

# VOLT LITHIUM CORP

## CORPORATE PRESENTATION

TSX-V: **VLT** | OTCQB: **VLTLF** | FSE: **I2D**

**Aiming to be one of North America's first  
commercial producers of lithium from oilfield brine**

NOVEMBER 2024



# READER ADVISORIES

## Forward Looking Statements

This presentation includes certain “forward-looking statements” and “forward-looking information” within the meaning of applicable Canadian securities laws. When used in this presentation, the words “anticipate”, “believe”, “estimate”, “expect”, “target”, “plan”, “forecast”, “may”, “will”, “would”, “could”, “schedule” and similar words or expressions, identify forward-looking statements or information. Statements, other than statements of historical fact, may constitute forward-looking information and include, without limitation, information with respect to the terms of the operational milestone, Volume Scale-up. Extraction Time Improvements and Continuous Processing vs Batch Processing, the deployment of the Field Unit in the Permian Basin, the production of battery grade lithium by the Field Unit, and the commercial production of lithium from oilfield brine.

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# VOLT LITHIUM AT A GLANCE (TSXV: VLT)

Volt is a **premier lithium development and technology company** advancing a solution for oil & gas companies to **monetize value from lithium in oilfield brines**

1

**Proven and proprietary** capability to extract **commercially-viable quantities** of lithium from various oilfield brines, and produce lithium chloride, **battery-grade lithium** carbonate and lithium hydroxide monohydrate in-house

2

**Active Field Simulation Centre** leveraging **proprietary DLE technology** to test oilfield brines from across North America

3

**First lithium production achieved September 2024** in partnership with a major operator in the Permian Basin (Delaware Basin)

4

All-in extraction and operating **costs below US\$2,900 per tonne LCE<sup>1,2</sup>**, supporting robust margins even within a volatile lithium price environment

1) Lithium Carbonate Equivalent

2) Assumes lithium concentrations of just 34 mg/L, and a commercial operating unit processing 60,000 bbls/d of brine

# FIELD SIMULATION CENTRE

Producing **lithium chloride, lithium carbonate and lithium hydroxide monohydrate**, and testing brines from **across North America**

- Applies Volt's proprietary DLE Process to extract and produce **lithium chloride, lithium carbonate and lithium hydroxide monohydrate**
- **Scaled-up production capacity** to 200,000 litres per day (1,250 barrels per day) representing over **4x scale-up** in processing capabilities<sup>1</sup>
- Provides **99% lithium extraction rates**
- Produces **high-quality lithium chloride, lithium carbonate and lithium hydroxide monohydrate**, all saleable products
- Enables testing of oilfield brines from **across North America**, regardless of lithium concentrations



# DLE OPERATIONAL MILESTONES

Process improvements continue to be accelerated for Volt's proprietary DLE technology at its Field Simulation Centre

**200,000** L/day  
Production Capacity

**4x** Increase  
In Processing Capabilities<sup>1</sup>

**60** Min  
Extraction Time

**24/7** Processing  
Allowing Continuous Extraction

- ✓ **Volume Scale-Up:** Scaled-up production capacity to 200,000 litres per day (1,250 barrels per day) representing over 4x scale-up in processing capabilities<sup>1</sup> while maintaining the technical standards of achieving 99% lithium extraction
- ✓ **Extraction Time Improvements:** Volt realized a reduction in lithium extraction time from oilfield brine down to 60 minutes from 120 minutes previously, significantly improving operational capability and throughput capacity
- ✓ **Continuous Processing vs Batch Processing:** Volt has designed its Field Unit to operate 24/7, ensuring continuous and efficient lithium extraction from oilfield brine vs extracting in batches

# NEXT GENERATION LITHIUM EXTRACTION

**Proprietary DLE technology** delivers **marketable** lithium carbonate and lithium hydroxide monohydrate

## 1 Stage One Brine Treatment

Process removes up to 99% of contaminants from oilfield brine

## 2 Stage Two Proprietary DLE Technology

Field Simulation Centre achieving 99% lithium extraction rates from oilfield brine

