PURE ENERGY MINERALS LTD.

CLAYTON VALLEY PROJECT

Annual Meeting March 9, 2022

CAUTIONARY STATEMENT

Certain statements contained in this presentation, including all statements that are not historical facts, contain forward-looking statements and forward-looking information within the meaning of applicable securities laws ("forward-looking information"). Such forward-looking information includes, but is not limited to, statements or information with the respect to the overall objectives and strategic plans, work programs, exploration budgets and targets and mineral resource estimates of Pure Energy Minerals Limited ("Pure Energy" or the "Company") . Readers should review all of the Company's public disclosure including its most recent Annual Information Form and the risk factors contained therein, the technical reports on its properties, and its audited financial statements and Management's Discussion and Analysis (MD&A), all as filed on www.sedar.com from time to time.

Forward-looking information includes, but is not limited to, statements related to activities, events or developments that the Company expects or anticipates will or may occur in the future, including, without limitation; statements related to the Company's release of the PEA Technical Report ("PEA") for the Clayton Valley Lithium Project ("Project"); the economic analysis of the Project; the mineral resource estimate for the Project; the estimated annual production of LiOH-H_2O and LCE; the availability and development of more sustainable technologies for use at the Project; the expected mine life; the estimated NPV of the Project; the estimated IRR of the Project; estimated average operating costs; estimated capital costs; estimated EBITDA; the estimated payback period for the Project; the estimated timeline for construction of the Project; the estimated production schedule at the Project; anticipated chemistry of brines at the Project; expected growth in the market for lithium hydroxide; anticipated changes in battery formulation technologies; estimated market prices for lithium hydroxide; anticipated lithium recovery levels at the Project; expected pilot plant testing at the Project; design work at the Project; and the development of a timeline for completion of a feasibility study for the Project. Forward-looking information is often identified by the use of words such as "plans", "planning", "planned", "expects" or "looking forward", "does not expect", "continues", "scheduled", "estimates", "forecasts", "intends", "potential", "anticipates", "does not anticipate", or "belief", or describes a "goal", or variation of such words and phrases or states that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. Forward-looking information is based on a number of factors and assumptions made by management and considered reasonable at the time such information is provided. Forward-looking information involves known and unknown risks, uncertainties and other factors that may cause the actual results, performance, or achievements to be materially different from those expressed or implied by the forward-looking information.

A number of other factors may adversely impact Pure Energy and the Project, including: the Company's inability to complete further mineral resource and mineral reserve estimates; the inability to complete a subsequent feasibility study; the inability to anticipate changes in brine volume or grade due a number of factors; changes to the economic analysis; the failure to obtain necessary permits to explore and develop the Project; environmental issues or delays; inability to successfully complete additional drilling at the Project; and inability to obtain financing for future exploration and development work and construction of a plant at the Project. Although Pure Energy has attempted to identify important factors that could cause actual actions, events, or results to differ materially from those described in the forward-looking information, there may be other factors that cause actions, events, or results not to be as anticipated, estimated, or intended. There can be no assurance that forward-looking information will prove to be accurate. The forward-looking information contained herein is presented for the purpose of assisting investors in understanding the Company's plan, objectives, and goals and may not be appropriate for other purposes. Accordingly, readers should not place undue reliance on forward-looking information. Pure Energy does not undertake to update any forward-looking information, except in accordance with applicable securities laws.

Mineral resources which are not mineral reserves do not have demonstrated economic viability. The category of inferred resource is the least reliable resource category and is subject to the most variability. Until mineral reserves and resources are actually mined and processed, the quantity of mineral reserve and resource grades must be considered as estimates only. Walter Weinig MSc., PG., is a qualified person as defined by NI 43-101, and has supervised the preparation of the scientific and technical information that forms the basis for this presentation. Mr. Weinig is a past Vice President of the Company.

CAUTIONARY STATEMENT (cont.)

The PEA is based upon a process flow sheet that may change, which would impact all costs and estimates. Operating costs for the Project were based upon assumptions including future energy costs, water costs, labor, regulatory costs and other variables that are likely to change. Capital costs were based upon plant equipment and other items thought to be necessary for production. Lithium hydroxide monohydrate price forecasts were based upon third-party estimates and management assumptions that may change due to market dynamics. Changes in estimated costs to acquire, construct, install, or operate the equipment, or changes in projected pricing, may adversely impact Project economics.

