



# A Clean Energy Company

Corporate Presentation – February 2020



ASX: PLL | NASDAQ: PLL

ABN 50 002 664 495



The background of the slide is a photograph of an electric vehicle (EV) being charged. A charging cable is plugged into the car's port, and the cable lies on the ground. The image is heavily overlaid with a green-to-yellow gradient, which is darker on the left and lighter on the right. The text 'Executive Summary' is centered in white, bold font, with a thin white horizontal line underneath it.

# Executive Summary

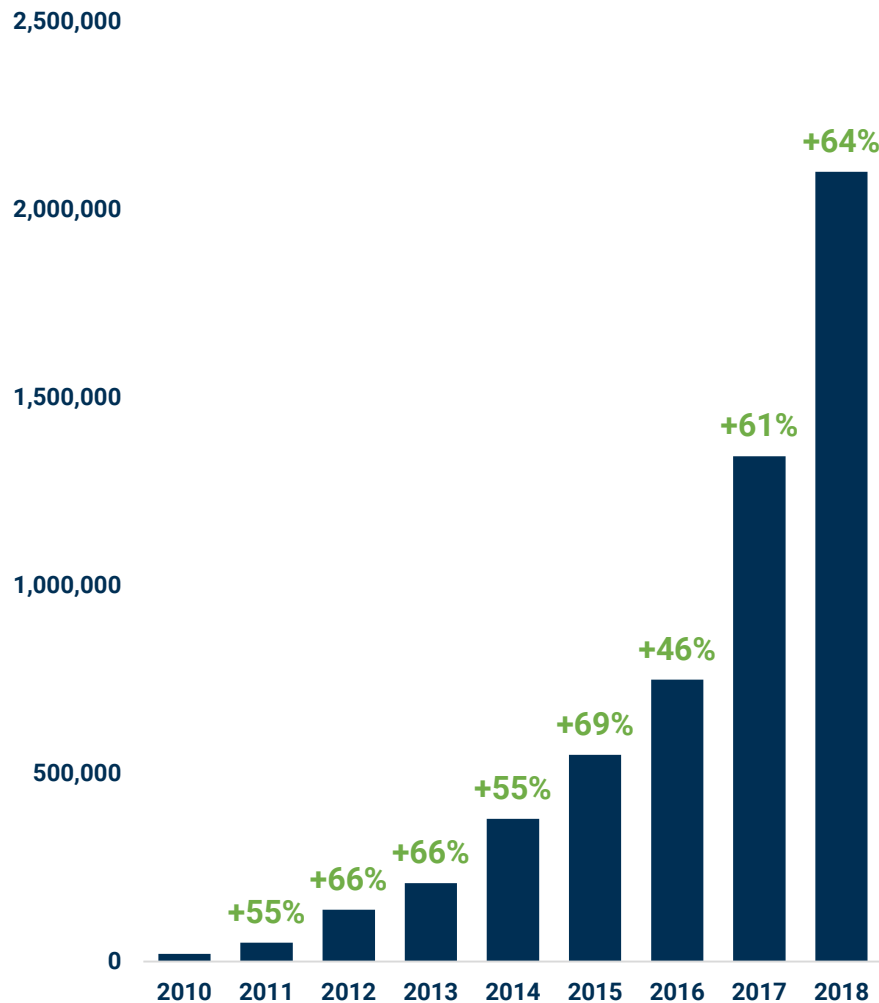
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# Why Piedmont Lithium?

<b>STRONG MARKET OUTLOOK</b>	<ul style="list-style-type: none"> <li>▪ Wave of electric vehicles coming to market</li> <li>▪ 36% annual growth projected for lithium hydroxide</li> <li>▪ Large investments in US and Europe battery supply chain</li> </ul>
<b>IDEAL PROJECT LOCATION</b>	<ul style="list-style-type: none"> <li>▪ World-class Carolina Tin-Spodumene Belt (“TSB”)</li> <li>▪ 60+ years of lithium processing on TSB</li> <li>▪ Abundant infrastructure and lithium talent pool</li> </ul>
<b>LOW OPERATING COSTS</b>	<ul style="list-style-type: none"> <li>▪ Large local labor force – no camp costs</li> <li>▪ Low power and transportation costs</li> <li>▪ Low royalties and income taxes</li> </ul>
<b>POSITIVE ESG PROFILE</b>	<ul style="list-style-type: none"> <li>▪ EVs reduce emissions by 67% vs. ICEs (Wood Mackenzie)</li> <li>▪ Hard rock preferred by major OEMs for improved sustainability</li> <li>▪ PLL supply chain potentially 98% shorter than current routes</li> </ul>
<b>UNIQUE STRATEGIC ASSET</b>	<ul style="list-style-type: none"> <li>▪ USA’s only conventional lithium project</li> <li>▪ USA’s only spodumene-to-hydroxide project</li> <li>▪ Located in USA’s ‘Auto Alley’</li> </ul>
<b>SUBSTANTIAL VALUATION UPSIDE</b>	<ul style="list-style-type: none"> <li>▪ Lithium equities recovering from 2-year lows</li> <li>▪ Piedmont trading at ~5% of Project NPV</li> <li>▪ Kidman deal implies huge upside for PLL</li> </ul>

