




# 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, LG Chem 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).

# WHY PIEDMONT?

Decarbonization and Onshoring

Strong Commercial Agreements

U.S. Government EV Focus

Near-Term Cash Flow Potential

Large Spodumene Resource Base

Downstream Integration to Hydroxide

Diversified by Project and Geography

# CORPORATE SNAPSHOT

## PIEDMONT LITHIUM



Shares / CDIs Outstanding (100 CDIs = 1 Share)	18.01 mm	1,801.0 mm
Price (@ 2/17/23)	\$64.48	A\$1.08
Average Daily Trading Volume (90-day)	\$30 mm	A\$4 mm
Market Cap (@ 2/17/23)	\$1.2 bb	A\$1.7 bb
Cash (9/30/22)	\$118 mm	A\$172 mm
Equity Interests at Market (@ 2/17/23)	\$204 mm	A\$297 mm

## RESEARCH COVERAGE



# CAPITALIZING ON MEGA-TRENDS

Piedmont is Well-Positioned to Capitalize on Development of U.S. EV Supply Chain

## DECARBONIZATION

- The world economy is electrifying
- Global trend to decarbonize
- EV sales ahead of most prior estimates
- EVs need batteries...batteries need lithium
- Albemarle forecasting 5x lithium demand growth from 2022 to 2030<sup>1</sup>

## ONSHORING

- Trade wars and supply chain disruptions
- China produces > 80% of LiOH
- US government focused on building domestic EV supply chain
- >\$65bb committed to U.S. battery capacity
- Late-2020s US demand ~40x current capacity<sup>2</sup>

# COMMERCIAL ARRANGEMENTS

Piedmont will Sell Spodumene Concentrate Until Conversion Plants are Operational

## PIEDMONT AS CUSTOMER



### 113,000TPY SC – LOM

- > 113,000tpy or 50% of production
- Market price subject to floor & ceiling
- Floor \$500/t; ceiling \$900/t SC6
- Life of mine
- Evaluating options for conversion in Quebec

### ~127,500TPY SC – LOM



- 50% of Ghanaian production
- Market pricing
- Life of mine
- Primary feedstock for Tennessee

## PIEDMONT AS SUPPLIER



### 200,000T SC – 4 YEARS

- 50,000tpy commencing H2 2023
- Priced with reference to Fastmarkets contract SC6 pricing
- To be supplied via SYQ offtake



### 125,000T SC – 3 YEARS

- First shipment planned for late-2023
- Price based on formula-based mechanism linked to LiOH market price
- To be supplied via SYQ offtake

# 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

6 1. There can be no assurance regarding the actual interest rate on any such loan.

# PROJECTS



## QUEBEC (~35% ECONOMIC INTEREST<sup>1</sup>)

**SYQ**

Project	Authier + NAL
Location	Abitibi Region, Quebec, Canada
Project Stage	Pre-Feasibility
Mineral Resources	119.1Mt @ 1.05% Li <sub>2</sub> O <sup>2</sup>
Production	168,000tpy SC6 <sup>3</sup>
Economics	\$571mm NPV; \$80mm capex <sup>3</sup>

## GHANA (EARN-IN OF 50% PROJECT INTEREST<sup>4</sup>)

**ALL**

Project	Ewoyaa
Location	Cape Coast, Ghana
Project Stage	Pre-Feasibility
Mineral Resources	35.3Mt @ 1.25% Li <sub>2</sub> O <sup>5</sup>
Production	255,000tpy SC6 (50% to PLL) <sup>6</sup>
Economics	\$1.3bb NPV; \$125mm capex <sup>6</sup>

## TENNESSEE LITHIUM (100% OWNERSHIP<sup>7</sup>)

**TEN**

Project	Tennessee Lithium
Location	McMinn County, Tennessee
Project Stage	PEA
Production	30,000tpy LiOH
Economics	\$2.2bb NPV; \$346mm run-rate EBITDA

## CAROLINA LITHIUM (100% OWNERSHIP<sup>8</sup>)

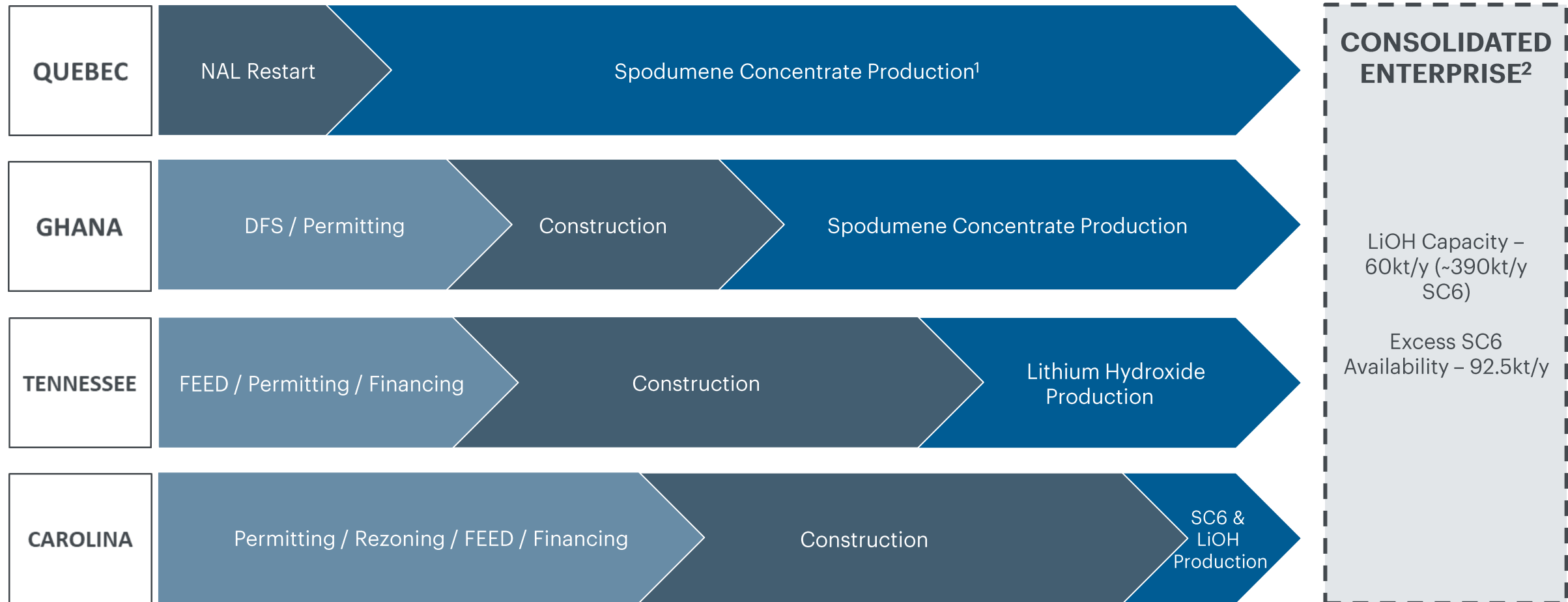
**CAR**

Project	Carolina Lithium
Location	Gaston County, North Carolina
Project Stage	Feasibility Study
Mineral Resources	44.2Mt @ 1.08% Li <sub>2</sub> O
Production	30,000tpy LiOH; 242,000tpy SC6
Economics	\$2.8bb NPV; \$592mm run-rate EBITDA

1. Piedmont owns a 25% interest in Sayona Quebec and a 13.9% stake in Sayona Mining, resulting in an effective economic interest of ~35%.
2. Refer to Sayona Mining ASX announcement dated March 1, 2022 for JORC Code Compliant MRE.
3. Refer to Sayona Mining ASX announcement dated May 23, 2022 for results of NAL Pre-Feasibility Study.
4. Piedmont can earn a 50% interest in Atlantic Lithium's Ghanaian lithium portfolio and owns 9.4% of Atlantic Lithium.
5. Refer to Atlantic Lithium AIM announcement dated February 1, 2023 for JORC Code Compliant MRE.
6. Refer to Atlantic Lithium AIM announcement dated September 22, 2022 for results of Pre-Feasibility Study.
7. Refer to Piedmont Lithium press release dated September 1, 2022 for site selection and March 9, 2022 for Preliminary Economic Assessment.
8. Refer to the result of Piedmont Lithium Bankable Feasibility Study announcement dated December 14, 2021. Economics for Carolina Lithium are indicative Company estimates disclosed in the PEA dated March 9, 2022 and are not independently verified by the BFS Qualified Persons.

