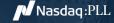


BUILDING AMERICA'S LEADING LITHIUM HYDROXIDE BUSINESS





ARBN 647 286 360

LiOH

November 2021

DISCLAIMERS

Forward Looking Statements

This presentation contains forward-looking statements within the meaning of or as described in securities legislation in the United States and Australia, including statements regarding exploration, development and construction activities; 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 mineral deposits, (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 ability to obtain required capital to execute its business plan, (v) Piedmont's ability to hire and retain required personnel, (vi) changes in the market prices of lithium and lithium products, (viii) 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, (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 Quebec and IronRidge Resources, (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 Project's Mineral Resource estimate of 44.2Mt @ 1.08% Li₂O comprised of Indicated Mineral Resources of 28.2Mt @ 1.11% Li₂O and Inferred Mineral Resources of 15.9Mt @ 1.02% Li₂O previously reported on October 21, 2021 ("Mineral Resource update"). The information in this presentation that relates to Metallurgical Testwork Results, Concentrator Process Design, Concentrator Capital Costs, Concentrator Operating Costs, Mining Engineering and Mining Schedule of the Carolina Lithium Project was extracted from our ASX announcement entitled 'Scoping Update Highlights the Exceptional Economics and Industry-Leading Sustainability of Piedmont's Carolina Lithium Project dated June 10. 2021 ("Original ASX Announcement") which is available to view on the Company's website at 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 Mineral Resource update or Original ASX 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 ASX 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 ASX 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 "mineral resource", "measured mineral resource", "indicated mineral resource" and "inferred mineral resource" are used herein as defined by the U.S. Securities and Exchange Commission ("SEC") in Regulation S-K, Item 1300 ("S-K 1300") and as defined in accordance with 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 IronRidge Resources 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" 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 promogulated 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 IronRidge'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.









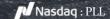
BUILDING NORTH AMERICA'S LEADING SOURCE OF LITHIUM HYDROXIDE

Powering the Electric Vehicle Transition.

Returning Jobs to America.

Reinforcing U.S. National Security.

Investing in a More Sustainable Planet.







PIEDMONT AT A GLANCE



An American company - based in Gaston County, NC



Hard rock lithium assets in three strategic locations



Only U.S. integrated spodumene-to-hydroxide project



~37% economic interest in large Quebec lithium project



Earning 50% of Africa's best-located lithium project



Industry-leading ESG profile



Strong balance sheet to advance projects

CORPORATE SNAPSHOT

PIEDMONT LITHIUM INC.	Nasdaq	S ASX
Shares / CDIs Outstanding (100 CDIs = 1 Share)	15.87 mm	1,586.9 mm
Price (@ 11/5/21)	\$63.95	A\$0.89
Average Daily Trading Volume (30-day)	\$20 mm	A\$7 mm
Market Cap (@ 11/5/21)	\$1,015 mm	A\$1,412 mm
Cash (@ 9/30/21)	\$82 mm	A\$111 mm
Equity Interests at Market (@ 11/5/21)	\$145 mm	A\$196 mm

RESEARCH COVERAGE

J.P.Morgan

CANACCORD Genuity







EVERCORE ISI



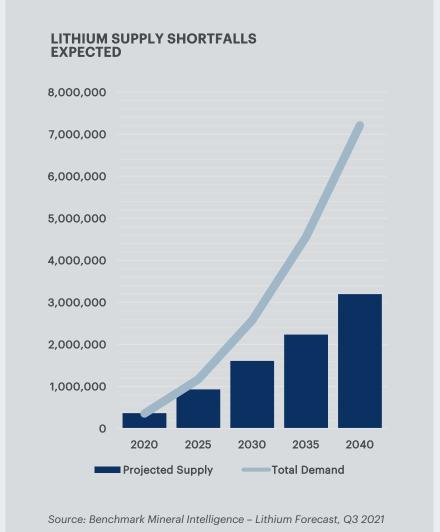






LITHIUM MARKET TRENDS

EV PENETRATION 80% 70% 60% 50% 40% 30% 20% 10% 0% 2020 2025 2030 2035 2040



BATTERY GRADE LITHIUM HYDROXIDE PRICES (US\$/MT)



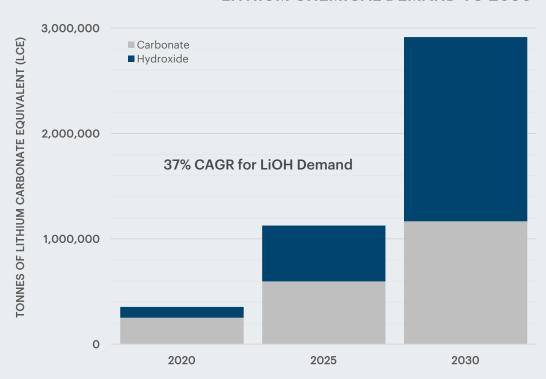
Historical prices – Benchmark Mineral Intelligence Forward prices – Piedmont Lithium Updated Scoping Study Current spot price - \$29,000 per Fastmarkets – 11/4/21