## 3 Stage Three Lithium Concentration

Concentration and crystallization to battery-grade lithium carbonate and lithium hydroxide monohydrate

**Market Ready**  
lithium carbonate

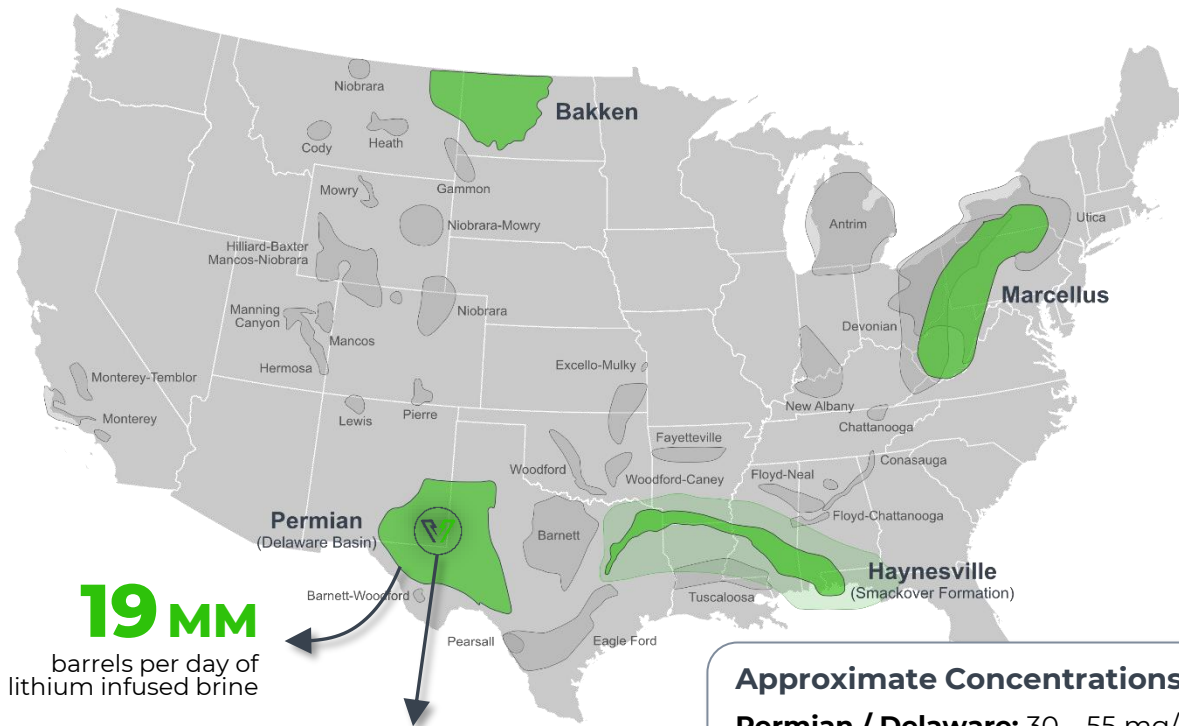




# PROMISING GROWTH OPPORTUNITIES

Consistent Extraction Results **Across Multiple Reservoirs and Concentrations** Enhances Future Growth Potential