# FIRST PRODUCTION ANTICIPATED H1 2023

Indicative Timelines – actual timelines remain subject to permitting and funding.



1. Initial SC6 production from the restart of the North American Lithium mine. Potential lithium carbonate or lithium hydroxide production from Quebec is the subject of further technical studies.  
 2. Figures for LiOH Capacity and Excess SC6 Availability are based on studies released by Piedmont Lithium, Sayona Mining and Atlantic Lithium covering each project. See Peer Project Notes in the appendix for pro-rata production figures.



# NAL RESTART ON TRACK FOR H1 2023

Canada's best-located, most advanced lithium project

PFS - 168,000tpy - opportunity for upside

Past-producer with \$80mm upgrades nearing completion

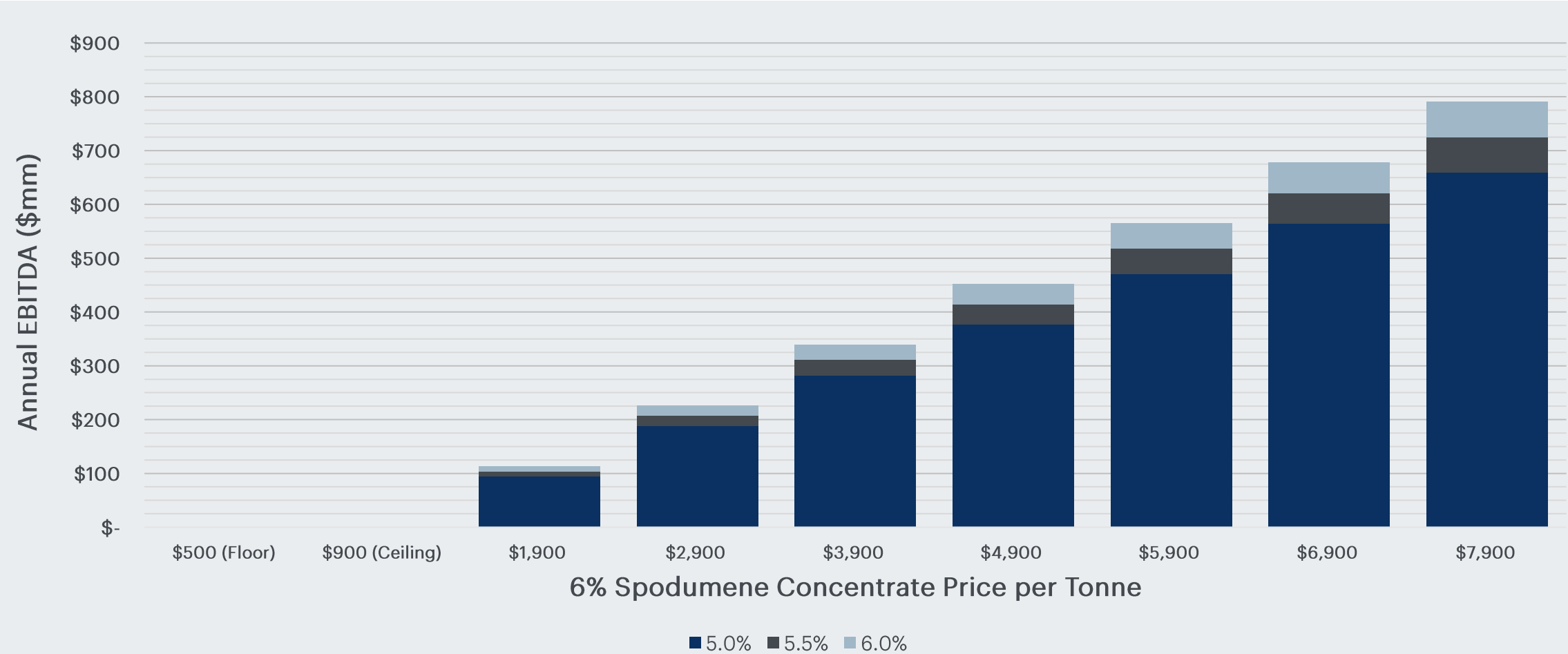
Process improvements expected to:

- Improve head grade
- Increase plant capacity
- Maximize plant availability
- Improve product quality



# ILLUSTRATIVE POTENTIAL CASH FLOW FROM NAL OFFTAKE

Offtake can generate significant cash flow at current market prices



Illustrative EBITDA calculated at various spodumene concentrate prices and contained lithium for Piedmont's offtake from North American Lithium. Based on PLL's offtake of 113,000tpy purchased at market prices subject to a \$500/t floor and \$900/t ceiling for 6% spodumene concentrate. Excludes transport costs. See Project Notes in appendix for additional disclosures.



# BROAD RANGE OF POTENTIAL FUNDING OPTIONS

	PLL Economic Interest	PLL ~ Capex Share
<b>QUEBEC</b> <sup>1</sup>	~35% <sup>2</sup>	\$20mm
<b>GHANA</b> <sup>3</sup>	~55% <sup>4</sup>	\$98mm
<b>TENNESSEE</b> <sup>5</sup>	100%	\$572mm
<b>CAROLINA</b> <sup>6</sup>	100%	\$988mm

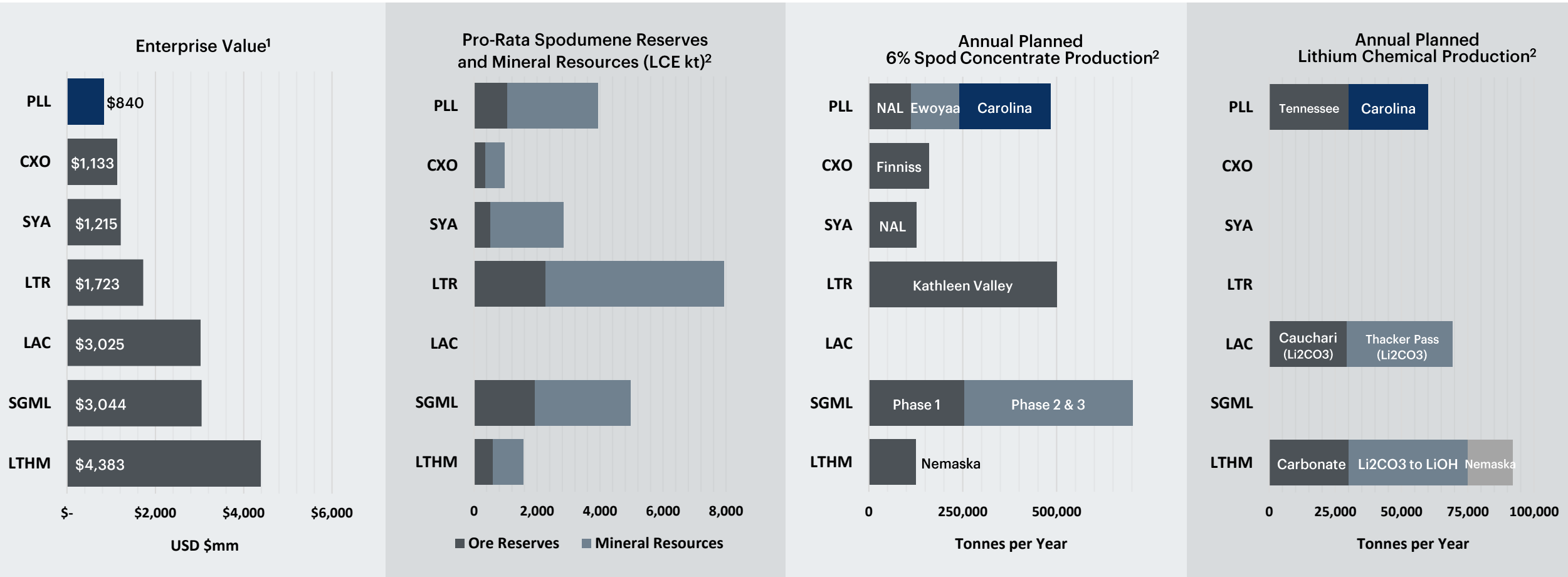
Potential Funding Sources	
Cash on Balance Sheet <sup>7</sup>	\$118 mm
SYA + ALL Shares <sup>8</sup>	\$249 mm
Tennessee Lithium Grant <sup>9</sup>	\$142 mm
Cash Flow from SYQ	tbd
ATVM Loans <sup>9</sup>	tbd
Offtake Prepayments	tbd
Strategic Partners	tbd
Mineral Royalties	tbd
Corporate Equity	tbd

