

# LITHIUM – MADE IN THE USA

Helping Secure America's Energy Security

 Nasdaq :PLL

 ASX :PLL

ARBN 647 286 360

February 2023

**LiOH**

# DISCLAIMERS

## Forward Looking Statements

This presentation contains forward-looking statements within the meaning of or as described in securities laws in the United States and Australia, including statements regarding exploration, development and construction activities of Sayona Mining, Atlantic Lithium and Piedmont Lithium; current plans for Piedmont's mineral and chemical processing projects (including its partners); projections of market demand and prices; statements about the timing and amount of reserve and resource declarations and our chemical processing operations; strategy; value; returns; capital allocation and investment; expectations regarding permitting; costs and expenses; and statements about the timing and ability to complete scoping studies and feasibility studies.

Such forward-looking statements involve substantial and known and unknown risks, uncertainties and other risk factors, many of which are beyond our control, and which may cause actual timing of events, results, performance or achievements and other factors to be materially different from the future timing of events, results, performance or achievements expressed or implied by the forward-looking statements. Such risk factors include, among others: (i) that Piedmont will be unable to commercially extract and deliver mineral deposits to Tesla or another party, (ii) that Piedmont's properties may not contain expected reserves, (iii) risks and hazards inherent in the mining business (including risks inherent in exploring, developing, constructing and operating mining projects, environmental hazards, industrial accidents, weather or geologically related conditions), (iv) uncertainty about Piedmont's, Sayona Mining's or Atlantic Lithium's ability to obtain required capital to execute its business plan, (v) Piedmont's, Sayona Mining's or Atlantic Lithium's ability to hire and retain required personnel, (vi) changes in the market prices of lithium and lithium products, (vii) changes in technology or the development of substitute products, (viii) the uncertainties inherent in exploratory, developmental and production activities, including risks relating to permitting, zoning and regulatory delays related to Piedmont's projects as well as the projects of our partners in Quebec and Ghana, (ix) uncertainties inherent in the estimation of lithium resources, (x) risks related to competition, (xi) risks related to the information, data and projections related to Sayona Mining or Atlantic Lithium, (xii) occurrences and outcomes of claims, litigation and regulatory actions, investigations and proceedings, (xiii) risks regarding our ability to achieve profitability, enter into and deliver product under supply agreements on favorable terms, our ability to obtain sufficient financing to develop and construct our projects, our ability to comply with governmental regulations and our ability to obtain necessary permits, and (xiv) other uncertainties and risk factors set out in filings made from time to time with the U.S. Securities and Exchange Commission ("SEC") and the Australian Securities Exchange, including Piedmont's most recent filings with the SEC. The forward-looking statements, projections and estimates are given only as of the date of this presentation and actual events, results, performance and achievements could vary significantly from the forward-looking statements, projections and estimates presented in this presentation. Readers are cautioned not to put undue reliance on forward-looking statements. Piedmont disclaims any intent or obligation to update publicly such forward-looking statements, projections and estimates, whether as a result of new information, future events or otherwise. Additionally, Piedmont, except as required by applicable law, undertakes no obligation to comment on analyses, expectations or statements made by third parties in respect of Piedmont, its financial or operating results or its securities.

## Competent Persons Statement

The Carolina Lithium Project comprises the Project's estimated Probable Ore Reserves of 18.3 Mt @ 1.10% Li<sub>2</sub>O and Mineral Resource estimate of 44.2Mt @ 1.08% Li<sub>2</sub>O comprised of Indicated Mineral Resources of 28.2Mt @ 1.11% Li<sub>2</sub>O and Inferred Mineral Resources of 15.9Mt @ 1.02% Li<sub>2</sub>O previously reported on October 21, 2021 ("Mineral Resource update"). The information in this presentation that relates to Exploration Results, Mineral Resources, Metallurgical Testwork, Process Design, Operating Costs, Capital Costs, Financial Analysis, Mining Engineering, Mine Schedule, Mining Costs and Ore Reserves of the Carolina Lithium Project was extracted from our announcement entitled 'Piedmont Completes Bankable Feasibility Study of the Carolina Lithium Project with Positive Results' dated December 13, 2021 ("Original Announcement") which is available to view on the Company's website at [www.piedmontlithium.com](http://www.piedmontlithium.com).

Piedmont confirms that: a) it is not aware of any new information or data that materially affects the information included in the Original Announcement; b) all material assumptions and technical parameters underpinning Mineral Resources, production targets, and related forecast financial information derived from production targets included in the Original Announcement continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this report have not been materially modified from the Original Announcement.


## Cautionary Note to United States Investors Concerning Estimates of Measured, Indicated and Inferred Mineral Resources

The information contained herein by Piedmont for the Carolina Lithium Project has been prepared in accordance with the requirements of the securities laws in effect in the United States and Australia. The terms "ore reserves", "proven ore reserves", "probable ore reserves", "mineral resource", "measured mineral resource", "indicated mineral resource" and "inferred mineral resource" are used herein as defined under the U.S. Securities and Exchange Commission ("SEC") in Regulation S-K, Item 1300 ("S-K 1300") or the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code").