THE RIGHT LITHIUM MATERIALS

Piedmont will Produce Lithium Hydroxide from Spodumene Concentrate

LIOH TAKING MARKET SHARE

LITHIUM CHEMICAL DEMAND TO 2030



SC6 THE PREFERRED FEEDSTOCK

"Lithium extracted from mining ... is more stable to extract, easier to scale and generally more sustainable."

Volkswagen - April 2019

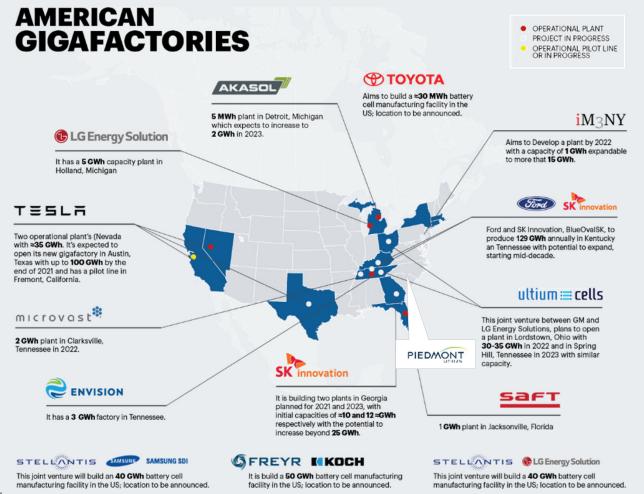
"BMW signs contract with Ganfeng for sustainable lithium from mines in Australia."

BMW - November 2019

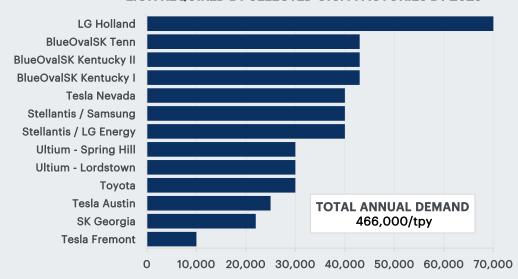
"...consistency of quality of lithium hydroxide is on top of everything ... it is easiest to achieve ... from spodumene."

Fastmarkets - August 2021

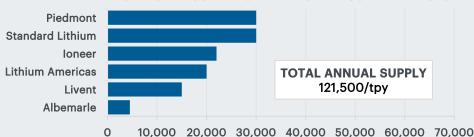
DOMESTIC SHORTFALLS ANTICIPATED



LIOH REQUIRED BY SELECTED GIGA-FACTORIES BY 2025+



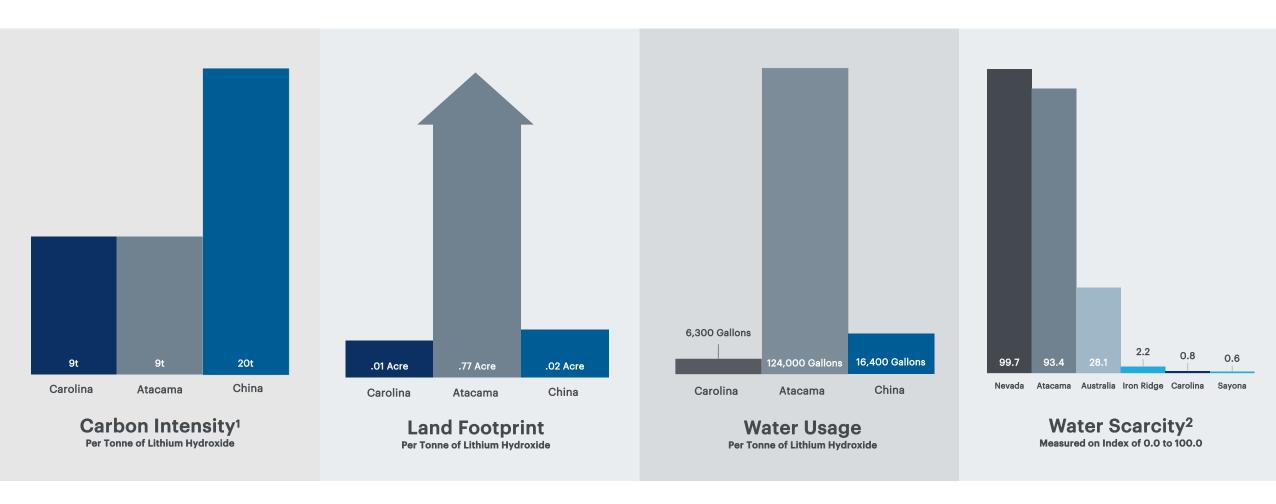


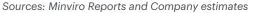


Source: Benchmark Mineral Intelligence – Lithium Forecast, Q3 2021, company announcements and Piedmont Lithium estimates