Integrated Project
  Lithium Hydroxide Project
  Spodumene Concentrate Project

1. Refer to Sayona Mining ASX announcement dated May 23, 2022 for results of NAL Pre-Feasibility Study.
2. 35% interest based on Piedmont’s approximately 13.9% equity interest in Sayona Mining and 25% ownership of Sayona Quebec
3. Refer to Atlantic Lithium AIM announcement dated September 22, 2022 for results of Ewoyaa Pre-Feasibility Study.
4. Piedmont owns an approximately 9.4% interest in Atlantic Lithium and has a 50% earn in right to Atlantic Lithium’s Ghanaian projects, including Ewoyaa.
5. Tennessee Lithium is the subject of a Preliminary Economic Assessment issued on March 9, 2022. Its development remains subject to, among other things, permitting and financing.
6. The Carolina Lithium Project is the subject of a Bankable Feasibility Study with a Technical Report Summary filed on January 31, 2022. Its development remains subject to, among other things, permitting and financing.
7. Cash as of September 30, 2022 as reported on Piedmont’s 10-Q filed with the Securities and Exchange Commission on November 4, 2022.
8. See Project Notes in appendix for disclosure of Piedmont’s ownership of common equity of Sayona Mining (SYA) and Atlantic Lithium (ALL). Prices as of January 23, 2023 and sourced from Factset.
9. Piedmont applied to the Department of Energy (“DOE”) for Advanced Technology Vehicles Manufacturing (“ATVM”) loans and grants for the Tennessee Lithium and Carolina Lithium Projects. To date, the DOE selected our Tennessee Lithium Project for a grant of \$141.7 million, subject to negotiation and satisfaction of terms and conditions.

# PEER BENCHMARKING

PLL Offers Scale, Diversification and Downstream Integration, With Near-term Production at NAL



1. Enterprise Values consist of market capitalization, total debt, minority interests, preferred stock, and convertible preferred stock less cash and short-term investments. Data is sourced from Factset as of February 17, 2023 and shown in US\$mm.  
 2. Figures are based on disclosed resource updates and production estimates. Proportional rights and offtake agreements are reflected. Note that projects for which technical studies have not been completed are excluded.

# ACCOMPLISHMENTS / MILESTONES

*Piedmont Lithium Development Plans are On Track*

## RECENT ACCOMPLISHMENTS

- Quebec
  - Resource base doubled to 119Mt @ 1.05% Li<sub>2</sub>O
  - Positive PFS for restart of NAL mine/concentrator
  - Strong enhancement to construction and operations teams
- Ghana
  - Resource increased to 30Mt @ 1.26% Li<sub>2</sub>O
  - Ewoyaa PFS published indicating \$1.3bb NPV and 224% IRR
  - Mining license application submitted October 2022
- Tennessee Lithium
  - Selection of Etowah, TN as site for 30,000tpy LiOH plant
  - Kiewit / Primero to perform Front-End Engineering Design
  - \$142mm DOE grant award announced October 2022
- Carolina Lithium
  - Permitting processes ongoing
  - Community outreach ongoing
  - Completion of funding of committed land purchases
- Corporate
  - Strong additions to technical and corporate teams
  - Piedmont added to Russell 2000 Small Cap Index
  - \$122mm (net) equity offering to fund project development

## UPCOMING MILESTONES

- Quebec
  - On-sale of PLL's 113,000tpy SC6 offtake
  - First SC6 production expected in H1 2023
  - First shipments and revenue expected H2 2023
- Ghana
  - Resource update
  - Definitive Feasibility Study
  - Mining License
- Tennessee
  - Front End Engineering Design
  - Lithium hydroxide offtake
  - Project finance (ATVM, offtake prepayments...)
- Carolina
  - Mine permit
  - Air permit
  - Land rezoning
- Corporate
  - Continue to expand engineering team
  - Strategic partnerships and project financing
  - Evaluate consolidation opportunities

# LEADERSHIP

Management team with the right technical, financial and project execution experience



**KEITH PHILLIPS**  
Chief Executive Officer

**COWEN**

**J.P.Morgan**



**Patrick Brindle**  
Chief Operating Officer

**Bruce Czachor**  
Chief Legal Officer

**Austin Devaney**  
Chief Commercial Officer

**Kris McVey**  
Chief Administrative Officer

**Michael White**  
Chief Financial Officer

**Monique Parker**  
SVP, Safety, Environment & Health


**Nick Fouche**  
SVP, Capital Projects


**Erin Sanders**  
SVP, Corporate Communications & IR

**Lamont Leatherman**  
Chief Geologist



# LITHIUM MARKETS

 Nasdaq :PLL

 ASX :PLL

ABN 50 002 664 495

**LiOH**

# 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
- 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 - will set the high end of the cost curve
- Direct Lithium Extraction (DLE) – unproven at a commercial scale
- Novel sources (clay, searlesite, jadarite) – unproven at a commercial scale
- Recycling – longer-term supply source, but 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 ?

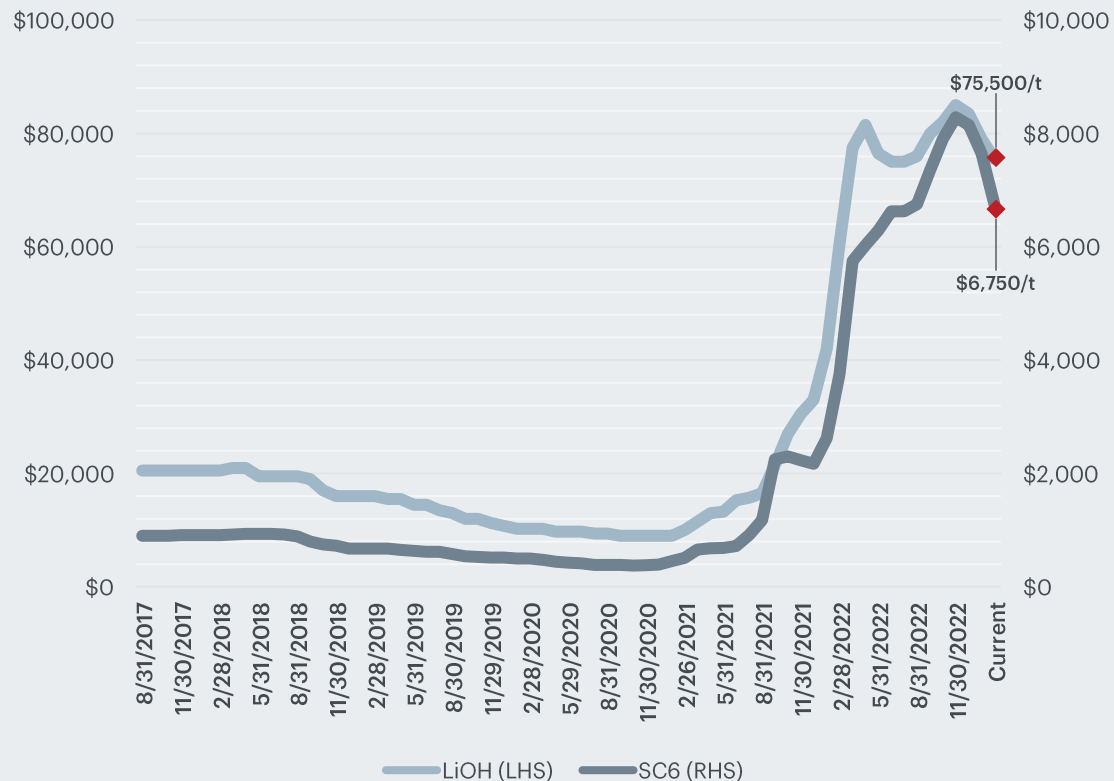
- Sodium-ion – less energy dense, more suited for storage uses
- Solid state – will increase lithium demand as lithium is still a key component of the cathode, while Li-metal is used in the anode



