

The Future of Canadian Lithium

July 2025





Cautionary Notes and Forward-Looking Statements

This presentation has been prepared by management of E3 Lithium Ltd. ("E3 Lithium" or the "Company") and does not represent a recommendation to buy or sell securities of E3. Investors should always consult their investment advisors prior to making investment decisions. This presentation does not purport to be complete or contain all of the information that may be material to the current or future business, operations, financial condition or prospects of E3.

This presentation contains forward-looking statements and forward-looking information within the meaning of applicable Canadian securities laws. Forward-looking statements can be identified by the use of forward-looking language such as "plans", "aiming", "potential", "future", "projected", "outlook", "target", "expects", "estimates", "objectives", "intends", "anticipates", or variations of such words and phrases, and statements that certain events, actions or results "may", "could", "would", "might" or "will" occur, be taken or be achieved. All statements other than statements of historical fact, included in this presentation are forward-looking statements. In particular, this presentation contains forward -looking information relating to: the estimated mineral reserves and mineral resources at the Clearwater Project; statements regarding the results of the 2024 PFS (as hereinafter defined), and interpretations thereof; expectations concerning the Clearwater Project, including projected grown in global lithium market, scalability of production, Clearwater Project economics; statements regarding the Company's strategy for water management and recycling, carbon capture and co-generation, land usage and reclamation; objectives for the 2025 demonstration facility; the pathway to commercialization; plan for joint development with Pure Lithium; forecasts regarding the growth of demand for lithium and plans and objectives of management for the Company's operations and the Clearwater Project.

In preparing the forward-looking statements herein, the Company has applied several material assumptions, including, but not limited to assumptions that: the Company's ongoing and planned programs will proceed as planned and that the results thereof will be consistent with the Company's expectations; the Company will be able to obtain sufficient funding to financing all of the foregoing; the foregoing will be funded and completed on the expected timeline; all requisite information will be available in a timely manner; the current development, environmental and other objectives concerning the Clearwater Project can be achieved and that its other corporate activities will proceed as expected; that the current price and demand for lithium will be sustained or will improve; that general business and economic conditions will not change in a materially adverse manner and that all necessary governmental approvals for planned activities on the Clearwater Project will be obtained in a timely manner and on acceptable terms; that permitting and operations costs will not materially increase; the continuity of the price of lithium and other economic and political conditions; that construction and related equipment will be available as required and on reasonable terms; the continuity of tax rates and operating costs; and the assumptions set out in the 2024 PFS, in the Company's Canadian public disclosure record.

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 Lithium to be materially different from those expressed or implied by such forward-looking statements, including, but not limited to, risks related to: effectiveness and feasibility of emerging lithium extraction technologies which have not yet been tested or proven on a commercial scale or on the Company's brine, risks related to the availability of financing on commercially reasonable terms and the expected use of proceeds; operations and contractual obligations; changes in estimated mineral reserves or mineral resources; future prices of lithium and other metals; availability of third party contractors; availability of equipment; failure of equipment to operate as anticipated; accidents, effects of weather and other natural phenomena and other risks associated with the lithium extraction industry; the Company's lack of operating revenues; currency fluctuations; risks related to dependence on key personnel; estimates used in financial statements proving to be incorrect; competitive risks and the availability of financing, as described in more detail in E3's continuous disclosure filings available under its profile at www.sedarplus.ca. Although E3 Lithium 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 Lithium does not undertake to update any forward-looking statements except in accordance with applicable securities laws.

The scientific and technical information relating to the Company's Clearwater Project in this presentation has been derived from or is based on the technical report titled "Clearwater Project, NI 43-101 Technical Report on Pre-Feasibility Study, Bashaw District Mineral Property, Central Alberta, Canada" with an effective date of June 20, 2024 (the "2024 PFS") prepared by Daron Abbey, M.Sc., P. Geo of Matrix Solutions Inc; Alex Haluszka, M. Sc., P. Geo of Matrix Solutions Inc; Meghan Klein, P. Eng, of Sproule Associates Limited; Antoine Lefaivre, P. Eng, of Sedgman Canada Limited; and Keith Wilson, P. Eng., of Stantec Inc, each of whom is a "qualified person" as defined under National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI 43-101"). Unless otherwise indicated, Kevin Carroll, P. Eng., Chief Development Officer and a "qualified person" under NI 43-101, has reviewed and is responsible for the technical information contained in this presentation.