The economic analysis included in the PEA is based upon inferred mineral resources only. Mineral resources that are not mineral reserves do not have demonstrated economic viability. The PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the Project envisioned by this PEA will be realized. The mineral resource estimates, upon which the PEA is based, rely upon assumptions outlined in the "Resource Estimate" section of the technical report relating to the PEA. Some figures in the resource estimate may have been calculated using a factor to convert short tons to metric tonnes.

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BOARD OF DIRECTORS AND MANAGEMENT

MARY LITTLE
MSc, MBA; Director

More than 25 years in the mining industry and exploration geology, including Echo Bay, Newmont, Cyprus Amax, and WMC Ltd. Founding CEO, Mirasol Resources. Director of TSXV and NYSE listed companies.

FRANK WELLS
MBA; Director

Over 35 years of experience as a financial analyst, business development specialist, financial officer, and director including senior positions with Santa Fe Pacific Gold, Newmont, and Central Asia Metals Ltd.

JOE MULLIN
B.A; Director

Experienced in corporate and equity finance, M&A and advisor and board member of multiple private and publicly listed companies. Currently CEO of QuestEx Gold & Copper Ltd.

TYLER DURHAM
BSc. Eng., MBA; Director

15+ years in the energy sector with Schlumberger in engineering, operations and management positions. Principal of Schlumberger Ventures since 2017.

MICHAEL DAKE
Co-Founder; Director

More than 15 years of PubCo experience in investor relations and market advisory roles, leading numerous capital raises. Director/officer of TSX Venture and CSE listed companies.

HUA HUANG
B.A., UBC; Director

Financial and Marketing background, banking and lithium market consultant. Ms. Hua is currently a director of Lithium X Energy Corp.

LEO KARABELAS
IR / Advisor

Founder of Focus Communications, an investor relations and advisory firm. Officer and director of several TSX Venture companies.

WALTER WEINIG
MSc, PG, PMP; Technical Advisor & Qualified Person

Over 30 years of experience in mining hydrogeology, permitting, and project management at sites around the globe.

ANN FEHR
CPA, Interim CFO

Founder of Fehr & Assoc. +25 years of management experience with 13 years in the mining sector as officer and consultant for publicly listed companies.

DIANNE SZIGETY
Corporate Secretary

Principal at Publico Services Ltd., with +25 years' paralegal experience and consultant in corporate transactions, governance, compliance.

SHARE STRUCTURE

PURE ENERGY MINERALS

As of March 9, 2022:

Shares Outstanding	***32,872,233***
Warrants Outstanding	***0***
Share Options issued	***1,081,252***
Fully diluted	***33,953,485***

Cash as March 9, 2022	***USD $ 300,362 + Positive cash flow***

Principle Share Ownership:

Schlumberger Canada Ltd. **	***18 %***
Nextview Capital – Lithium X Energy Corp.	***12 %***
GeoXplor Corporation	***3.5%***

Other:

