

# Unlocking Alberta Lithium

Corporate Presentation January 2022

TSX.V: ETMC / FSE: OU7A / OTCQX: EEMMF

### **Forward Looking Statements**

This presentation contains forward-looking statements regarding E3 Metals Corp. ("E3 Metals" or "the Company") and the potential of its current and future projects. Generally, forward-looking statements can be identified by the use of forward-looking language such as "plans", "expects", "budgets", "schedules", "estimates", "forecasts", "intends", "anticipates", "believes", or variations of such words and phrases, and statements that certain actions, events or results "may", "could", "would", "might", "will be taken", "will occur" or "will be achieved". Forward-looking statements are based on the opinions and estimates of E3 Metals as of the date such statements are made.

Forward-looking statements are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, levels of activity, performance or achievements of E3 Metals to be materially different from those expressed or implied by such forward-looking statements, including, but not limited to, risks related to: E3 Metals' ability to effectively implement its planned exploration programs: unexpected events and delays in the course of E3 Metals' exploration and drilling programs; changes in project parameters as plans continue to be refined; the ability of E3 Metals to raise the capital necessary to meet its milestones, conduct its planned exploration programs and to continue exploration and development on its properties; the failure to discover any significant amounts of lithium or other minerals on any of E3 Metals' properties; the fact that E3 Metals' properties are in the exploration stage and exploration and development of mineral properties involves a high degree of risk and few properties which are explored are ultimately developed into producing mineral properties; the fact that the mineral industry is highly competitive and E3 Metals will be competing against competitors that may be larger and better capitalized, have access to more efficient technology, and have access to reserves of minerals that are cheaper to extract and process; the fluctuations in the price of minerals and the future prices of minerals; the fact that if the price of minerals deceases significantly, any minerals discovered on any of E3 Metals' properties may become uneconomical to extract; the continued demand for minerals and lithium; that fact that resource figures for minerals are estimates only and no assurances can be given than any estimated levels of minerals will actually be produced; governmental regulation of mining activities and oil and gas in Alberta and elsewhere, including regulations relating to prices, taxes, royalties, land tenure, land use, importing and exporting of minerals and environmental protection; environmental regulation, which mandate, among other things, the maintenance of air and water quality standards and land reclamation, limitations on the general, transportation, storage and disposal of solid and hazardous waste; environmental hazards which may exist on the properties which are unknown to E3 Metals at present and which have been caused by previous or existing owners or operators of the properties; reclamation costs which are uncertain; the fact that commercial quantities of minerals may not be discovered on current properties or other future properties and even if commercial quantities of minerals are discovered, that such properties can be brought to a stage where such mineral resources can profitably be produced therefrom; the failure of plant or equipment processes to operate as anticipated; the inability to obtain the necessary approvals for the further exploration and development of all or any of E3 Metals' properties:

risks inherent in the mineral exploration and development business; the uncertainty of the requirements demanded by environmental agencies; E3 Metals' ability to hire and retain qualified employees and consultants necessary for the exploration and development of any of E3 Metals' properties and for the operation of E3 Metals' business; and other risks related to mining activities that are beyond E3 Metals' control.

Although E3 Metals has attempted to identify important factors that could cause actual results to differ materially from those contained in the forward-looking statements in this presentation, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements contained in this presentation. E3 Metals does not undertake to update any forward-looking statements except in accordance with applicable securities laws.

Unless otherwise indicated, Chris Doornbos, P. Geo., President and CEO at E3 Metals Corp. and a Qualified Person under National Instrument 43-101, has reviewed and is responsible for the technical information contained in this presentation.

#### References:

1: Certain scientific and technical information contained herein is derived from the Inferred Minerals Resources outlined in NI 43-101 report for Clearwater Lithium Project PEA (September 17, 2021), Rocky Resource Area (December 22, 2017) and Exshaw Resource Area (September 17, 2021). NI 43-101 Report and accompanying News Releases can be found on E3 Metals' website (www.e3metalscorp.com) or SEDAR (www.sedar.com). We encourage interested parties to review the NI 43-101 technical report in respect of the Clearwater Lithium Project PEA and our Exshaw and Rocky Inferred Mineral Resource reports in their entirety. (https://www.e3metalscorp.com/technical-reports)

# E3 Metals' Growth Strategy

#### **Our Vision**

Be a global leader in responsibly-sourced lithium, fueling the global transition towards a brighter energy future.