INDUSTRY-LEADING SUSTAINABILITY

Life-Cycle Analysis Incorporating Scope 1, 2 and 3 Emissions





^{1:} Includes Scope 1, 2 and 3 emissions







^{2:} WULCA - AWARE factors for non-agricultural activities (normal average over 12 months) interpretation – Spatio-temporal scale

PROJECTS



CAROLINA LITHIUM (100% OWNERSHIP)



Project	Carolina Lithium
Location	Gaston County, North Carolina
Phase 1 Project Stage	Scoping (DFS - H2 2021)
Mineral Resources	44.2Mt @ 1.08% Li ₂ O
Production	30,000tpy LiOH; 248,000tpy SC6
Economics	\$1.9bb NPV; ~\$400mm run-rate EBITDA

QUEBEC PROJECTS (~37% ECONOMIC INTEREST¹)



Project	Authier + NAL
Location	Abitibi Region, Quebec
Project Stage	DFS to be updated in 2022
Mineral Resources	78.7Mt @ 1.04% Li ₂ O ²
Production / Economics	TBD

ATLANTIC LITHIUM (EARNING UP TO 50% PROJECT INTEREST³)



Project	Ewoyaa
Location	Cape Coast, Ghana
Project Stage	Scoping + Exploration
Mineral Resources	14.5Mt @ 1.31% Li ₂ O ⁴
Production	295,000tpy SC6 (50% to PLL) ⁵
Economics	\$345mm NPV; \$68mm capex ⁵

- 1: Piedmont owns a 25.0% interest in Abitibi Lithium and a 16.52% stake in Sayona Mining, resulting in an effective economic interest of 37.4%.
- 2: Pro-forma 78.7Mt @ 1.04% Li₂O based on Sayona Quebec JORC Code Compliant MRE of 20.94Mt @ 1.01% Li₂O announced on September 24, 2018 and NAL NI 43-101 Compliant MRE of 57.7Mt @ 1.05% Li₂O effective August 24, 2017 and reported by Sayona Mining on September 13, 2021 as a Foreign Mineral Resource Estimate.
- 3: Piedmont can earn a 50% interest in IronRidge's Ghanaian lithium portfolio and owns 9.9% of IronRidge.
- 4: Refer to IronRidge Resources AIM announcement dated 28 January 2020 for JORC Code Compliant MRE.
- 5: Refer to IronRidge Resources AIM announcement dated 19 January 2021.





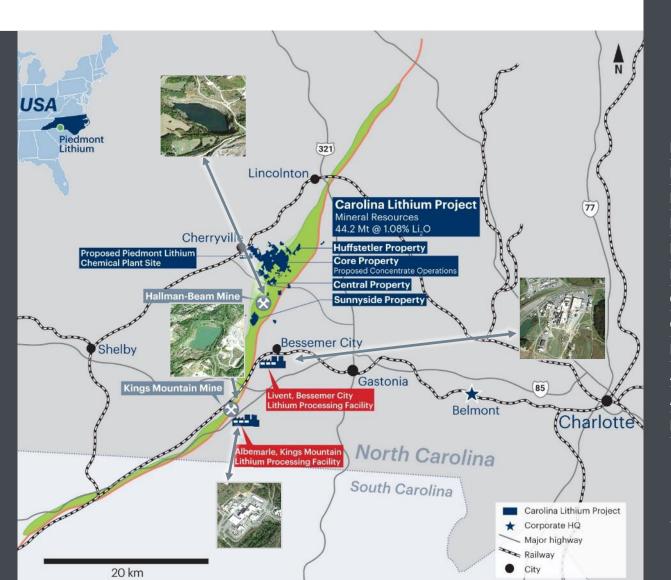
CAROLINA LITHIUM

LOCATION

- Gaston County, NC
- 25 miles west of Charlotte
- 'Cradle of lithium'
- Strong infrastructure
- Single integrated site
- Skilled local labor
- Proximity to lithium and by-product markets

HIGHLIGHTS

- Private land not subject to federal/state royalties
- Large high-grade resource
- Pure spodumene mineralogy
- Industry-leading ESG profile
- Projected to be a low-cost producer