- ***Post 1:6 share consolidation Nov. 2020***
- ***No Debt***

CLAYTON VALLEY – PURE ENERGY IS DOMINANT IN NORTH AMERICA'S BEST LITHIUM BRINE ADDRESS

CLAYTON VALLEY, NEVADA

World-Class Infrastructure

Excellent access and logistics

Proven Lithium Brine potential

Dominant land position

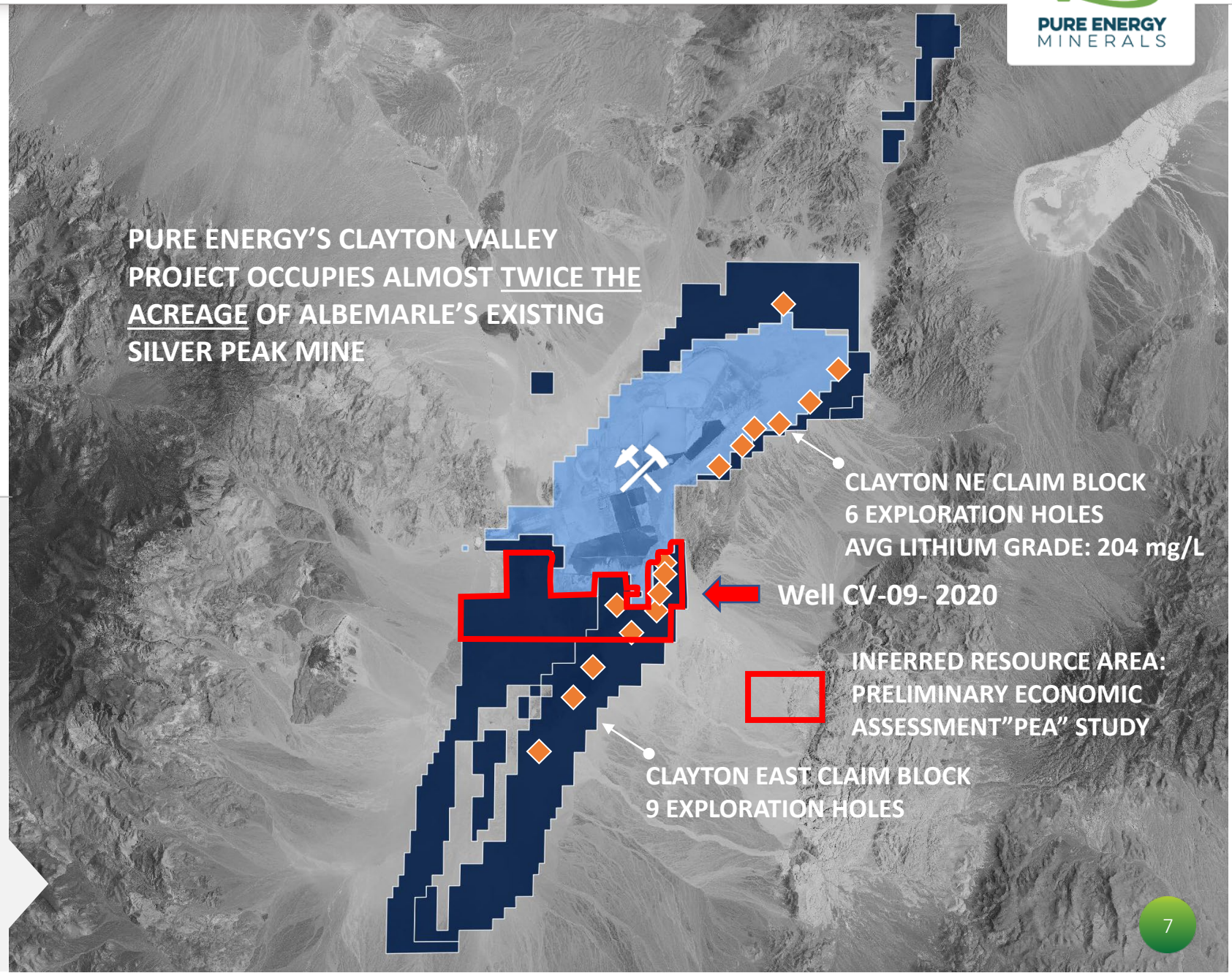
CONSOLIDATED LAND POSITION: THE CLAYTON VALLEY PROJECT DOMINATES THE BASIN

PURE ENERGY MINERALS

PURE ENERGY CLAIMS:

TOTAL: 23,228 ACRES (9,450 HECTARES)

- Pure Energy – controls 950 unpatented placer mining claims
- Albemarle Silver Peak Mine (~13,000 Acres)
- Exploration Holes & Wells



PURE ENERGY – SCHLUMBERGER AGREEMENT

WHAT: In May 2019, Schlumberger ("SLB") signed agreement to Earn-in over 3 years, requiring permitting and construction of Pilot Plant and test production of Li(OH) and Li Carbonate products for fixed time periods. SLB assumes all costs and operatorship of Project during Earn-in period, and may elect to acquire the Clayton Valley Project ("CV Project") upon meeting all criteria. The CV Project is the Company's principle asset.

WHEN: Signed May 28, 2019 with concurrent Private Placement for USD$1.5 M in Pure Energy.