The basis for the 2024 PFS and the qualifications and assumptions made by the authors thereof are set out in the 2024 PFS. Such basis, assumptions qualifications are not fully described in this presentation and information herein does not purport to be a complete summary of the 2024 PFS. For readers to fully understand the information in this presentation, reference should be made to the full text of the 2024 PFS, which is available for review under the Company's profile on the SEDAR+ at <u>www.sedarplus.ca</u> and on the Company's website at <u>www.e3lithium.ca</u>.



A Leader in Canadian Lithium

Canada's Largest Lithium Brine Reserves

The Clearwater Project is underpinned by a 1.13 Mt LCE Proven and Probable reserve¹

Potential to Deliver Canada's First Commercial DLE Project

Clear regulatory processes and decades of energy industry expertise support potentially shorter timeframes to bring the Clearwater Project onstream

The Bashaw District: Potential for Over 50 Years of Production

A single contiguous M&I resource containing over 16.2 Mt of battery quality Lithium Carbonate Equivalent (LCE) that can support 50 years of production¹

On-Site Production of Battery-Quality Lithium Product Samples

Lithium carbonate produced with 99.71%² purity in Alberta

Demonstration Plant Scale-up

The 2025 Demonstration Plant is anticipated to confirm the ability to deliver high-purity lithium carbonate using Direct Lithium Extraction (DLE) on a commercial scale

Made in Canada

Supporting North American Energy security through reduced dependency on supply from foreign markets to meet the forecast growth in regional demand





Investment Highlights

E3 Lithium aims to be one of the first battery quality lithium projects to market in North America leveraging the Alberta advantage: existing infrastructure, significant resources, advanced technologies and expertise in major project development

Robust Projects and Growth Potential

- The Clearwater Project initial production aims to be 12,000 tpa LCE, with potential to expand to 36,000 tpa LCE
- Positioned in the first half of the global cash cost curve¹
- The Clearwater Project represents less than 20% of the Bashaw District
- Significant untapped resources for future expansion

Clear Pathway to Commercialization

- Transparent and relatively short permitting system under the AER²
- Experienced management team with in-house DLE and engineering expertise to design and build this project
- Proven track record of success: Resource & technology development, technical studies, pilot plant, PFS

Tier 1 Lithium Jurisdiction

Attractive Long-Term Lithium Fundamentals

• Geopolitical stability with a proactive regulatory framework specifically tailored to lithium

Synergies with oil & gas industry expertise and operations Access to adjacent major infrastructure such as roads and power Proximity to North American markets

• Increasing demand driven by electrification, energy security and global decarbonization initiatives

Lack of supply puts new, fast to market projects in high demand Growing lithium demand coupled with supply challenges results in a significant forecasted supply deficit



Continued Growth in the Global Lithium Market

Fundamentals remain robust as the long-term global demand forecasts continue to outpace



- The global lithium demand is expected to increase by 132% by 2030 due to increased battery pack sizes and EV sales
- The compound annual growth rate in global lithium demand is projected to be 10% from 2025 to 2040

2020

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Global Lithium Battery Demand by Cathode Chemistry



Lithium iron phosphate (LFP) cathodes are projected to maintain their dominant position in the cathode materials market with market share expected to increase to from 51% in 2024 to 60% by 2030.

Driven by the prevalence of LFP and mid-nickel batteries, the projected demand for lithium carbonate is expected to account for 72% of overall lithium demand throughout the forecast period.