FACT SHEET¹

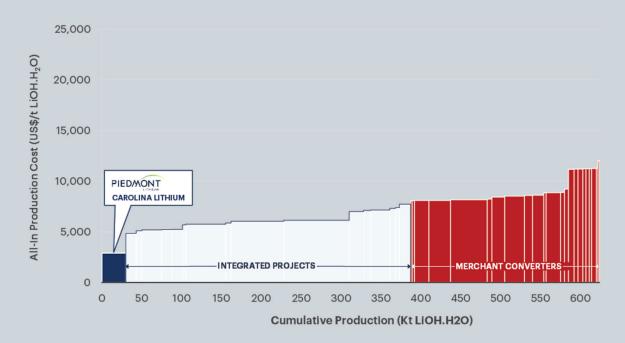
Location	North Carolina, USA
Project Stage	Scoping (DFS expected Q4 2021)
Product	Lithium Hydroxide
Resources	44.2Mt @ 1.08% Li ₂ O
Production	30,000tpy LiOH
Feedstock	248,000tpy SC6
Capex	\$839 million
Opex	\$2,943/t LiOH
EBITDA	~\$400mm per year run-state
After-tax NPV ₈	~\$1.9 billion
After-tax IRR	31%
Payback	2.9 years

^{1:} Refer to results of PLL Scoping Update announcement dated June 9, 2021. Based on Piedmont estimates prepared pursuant to the JORC Code.

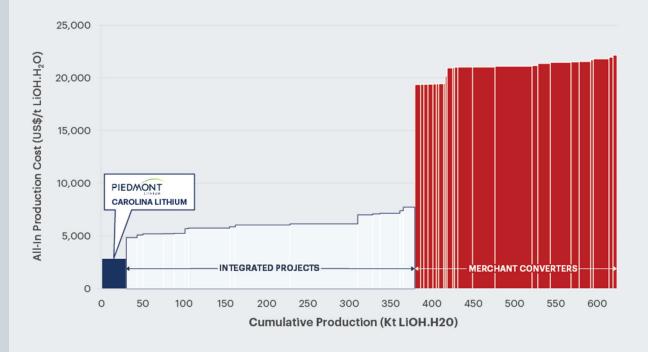
THE BENEFIT OF INTEGRATION

Higher Raw Materials Costs May Increase LiOH Production Costs for Converters

Based on Scoping Study SC6 Price of \$762/t



Based on PLS¹ 10/26/21 SC6 Auction Price of \$2,629/t



Nasdag: PLL









Advancing Project Regulatory Approvals for Development & Construction

Remaining Key Permit Approvals

Federal 404 Permit Received in 2019

- State Mining Permit Submitted 8/31
- Air Permit application will follow DFS
- 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

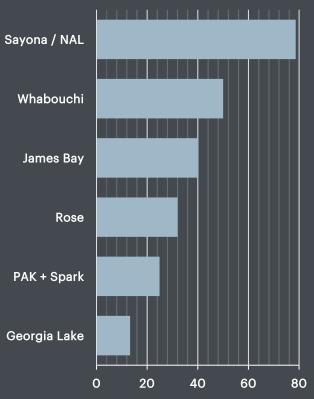


Piedmont Has a 25% Project Interest



SYA

Canadian Spodumene Projects¹



1: Open-pit lithium resources (Mt) from public filings. Sayona / NAL Mineral Resources include Mineral Resources of North American Lithium and are based on Sayona public filings.

LOCATION

- One of Quebec's best-located lithium projects
- Close to Val-d'Or, a major mining center in Quebec's Abitibi region
- Good rail and highway infrastructure
- Skilled local labor and contractors
- Low-cost renewable hydroelectricity

HIGHLIGHTS

- North America's largest spodumene resource
- NAL is a past-producer with \$400mm of capital investment
- Authier is DFS-complete and in final stage of BAPE approval
- PLL offtake > 50% of production or 113,000tpy SC6 - price ceiling \$900/t





ATLANTIC LITHIUM

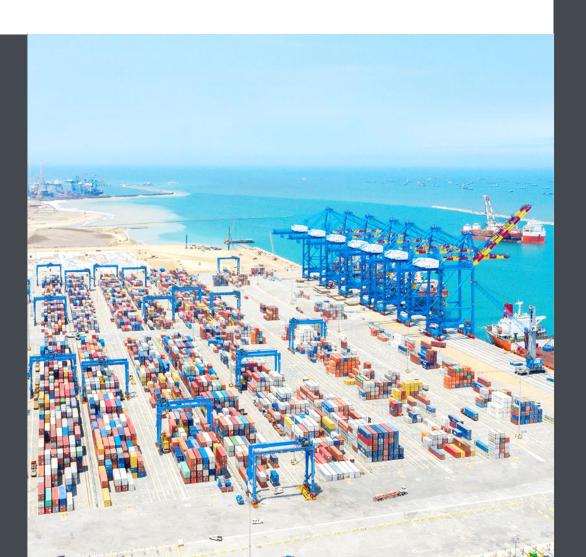
Piedmont Earning Up to a 50% Project Interest