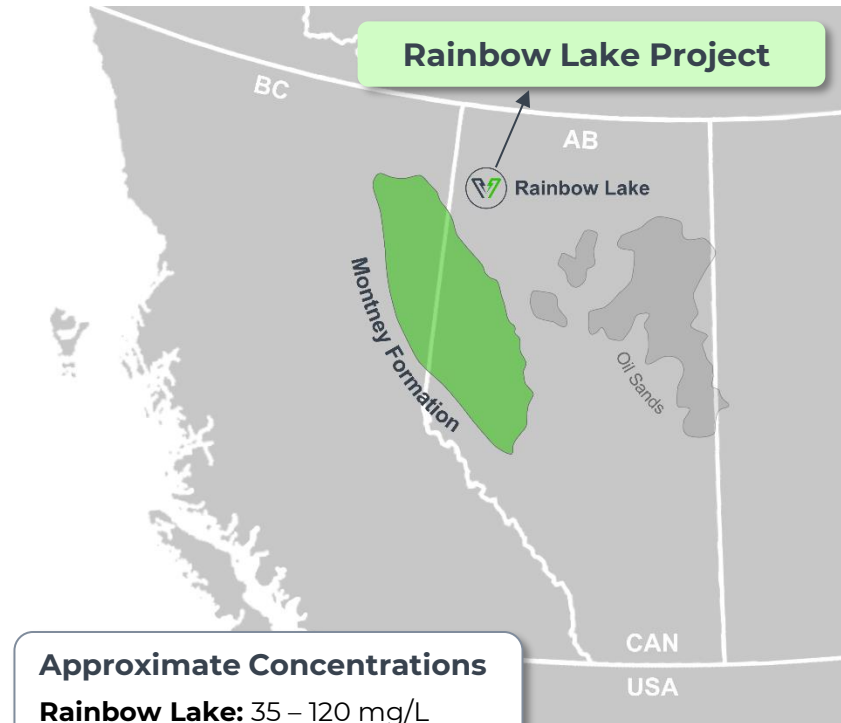
## US Fields



**Approximate Concentrations**  
**Permian / Delaware:** 30 – 55 mg/L  
**Bakken:** 45- 70 mg/L  
**Marcellus:** 100 – 400 mg/L  
**Haynesville:** 90 – 150 mg/L

**Permian Basin Field Operations**  
(On production Q3 2024)

## Canadian Fields



**Approximate Concentrations**  
**Rainbow Lake:** 35 – 120 mg/L  
**Montney:** 25 – 50 mg/L

# CANADIAN OPERATIONS

## FIRST STAGE COMMERCIAL – OPERATIONAL CAPABILITIES

### Rainbow Lake - Operating Cash Flow<sup>2</sup>

	Low	Medium	High
<b>Assumptions</b>			
Brine Production Volume (bbls/d)	100,000	100,000	100,000
Annual Production (tonnes per annum)	1,055	1,511	3,755
Lithium Concentration (mg/L)	34	49	121
<b>Cash Flow Analysis</b>			
Production Revenue (USD/tonne)	20,000	20,000	20,000
<b>Operating Costs (USD)</b>			
Stage 1 - Brine Pre-Treatment and Filtration	914	738	557
Stage 2 - Direct Lithium Extraction (DLE)	1,051	934	595
Stage 3 - Concentration & Crystallization	312	312	312
Other Operating Costs <sup>1</sup>	608	608	608
Production Operating Costs (USD/tonne)	2,885	2,592	2,072
Annual production (tonnes)	1,055	1,511	3,755
<b>Operating Cash Flow (\$MM USD)</b>	<b>\$ 18.1</b>	<b>\$ 26.3</b>	<b>\$ 67.3</b>
<b>Per bbl</b>			
Revenue/ bbl - (\$)	0.60	0.86	2.15
Cost/bbl (\$)	0.09	0.11	0.22
Netback - \$	0.52	0.75	1.92
Netback %	86%	87%	90%

**\$20 MM**  
of capital expenditures to  
get brine production of:  
**100,000 bbls/d**

**\$18.1 MM**  
to  
**\$67.3 MM**  
Annual Operating  
Cash Flow (USD)

- 1) Includes manpower, maintenance materials, external services, transport & logistics
- 2) Economics incorporating data and assumptions from Volt's preliminary economic assessment (PEA) at the previously announced Rainbow Lake project



# US OPERATIONS

## PERMIAN BASIN - OPERATIONAL CAPABILITIES

Sensitivities reflect **robust operational potential** in the Permian Basin

- **First full scale-commercial unit** expected to be capable of processing **100,000 bbls/d** of brine, with estimated capital expenditures of **US\$20 million**, positioning Volt as a near-to-market, low-cost and full-scale commercial producer
- Permian Basin today produces approximately **19 million bbls/d** of lithium infused brine