Clearwater Project Overview

Our goal is to commercialize the first major lithium-from-brine resource development in Canada and become a North American battery-quality lithium carbonate producer

Proven Mineral Reserves

• 1.13 Mt of LCE

Scalable Production Capacity & Long Operating Life¹

- Phase 1 production of 12,000 tpa LCE
- Full-scale operations ramping to 36,000 tpa LCE with a 50-year operating life

Robust Economics outlined in the 2024 PFS²

An after-tax NPV8 of US\$3.7 billion with a 24.6% IRR

Mineral Tenure in Clearwater Strengthened

Recently secured the freehold mineral leases from Imperial Oil along with the already-held crown mineral permits

LEGEND

- **Bashaw Permit Area**







Clearwater Project – 2025 Update

Strategic, value-added changes to the original PFS design

Phased Production Build-Out

- Built in three phases to the full capacity target of 36,000 tpa LCE
- Phase 1 will consist of four DLE trains with a combined production capacity of approximately 12,000 tpa LCE

Potential Benefits

- Reduced project risk and initial capital required
- Increase speed to market by reducing the engineering required and anticipated construction time

Battery-Quality Lithium Carbonate

• Modifications to the initial plant design to focus on the production of battery-quality lithium carbonate from the original lithium hydroxide

Potential Benefits

- Aligned with the market shift towards LFP and mid-nickel cathodes
- Eliminates equipment for processing to lithium hydroxide
- Simplifies product handling and logistics for Phase 1 production
- Decreases operating costs by reducing number of reagents





Lithium Production Process



Extraction

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DLE



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Bashaw District Mineral Resources & Reserves

- ✓ Clearwater represents 19% of Canada's Lithium Reserves²
- ✓ Bashaw represents 48% of Canada's M&I Lithium Resources²

Bashaw District Resources Original Lithium in Place (OLIP) ¹	Lithium	Lithium Carbonate Equivalent (LCE)	Lithium Hydroxide Monohydrate (LHM)	2,100m 2,200m
Total	3,046,800	16,218,100	18,421,000	2,300m
Indicated Mineral Resource	1,790,500	9,530,900	10,825,450	
Measure Mineral Resource	1,256,300	6,687,200	7,595,500	2,400m
Clearwater Reserves ¹				2,500m
Total	213,750	1,137,850	1,292,400	2,600m —
Proven Mineral Reserves - Initial 5 Years -	26,500	141,200	160,350	2,700m —
Probable Mineral Reserves - 6 to 50 Years -	187,250	996,650	1,132,050	2,800m —

Approximately 2,500m below the surface, the Leduc Reservoir is an extensively dolomitized ancient reef complex that spans hundreds of square kilometers and averages 200m thick.

1. See 2024 PFS.

2. Source: https://natural-resources.canada.ca/minerals-mining/mining-data-statistics-analysis/minerals-metals-facts/lithium-facts

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Illustration of the Leduc Reservoir in the Clearwater Area







This image is a graphical representation of the Central Processing Facility, not to scale, and may not represent the final facility process or design



Clearwater Project PFS Economics

PFS Metric	Units	Value
Initial Production	Tonnes LHM/year	32,250
Average Production (50-year)	Tonnes LHM/year	25,850
Total Initial Capital (CAPEX)	M US\$	2,465
Total Sustaining Capital	M US\$	1,264
Annual Operating Cost (OPEX)	M US\$	187
Initial Operating Costs (OPEX/tonne)	US\$/tonne	6,200
Average Operating Costs (OPEX/tonne)	US\$/tonne	7,250
Average LHM Price (BMI)	US\$/tonne	31,344
Average Annual EBITDA ¹	M US\$	531
IRR (pre-tax)	%	29.2
IRR (after-tax)	%	24.6
NPV ₈ (pre-tax)	M US\$	5,178
NPV ₈ (after tax)	M US\$	3,720
Payback	Years	4.25





Permitting & Regulatory Landscape

Alberta's lithium-in-brine approval process is based on the existing oil and gas regulatory framework

