

# COMPANY UPDATE

April 15, 2016

## 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. Such forward-looking statements or information include, but are not limited to, statements or information with the respect to Pure Energy Minerals Limited ("Pure" or the "Company") overall objectives and strategic plans, work programs, exploration budgets and targets and minerals resource estimates. Readers should review all of the Company's public disclosure including its Annual Information Form and the risk factors contained therein filed on **www.sedar.com** Oct 27th 2015, and the technical report on its properties filed on **www.sedar.com** on July 28th 2015.

Often, but not always, forward-looking statements or information can be identified by the use of words such as "plans", "expects", or "does not expect", "is expected" "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes" or variations of such words and phrases or statements that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. With respect to forward-looking statements and information contained herein, we have made numerous assumptions including that, among other things, no significant adverse changes will occur to our planned project expenditures, that there will be no significant delays of the completion of our planned exploration programs; as to the continuing availability of capital resources to fund our programs; and that the company will not experience any adverse legislative or regulatory changes. There are numerous uncertainties inherent in estimating mineral reserves and mineral resources, including many factors beyond the Company's control. Such estimation is a subjective process, and the accuracy of any reserve or resource estimate is a function of the quantity and quality of available data and of the assumptions made and judgment used in larger scale tests under on-site conditions or during production. Although we have attempted to identify factors that would cause actual actions, events or results not to be as anticipated or intended. Also, many of the factors are beyond the control of Pure. Accordingly, readers should not place undue reliance on forward-looking statements or information. Although management believes that the assumptions made and the expectations represented by such statements or information are reasonable, there can be no assurance that any forward-looking statements or information referenced herein will prove to be accurate.

Pure undertakes no obligation to reissue or update any forward-looking statements or information as a result of new information or events after the date hereof except as may be required by law. All forward-looking statements and information herein are qualified by this cautionary statement.

Scientific or technical information contained herein is derived from the independent NI43-101 technical report which includes more detailed information with respect to the Company's properties, including the dates of such reports and the estimates included therein, details of quality and grade of the resource, details of the key assumptions, methods and parameters used in the resource estimate, a general discussion of the extent to which the resource estimates and the other estimates and projections included in the reports may be materially affected by any known environmental, permitting, legal, taxation, socio-political, marketing, or other relevant issues and you are urged to review such reports in their entirety.



**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. Patrick Highsmith MSc., CPG., 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. Highsmith is not independent of the Company as he is a director.

## HIGHLIGHTS







# 4 COMPANIES PRODUCE OVER 89% OF WORLD'S SUPPLY

## OPERATES AS AN **OLIGOPOLY**



## THE OUTLOOK FOR THE GLOBAL LITHIUM MARKET



#### In 2014 Demand was Forecast to Outstrip Supply in 2020 by 25%







Source: Citi Research, Lithium – the Future is Electric, October 16, 2015; Jon Hykawy/Stormcrow, Industry Report // Lithium, May 29, 2015

## **DRIVEN BY TRANSPORTATION**



Battery powered EV uses ~40 – 80kg of LCE per unit

China is targeting 5 million "new energy" vehicles by 2020 Electric vehicle sales up 70% Y/Y to 462,000 units in 2015

> New BYD electric buses leaving plant Shenzhen, China

Electric vehicles sales in China driven by clean air policy – outpaced US sales in 2015.



## INSTALLED & PROJECTED ENERGY STORAGE CAPACITY (US)



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## CLAYTON VALLEY NEVADA – A VERY BUSY PLACE IN 2016





## **World-Class Infrastructure**

Power Lines, Roads, and North America's Only Lithium Producer...

## CLAYTON VALLEY SOUTH PROJECT



Adjacent Historical Production and Lots of Growth Potential



## CLAYTON VALLEY SOUTH: DRILLING AND PUMPING



Three Wells Completed Last Month – Three More to Come in Phase 3



#### WHERE DOES THE LITHIUM COME FROM?





## **GROWING HIGH QUALITY RESOURCES**





Lithium Resource LCE (metric tonnes)

816,000

Average Lithium Grade (mg/L)

102

Sulfate\*

to Lithium

Ratio:

~ 23

## **TOTAL INFERRED SOURCES**

## FAVORABLE CHEMISTRY

Potassium\*

to Lithium

Ratio:

~ 18

Magnesium\* to Lithium Ratio: **2.0** 

\* Chemistry from Northern Resource Area; See Company News Release April 14, 2016



**NOTE:** Resources are in-situ and reported as Lithium Carbonate Equivalent (LCE). Mineral resources that are not mineral reserves do not have any demonstrated economic viability. Please see the Company's full technical report at www.pureenergyminerals.com for details on how the resource was derived.