Information presented herein related to the Mineral Resources of Sayona Quebec's Authier Project and Atlantic Lithium's Ewoyaa Project have been prepared in accordance with the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources, and Ore Reserves (the "JORC Code"). Additionally, the historical Mineral Resources for North American Lithium have been prepared in accordance with the regulations of National Instrument 43-101, Standards of Disclosure for Mineral Project ("NI 43-101") in effect in Canada. The terms "mineral resource", "measured mineral resource", "indicated mineral resource" and "inferred mineral resource" are terms with meaning both in the JORC Code and NI 43-101. Comparable terms are now also defined by the SEC in its newly adopted Modernization of Property Disclosures for Mining Registrants as promulgated in its S-K 1300 standards. While the guidelines for reporting mineral resources, including subcategories of measured, indicated, and inferred resources, are largely similar for JORC, NI 43-101 and S-K 1300 standards, information contained herein that describes Sayona's and Atlantic Lithium's mineral deposits are not fully comparable to similar information made public by U.S. companies subject to reporting and disclosure requirements under the U.S. federal securities laws and the rules and regulations thereunder. U.S. investors are urged to consider Piedmont's disclosure in its SEC filings, copies of which may be obtained from Piedmont or from the EDGAR system on the SEC's website at [www.sec.gov](http://www.sec.gov).