LOCATION

- Mining-friendly jurisdiction
 - 100-year mining history
- ~70 miles from major port along national highway
- Short transport to North America for hydroxide conversion
- Skilled labor pool

HIGHLIGHTS

- Shallow, high-grade resource with potential exploration upside
 - 260 square mile exploration package
- Coarse-grained spodumene implies low capex DMS flowsheet
- Adjacent hydroelectric powerlines
- Resource and scoping update expected in H2 2021





FACT SHEET¹

Location	Ghana
Project Stage	Exploration / Scoping
Business	Spodumene Concentrate
Resources	14.5Mt @ 1.31% Li ₂ O
Production	295,000tpy SC6
PLL Offtake	50% of annual production
DFS Timing	2022-2023
Production	2024-2025
Capex	\$68mm
Орех	\$247/t SC6
After-tax NPV ₈	\$345mm
After-tax IRR	125%

1: IronRidge Resources public filings.

ILLUSTRATIVE DEVELOPMENT TIMELINE

SC6 LiOH





Integrated DFS for SYA + NAL / Site Selection for Quebec LiOH Plant

Permitting/ FID Construction

Commissioning / Operations

Market Supply

1: Annual spodumene concentrate production per Scoping Study released June 2021.

2: Piedmont's 50% offtake share of spodumene concentrate production from IronRidge Scoping Study released January 2021.

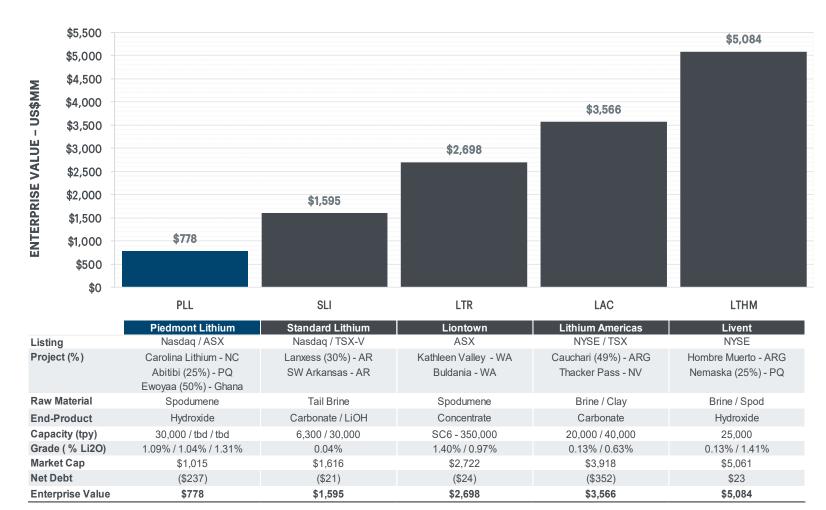
QUEBEC LIOH



UPCOMING MILESTONES

Carolina Lithium Definitive Feasibility Study Phase Two Expansion Scenario State Mining Permit Air Permit County Rezoning **Project Financing Quebec Projects** Consolidated Resource Update NAI Restart Evaluation LiOH Site Selection Ghana - Atlantic Lithium Resource and Scoping Updates Prefeasibility Study **Sales Agreements** Lithium Hydroxide

By-Product Industrial Minerals



Notes

- 1. Project information from company filings.
- Enterprise values as of November 5, 2021, reflect equity market cap net of cash and marketable securities.
- 3. Capacity reflects Company's proportionate interest.







WHY PIEDMONT?