## CLAYTON VALLEY SOUTH LITHIUM RECOVERY



**The Past:** 20<sup>th</sup> Century Lithium Technology

## CLAYTON VALLEY SOUTH LITHIUM RECOVERY





#### **BUILDING THE ENGINEERING TEAM**





#### **ERNEST BURGA, PE**

35 years experience as mechanical engineer focused on design and costing for all manner of mining and mineral processing plants.

Integral in technical studies, design, and feasibility studies for four different lithium projects.



#### RON MOLNAR, PhD, PE

Over 35 years in various R&D functions in commercial and government labs. Specialist in hydrometallurgy with emphasis on solvent extraction, ion exchange, and electrowinning for lithium, REE's, copper, and other metals.

Experience in designing, building, and running SX extraction circuits for mining companies and R&D centers



#### MIKE DRY, PhD, PE

Chemical engineer with more than 35 years experience in mineral processing, including SGS and Mintek.

Deep expertise in hydrometallurgy and solvent extraction. Experienced on at least two lithium project design and engineering teams.

## MINI PILOT PLANT

## PureEnergy



#### Bateman Advanced Technologies (BAT ) Mini Pilot Plant in Israel

- LiP™ Removal of alkali earth elements using membranes
- LISX<sup>™</sup> Recovery of lithium into concentrated high-purity lithium sulfate solution
- 3 LIEL<sup>™</sup> Conversion of lithium sulfate solution into concentrated high-purity lithium hydroxide solution and crystallization into high-purity battery grade lithium hydroxide



#### **PROGRESS TOWARDS PRODUCTION**





#### **KEY TEAM MEMBERS**





#### **PATRICK HIGHSMITH** *MSc, CPG; CEO, Director*

Senior mining professional with over 25 years multi-commodity experience, including exploration, operations, and business development with BHP Billiton, Rio Tinto, and Newmont.

Founding CEO of Lithium One Inc. and co-engineer of friendly 2012 merger with Galaxy Resources.



#### **ANDY ROBINSON** *PhD; COO, Director*

20+ years successful project development. Senior technical and executive management roles in public companies, including Swift Power Corp. and Veresen.

10+ years for an international engineering company involved in groundwater-focused resource and energy projects.



#### **ROBERT MINTAK** *Founder; Chairman*

Over 25 years experience in multiple industries, including private and public lithium exploration companies. Founding director of Pure Energy Minerals

#### **KEY TEAM MEMBERS**





#### **ALEXI ZAWADZKI** *M.E.S.; VP Business Development*

20 years experience developing resource projects as owner/consultant. Founded Swift Power Corp in 2008, which was acquired by Veresen Inc. in 2010. Served as VP Business Development West for Veresen until 2013. 10 years at large multinational engineering consultancy on water projects in the mining, oil and gas, and power sectors.



#### MARY LITTLE MSc, MBA; Director

More than 20 years mining industry experience, including senior positions at Newmont, Cyprus Amax, and WMC Ltd. Founding CEO of Mirasol Resources, led a major asset transaction, valuing the project at more than \$120 million.



#### **ALEX ROTHWELL** BSc ChEng, MBA; Advisor

Senior finance professional with 20 years in Canadian capital markets and investment banking. Formerly President of Macquarie Capital Markets Canada. Expertise in institutional relationship management, capital raises and corporate advisory services. Currently the principal of Temperance Capital in Victoria, BC..

#### CAPITALIZATION









TSXV:PE

OTCQB:HMGLF

#### Patrick Highsmith, Chief Executive Officer

p.highsmith@pureenergyminerals.com 303.668.3264

#### Robert Mintak, Chairman

robert@pureenergyminerals.com 604.608.6620

www.PureEnergyMinerals.com

# **APPENDICES**









## CLAYTON VALLEY SOUTH: DRILL TARGETS

PureEnergy



#### CVS DRILLING AND SAMPLING





Mud Rotary Drilling



Well Development for Submersible Pumping Submersible Pump Sampling



Brine Samples to Lab

## MORE PUMPING TESTS COMING SOON



#### Transmissivity, Effective Porosity, Specific Yield, Permeability -> **COMMERCIALITY**



## POSITIVE PRELIMINARY INDICATIONS FOR LITHIUM RECOVERY





## **PROJECT PARTNERS**





#### Aligned With Visionary Partners For Project Success





## **SRI International**