Permian Basin (Delaware Basin) - Operating Cash Flow Sensitivities <sup>1,2</sup>								
	Low	High	Low	High	Low	High	Low	High
<b>Assumptions</b>								
Brine Production Volume (bbls/d)	100,000	100,000	500,000	500,000	1,000,000	1,000,000	2,000,000	2,000,000
Annual Lithium Production (tonnes per year)	900	1,600	4,500	8,000	9,000	16,000	18,000	32,000
Lithium Concentration (mg/L)	31	55	31	55	31	55	31	55
<b>Operating Cash Flow (\$MM USD per year)</b>	<b>\$ 14.5</b>	<b>\$ 27.6</b>	<b>\$ 72.3</b>	<b>\$ 137.8</b>	<b>\$ 145.0</b>	<b>\$ 275.7</b>	<b>\$ 289.0</b>	<b>\$ 551.4</b>

**First full scale-commercial unit capacity**

1) Assumes pricing of US\$20,000/tonne lithium carbonate

2) Based upon Volt's preliminary estimates processing brine at lithium concentrations similar to the Permian Basin

# PERMIAN BASIN FIELD OPERATIONS

## Near Term Field Unit Operations in Collaboration with Major Operator in the Permian Basin (Delaware Basin)

- **First lithium production achieved** September 2024
- Unit to produce lithium chloride and lithium carbonate **in-house**
- Successfully produced > 99.5% battery-grade lithium carbonate

### Strategic Investment

- **US\$1.5 million strategic investment** by a major Permian Basin (Delaware Basin) operator<sup>1</sup>
- Proceeds from the investment will be used to **build and deploy Volt's field unit** at one of the operator's facilities in the Permian Basin (Delaware Basin), and for general corporate purposes



The Permian Basin is **one of North America's largest** oil and gas producing basins, with approximately **19 million barrels (bbls) of lithium infused water** produced every day associated with oil and gas production

# VOLT'S OPERATIONAL PROCESS

Operations progressing from **testing to production**

<b>STAGE 1</b> Brine Analysis	<ul style="list-style-type: none"><li>• <b>Water sample analysis</b> including total dissolved solids (ppm), metals analysis, and lithium concentrations</li></ul>	<b>COMPLETE</b> ✓
<b>STAGE 2</b> Lab Analysis	<ul style="list-style-type: none"><li>• <b>Sample kits with SOPs sent</b> for brine testing at Volt's lab at the Nano-technology Research Centre in Canada</li></ul>	<b>COMPLETE</b> ✓
<b>STAGE 3</b> Field Simulation Centre Testing	<ul style="list-style-type: none"><li>• <b>Totes of brine (1,000 L units) shipped</b> to Volt's Field Simulation Centre in Calgary, Alberta</li><li>• <b>Full analysis completed</b> including extraction results, LiCl eluate analysis and lithium production</li></ul>	<b>COMPLETE</b> ✓
<b>STAGE 4</b> Field Operations (1,250 bbls/d)	<ul style="list-style-type: none"><li>• <b>Equipment delivered onsite</b> – Q3 Start Date</li><li>• <b>First lithium production</b> in the field</li><li>• <b>Capital equipment finalization</b> for commercial unit</li></ul>	<b>COMPLETE</b> ✓
<b>STAGE 5</b> Commercial Unit (100,000 bbls/d)	<ul style="list-style-type: none"><li>• <b>Equipment delivered onsite</b> – Permanent onsite facility</li><li>• <b>Commercial unit operational</b> and producing at commercial scale</li></ul>	<b>PREPARATION</b>



# 2024-2025 OUTLOOK

Volt's targets over the next phase of operations

- **Scale-up Volt's field unit operations to achieve commercial sales by the end of 2024**
- **Produce lithium concentrate in the field for the remainder of 2024**
- **Commence cash generation by the end of 2024 with the goal to be cash flow positive in the first half of 2025**
- **Scale up commercial production to 100,000 barrels per day of brine production during the second half of 2025**