# LITHIUM MARKETS

 Nasdaq :PLL

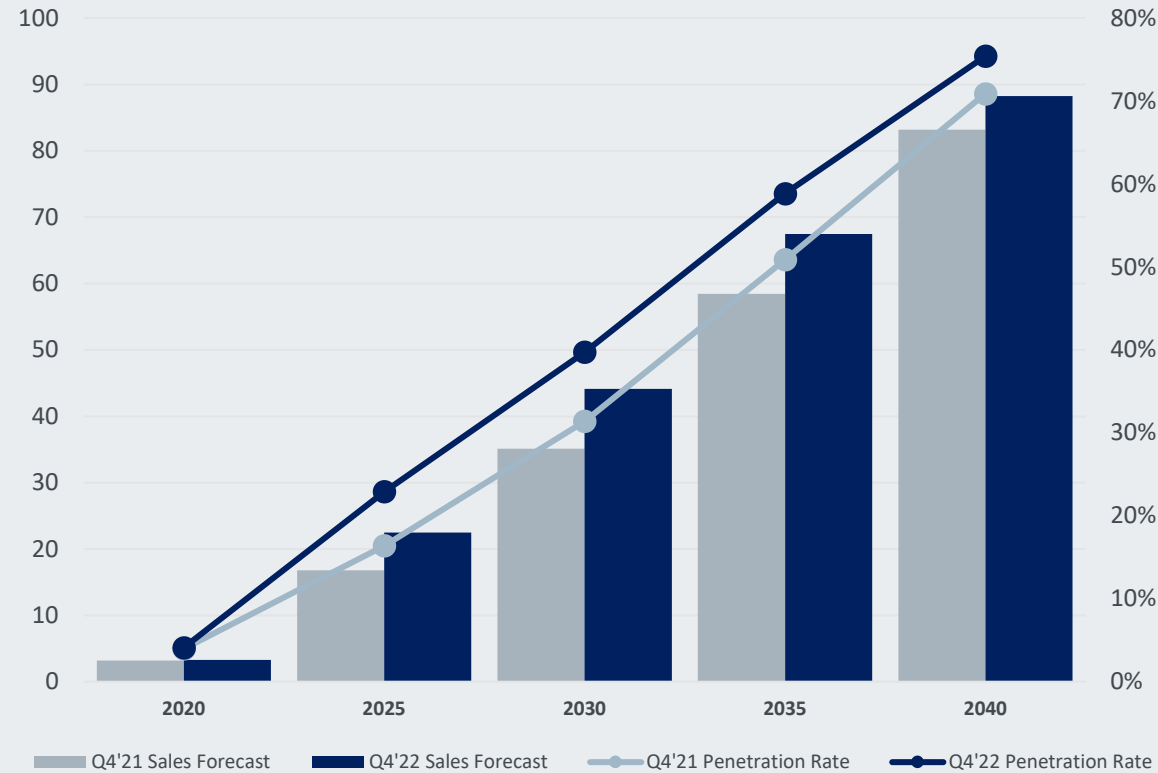
 ASX :PLL

ABN 50 002 664 495

**LiOH**

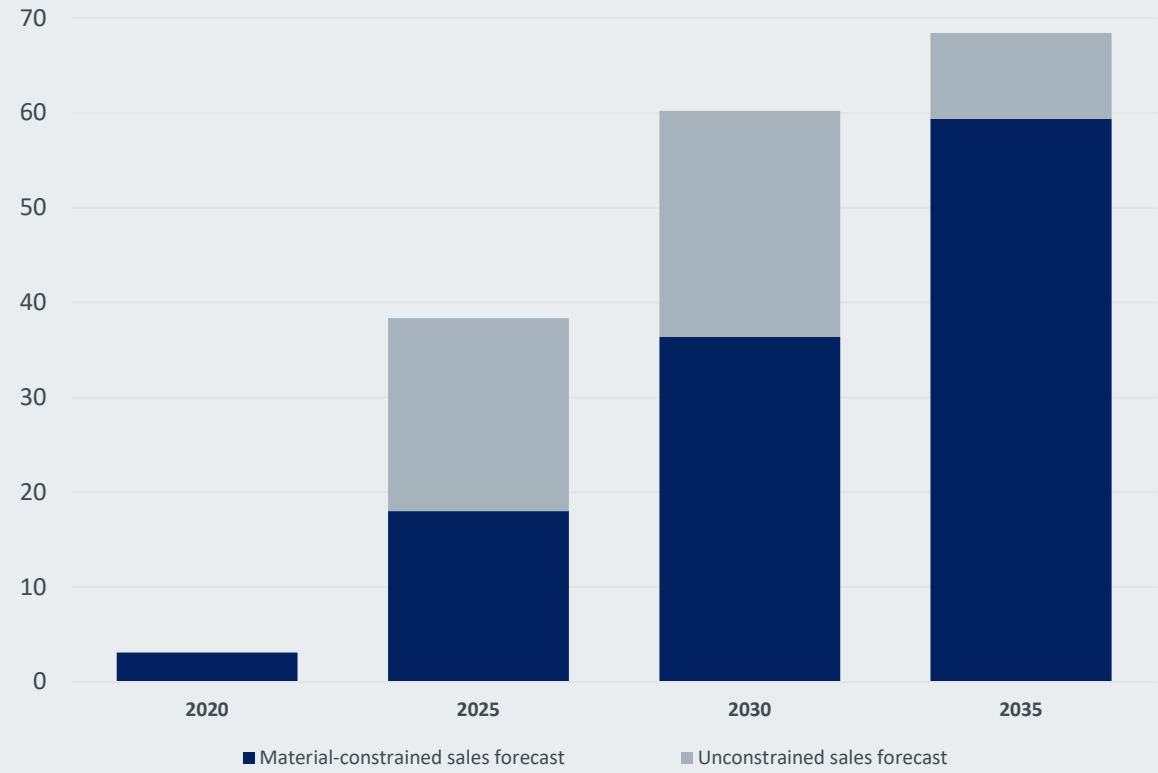
# EV DEMAND PROJECTED TO GROW DRAMATICALLY

ELECTRIC VEHICLE SALES AND PENETRATION RATE  
FORECASTS  
Q4 2021 FORECAST VS. Q4 2022 FORECAST



Source: Benchmark Minerals Intelligence Lithium Forecast

MATERIAL-CONSTRAINED VS. UNCONSTRAINED ELECTRIC VEHICLE SALES FORECAST  
(MM UNITS)