The Industry's Premier Lithium Development Company

Large Addressable Market	 Total Addressable Market for lithium expected to exceed \$50 billion for EV applications by 2030¹ EV penetration expected to grow 10x from ~4% in 2020 to over ~40% by 2030 Grid storage market may potentially be larger than EVs in the long term
The Right Lithium Materials	 Production of lithium hydroxide ("LiOH") from spodumene concentrate ("SC6") LiOH required in the long-range batteries expected to dominate the US market SC6 is the preferred feedstock for cost, sustainability and scalability
Three Strategic Spodumene Resources	 North Carolina offers favorable infrastructure, talent and proximity to large customers Sayona / NAL investment in Quebec capitalizes on low-cost, sustainable hydroelectricity Atlantic Lithium may provide additional high-quality SC6 to support North American LiOH production
Growth Pipeline with Attractive Economics	 Large spodumene resource base underpins potential growth in lithium hydroxide production \$1.9 billion NPV for Carolina Lithium; low capex expected in Quebec (brownfield) and Ghana (DMS) Economies of scale should be available with additional trains at core LiOH sites
Sustainable Business Model	 Targeting low carbon, water and land footprint relative to other conventional lithium projects Expect to utilize renewable solar power in North Carolina and hydroelectric in Quebec and Ghana Fully-integrated LiOH manufacturing and by-product credits drive low-cost position
Proven Leadership Team	 Operational team with large company mining and specialty chemicals experience Experienced people in all senior staff functions Senior leadership focused on driving shareholder value in a responsible way

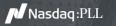








APPENDICES





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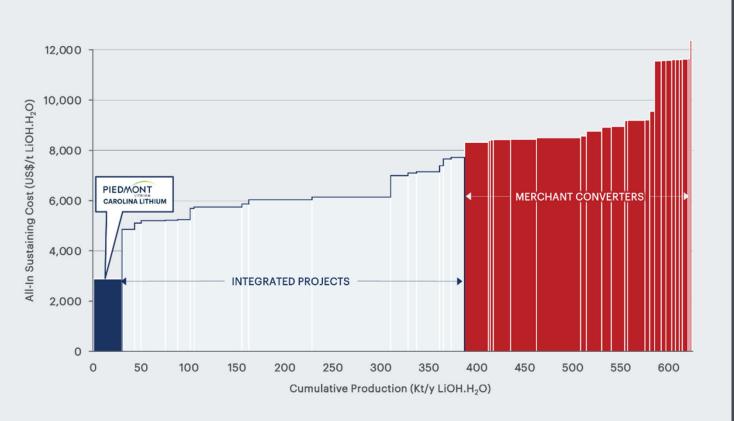
LiOH

CAROLINA LITHIUM - SITE PLAN



CAROLINA LITHIUM

Location Drives Projected Cost Advantages



PIEDMONT VS. AUSTRALIAN PRODUCERS



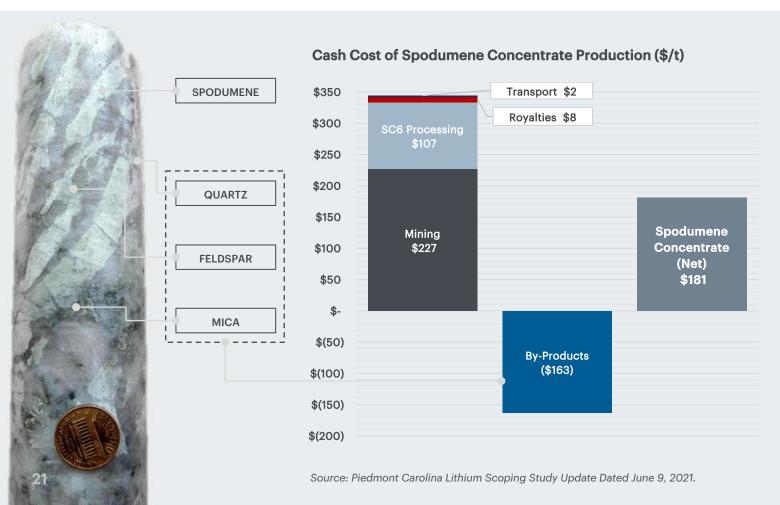




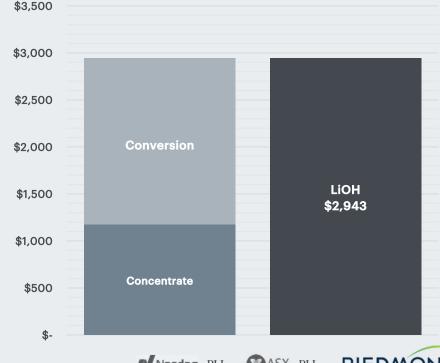
	North Carolina	Western Australia	PLL Advantage Per LiOH Tonne
Personnel (US\$/y avg.)	\$90,000	\$150,000	~\$300
Electricity (kWh)	6.0c	17.0c	~\$300
Natural Gas (Gi)	\$3.68	\$9.00	~\$130
SC6 Transport (T)	\$2	\$71	~\$475
LiOH Tailing Disposal (T)	\$0	\$50	~\$350
State Royalties	0%	5%	~\$225
By-product Credits (T)	\$163	\$0	\$1,141