# KEY DIFFERENTIATORS



## Proprietary DLE Technology

- Proven next-generation DLE technology
- Full in-house processing ability to produce lithium chloride, battery-grade lithium carbonate and lithium hydroxide monohydrate
- Q3/24 field operations in the Permian Basin (Delaware Basin) in West Texas, USA



## Field Simulation Centre

- Testing brines from all over North America
- Simulates field operating conditions
- Scaled-up production capacity to 200,000 litres per day (1,250 barrels per day) representing over 4x scale-up in processing capabilities<sup>3</sup>



## Leveraging E&P Producer Partners

- Mitigates risk, reduces capital requirements, and generates value from brines that are typically cost-centers



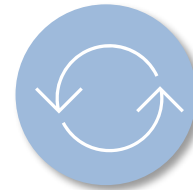
## Strategic Collaborations

- Collaborating with established operator in the Permian Basin (Delaware Basin) to deploy Volt's first field unit



## Ultra-Low Cost Structure

- Reduced operating costs by 64% in Q1 2024, bringing all-in extraction costs below US\$2,900 per tonne LCE<sup>1,2</sup>



## Repeatable Deployment Model

- Ability to economically replicate model for oilfield producers in a variety of basins in Canada and the US

1) Lithium Carbonate Equivalent

2) Assumes lithium concentrations of just 34 mg/L, and a commercial operating unit processing 60,000 bbls/d of brine

3) Assumes continuous production with no downtime for equipment maintenance or failure.

# KEY TAKEAWAYS (TSXV: VLT)

**North America's first** operator to extract lithium from oilfield brine

- **Lithium development and technology** company advancing a solution for oil & gas companies to monetize value from lithium in oilfield brines
- **Commenced US field operations** in Q3/24 in the Permian Basin (Delaware Basin), in West Texas, USA
- **Proven results** using our **proprietary direct lithium extraction** (DLE) technology to extract lithium from oilfield brine taken from multiple basins across North America
- **Full in-house processing ability** to produce saleable lithium chloride, carbonate and lithium hydroxide monohydrate
- **Achieved a 64% reduction** in full-cycle DLE operating costs to process brine, supporting robust margins even in a volatile lithium price environment
- **Early-stage valuation**, clean capital structure, zero debt and advanced project status offer compelling entry point



**Lithium Carbonate**  
crystals produced at  
Volt's Field Simulation  
Centre in Calgary, AB



# APPENDIX



# PROVEN LEADERSHIP TEAM

A robust team with an extended **history of driving growth**

## **Alex Wylie** - President, CEO & Director

Proven track record of founding and building successful high-growth resource-based businesses, bringing significant experience and relationships in the sector.

## **Morgan Tiernan** - Chief Financial Officer

10+ years of tax and financial reporting experience for private and public entities. Mr. Tiernan holds a Diploma of Business, a Bachelor of Law and is a Chartered Accountant.

## **John McEwen** - Chief Technology Officer

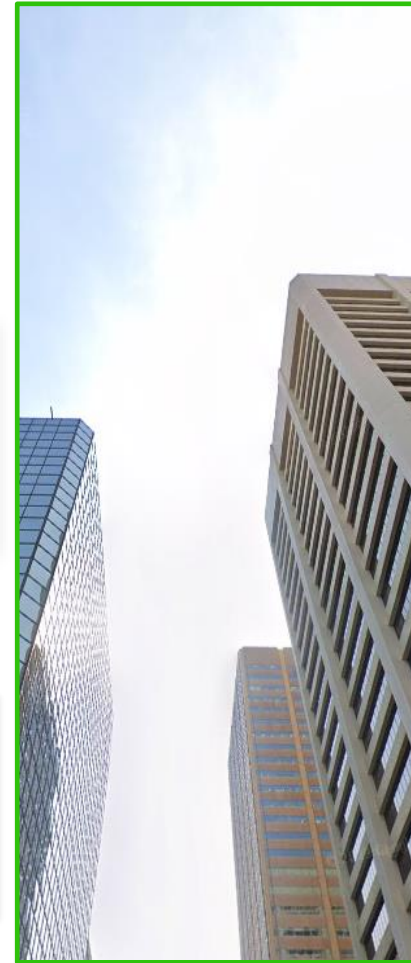
30+ years of industry experience in technical services and R&D. Since 2012, has been Director, Technical Services, for Sterling Chemicals. Holds a Ph.D in Chemistry, University of Toronto.