WHERE: The Clayton Valley Lithium Brine property, Esmeralda County, Nevada, located 3 hours' drive from both Reno and Las Vegas, Nevada. Excellent access, power, workforce.

HOW: Schlumberger is the world's largest oil fields services provider and hosts in-house resources to fund, research, design, test, build and produce at the Clayton Valley Project. Pure Energy's previous drilling (8 holes), brine testing, water rights applications, permits and land acquisition are the foundation of the Project.

UPDATE (2022):

Schlumberger has taken financial responsibility of the CV Project and is actively working toward building a pilot plant

Advance Royalty payments began January 2021 from Schlumberger (USD$400,000/yr)

Converts to 3% NSR Production Royalty on all commodities sold from the CV Project

HIGHLIGHTS in 2021

March, 2021 – Schlumberger New Energy announces plan to launch a Lithium Extraction Plant at the CV Project

- Neolith Energy, the Schlumberger – Pure Energy venture to execute development of Pure Energy's CV Project.
- Will be significantly more efficient for Water and Energy use.
- Utilizing DLE process – Direct Lithium Extraction from lithium –rich brines.

Feb., 2021 - Schlumberger files Plan of Operation with the State of Nevada and Bureau of Land Management (BLM) for proposed Pilot Plant at Clayton Valley and completes review process.

June 2021 – Pure Energy purchases and eliminates the 2% NSR underlying royalty payable on 45% of property position.

June, 2021 – Schlumberger New Energy announces collaboration with Panasonic Energy of North America on lithium process.

August 2021 - Initial approval from Bureau of Land Management for construction of the proposed Pilot Plant
AND – Concurrent approval from Nevada Division of Environmental Protection (NDEP).

December 2021 – Receipt of Reclamation Permit for Life of Pilot Plant

2018 - HIGHER CONFIDENCE, BETTER UNDERSTOOD, HIGH QUALITY BRINE (PEA)**

2018 - RESOURCES & KEY TECHNICAL PARAMETERS, PURE ENERGY REVISED PEA STUDY **

Lithium Resource LCE
(metric tonnes)

218,000

Average Lithium Grade
(mg/L)

123

TOTAL INFERRED RESOURCES

****To be be superceded by Schlumberger's Project Parameters**

WORLD-CLASS CHEMISTRY

*Magnesium** to Lithium Ratio: **2.9**

Avg Calcium Content (mg/L):* ***1,536***

*Sulfate** to Lithium Ratio: **18.2**

** Chemistry derived from global average calculations from database, June 2017; Resource does not include six Clayton Northeast holes with average values of 204 mg/l Li.)*

NOTE: Mineral resources that are not mineral reserves do not have any demonstrated economic viability. Inferred resources are the least reliable resource category and are subject to the most variability. Please see the Company's full technical report at www.sedar.com or www.pureenergyminerals.com for details on how the resource was derived and for the reporting details in terms of lithium metal (Li) and lithium hydroxide monohydrate ($LiOH \cdot H_2O$).

SUMMARY OF PRELIMINARY ECONOMIC ASSESSMENT* (PEA) – **ATTRACTIVE ECONOMICS**

Key Project Economic Indicators *(Currency in US $) -2018 PEA*	
Average Annual Production (Lithium Hydroxide)	**10,300 tonnes***
After Tax - Net Present Value (8% Discount)	**$264 million***
After Tax - Internal Rate of Return (IRR)	**21%***
Mine Life	**20 years***
Annual Project EBITDA* (name plate production)	**$100 million***
Total Initial Capital Costs (30% Contingency)	**$297 million***
Direct Operating Costs $LiOH \cdot H_2O$ (Steady State)	**$3,217/tonne***

(* To be superceded by Schlumberger development plan)

* - The economic analysis is based upon inferred mineral resources only. Mineral resources that are not mineral reserves do not have demonstrated economic viability. This PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the Project envisioned by this PEA will be realized

** - EBITDA is a non-IFRS earnings measure which does not have any standardized meaning prescribed by IFRS and therefore may not be comparable to EBITDA presented by other companies. EBITDA represents earnings before interest expense, income taxes, depreciation and amortization. Investors are cautioned that this non-IFRS financial measure should not be construed as an alternative to other measures of financial performance calculated in accordance with IFRS.