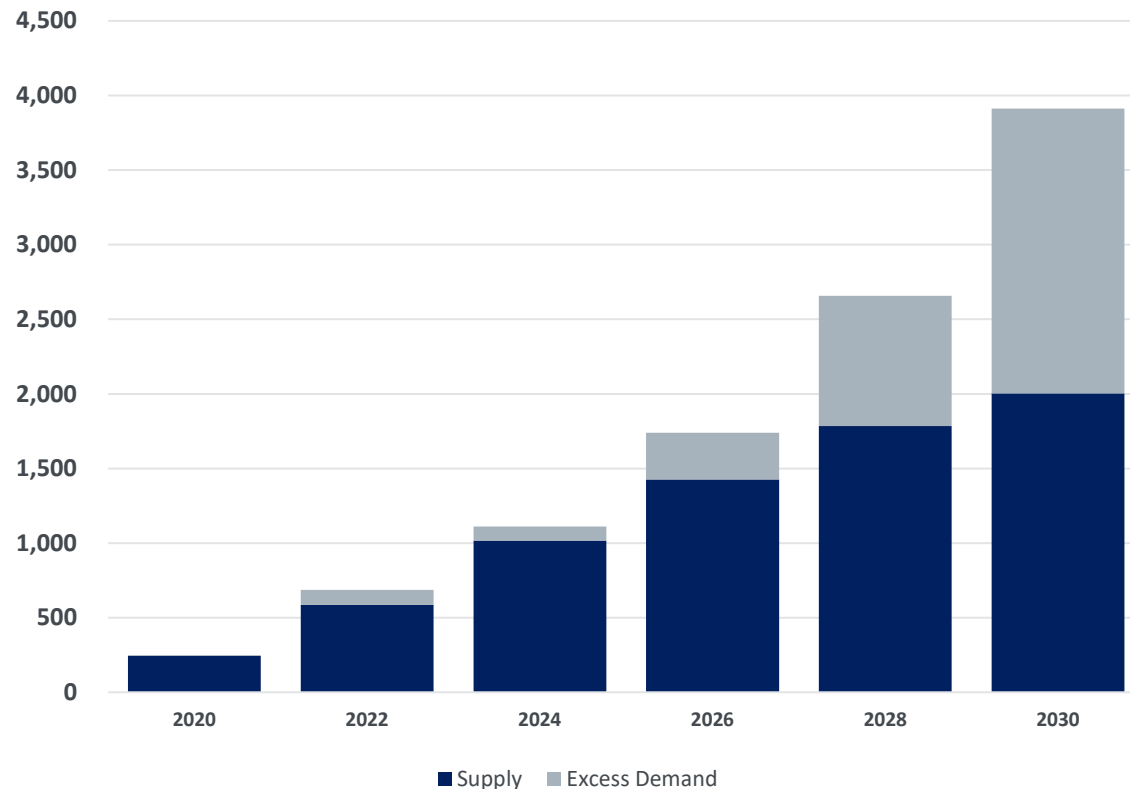


Source: Battery Material Review, Westbeck Capital estimates

# LITHIUM SHORTFALLS ANTICIPATED

Upstream projects have long development timelines, compounding supply deficits

BATTERY GRADE SUPPLY AND DEMAND FORECAST  
(KT LCE)



Source: RK Equity estimates

“The demand for lithium-ion batteries is quasi-infinite and will be for quite some time” – *Elon Musk, Tesla*

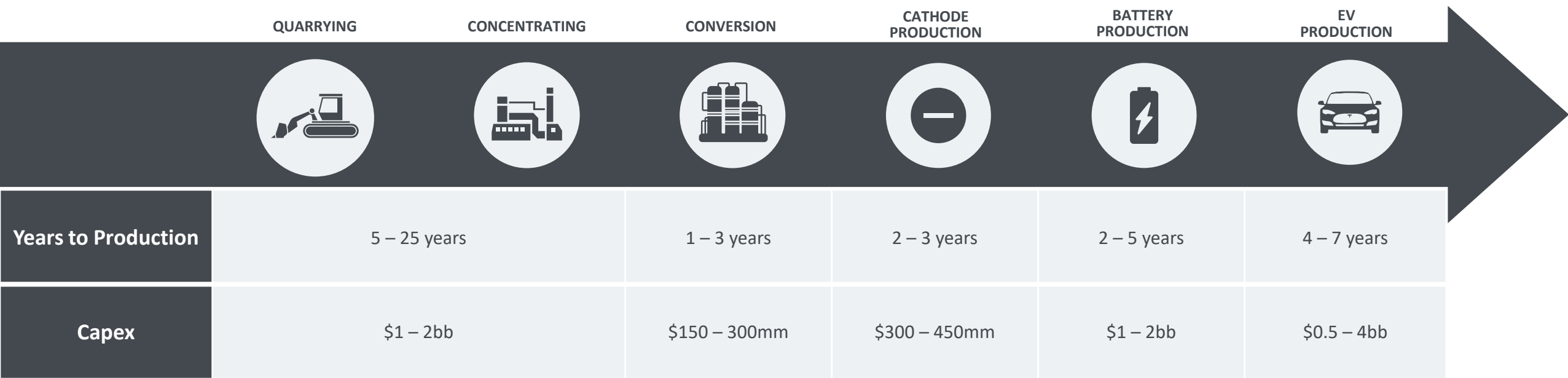
“Based on history and the sector's poor track record of delivery, there is an upside risk to our price forecasts and a "stronger for even longer" scenario playing out. We see limited technical risk in delivering DMS-only spodumene concentrate projects – the greater risk is permitting timelines, finding skilled staff and delivery timelines and installation for lead items.” – *Rodney Hooper, RK Equity*

“I really don't think there's any reason to believe that so many tons can magically appear this year to return the market to balance. The pain is not over yet.” – *Claire Blanchelande, Lithium Trader at Trafigura Group*

“There are so many negative lithium reports coming out of the bulge bracket banks recently that it's difficult to understand why anyone was ever positive on lithium. Of course, those of us who were positive on lithium were positive (and made money) because we didn't listen to what the bulge bracket investment banks were saying! It's not like the bulge brackets have such a great record anyway.” – *Matt Fernley, Battery Materials Review*