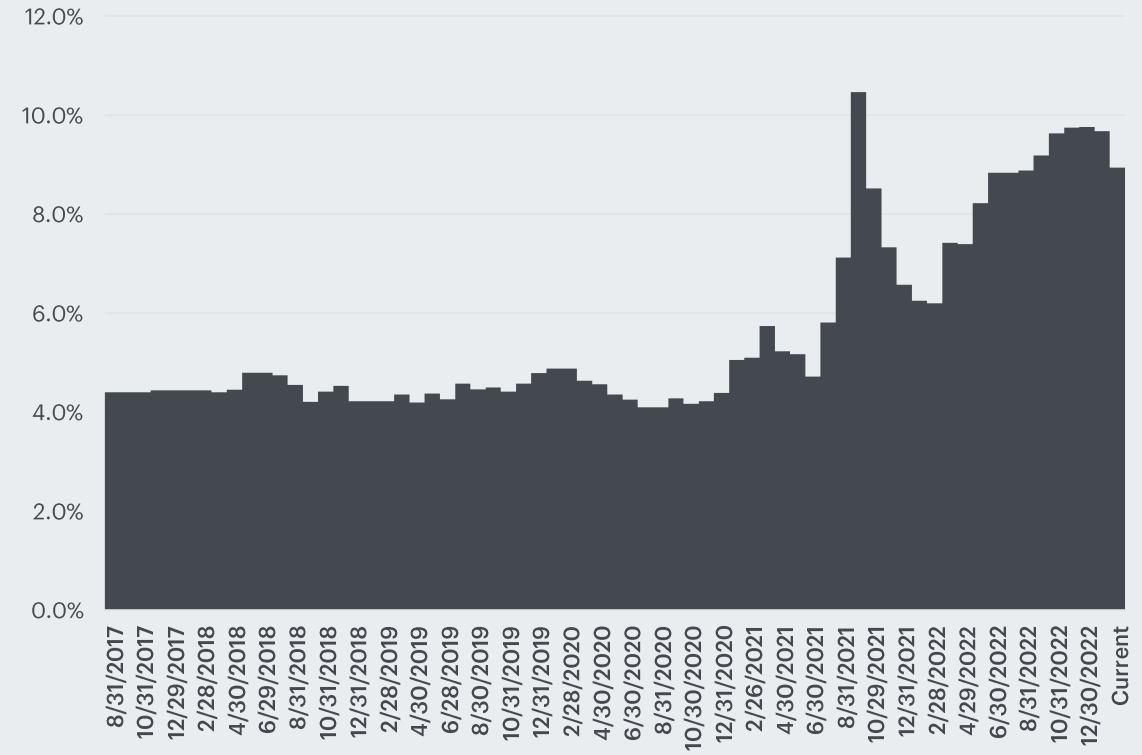
# LITHIUM PRICES NEAR ALL-TIME HIGHS

“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)



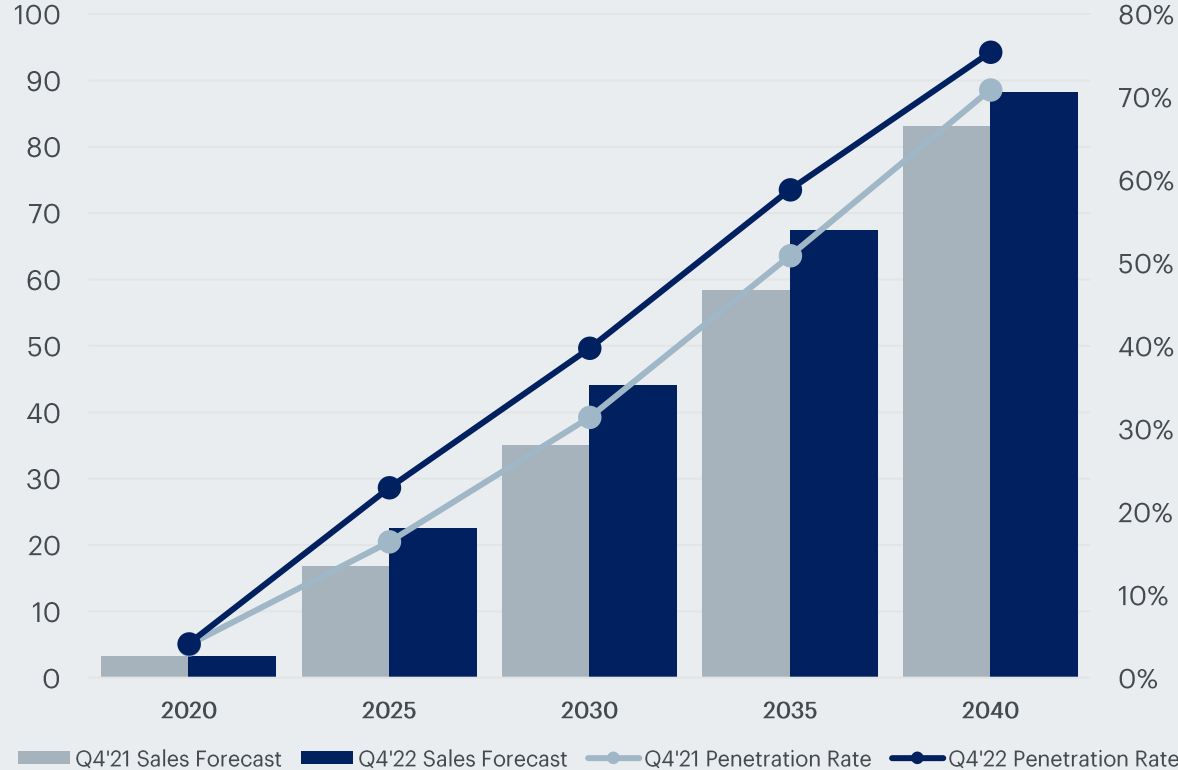
SPODUMENE CONCENTRATE 6% PRICES AS A PERCENT OF BATTERY GRADE LITHIUM HYDROXIDE



# EV DEMAND PROJECTED TO GROW DRAMATICALLY

## ELECTRIC VEHICLE SALES AND PENETRATION RATE FORECASTS

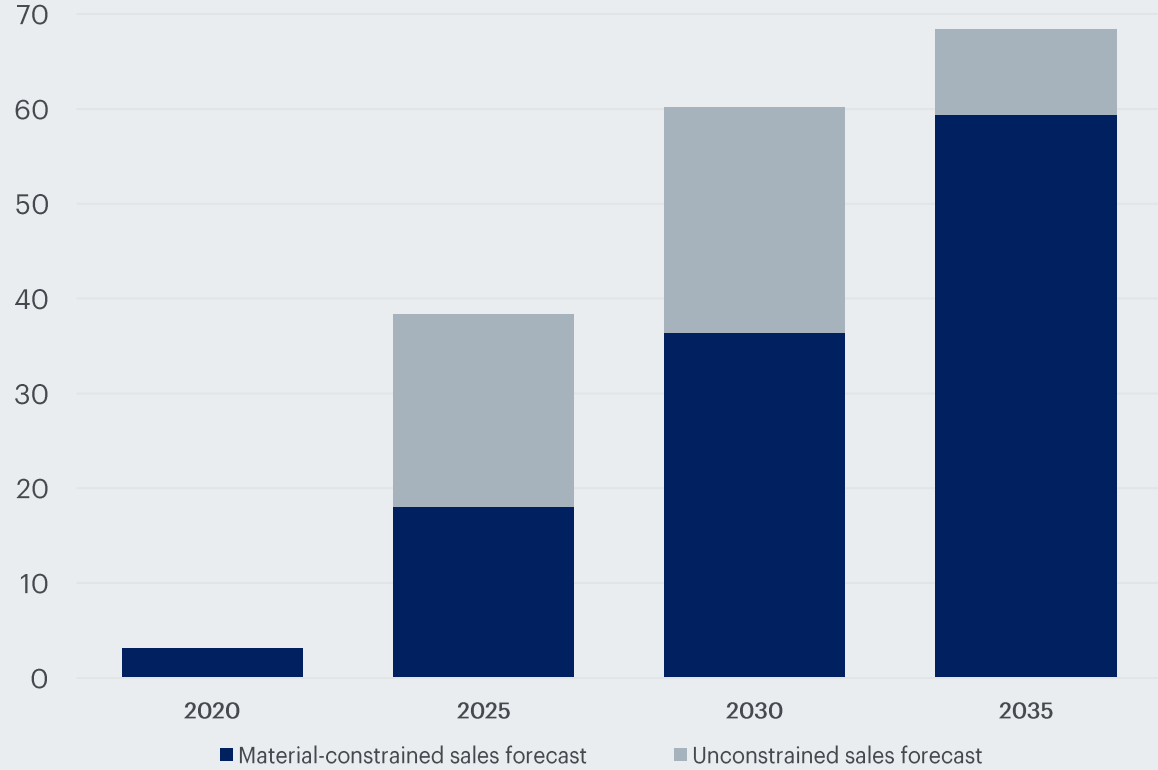
Q4 2021 FORECAST VS. Q4 2022 FORECAST



Source: Benchmark Minerals Intelligence Lithium Forecast

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

(MM UNITS)