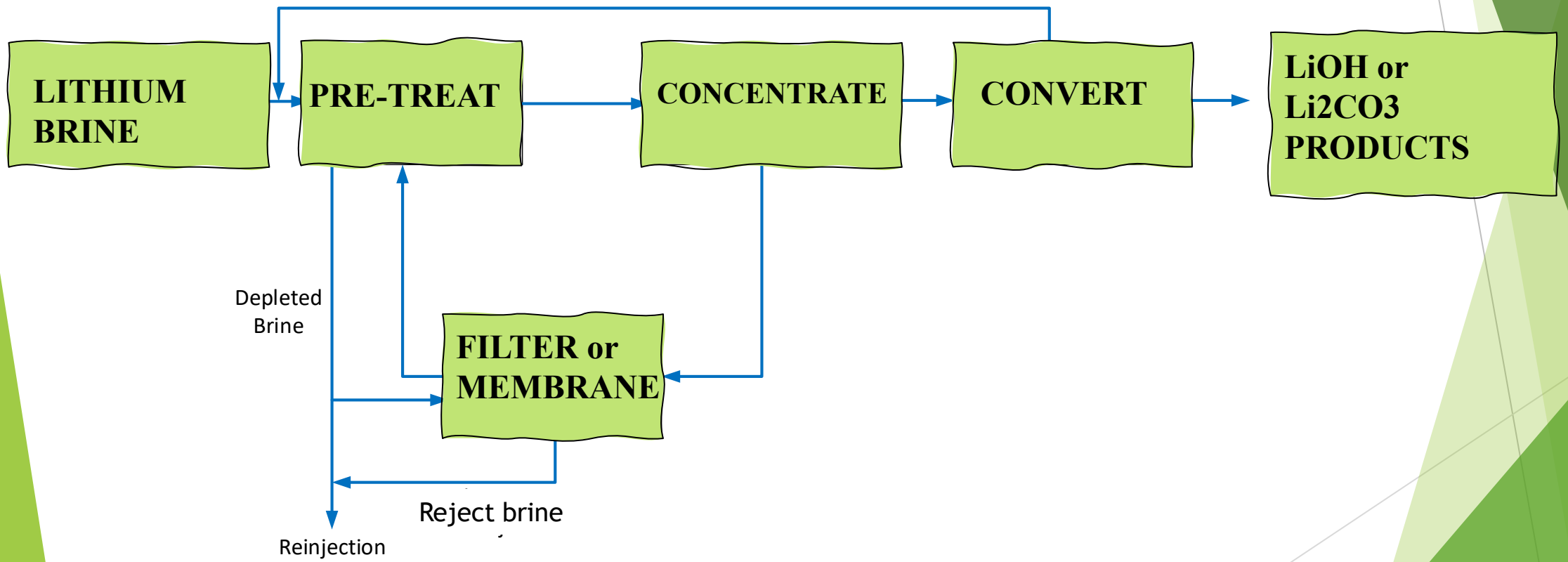
DLE – Direct Lithium Extraction - Key Points*

- Faster lithium production (hours/days vs. +1-2 years in evaporation ponds).
- Much smaller environmental footprint; more favorable ESG profile.
- Not weather dependent.
- Lower water consumption (the recovered brine can be returned to the basin after lithium extraction).
- Can make lower grade lithium projects economically viable.
- Up to 99% lithium recovery (usually 70-90%) compared to ~40% with the conventional process.
- Can potentially produce a higher purity, battery grade lithium final product to sells at a premium.

- Not yet tested at a large scale and over a long time period. This means that the economics and effectiveness over time are still to be determined.
- Technical complexity and risks with newer technology.
- CapEx and ongoing CapEx will depend on many factors (location, type of DLE process, cost of energy, any valuable by-products, etc).