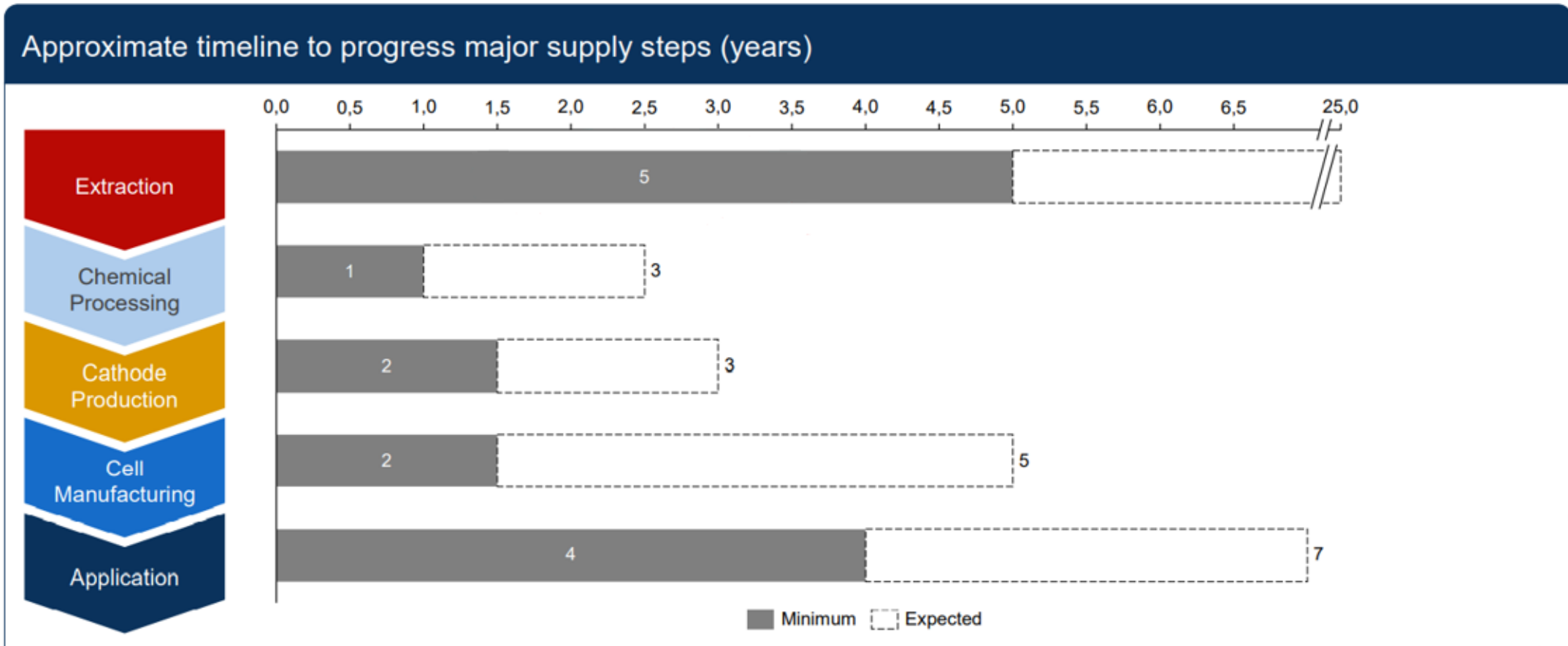
# EXPLORATION TO EV PRODUCTION PROCESS

Extraction of raw materials is the longest part of the supply chain to develop and is location constrained by geology



# EXPLORATION TO EV PRODUCTION PROCESS

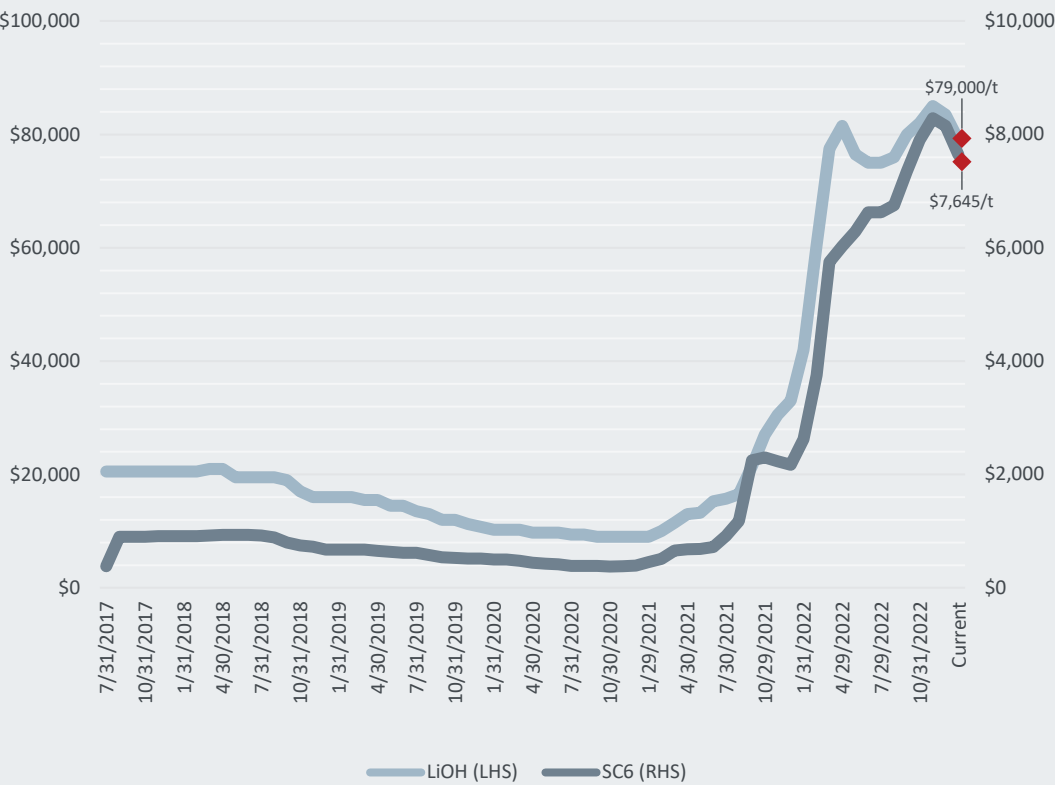
Extraction of raw materials is the longest part of the supply chain to develop – it is also location constrained by geology