# Lithium Demand Driven by Growth in Electric Vehicle Sales

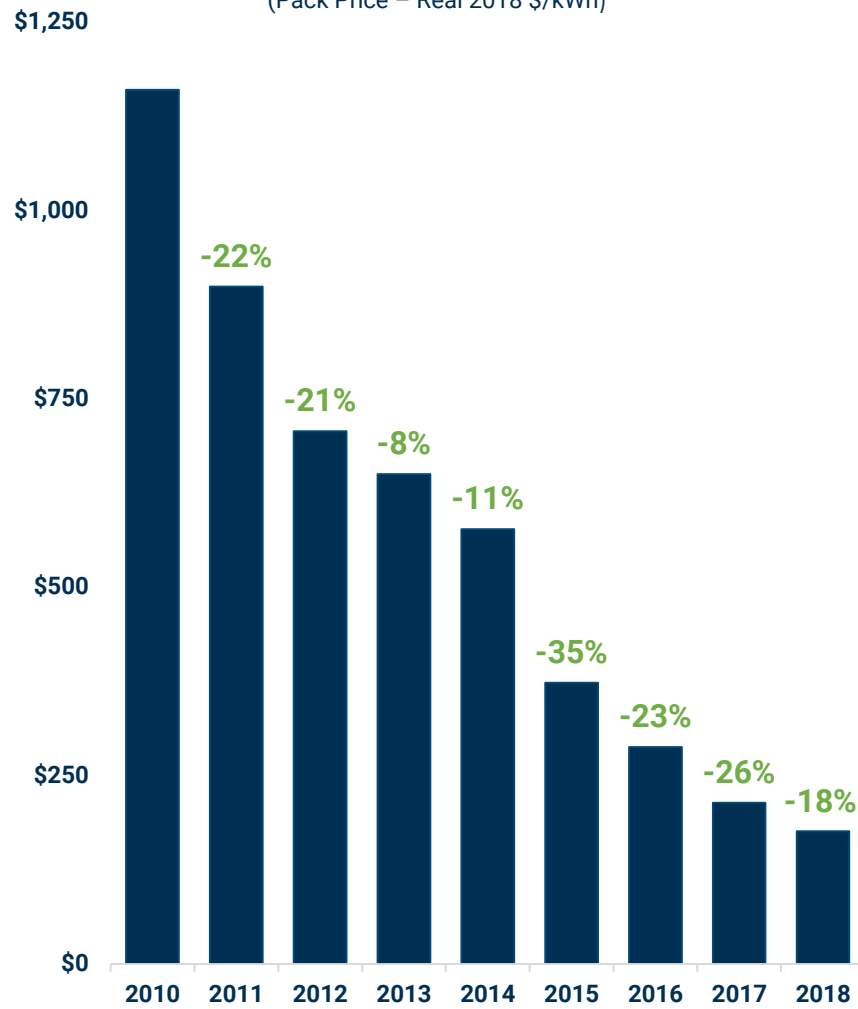
## Global EV Sales Up 60% Per Year Since 2010



Source: EV Reports.com

## Li-ion Battery Costs Down 85% Since 2010

(Pack Price – Real 2018 \$/kWh)