Established Regulatory Framework

The Alberta Energy Regulator is the regulatory authority responsible for overseeing brine-hosted minerals development in the province

Clear & Predictable Approval Process

An established approval framework creates a more efficient permitting pathway compared to projects in other jurisdictions, accelerating the speed to market

Stable, Pro-Business Policies

Strong federal and provincial government support for the development of the critical mineral industry in the province

High Environmental Standards

Balanced regulations for sustainable growth

Key Permits Required for the Clearwater Project ¹	Application Status
Demonstration Project – Directive 56: Wells	Submitted
Demonstration Project – Directive 56: Facility	Submitted
Demonstration Project – Directive 65 & 51: Resource Applications	
Clearwater Project – Directive 56: Wells & Pipelines	
Clearwater Project – Directive 56: Facility	
Clearwater Project – Directive 65 & 51: Resource Applications	
Clearwater Project – Environmental Protection and Enhancement Act (EPEA)	
Clearwater Project – Alberta Utilities Commission: Rule 7	
Clearwater Project – Municipal Development Permit	



Accessible Infrastructure & Experienced Workforce

The Central Processing Facility is located within a well-established infrastructure jurisdiction, which reduces capital requirements and provides logistical advantages for accessing key markets and distribution networks

Proximity to Key Infrastructure

- Direct access to a secondary road
- 0.1 km from a high voltage power line
- 1.6 km from a provincial highway
- 15 km from a national railway
- 25 km from a natural gas connection

Proximity to a Local Skilled Workforce

- Alberta's workforce will require little to no upskilling to transition from oil and gas to lithium
- The central location eliminates the need for remote work camps
 - 30 km from Olds
 - 70 km from Red Deer
 - 95 km from Calgary
 - 220 km from Edmonton





Building Better for our Stakeholders

The Clearwater Project prioritizes circular principles, including recycling water, minimizing carbon emissions and land conservation







Water Management

The Central Processing Facility will employ a "zero liquid discharge" philosophy, using recycled plant water and lithium-depleted brine for sourcing all process water, and disposal into the aquifer, providing a fully closed loop system.

Carbon Capture & Co-Generation

Co-generation will provide efficient power and steam for process systems and potential carbon capture and sequestration will help reduce emissions to an estimated 1.9 tonnes CO2e per tonne of lithium hydroxide monohydrate.

Land Usage & Reclamation

The Central Processing Facility will occupy a minimal land footprint, using an existing industrial site to reduce surface disturbances, requires no tailings ponds or waste piles, and will employ full site reclamation when operations cease



Highly Skilled Leadership Team

Management



Chris Doornbos, P.Geo President, CEO & Director



Brian Newmarch CFA Chief Financial Officer



Kevin Carroll, P.Eng Chief Development Officer



Leigh Clarke, LL.B VP, Government & Regulatory



Peter Ratzlaff, P.Eng VP, Resource Development



Caroline Mussbacher, P.Eng Director, Technology

Board of Directors

Chris Doornbos, P.Geo, ICD.D

Chair of the Board, President, & CEO

Chris is an industry expert in developing mineral projects globally, raising capital and innovating technology. He is the founder of E3 Lithium.

Tina Craft, MBA

Chair, Audit Committee

Tina brings over 30 years

of chemical industry experience, a multi-disciplined business executive who has held several leadership roles during her 27-year tenure with Albemarle Corporation.

Alexandra Cattelan, MASC

Chair, Compensation and HR Committee

Alex has more than 30 years of experience leading electric propulsion and advanced mobility programs and lithium battery development.

Kevin Stashin, MBA, P.Eng

Chair, Corporate Governance Committee

Kevin is an oil and gas executive with more than 40 years of industry experience with both junior and major companies.

Hon. Sonya Savage, KC, ECA, LLM Independent Director

Sonya began her career practicing law before transitioning to the pipeline industry. She served for four years as a Minister in the Alberta Government including as the Minister of Energy.