Source: Assumes 6.5:1 SC6:LiOH ratio. Company estimates derived from PLL Scoping Study announced on June 9, 2021

BY-PRODUCTS OFFER IMPORTANT CREDITS TO OPERATING COSTS



LiOH Integrated Project Production Cash Operating Costs - Life of project (\$/t) including Royalties

















Keith Phillips

Chief Executive Officer
30+ yrs advisory & financing experience with
JPMorgan, Merrill Lynch and Goldman Sachs



Patrick Brindle

Chief Development Officer
20+ yrs project development experience



Michael White

Chief Financial Officer
25+ yrs experience; most recently Chief Accounting
Officer of Apergy Corporation



Bruce Czachor

Chief Legal Officer
30+ yrs legal experience and former partner of
Shearman & Sterling



Kris McVey

Chief Human Resources Officer 20+ yrs in HR leadership including with TC Transcontinental and Michelin



Brian Risinger

Chief Communications Officer 25+ yrs IR and media; most recently with Sonoco



Malissa Gordon

Community & Government Relations 13+ yrs at Gaston County Economic Development



David Klanecky

Chief Operating Officer 25+ yrs lithium and chemical industry experience; former head of hard rock lithium hydroxide at Albemarle



Austin Devaney

Chief Marketing Officer
Former head of lithium sales for Albemarle



Lamont Leatherman

Chief Geologist 25+ yrs geology experience; discovered the Carolina Lithium Project



Monique Parker

Vice-President, Health, Safety and Environment 15+ years experience safety & quality mgmt.; recently w/Albemarle



Binh Meador

Senior Project Manager - Chemical Ops 20+ yrs chemical engineering experience; most recently with Fluor



Jim Nottingham

Senior Project Manager - Concentrate Ops 30+ yrs mining construction and concentrator operations



Pratt Ray

Production Manager - Chemical Ops 30+ yrs experience in lithium chemical prod; most recently at Livent



David Buckley

Advisor - Process Engineering 25+ yrs lithium conversion experience; ex-Livent and Albemarle

BOARD OF DIRECTORS

Susan Jones	Canada	Director
Todd Hannigan	Australia	Director
Claude Demby	USA	Director
Jorge Beristain	USA	Director
Keith Phillips	USA	President & CEO
Jeff Armstrong	USA	Chairman

WORLD-CLASS TECHNICAL PARTNERS



Metso:Outotec





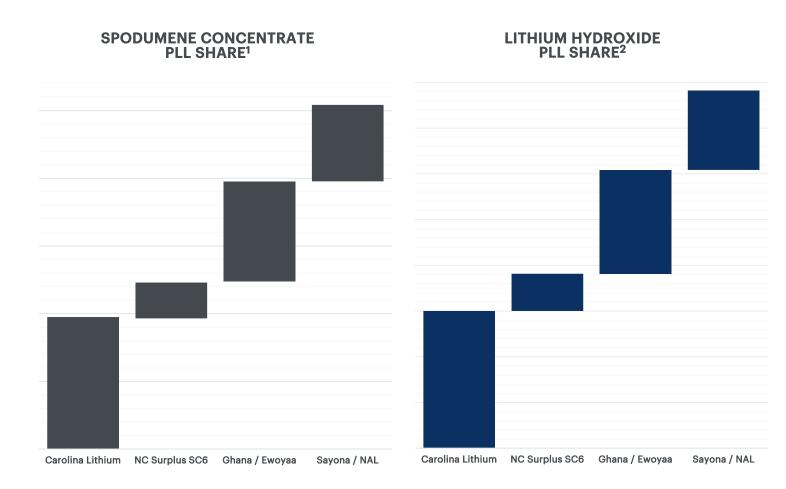




ILLUSTRATIVE LONG-TERM GROWTH

Future Hydroxide Production is a Function of Spodumene Concentrate Ownership

- Raw material supply is the basis of future lithium hydroxide production
- Piedmont maintains ownership of several sources of potential spodumene concentrate production
 - 100% ownership of Carolina Lithium
 - 248,000tpy SC6; ~195,000tpy to feed 30,000tpy LiOH plant and ~53,000tpy surplus to support future LiOH capacity
 - Ability to earn 50% ownership of IRR's Ghana lithium business along with 50% offtake of Ghana SC6 production
 - ~40% effective economic interest in Sayona / NAL along with minimum 50% offtake for Quebec SC6 production
- Technical studies to be commenced shortly to evaluate suitable locations to expand LiOH production on a phased basis



^{1:} Piedmont's anticipated share of spodumene concentrate production based on technical studies and/or offtake agreements in place between the parties.

^{2:} Piedmont's potential lithium hydroxide production assuming spodumene concentrate is converted via the Metso-Outotec process at ratios consistent with the Carolina Lithium Scoping Update.