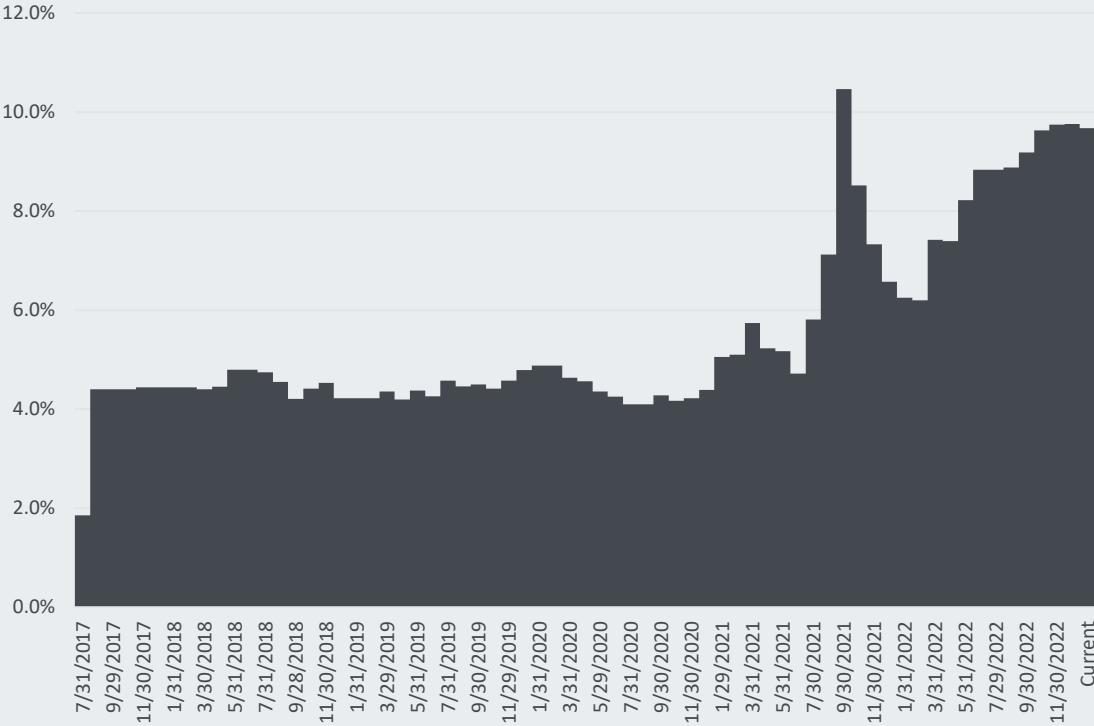
# LITHIUM PRICES NEAR ALL-TIME HIGHS

“The long-term path for lithium is set, yet the supply chain scaling challenge has just begun” - Simon Moores, CEO Benchmark Minerals Intelligence

SPOT PRICES (US\$/MT)



SPODUMENE CONCENTRATE 6% PRICES AS A PERCENT OF BATTERY GRADE LITHIUM HYDROXIDE





# LITHIUM MARKET UPDATE

## What the Skeptics are Claiming

### EV Demand Destruction ?

- Pilbara and Allkem 2022 results plus Albemarle's outlook reflect continuing strong market conditions
- EV demand proves resilient – fully electric sales reach 7.8mm units in 2022, a 68% YoY increase (*LMC Automotive; ev-volumes.com*)
- Government policy and investment supports the rapid phase out of internal combustion engines
- "Of the more than 180 participants surveyed, exactly zero responded they would cancel their project if prices remain high. Energy market fundamentals beat high prices, at least for now." (*BloombergNEF*)

