EXIM)

'Make More in America' initiative

#### **OWNED 137,000 sq FT**

Industrial facility on 52 acres

\$0.05/kWh

Low cost & 100% renewable electricity



# **US Manufacturing Expansion** - Jamestown







#### PROJECT OVERVIEW

- Advanced Lithium ion battery manufacturing cell, module and pack facility
- Will produce Electrovaya's
   proprietary lithium ion ceramic
   (Infinity series) cell technology
- Existing facility/ building
   137,000 sq ft on 52-acre campus
- \$5.5 million land building
- ~\$45 million capital equipment,
   construction & engineering



# STRATEGIC AND FINANCIAL BENEFITS

- Provides reliable, domestic supply of lithium-ion cells (built in America)
- Meets growing customer demand for made in America products & opens new market opportunities
- Vertical Integration will improve margins and increases Electrovaya's manufacturing capacity
- Strong financial return profile
- Increases Eletrovaya's capabilities to support exports, construction & engineering



# FINANCIAL HIGHLIGHTS

#### **Capital Investment**

• ~\$50m capital investment

#### **External Project Funding**

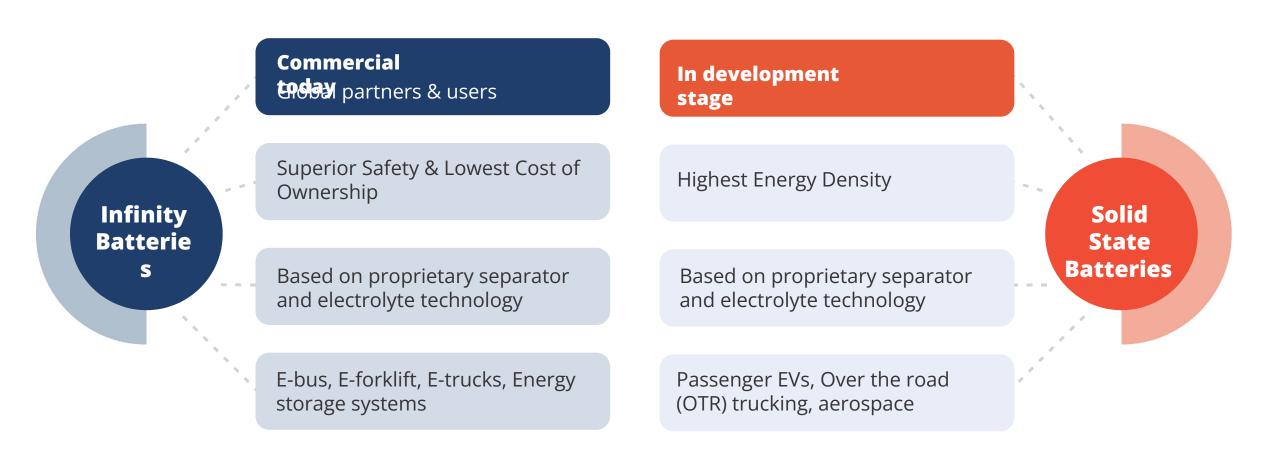
- \$50.8m loan approved by EXIM,
   Make More in America (MMIA)
   initiative<sup>1</sup>
- \$7.25m local and state incentive package received
- \$10-15m annual IRA 45x tax credits based on output
- Rapid IRR

# Our Products: Technology Solutions



Complementary technologies targeting a number of EV

InfilitytBatseries provide industry leading longevity and SSBs provide industry leading energy density

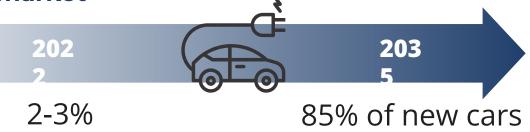


## Our Products - Next Gen-Solid State Batteries (SSB)



# Solid State Promises Much Higher Energy Density vs Conventional

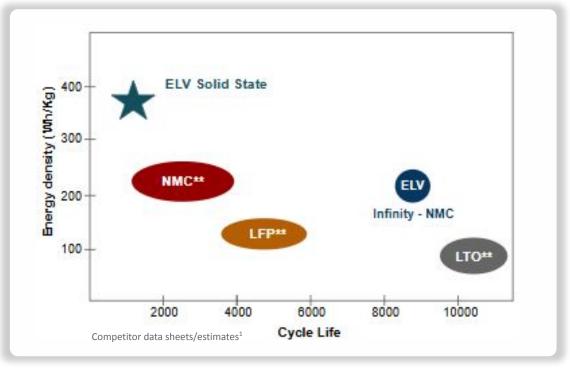
EV penetration in the global vehicle market