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Jody Calvert, P.Eng Director, Projects



Brian Ceelen, P.Eng Director, Commercial Development



Jason Doornbos, P.Eng Director, External Projects

Advisory Committee

Justin Jimmy, ICD.D

Justin is an aviator and Chief Financial Officer with Indigenous Government, as well as an entrepreneur in the retail and consulting industries.

Suzanne Patrick

A retired Navy Commander and former Deputy Undersecretary of Defense, Suzanne served in the United States Navy Reserve for 21 years, rising to the rank of Commander.



Proven Track Record

E3 Lithium has consistently demonstrated its ability to deliver on strategy and achieve our vision

2023/24 ACHIEVMENTS

Resource & Technology Development

Preliminary Economic Assessment



Field Pilot Plant



Pre-Feasibility Study



Joint Development Agreement with Pure Lithium



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2025 OBJECTIVES

- Secure Additional Mineral Leases Required
- Produce Lithium Metal Batteries with Pure Lithium
- Commission the 2025 Demonstration Facility
- Advance Strategic Partnerships & Offtake Agreements
- Progress Feasibility Study & Regulatory Requirements
- Initiate Formal Stakeholder Engagement
- Submit Environmental & Licensing Applications



Demonstrated Ability to Raise Capital

Fundamentals remain robust as the long-term global demand forecasts continue

\$118.6M Total Capital Raised \$37.2M Deployable Capital Available¹



1. The total deployable capital available includes working capital of \$11.1 million and an estimated \$26.1 of grant capital available as March 31, 2025. There is no guarantee that E3 will spend all the grants awarded. Working capital includes a \$1.0 million warrant liability to cancel the remaining 0.9 million IOL warrants outstanding.

Non-Dilutive Sources

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Capital Raises



2025 Demonstration Facility

Objectives

- ✓ Demonstrate the continuous operations of a fully-integrated brine to batteryquality lithium carbonate system
- ✓ Confirm technical operations of the full process flow sheet at a near commercial scale with real-time brine and treatment
- Produce battery-quality lithium carbonate to support strategic customer prequalification

Phase 1: Commissioning

A 30-column process optimization scale DLE system and purification equipment will be assembled and commissioned

Phase 2: Wells & 30-Column DLE Operation

Two wells will be drilled to support a ~six-month production test, enabling continuous on-site operations and data collection for the Feasibility Study and production of battery-quality lithium carbonate

Phase 3: Full-Scale Single Column Operation

A single full-size commercial scale DLE column will be operated to validate performance and to support project financing and strategic partnerships *(Full-scale commercial process includes 120 columns)*



Pathway to Commercialization

The key milestones required to bring the Clearwater Project onstream





Expanded Value Proposition

Alberta

Bashaw District

16.2 Mt LCE Measured and Indicated Mineral Resource¹.

Existing resource base has the potential for multiple future developments of similar scale as the Clearwater Project.

Garrington District

5.0 Mt LCE Measured and Indicated Mineral Resource².

A section of the Leduc Reservoir which sits within a separate western geologic reef, distinct from the Bashaw District, offering the opportunity for partnership in its development.

Saskatchewan

Estevan District

E3 Lithium holds 2.5 Mt LCE of inferred resources³ with nearby lithium concentrations as high as 259 mg/L. E3 Lithium is currently evaluating partner opportunities in this area.

BRITISH





^{1.} See 2024 PFS.

^{2.} Mineral resource NI 43-101 Technical Report for the Garrington District Lithium Resource Estimate, Alberta, Canada, June 24, 2025

^{3.} Mineral resource NI 43-101 Technical Report for the Estevan Lithium District, Saskatchewan, Canada, May 23, 2024.





Joint Development Agreement with Pure Lithium

Batteries Built in Alberta

The Joint Development Agreement explores the potential to integrate E3 Lithium's brine resources and DLE technology with Pure Lithium's Brine to Battery[™] technology to produce low-cost, highperformance batteries at-scale in Alberta.