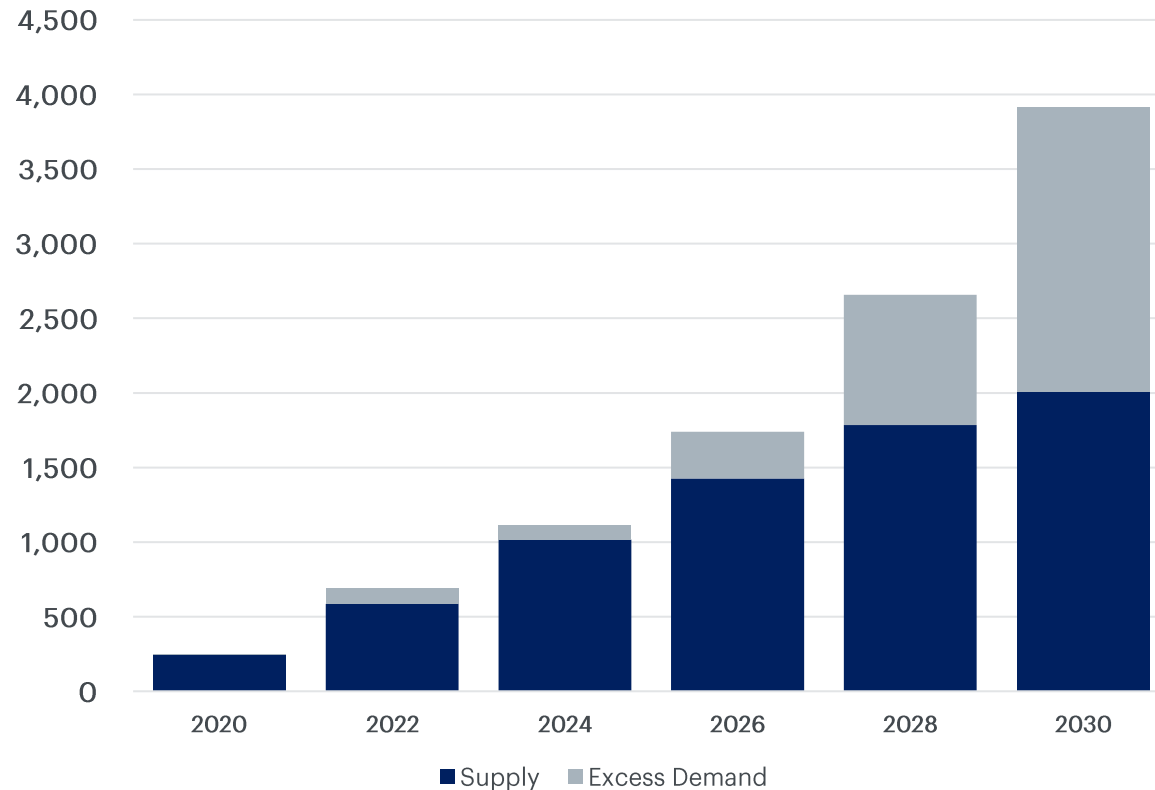
Source: Battery Material Review, Westbeck Capital estimates

# 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*

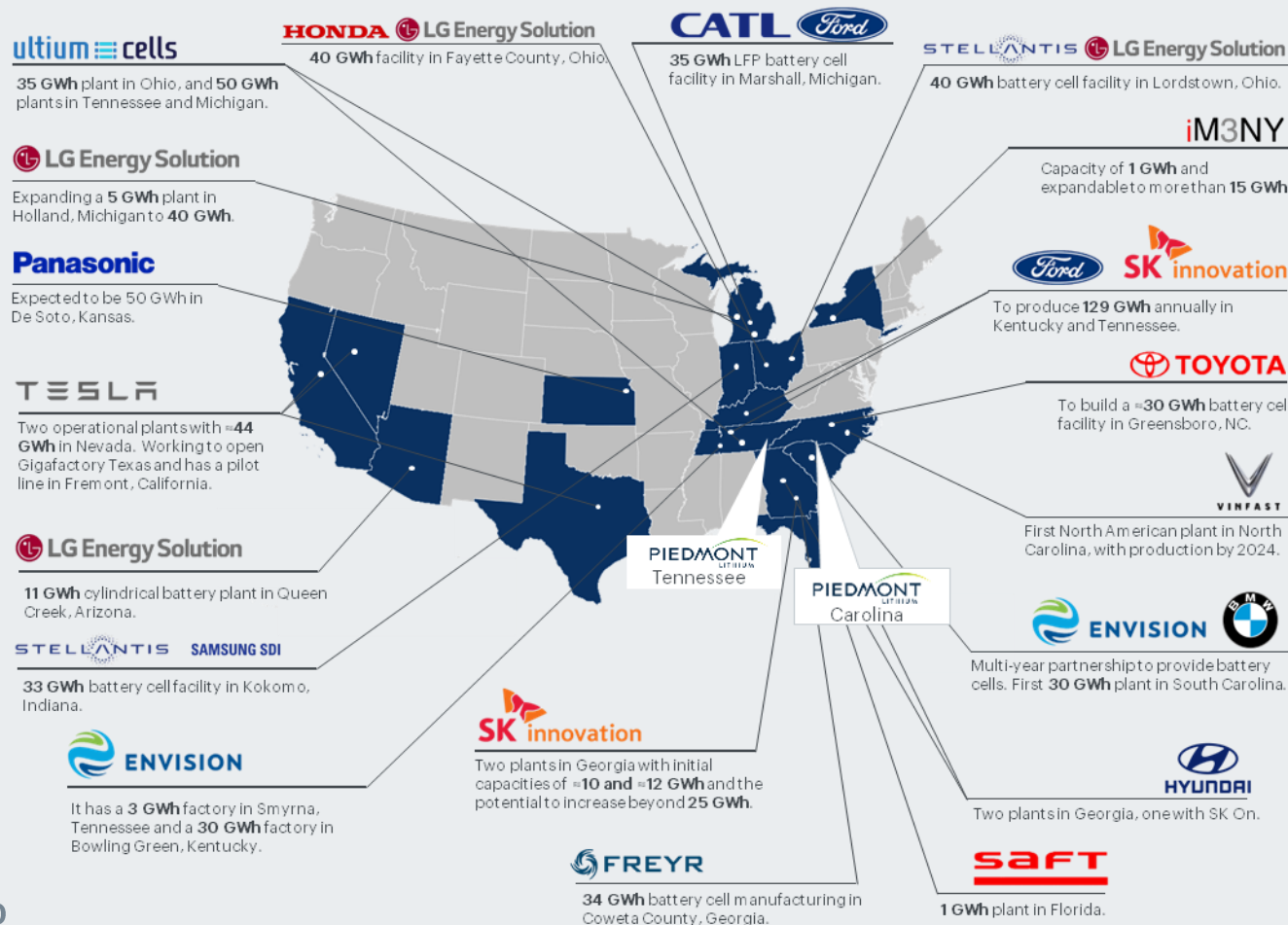
“I really don't think there's any reason to believe that so many tons can magically appear this year to return the market to balance. The pain is not over yet.” – *Claire Blanchelande, Lithium Trader at Trafigura Group*

“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*

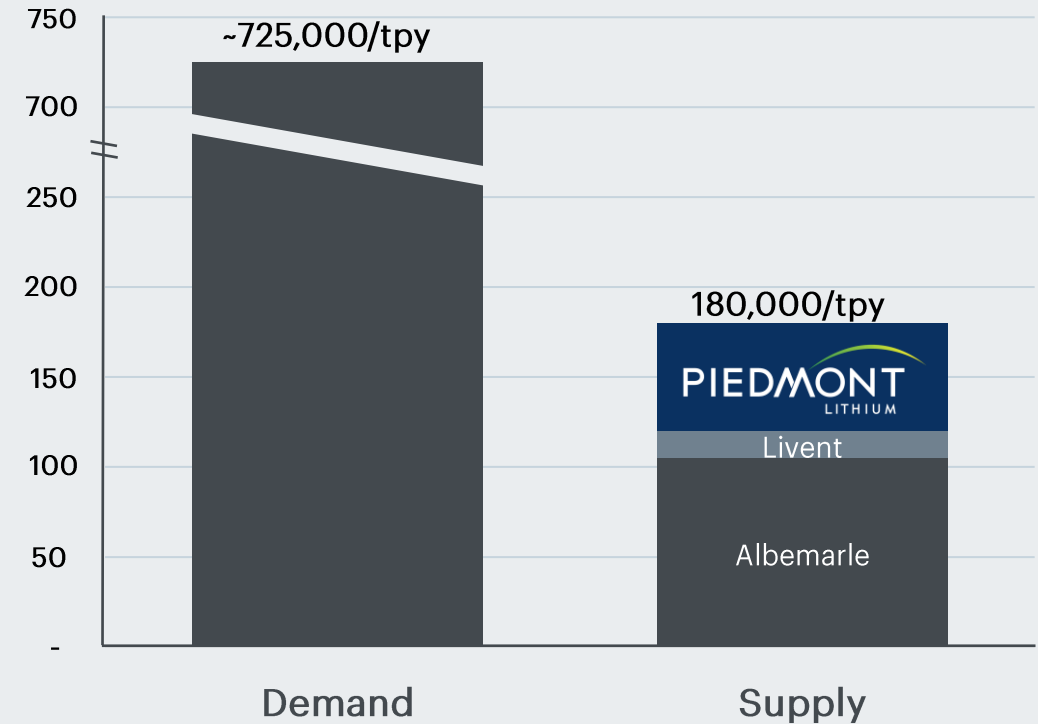
# SHORTFALLS ANTICIPATED IN THE U.S.<sup>1</sup>

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 output from corporate announcements.