### **Proprietary Tech**

Our Direct Lithium Extraction (DLE) technology has been developed to extract lithium from Alberta brines

### **Alberta Brines to Battery Grade**

E3's technology is engineered for purity to support the production of high-quality lithium products for direct sale to battery manufacturers

### **Optimized Operations**

Our primary goal is to be a producer of high-quality lithium products for the globally expanding battery market. Operating similar to petroleum here in Alberta, we have the advantage a mature industry and stable workforce ideally suited for commercial lithium operations



### **Robust Resource**

We have delineated 7.0 Mt of lithium resources<sup>1</sup>, the 7th largest globally and still have significant room for growth in a world-class jurisdiction

### **Well-Funded**

We are well capitalized to accomplish major milestones as we continue to scale up our process towards commercialization

### **Small Footprint**

The simplicity of our design enables minimal tailings, freshwater use and land disturbance. Our goal is to be one of the lowest GHG emitters in the lithium industry

### **Impressive Team**

E3 has assembled a high-performing diverse team and we're still growing. Skills, expertise, and attitude are critical to our success.

1: Inferred Minerals Resources outlined in NI 43-101 report for Clearwater Lithium Project PEA, Rocky Resource Area and Exshaw Resource Area

## **Management Team**

Award-Winning Team with Diverse Expertise

#### Chris Doornbos, P.Geo



President | CEO | Director
Founder of E3 Metals, industry expert specializing in the development of major projects, capital raising and M&A.

#### Raymond Chow, CPA, CA



• CFO • Over 17 years of finance & accounting experience in entrepreneurial high growth companies, banking and corporate advisory services.



Jonathan Nielsen, BS MetE

 Director, Technology
 Over 30 years of experience in Process development and optimization oriented Metallurgical Engineering

### Chris Ward, P.Eng



 Director, Projects
 Over 25 years of experience operating, trouble-shooting, designing, budgeting, and executing mining and mineral processing projects.

### Peter Ratzlaff, P.Eng



 Director, Resource Development
 Over 25 years of experience in production & operations engineering and capital project management.

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# Lithium Essential to the Battery Industry

Recognized Price Drivers for EVs

### Growing EVs Market Share is Driving Lithium Demand

- EV battery costs have been steadily declining
- EV sales estimated to surpass ICE sales into early 2030s
- OEMs (Original Equipment Manufacturers) are projected to manufacture more EVs to meet their emission targets due to stricter emission regulations

### Lithium Demand Increasing as Price of Battery Electric Vehicles (BEV) Becomes More Competitive with Internal Combustion Engines (ICE)



Source: Rho Motion 2021



# Increasing Supply-Demand Gap for Lithium Hydroxide

E3's Production Plan In Sync with Demand Increase



- Strong demand growth expected from EV sales and battery capacity growth
- Lithium pricing set to increase as demand is expected to outstrip supply
- Anticipated supply constraints likely to coincide with E3's planned production



# Preliminary Economic Assessment

**Clearwater Project** 

	Unit	Value
Production	Tonnes/year LHM	20,000
Project Life	Years	20
Average Selling Price	USD/tonne LHM	14,079
Average Annual Operating Costs (OPEX)	Million USD/year	73.2
Cash Operating Costs	USD/tonne LHM	3,656
Total Initial Capital Cost (CAPEX)	Million USD	602
Average Annual EBITDA	USD	208.6
Pre-Tax NPV <sub>8%</sub>	USD	1,123.1
After-Tax NPV <sub>8%</sub>	USD	819.9
Pre-Tax IRR	%	32
After-Tax IRR	%	27
Payback Period (After-Tax)	Years	3.4

All values in USD

**\$1.1B NPV**8% (Pre-Tax) – 32% IRR \$820M NPV<sub>8%</sub> (After-Tax) 27% IRR \$602M Initial CAPEX \$3,656/tonne OPEX

The PEA is preliminary in nature and the cost estimate includes inferred mineral resources. These are considered too geologically speculative to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty the Clearwater Project outlined by the PEA will be realized.