### **SSB Battery Requirements**

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

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



### **ELVA SSBs** - Unparalleled Ceramic Separator Experience



The transition to SSBs is almost certainly going to require the use of high innitially conducting ceramic

materials



# **Higher Energy Density**Enables the use of Lithium metal anode



#### **Improved Safety**

High thermal stability, mitigation of thermal runaway, non-flammable



#### **Enhanced Conductivity**

Inherent conductivity in the ceramic with efficient ion transport at room temperature



#### **Increased Cell Longevity**

Actively suppress the formation of lithium dendrites



### **ELVA SSBs** - Unparalleled Ceramic Separator Experience



Electrovaya has developed a scalable manufacturing approach for the preparation of **flexible ceramic composite separators for SSBs** 



Proof-of-Concept Separator Development



Scaling to > 100cm<sup>2</sup> Separator Manufacturing



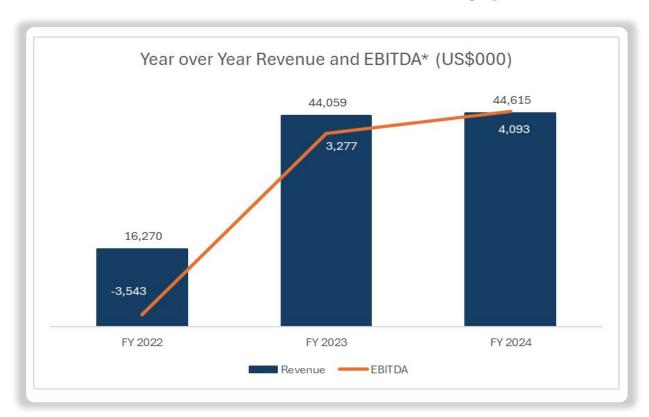
SSB Pouch Cell Prototyping

## Financial Performance - Profitability Inflection Achieved



#### Reaching an inflection point....

#### Set to be one of the only profitable battery companies in North America



- 2023 and 2024 revenue increased significantly due to increased orders driven by strong market demand
- Operational efficiencies and cost savings drove improved
   FBITDA in 2023 and 2024
- 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 2024 margin at 30.6% compared to 26.9% in 2023

<sup>\*</sup> 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 income/loss from operations plus stock-based compensation and depreciation and amortization. Adjusted EBITDA is not a measure of financial performance under IFRS, and may not be defined and calculated in the same manner by other companies and should not be considered in isolation or as an alternative to IFRS measures. The most directly comparable measure to Adjusted EBITDA calculated in accordance with IFRS is income (loss) from operations.

# **Summary Balance Sheets and Cap Table**



# **Select Balance Sheet Items** (\$USD)

Total liabilities and equity	
Total Equity (Deficiency)	
Total Liabilities	
Other Liabilities	
Trade & other payables Short-term debt	:
Assets	
Long-term assets  Total	
Other current assets	
Inventories	
Cash Trade and other receivables	
Cach	•
(US\$ in thousands)	

09/30/202	09/30/202
4	3
\$781	\$1,032
11,292	10,611
9,698	8,266
7,647	5,997
10,064	10,608
\$39,48	36,514
2	
\$10,086	\$10,307
18,445	16,304
2,366	2,757
\$30,89	\$29,36
7	8
\$8,58	\$7,14
5	6
\$39,48	\$36,51
2	4

CapTabl	
Sof 06/30/2024 Outstanding shares	40,088,915
Outstanding warrants	1,711,924
Outstanding stock options	4,883,788
Tota I	46,684,62 7

# Select Equity Items (Nasdaq As of 01/06/2025 Share price \$2.68

Share price	\$2.68
Market Cap	\$107.4M
Insider ownership	~28%