# PIEDMONT LITHIUM

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# PURSUING AN INTEGRATED STRATEGY

## PIEDMONT'S VISION

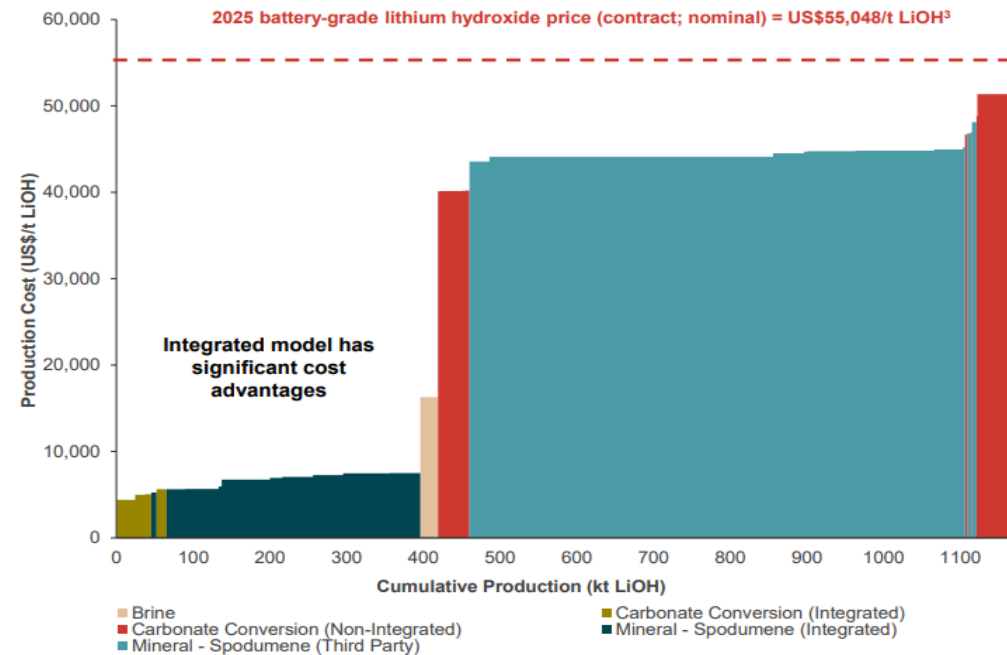
Become a Leading American Producer of Lithium Hydroxide...

...all Produced from Spodumene Concentrate...

...That We Own or Control

*"...look at this chart here...if you're down in the black and you own rock in the ground, you're God."* Chris Ellison, MD – Mineral Resources, AGM Comments 8/29/22

2025 Lithium hydroxide cost curve<sup>1</sup>



1. Source: Mineral Resources Limited Annual Meeting Presentation, August 29, 2022

# QUEBEC

NAL Restart Targeted for H1 2023

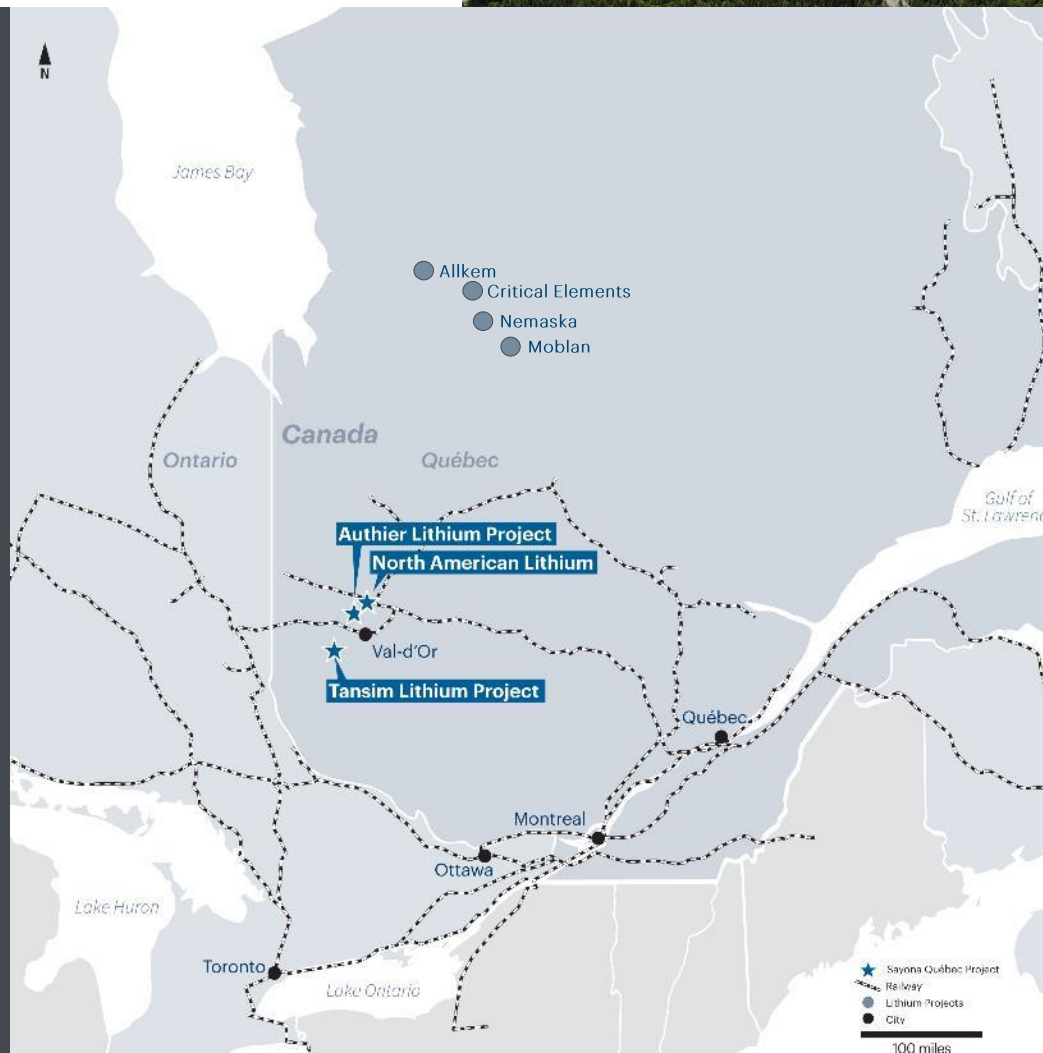


## HIGHLIGHTS

- Piedmont Interest<sup>1</sup>
  - 13.9% SYA shares = \$178mm
  - 25% of Sayona Québec
    - SYA market cap = \$1.3bb
  - Offtake – 113,000tpy SC6 with ceiling price of \$900/t
- Among Canada’s largest and best-located lithium projects
- NAL is a past-producer with C\$400mm of capital investment
- Good road and rail access
- Skilled local labor and contractors
- Low-cost renewable hydroelectricity

## UPCOMING MILESTONES

- NAL restart targeted for H1 2023
- PFS for completion of on-site carbonate refinery to be completed in H1 2023



## FACT SHEET

Location	Québec
Project Stage	Restart H1 2023
Business	Spodumene Concentrate
Production	168,000tpy SC6 <sup>2</sup>
PLL Offtake	Greater of 50% of production or 113,000tpy <sup>3</sup>
Offtake Price	Price Floor: \$500/t Price Ceiling: \$900/t <sup>3</sup>
Production	2023
Capex	\$80mm <sup>2</sup>
Opex	\$590/t SC6 <sup>2</sup>
After-tax NPV <sub>8</sub>	\$571mm <sup>2</sup>

1. Piedmont owns ~1.2bb shares of Sayona Mining (ASX: SYA) and 25% of the Sayona Québec joint venture. Market cap as of February 17, 2023.
2. See Sayona Mining ASX announcement dated May 23, 2022 for NAL pre-feasibility announcement.
3. Refer to Piedmont’s announcement dated June 28, 2022 for a summary of offtake agreement terms.