Refer to E3 Metals' News Announcement: November 16, 2020

# Preliminary Economic Assessment

### **Clearwater Project**



#### **Brine Production**

- 4 well pads, 42 wells for a total of ~130,000m3
- 15km underground pipeline to the central facility
- 100% disposal of lithium void brine

#### **Lithium Extraction**

- Pre-treatment for brine conditioning to the DLE plant
- Using E3's DLE technology to create a high purity concentrate solution (Li-IX)

### Lithium Polishing and Production

- Refinement of the Li-IX into battery quality products
- Current goal is lithium hydroxide monohydrate



# E3's Unique Competitive Advantage

Targeting Highly Efficient Direct Lithium Extraction (DLE) Technology



E3 Metals is developing an industry leading Direct Lithium Extraction (DLE) Technology

Current developments outlining the competitive advantages of the technology include:

- Reduced impurities by over 99%
- Rapid and High Recovery
- Low Energy Consumption

#### **Enables Battery Quality Lithium Hydroxide**

E3's DLE technology is advancing through the pilot stage however, there is no guarantee the technology will work at a commercial level. The major focus is on moving towards successfully piloting its DLE technology.

# Innovation Combined with Existing Processes

Direct Lithium Extraction (DLE) Technology



# Sustainable Lithium is Possible with E3' Technology

Goal of producing lithium with the highest standard of ESG

### **Reduced Carbon Emissions**

 By operating a gas fired power facility within the project site, E3 can deploy local technology and expertise to sequester the CO<sub>2</sub> from the exhaust and dispose into the aquifer, and procure low emitting electricity

#### No Tailings Ponds or Open Pits

• 100% of the brine brought to the surface for lithium extraction will be placed back into the aquifer.

### Not a Fresh Water Aquifer

• The Leduc is too salty to be a source of drinking water. The process design of moving the brine does not interact with fresh water sources.

#### **Minimal Land Use**

• Only approximately 3% of land will be required relative to similar sized evaporation and hard rock projects.



# **Global Lithium Sources**

Conventional vs. Direct Lithium Extraction (DLE)



Greenbushes, Australia



Salar de Atacama, Chile

### Conventional Next Generation

#### Hard Rock Mining

- Energy and capital intensive
- Large environmental footprint

#### Salars (Brines – Evaporative)

- Conventional evaporation process for brine concentration
  - Slow process with large environmental footprint

#### **Direct Lithium Extraction (DLE)**

- Faster production with higher recoveries
- Limited to no tailings
- Minimized freshwater use



Source: Jade Cove Partners, 2020



# **Industry Friendly Jurisdiction**

The Alberta Advantage



Stable and Mature Oil & Gas Regulatory Regime Available Infrastructure and Expertise

- Lithium brine production is largely similar to oil & gas
- Lithium and oil & gas can operate concurrently
- The regulatory framework for oil & gas is well understood<sup>1</sup>

- Underutilized workforce with applicable expertise
- Repurposing oil & gas infrastructure could minimize environmental impacts
- Low-cost resource delineation<sup>2</sup>

Government Supportive of Economic Diversification

- Alberta is industry friendly & entrepreneurially minded
- Lithium production could be supported by a local workforce adding value to Alberta's economy

1. https://www.aer.ca/regulating-development/rules-and-directives/directives

2. Based on E3's ability to sample from existing infrastructure. To delineate our resources, there has been no drilling typically required for mineral development

# **Reflecting on the Major Milestones Achieved in 2021**

Since Releasing the Preliminary Economic Assessment in 2020

DLE Technology	Financing	Regulatory	Corporate
Commissioning E3 Metals Lab Facility	\$8.0M Private Placement	Provincial Government introduces Bill 82	270% shareholder YoY return
Commissioning of Lab Pilot Prototype	\$1.8M Alberta Innovates Grant Awarded	Provincial Government passes Bill 82	Graduation to Tier 1 of TSX Venture Exchange Graduation to OTCQX
Lab Pilot Prototype Initial Tests Deliver 97% Lithium Recoveries		Lithium Extraction now falls under the AER who currently oversees the Oil and Gas industry. Provides regulatory certainty and well- established framework	Management Team / Board Additions