## **Dave Kimery, PEng** - Chief Operating Officer

25+ years of energy industry experience spanning multiple capacities and has been responsible for the build out of Volt's Field Simulation Centre. Mr. Kimery is a Mechanical Engineer by training, graduating from the University of Calgary.

## **Greg Foofat** – Vice President, Investor Relations

20+ years of experience in capital markets, investor relations, corporate communications, corporate governance and corporate strategy. Mr. Foofat currently serves on the Advisory Board at Lancaster Resources.



# DIVERSE BOARD & ADVISORY

**Varied corporate experience** leading high-growth organizations

## **Alex Wylie**

President, CEO & Director

Proven track record of founding and building successful high-growth resource-based businesses, bringing significant experience and relationships in the sector.

## **Lt. General Andrew Leslie**

Chair of the Board

Lt. General (ret'd) Honourable Andrew Leslie was a high-ranking Canadian Armed Forces Commander whose extensive US/Canada cross border relations experience will be a tremendous asset. With a diverse leadership background across military, business and government, he brings high integrity and strong corporate governance capabilities.

## **Warner Uhl**

Director

30+ years experience as a senior mining and engineering professional building and operating mines globally, with recent experience leading major projects with Procon, KGHM, Iamgold, and Leighton Contractors

## **Marty Scase**

Director

25+ years of experience in resource and land management with Camber Resource Services, Cabot Energy, and Grail Hydrocarbon Canada Ltd. Holds a Bachelor of Commerce in Petroleum Land Management.

## **Kyle Hookey**

Director

10+ years experience in capital markets and leadership, with previous experience at Goldman Sachs, JBWere and Euroz Securities. Mr. Hookey is a Member of the CFA Institute.

## **John McEwen**

Advisory Board Member

30+ years of industry experience in technical services and R&D. Since 2012, has been Director, Technical Services, for Sterling Chemicals. Holds a Ph.D in Chemistry, University of Toronto.





# COMMITMENT TO SUSTAINABILITY

ESG focus underpins all corners of the business



- **Minimal environmental impact** throughout extraction process, with limited reagent use and **reduced surface impact** from leveraging existing infrastructure
- **No need to source freshwater**
- Providing key inputs to **support the clean energy transition**
- Ability to **reuse absorbent**, which has demonstrated a long-life with high ultimate recoveries



- Ongoing **collaboration with the Dene Tha' First Nation** supports the advancement of Rainbow Lake Project
- **Partnerships with oil and gas operators** affords ability to leverage existing community engagement, Indigenous relations and employee training programs



- Ongoing implementation of **strong governance policies** and mandates
- Goal to **uphold best-practice** corporate and ESG accountability