# GHANA

Atlantic Lithium May Provide Additional High Quality SC6 to Support North American LiOH Operations



## HIGHLIGHTS

- Piedmont Interest<sup>1</sup>
  - 9.4% ALL shares = \$26mm
  - Earning 50% of Ghanaian lithium portfolio
    - ALL market cap = \$273mm
  - Offtake – 50% of life of mine production at market
- Mining-friendly jurisdiction
- ~70 miles from major port along national highway
- Efficient transport to Tennessee for hydroxide conversion
- Coarse-grained spodumene implies low capex DMS flowsheet
- Adjacent hydroelectric powerlines

## UPCOMING MILESTONES

- Definitive feasibility study



## FACT SHEET

Location	Ghana
Project Stage	Pre-Feasibility
Business	Spodumene Concentrate
Resources	35.3Mt @ 1.25% Li <sub>2</sub> O <sup>2</sup>
Production	255,000tpy SC6 <sup>3</sup>
PLL Offtake	50% of annual production
DFS Timing	2023
Capex	\$125mm <sup>3</sup>
Opex	\$278/t SC6 <sup>3</sup>
After-tax NPV <sub>8</sub>	\$1.33bb <sup>3</sup>
After-tax IRR	224% <sup>3</sup>

1. Piedmont owns ~56.9mm shares of Atlantic Lithium (AIM: ALL) and has an earn-in agreement for 50% of the Ewoyaa project. Market cap as of February 17, 2023. Refer to Atlantic Lithium AIM announcement dated February 1, 2023 for JORC Code Compliant MRE.
2. Refer to Atlantic Lithium AIM announcement dated September 22, 2022.
3. Refer to Atlantic Lithium AIM announcement dated September 22, 2022.



# TENNESSEE LITHIUM

100% Owned by Piedmont Lithium



## HIGHLIGHTS

- 30,000tpy LiOH Production
- Spodumene feed from market sources, including offtake agreement with Atlantic Lithium
- Excellent rail, river and road transport
- Sister plant to the LiOH plant planned at Carolina Lithium
- Selected for \$142mm DOE grant under Bipartisan Infrastructure Law

## UPCOMING MILESTONES

- FEED – mid-2023
- Project financing
  - Strategic partnering
  - ATVM loan



## FACT SHEET<sup>1</sup>

Location	Etowah, McMinn County, TN
Project Stage	Preliminary Economic Assessment
Product	Lithium Hydroxide
Production	30,000tpy LiOH
Feedstock	196,000tpy SC6
Capex	\$572 million
Opex	\$10,630/t LiOH
EBITDA	\$346mm
After-tax NPV <sub>8</sub>	\$2.2 billion
After-tax IRR	33%
Payback	3.1 years

1. Refer to results of PLL Preliminary Economic Assessment announcement dated March 9, 2022. All amounts are estimated based on current projections.

# CAROLINA LITHIUM

100% Owned by Piedmont Lithium



## HIGHLIGHTS

- Located in Gaston County, NC, the cradle of the lithium business
- Strong infrastructure
- Single integrated site
- Skilled local labor
- Proximity to lithium and byproduct markets
- Industry-leading ESG profile
- Projected to be a low-cost producer

## UPCOMING MILESTONES

- Permitting and rezoning
- Detailed engineering / FEED
- LiOH and byproduct offtake
- Potential project financing
  - Strategic partnering
  - ATVM loan



*“We have to lead by example. And if we do that, we’ll accelerate our self dependence and eliminate reliance on China by decades. And that’s why I support this project.”* U.S. Senator Thom Tillis, speaking at the groundbreaking for Piedmont’s new corporate HQ in Belmont, NC, August 31, 2022.

## FACT SHEET<sup>1</sup>

Location	North Carolina, USA
Project Stage	Feasibility Study
Product	Lithium Hydroxide
Resources	44.2Mt @ 1.08% Li <sub>2</sub> O
Production	30,000tpy LiOH
Feedstock	242,000tpy SC6
Capex	\$988 million
Opex	\$4,377/t LiOH
EBITDA	\$592mm first 10 years <sup>2</sup>
After-tax NPV <sub>8</sub>	\$2.8 billion <sup>2</sup>
After-tax IRR	34% <sup>2</sup>
Payback	2.9 years <sup>2</sup>

1. Refer to results of PLL Bankable Feasibility Study announcement dated December 14, 2021. Estimates prepared pursuant to SEC S-K 1300 and the JORC Code.  
2. Refer to results of PLL Preliminary Economic Assessment announcement dated March 9, 2022. Illustrative financial outcomes for the Carolina Lithium Project when applying a fixed price of \$22,000 per metric tonne of lithium hydroxide and \$1,200 per metric tonne of spodumene concentrate to the Carolina Lithium financial model. Results are Company estimates and indicative only and are not independently verified by the Carolina Lithium BFS Qualified Persons.

# CAROLINA LITHIUM

## Advancing Project Regulatory Approvals for Development & Construction

### Remaining Key Permit Approvals

#### *Federal 404 Permit Received in 2019*

- State Mining Permit – Submitted 8/31/21
  - Public Hearing completed 11/15/21 through 11/18/21
  - Responding to Department Comments
- Air Permit – Submitted 8/31/22
- Individual Stormwater/Wastewater Permit – applications planned for 2022
- Municipal Wastewater Permit – application planned for 2023
- Local Approvals Applications will Follow State Mine Permit
  - Gaston County I-3 Industrial Rezoning
  - Gaston County Special Use Permit

### Gaston County Quarry and Mining Ordinances

#### *Reasonable and Fair Development and Operating Standards*

- Blasting – daylight hours 6 days per week / excluding holidays
- Trucking – shipments allowed from 6:00 AM to 10:00 PM
- Reasonable setback distances to neighboring properties
- Noise mitigation plan standards
- Dust mitigation plan standards
- Security, access and fencing standards
- Visual screening, berms and wall standards
- Rezoning process mechanics clarified

# ELEMENTS OF VALUE

Value Drivers Include Financial Assets, Project Interests and Offtake Economics

## ENTERPRISE VALUE<sup>1</sup>

Shares Outstanding	18,010,229
Share Price (@ 2/17/23)	\$64.48
Market Cap (@ 2/17/23)	\$1,161 mm
Cash (9/30/22)	\$118 mm
Debt (Est. 9/30/22)	<\$1 mm
SYA Shares (at Market @ 2/17/23)	\$178 mm
ALL Shares (at Market @ 2/17/23)	\$26 mm
Enterprise Value	\$840 mm

## PROJECT INTERESTS<sup>2</sup>

### QUEBEC

- 25% of Sayona Quebec
- SYA market cap (USD) = \$1.3bb
- Offtake – 113,000tpy SC6 life of mine with ceiling price of \$900/t
- Offtake generates \$661mm annual EBITDA at spot SC6 price of \$6,750/t

### GHANA

- Earning 50% project interest
- ALL market cap (USD) = \$273 mm
- PFS for flagship Ewoyaa Project indicated project after-tax NPV and IRR of \$1.33bb and 224%, respectively

### TENNESSEE

- 100%-owned – project NPV of \$2.2bb at \$22,000/t LiOH vs. spot price of \$75,500/t
- \$862mm run-rate EBITDA at spot
- \$142mm DOE Grant announced 10/19/22

### CAROLINA

- 100%-owned – project NPV of \$2.8bb at \$22,000/t LiOH vs. spot price of \$75,500/t
- \$2.5bb run-rate EBITDA at spot
- Mine permit expected H1 2023

1. Enterprise Values consist of market capitalization, total debt, minority interests, preferred stock, and convertible preferred stock less cash and short-term investments. Pricing data sourced from Factset as of February 17, 2023.