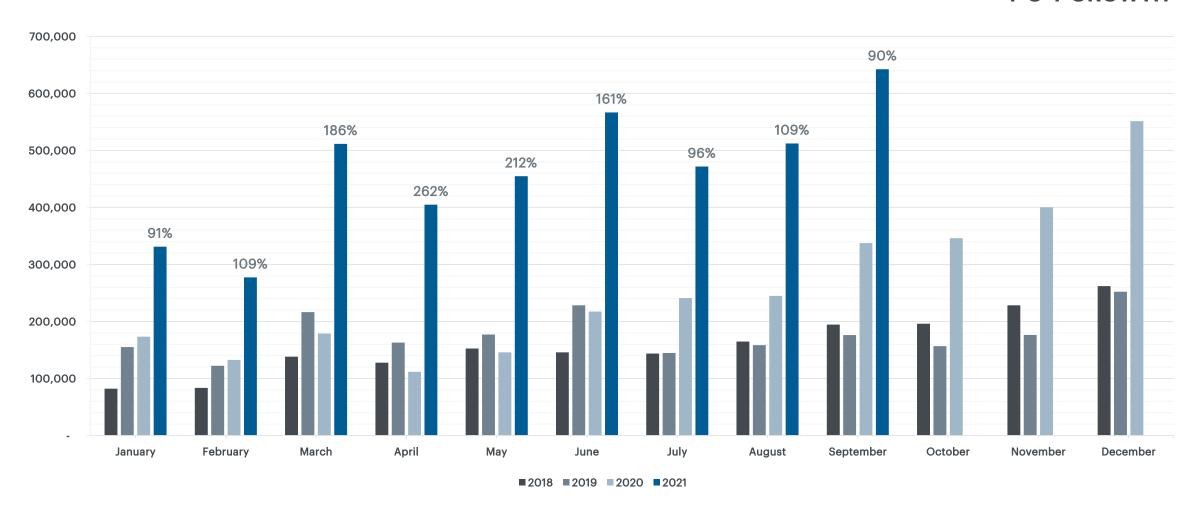






WORLDWIDE EV SALES

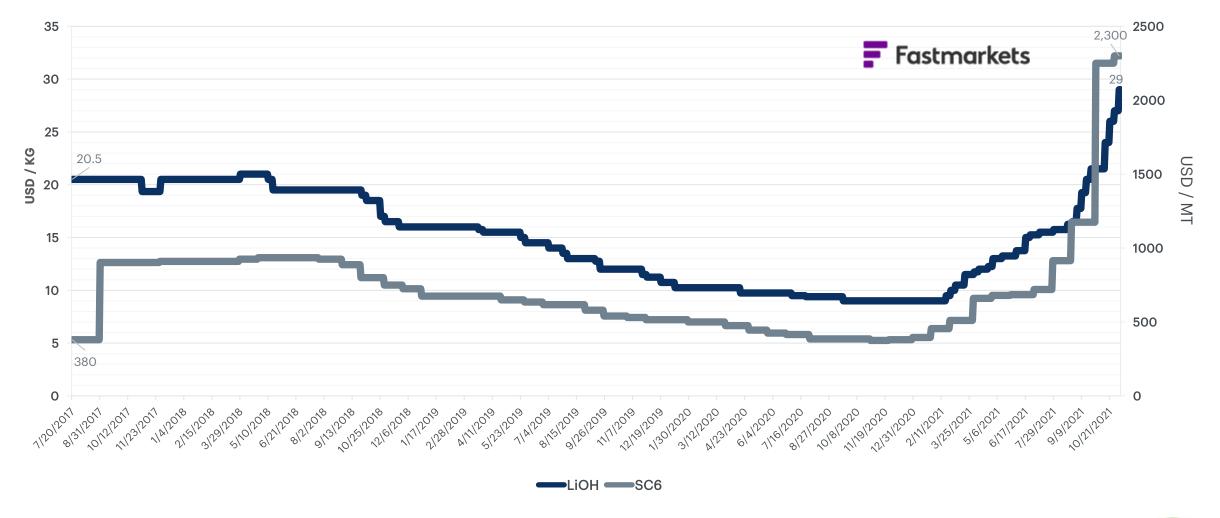
Y-O-Y GROWTH







LITHIUM PRICES













LITHIUM - MADE IN THE USA

Powering America's Clean Energy Transition November 2021

Keith D. Phillips – President and CEO +1 973 809 0505 kphillips@piedmontlithium.com

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Exploration Office | 5706 Dallas-Cherryville Hwy. 279 | Bessemer City | NC 28016 | USA

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