# STRONG DEMAND GROWTH FORECASTS

## Supportive supply and demand outlook for lithium carbonate

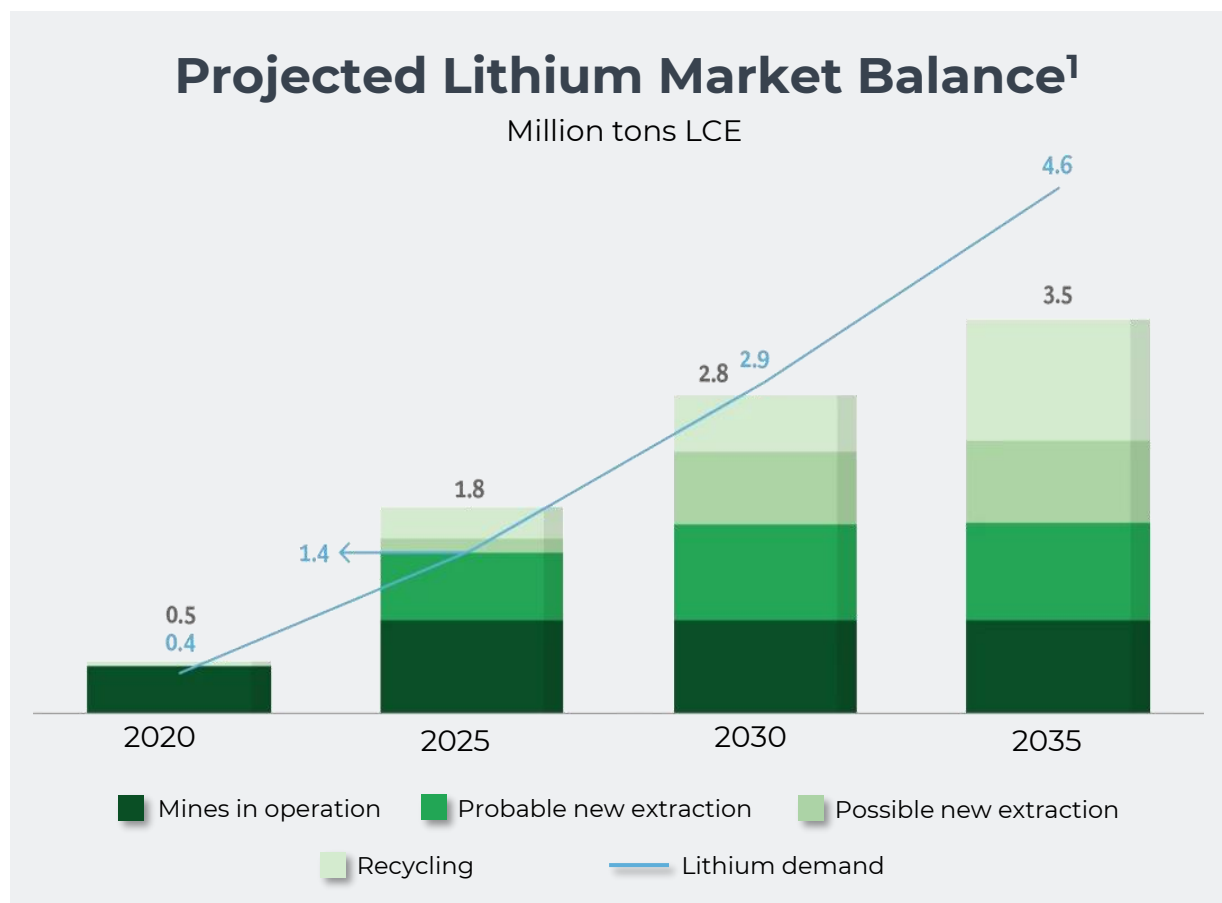
- Electric Vehicles (EVs) and battery capacity expansion are fueling **robust demand growth**, with global EV sales **increasing 69%** year-over-year<sup>2</sup>
- Battery manufacturers and automakers are **competing to strike long-term contracts** with miners and refiners
- **The time is now** to secure future sources of lithium and diversify global supply chains

**1.1MM**

tonnes LCE\* projected deficit in 2035

**>1,000%**

Projected demand increase (2020 – 2035)



1) Source: S&P Global Market Intelligence; Boston Consulting Group Analysis; 2022  
2) As of January 2024; Source: CleanTechnica; January 2024 Breaks Global EV Sales Record

# NEED FOR NORTH AMERICAN PRODUCTION

Volt's **US field operations** to coincide with **onshore lithium production targets**, with future scalability from other North American plays

- **Governments are driving onshore lithium production** to support local supply chain security and sustainable sourcing<sup>1</sup>
- Despite significant estimated lithium resources, Canada and the US remain **reliant on overseas imports**
- Policy makers are **changing the lithium production landscape** through corporate-friendly industrial policy, subsidies, public investment, regulatory fast-tracking, and supply chain coordination<sup>1</sup>



# CONTACT US

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President, CEO & Director

or

**Greg Foofat**

Vice President, Investor Relations

[info@voltlithium.com](mailto:info@voltlithium.com)



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