2. See Project Notes in appendix for additional project specific disclosures.

# ORE RESERVES AND MINERAL RESOURCES

## PLL Global Mineral Resources - 100% Basis for Each Project

Category	Carolina Lithium <sup>1</sup>				Sayona Quebec <sup>2</sup>				Atlantic Lithium <sup>3</sup>			
	Mt	Grade (Li <sub>2</sub> O%)	Li <sub>2</sub> O (kt)	LCE (kt)	Mt	Grade (Li <sub>2</sub> O%)	Li <sub>2</sub> O (kt)	LCE (kt)	Mt	Grade (Li <sub>2</sub> O%)	Li <sub>2</sub> O (kt)	LCE (kt)
<b>Ore Reserves</b>												
Proven	-	-	-	-	1.2	0.92%	11	27	-	-	-	-
Probable	18.3	1.10%	201	497	28.0	0.96%	269	665	18.9	1.24%	234	580
<b>Total Ore Reserves</b>	<b>18.3</b>	<b>1.10%</b>	<b>201</b>	<b>497</b>	<b>29.2</b>	<b>0.96%</b>	<b>280</b>	<b>692</b>	<b>18.9</b>	<b>1.24%</b>	<b>234</b>	<b>580</b>
<b>Mineral Resources</b>												
Measured	-	-	-	-	7.5	0.98%	74	182	3.5	1.37%	48	118
Indicated	28.2	1.12%	315	780	80.3	1.05%	846	2,091	24.5	1.25%	307	759
<b>Total M&amp;I</b>	<b>28.2</b>	<b>1.12%</b>	<b>315</b>	<b>780</b>	<b>87.8</b>	<b>1.05%</b>	<b>919</b>	<b>2,274</b>	<b>28.0</b>	<b>1.27%</b>	<b>355</b>	<b>877</b>
Inferred	15.9	1.02%	162	401	31.2	1.07%	334	826	7.4	1.16%	86	212
<b>Total</b>	<b>44.2</b>	<b>1.08%</b>	<b>477</b>	<b>1,181</b>	<b>119.1</b>	<b>1.05%</b>	<b>1,254</b>	<b>3,100</b>	<b>35.3</b>	<b>1.25%</b>	<b>440</b>	<b>1,089</b>

1. Piedmont Lithium Mineral Resources as of October 21, 2021 and Ore Reserves as of December 14, 2021.

2. Refer to Sayona Mining ASX announcement dated March 1, 2022 for JORC Code Compliant MRE.

3. Refer to Atlantic Lithium AIM announcement dated February 1, 2023 for JORC Code Compliant Mineral Resource Estimate and AIM announcement dated September 22, 2022 for Ore Reserves.

# PIEDMONT PROJECT NOTES

## Quebec

- Piedmont owns ~1.2bb shares of Sayona Mining (ASX: SYA) and 25% of the Sayona Quebec joint venture.
- Market cap as of February 17, 2023 in U.S. dollars.
- See Sayona Mining ASX release dated May 23, 2022 for results of Pre-Feasibility Study for North American Lithium.
- Piedmont's offtake right with Sayona Mining is the greater of 50% of SC6 production or 113,000tpy at market prices, subject to a price floor of \$500/t and a ceiling of \$900/t. See Sayona Mining ASX announcement dated June 28, 2022 for a summary of offtake agreement terms.
- EBITDA calculation is based on 113,000tpy sold at market prices and purchased at \$900/t through Piedmont's offtake ("Offtake EBITDA") and 25% of the EBITDA generated by Sayona Quebec for the remaining tonnage to account for Piedmont's pro-rata ownership (also referred to as "JV EBITDA"). Cash production cost is \$590/t based on results of North American Lithium Pre-Feasibility Study and all other costs are held constant. Transport costs are excluded.

## Ghana

- Piedmont owns ~56.9mm shares of Atlantic Lithium (AIM: ALL, ASX: A11) and has an earn-in agreement for 50% of the Ewoyaa project based on meeting funding requirements reported in Atlantic Lithium's Pre-Feasibility Study. See Atlantic Lithium's AIM announcement dated September 22, 2022 for the results of the Ewoyaa Pre-Feasibility Study.
- Market cap as of February 17, 2023 in U.S. dollars.
- Piedmont's is earning a 50% offtake right based upon funding requirements reported in Atlantic Lithium's Pre-Feasibility Study dated September 22, 2022. Summary of offtake supply agreement is included in Piedmont's press release dated July 1, 2021.
- Refer to Atlantic Lithium AIM announcement dated September 22, 2022. NPV and IRR figures utilize \$1,359/t SC6 price based on Atlantic's published study.

## Tennessee – 100% owned by Piedmont Lithium

- The Tennessee Lithium Project is the subject of a Preliminary Economic Assessment issued on March 9, 2022. Its development remains subject to, among other things, permitting and financing.
- The results shown for spot case NPV and EBITDA are Company estimates based on LiOH and SC6 pricing of \$75,500/t and \$6,750/t, respectively, for steady-state operations in years 3-10 of operation. All other cost variables are held constant. Company estimates for spot case figures are indicative only and are not independently verified by Primero Group Americas, authors of the PEA.
- Piedmont Lithium was selected for a \$142mm DOE Grant. See Piedmont's press release announced on October 19, 2022.

## Carolina Lithium – 100% owned by Piedmont Lithium

- The Carolina Lithium Project is the subject of a Bankable Feasibility Study filed on December 14, 2021.
- The Results shown for both spot NPV and EBITDA are Company estimates based on LiOH and SC6 pricing of \$75,500/t and \$6,750/t, respectively, for steady-state integrated operations in years 3-10 of operation. For example, the spot EBITDA is estimated by applying the revised spot price to the pricing model used in the Bankable Feasibility Study, with all other variables held constant. Company estimates are indicative only and are not independently verified by the Carolina Lithium BFS Qualified Persons.

# PEER PROJECT NOTES

Company	Project	Ownership	Annual SC6 Production	Annual Lithium Chemical Production	Pro-rata Production	Source
Piedmont Lithium	Sayona Quebec <sup>1</sup>	25%	> 113,000 or 50% of production	--	113,000	ASX Announcement - Positive Pre-Feasibility Study Enhances, May 23, 2022
Piedmont Lithium	Ewoyaa <sup>2</sup>	50%	255,000	--	127,500	AIM Announcement - Robust Ewoyaa Pre-Feasibility Study, September 22, 2022
Piedmont Lithium	Tennessee Lithium	100%	--	30,000	30,000	PLL Press Release - Piedmont Completes PEA for Second U.S. Lithium Hydroxide Plant, March 9, 2022
Piedmont Lithium	Carolina Lithium	100%	242,000	30,000	30,000	PLL Press Release - Piedmont Completes BFS of the Carolina Lithium Project, December 14, 2021
Sayona Mining	Sayona Quebec <sup>1</sup>	75%	168,000	--	126,000	ASX Announcement - Positive Pre-Feasibility Study Enhances, May 23, 2022
Core Lithium	Finniss	100%	160,000	--	160,000	ASX Announcement - Definitive Feasibility Study Investor Presentation, July 26, 2021
Liontown Resources	Kathleen Valley	100%	500,000	--	500,000	ASX Announcement - Kathleen Valley DFS Presentation, November 11, 2021
Lithium Americas	Cauchari-Olaroz	49%	--	60,000	29,400	Lithium Americas Website - Cauchari-Olaroz Overview
Lithium Americas	Thacker Pass (Phase 1)	100%	--	40,000	40,000	Lithium Americas Website - Thacker Pass Project Summary
Sigma Lithium	Grota do Cirilo	100%	702,000	--	702,000	Press Release - Sigma Lithium Achieves Outstanding Project Expansion, December 4, 2022
Livent	Carbonate for Sale	100%	--	30,000	30,000	Livent Website - Corporate Presentation, November 2022
Livent	Carbonate Conversion	100%	--	45,000	45,000	Livent Website - Corporate Presentation, November 2022
Livent	Nemaska	50%	250,000	34,000	125,000 / 17,000	Livent Website - Corporate Presentation, November 2022

1. Sayona Quebec accounts for the projects owned by the joint venture between Sayona Mining and Piedmont Lithium in the Abitibi Hub, which encompasses North American Lithium, Authier and Tansim. North American Lithium and Authier are the subject of the prefeasibility study.  
2. As part of its agreement announced by Atlantic Lithium on July 1, 2021, Piedmont has the right to earn a 50% interest in the Ewoyaa project, subject to terms and conditions.

**LiOH**

**PIEDMONT**  
LITHIUM

# LITHIUM – MADE IN THE USA

Helping Secure America's Energy Security

November 2022

Keith D. Phillips – President and CEO

+1 973 809 0505

kphillips@pedmontlithium.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)