### New Supply Sources ?

- Lepidolite – low grade, high cost, increased waste
- Direct Lithium Extraction (DLE) – unproven at a commercial scale
- Novel sources (clay, searlesite, jadarite) – unproven at a commercial scale
- Recycling – limited feedstock until end-of-life batteries are widely available
- Project delays and capex overruns across the sector (LTR, PLS, AKE, MIN)

### China Subsidies ?

- EV sales growth +700% since China began phasing out subsidies in 2018 (*China Association of Automobile Manufacturers*)
- "Last year, every fourth vehicle we sold in China was a plug-in, and this year it will be every third auto" - *Ralf Brandstätter, head of Volkswagen AG's China business*
- Full-electric vehicle sales in China to grow by 1.8mm vehicles in 2023 (*LMC Automotive; ev-volumes.com*)

### Emerging Battery Chemistries ?

- Sodium-ion – less energy dense, more suited for storage uses
- Solid state – will increase lithium demand as lithium is still a key component of the cathode, while Li-metal is used in the anode



**LiOH**

**PIEDMONT**  
LITHIUM

# LITHIUM – MADE IN THE USA

Helping Secure America's Energy Security

February 2023

Austin D Devaney – EVP & Chief Commercial Officer  
[adevaney@piedmontlithium.com](mailto:adevaney@piedmontlithium.com)