## **Road to Commercialization**

### 2022

- Complete Field-based Pilot Plant
- Drill program to upgrade from Inferred to Measured & Indicated Resource
- Determine optimal location for commercial operations
- Begin Pre-Feasibility Study ("PFS")

### **2023**

Detailed Engineering Design Complete PFS

### 2024-2025

Project Finance Commercial Permitting

### 2025-2026

**Commercial Production** 

(~at 20,000 tonnes LCE per

year)

*Completion of these milestones are subject to financing and continued success in project development.* 



### **Share Metrics**

TSX Venture – Quoted in CAD	ETMC
Share Price ( @ January 18)	\$2.82
Cash Balance <sup>1</sup>	\$17.0M
Market Cap	\$163M
Daily Trading Volume	370,000
Shares Outstanding	57.8M
Options & Warrants Outstanding	10.5M
Value of Unexercised Warrants	\$10M
OTCQX – Quoted in USD	EEMMF
Share Price ( @ January 18)	\$2.23
Cash Balance	\$13.5
Market Cap	\$129M

TSX.V: ETMC otcqx: EEMMF FSE: OU7A



1. Excludes remaining \$1.3M Alberta Innovates grant funding



# Why Invest?

Combines a Massive Lithium Resource with Innovative Technology

- PEA demonstrates USD 1.1B NPV<sub>8%</sub> with 32% IRR (Pre-Tax)
- 7<sup>th</sup> Largest Resource in the world
- Developed proprietary Direct Lithium Extraction (DLE) technology Li-IX<sup>™</sup>, to extract lithium from Alberta brines
- Proposed initial development of 20,000 tonnes lithium hydroxide (LHM)/year, potential to expand up to 150,000 tonnes LHM/year
- Reduced Carbon Emissions: ESG focused project development plan aims for minimal land footprint, no freshwater use and limited carbon emissions
- Global Growth in Electric Vehicle (EV) market means robust market fundamentals for lithium demand and huge potential growth for E3







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## **Board & Advisors**

### Decades of expertise in mining, lithium, oil & gas

#### **Board of Directors**

Chris Doornbos, P.Geo Director Founder of E3 Metals, industry expert specializing in the development of major projects, capital raising and M&A.

experience in the energy industry and senior banking.

Finance and capital markets executive with over 20 years'

John Pantazopoulos, CFA, ICD.D

Director

Kevin Stashin, MBA, P.Eng Independent Director Oil & gas executive with 40 years' experience with large, sophisticated companies and processes. Former CEO of NAL Resources.

Peeyush Varshney, B.Comm, LLB Independent Director Capital markets executive with 25 years' experience and has been involved in capital raises with VCC in excess of \$300 million.

**Mike O'Hara**, *P.Eng* Independent Director Oil & gas executive with 35 years' experience in founding, developing and managing profitable, growth-oriented oil and gas companies.

#### Technical Advisory Board

**Dr. Shaun Presow** Battery cathodes Strong background in inorganic chemistry. Experienced in lithium ion battery cathode material specifications. Senior auditor for BASF.

**Dr. Wayne Monnery** Oil and gas processing and H<sub>2</sub>S

Specialist in Chemical Engineering with 30+ years' experience in process engineering development and design in the chemical and petroleum industries.

Dr. Mike Dixon Desalination and water processing Global expert in desalination and water treatment technology. CTO for WaterNEXT and CEO of IoT company Synauta.

#### Corporate Advisory Board

Kevin Reinhart	An executive for 20 years at Nexen, a publicly listed major upstream oil and gas company with an enterprise value of over \$20 billion.
Brad Wall	Served as the Premier of Saskatchewan for over 10 years where he brought political and business leaders together as he implemented creative ways to bolster the Province's economic well-being.
Jean Croteau	Financial markets expert with significant experience at large Canadian financial institutions.
Tim Reimer	Calgary based oil and gas expert in project management, joint ventures, operations and commercial optimization of energy facilities.
Paul Reinhart	30 years' experience in providing early-stage project financing and advisory services.
Steven Goldman	President and CEO of Comstock Metals and founding partner of the law firm Goldman Hine.