Brine to Battery[™]

Pure Lithium's Brine to Battery[™] technology integrates lithium extraction with anode production. A lithium metal anode is paired with a high-capacity vanadium cathode, producing a higherperformance, lower-cost, and safer battery compared to today's lithium-ion batteries.

Extensive Brine Resources

E3 Lithium's extensive brine resources in central Alberta will be processed to produce an optimized lithium concentrate which can be directly used to produce lithium metal.



E3 Lithium concentrate is electrodeposited directly as lithium metal, creating anodes ready for battery production.



E3's Advantage

Alberta's history of resource development will enable an accelerated timeline to commercialization for the Clearwater Project

Located in a Tier 1 Jurisdiction for Resource Development

Geopolitical stability and proactive regulatory frameworks are specifically tailored for lithium and other critical minerals

The Bashaw District: Significant Lithium Reserves & Resources

A single contiguous resource base containing over 16.2 Mt of Measured and Indicated LCE and 1.13 Mt Proven and Probable reserves in the Clearwater Project¹

Proven Management Team

Experienced management team of DLE and major projects experts with a proven track record of project execution

Clear Pathway to Delivering Canada's First Lithium in Brine Project

The 2025 Demonstration Facility builds on resource and technology developments, technical studies, and pilot plant success as a major step towards commercialization

Strong Financial Position

Supported by a total of \$41.9M in government grants, E3 continues to retain a strong working capital and has a track record of fiscal prudency.



Capital Structure

Capital Structure¹

Shares Outstanding (basic)	75.4 M
Warrants Outstanding	1.2 M
Options/PSUs/RSUs Outstanding	9.0 M
Shares Outstanding (f.d.)	85.6 M

Liquidity

\$11.1 million Working Capital¹

\$26.1 million Government Support²

\$0.0 million Debt

Stock Chart (12 Months)



as of 07/02/2025

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TSX Venture
Quoted In CADOTCQX
Quoted In USD\$0.92\$0.68\$69.4 M\$51.1 M

Share Price

Market Cap



Get In Touch

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Appendix



Significant Growth Forecast in North American & Europe

E3 Lithium is positioned to become a significant source of supply for North American and European Markets



- North America is expected to face an expanding market deficit as domestic supply growth will not keep pace with growing demand.
- Oilfield and geothermal brines, supported by advances in DLE technology, will contribute meaningfully to the overall supply

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Europe faces a significant lithium supply deficit in the coming years and the region will likely remain heavily reliant on imports to meet demand



(10)

North American Lithium Demand

CLEARWATER PROJECT

North America is expected to have a substantial market deficit as domestic growth in supply will not be sufficient to meet the rising demand

4

Industry Announcements & Benchmark Mineral Intelligence, March 2024

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By 2030 demand is forecasted to reach approximately 450 GWh

PROPOSED & OPERATING GIGAFACTORY'S

Owner (Location)		Size	Anticipated Date Online
1	Amplify Cell Tech (Marshal County, MS)	21 GWh	2027
2	PowerCo (St. Thomas, ON)	90 GWh	2027
3	SAFT (Jacksonville, FL)	6 GWh	2027
4	Panasonic (DeSoto, KS)	30 GWh	2025
5	Electrovaya (Jamestown, NY)	1 GWh	2025
6	SK/Ford (Stanton, TN)	45 GWh	2025
7	SK/Hyundai (Bartow County, GA)	35 GWh	2025
8	Toyota (Greensboro, NC)	30 GWh	2025
9	SK/Ford (Glendale, KY) (2 plants)	86 GWh	2025
10	Panasonic/Tesla (NV)	100 GWh	TBD
11	LGES/Stellantis (Windsor, ON)	45 GWh	2024
12	Tesla (Fremont, CA)	10 GWh	2023
13	LGES/GM (Warren, OH)	40 GWh	2022
14	Tesla (Austin, TX)	94 GWh	2022
15	SK (Commerce, GA)	22 GWh	2022
16	AESC (Smyrna, TN)	3 GWh	2012

Proposed Gigafactory's Operating Gigafactory's