**Corporate Office** | 42 E. Catawba Street | Suite 100 | Belmont | NC 28012 | USA

**Australia Office** | 28 The Esplanade | 9th Floor | Perth | WA 6000 | Australia

 Nasdaq :PLL

 ASX :PLL

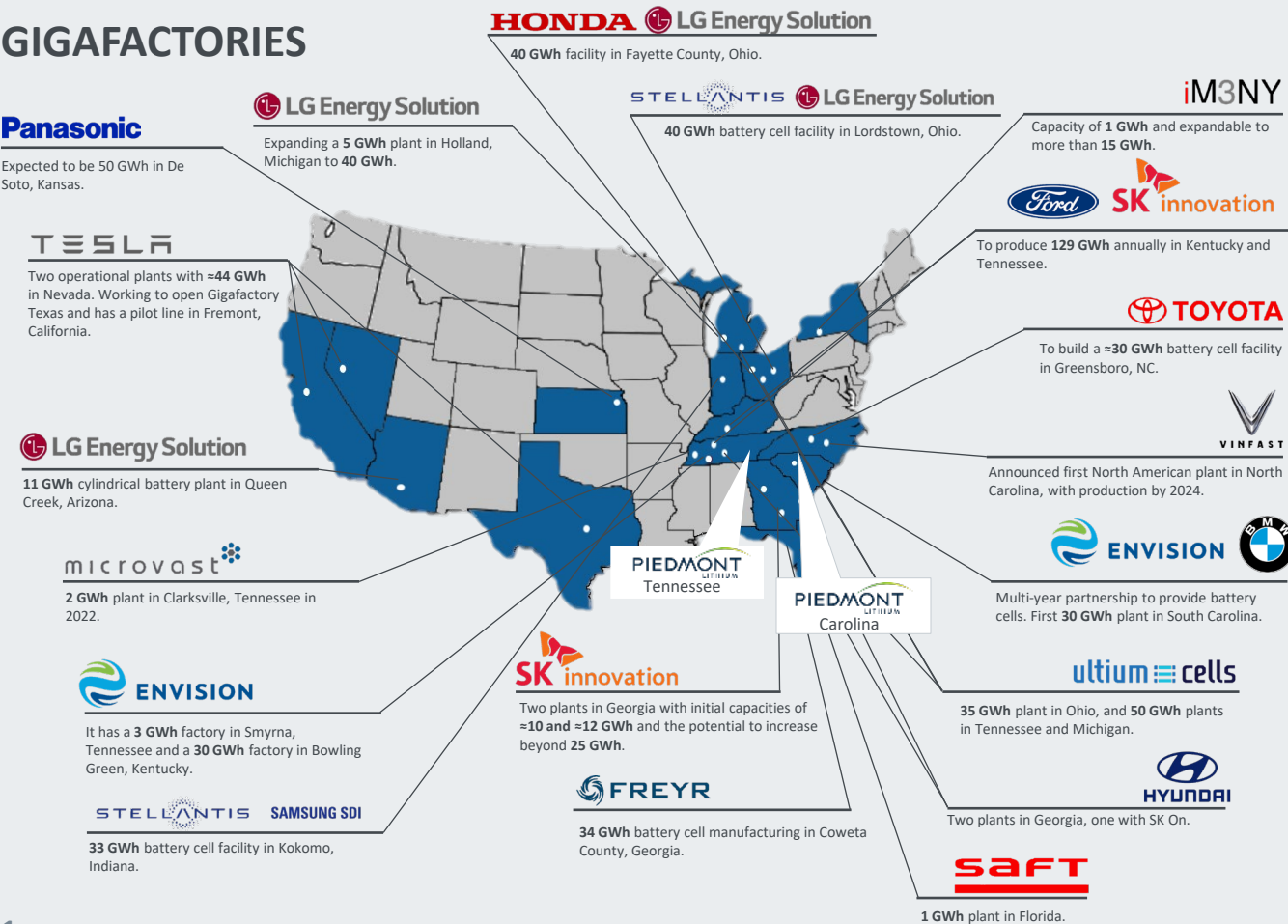
ARBN 647 286 360

[www.piedmontlithium.com](http://www.piedmontlithium.com)

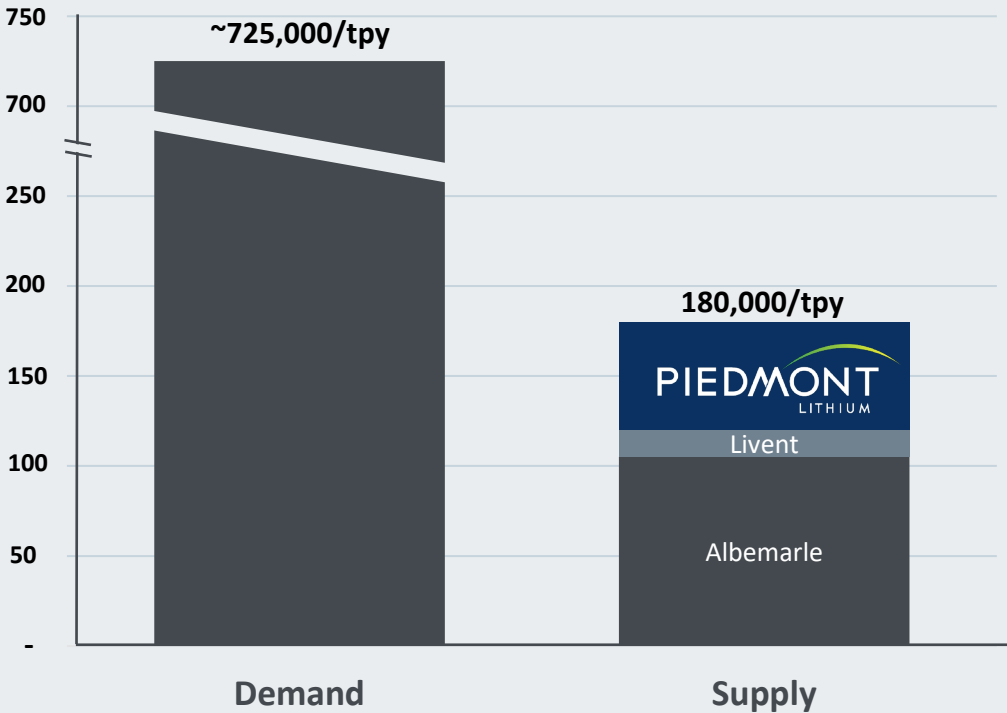
# SHORTFALLS ANTICIPATED IN THE U.S.<sup>1</sup>

U.S. Battery Plants Expected to Require >40x Current U.S. Lithium Hydroxide Capacity

## SELECTED U.S. GIGAFACTORIES



## ANNOUNCED ANNUAL GIGAFACTORY DEMAND AND US LIOH SUPPLY BY 2030



1. Based on announced and planned U.S. gigafactory capacity / demand and lithium hydroxide supply from corporate announcements

# U.S. GOVERNMENT EV FOCUS

Piedmont is Well-Positioned to Benefit from America's Pro-EV Policies

## DEPARTMENT OF ENERGY

Battery Materials Grant Programs  
Advanced Technology Vehicle Manufacturing Loans

- Piedmont selected for \$141.7 million grant for Tennessee Lithium
  - Grant to be funded alongside matching Piedmont project equity contributions
- ATVM loan applications submitted for Tennessee and Carolina
  - Historically, long-term loans at US Treasuries flat<sup>1</sup>

## INFLATION REDUCTION ACT

Advanced Manufacturing Production Credit (45X)  
Clean Vehicle Credit (30D)  
Commercial Clean Vehicles (45W)

- 45X – Advanced Manufacturing Production Credit
  - Production tax credit equal to 10% of annual production costs
  - Available only to U.S. taxpayers
  - Credits are tradeable
- 30D – Clean Vehicle Tax Credit
  - \$7,500 credit for qualifying light vehicle purchases
  - Credit requires escalating usage of 'domestic' critical minerals (includes FTA countries)
  - 45W provides up to \$40,000 credit for large commercial vehicles