* Seeking Alpha

SCHEMATIC PROCESS FLOW DIAGRAM – DLE – Direct Lithium Extraction

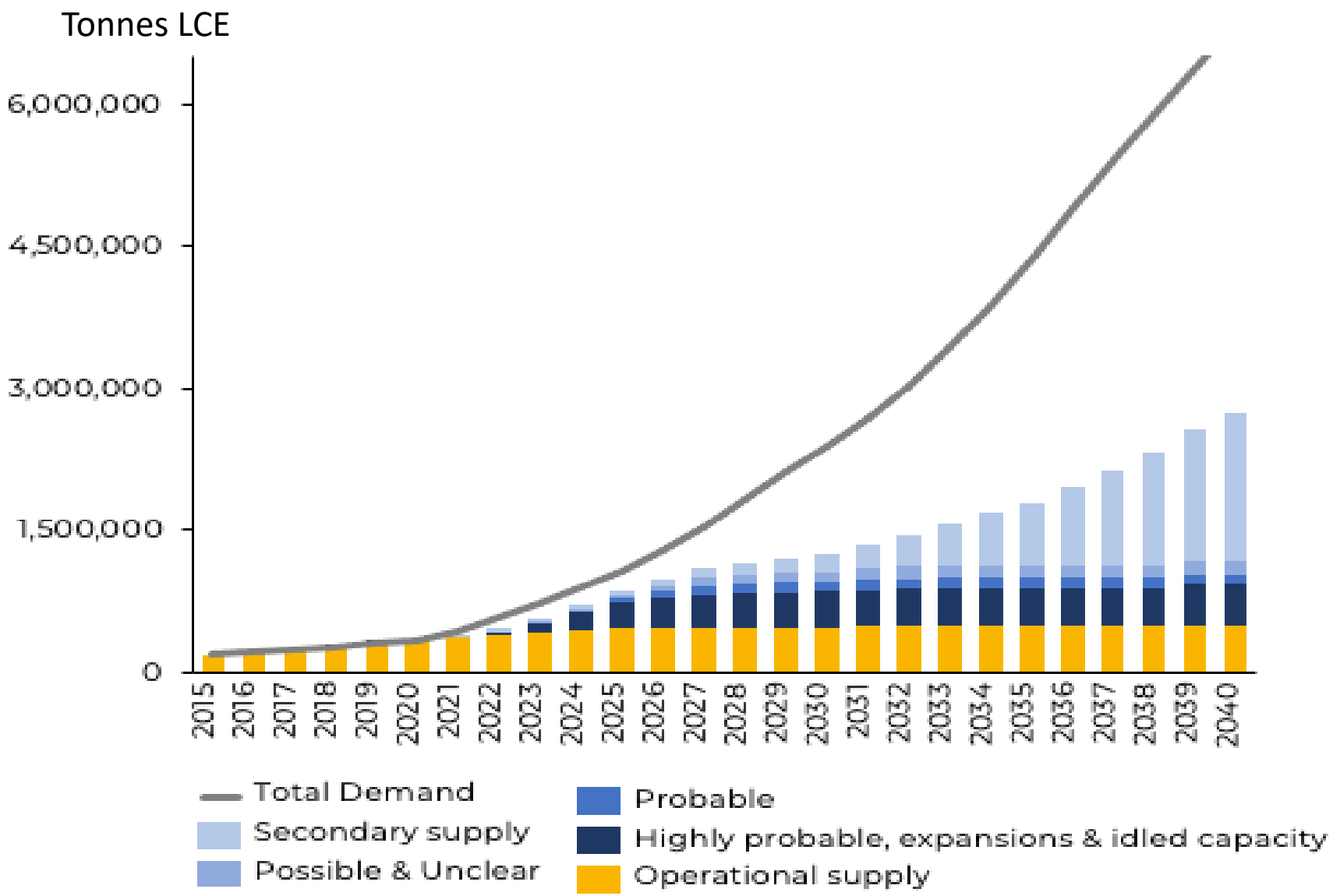


- Current Plans include*:

- Final permits for the Pilot Plant – BLM and NDEP received August 2021 approving construction of the Pilot Plant. Reclamation permit received Dec. 2021. Ongoing.
- Advance the engineering for Pilot Plant construction, and continue Plant preparations.
- On site anticipated in 2022.

- *See Pure Energy news releases dated March 19, June 11, and August 17, 2021.

DEMAND CASE FOR LITHIUM



SOURCE: Benchmark Mineral Services April 2021

TSXV:PE

OTCQB:PEMIF

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