Source: Green Car Reports

# It's Not Just Tesla...





# ...and It's Not Just Cars

Rivian Trucks



Proterra Buses



Xos Semis

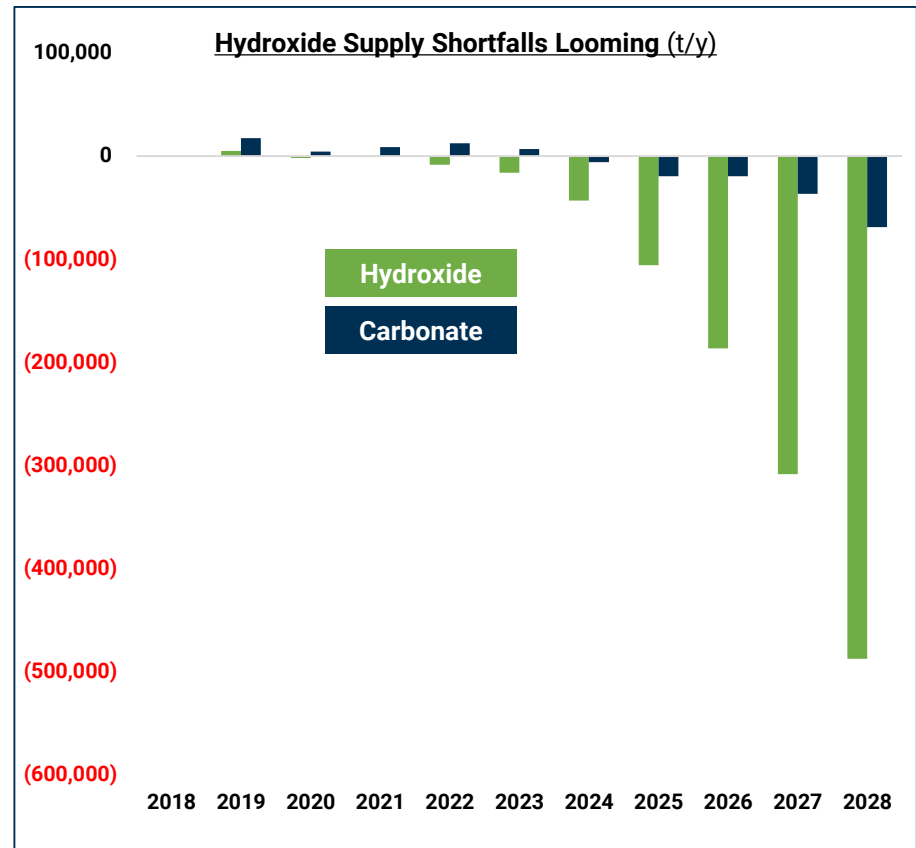
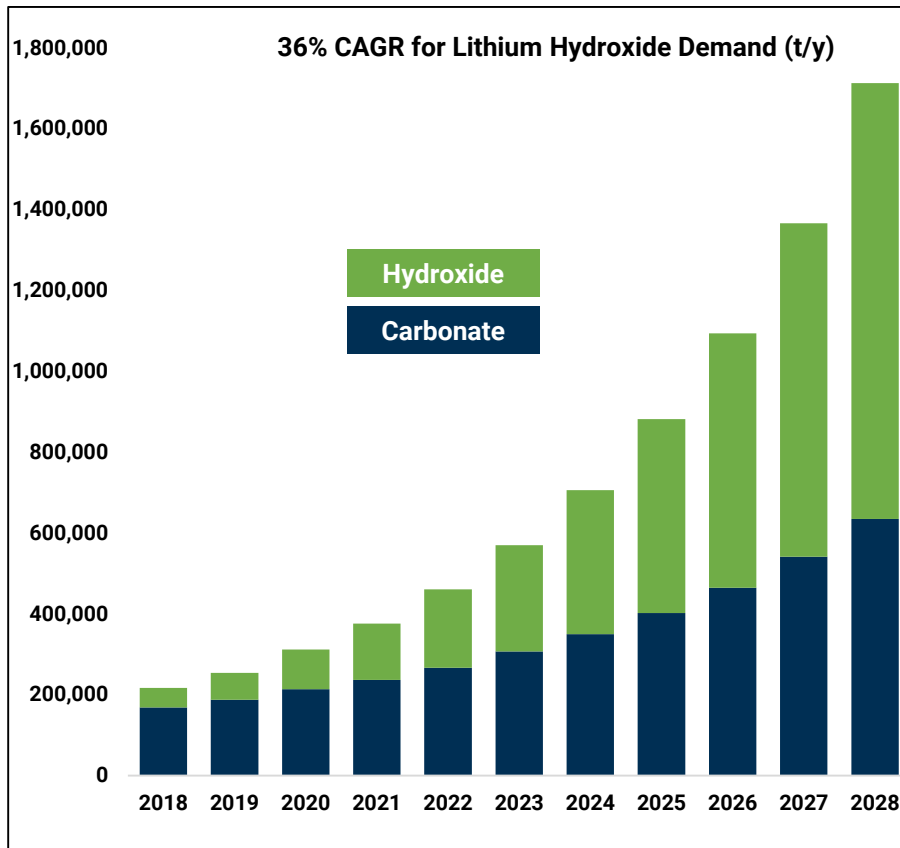


Ampere Ferries



# Hydroxide Taking Share and Supply Deficits are Looming

- Lithium hydroxide is required for the high-nickel cathode used in more energy-dense, longer-range batteries
- “Lithium extracted from mining for the future-relevant product ‘lithium hydroxide’ is commercially more attractive (there is one less production step as compared to salar production), 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



Source: Rodney Hooper / RK Equity forecasts.

# Piedmont Ideally Located in North Carolina...

# 1

State for Business

0%

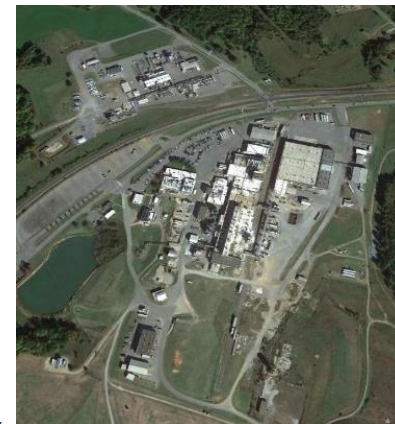
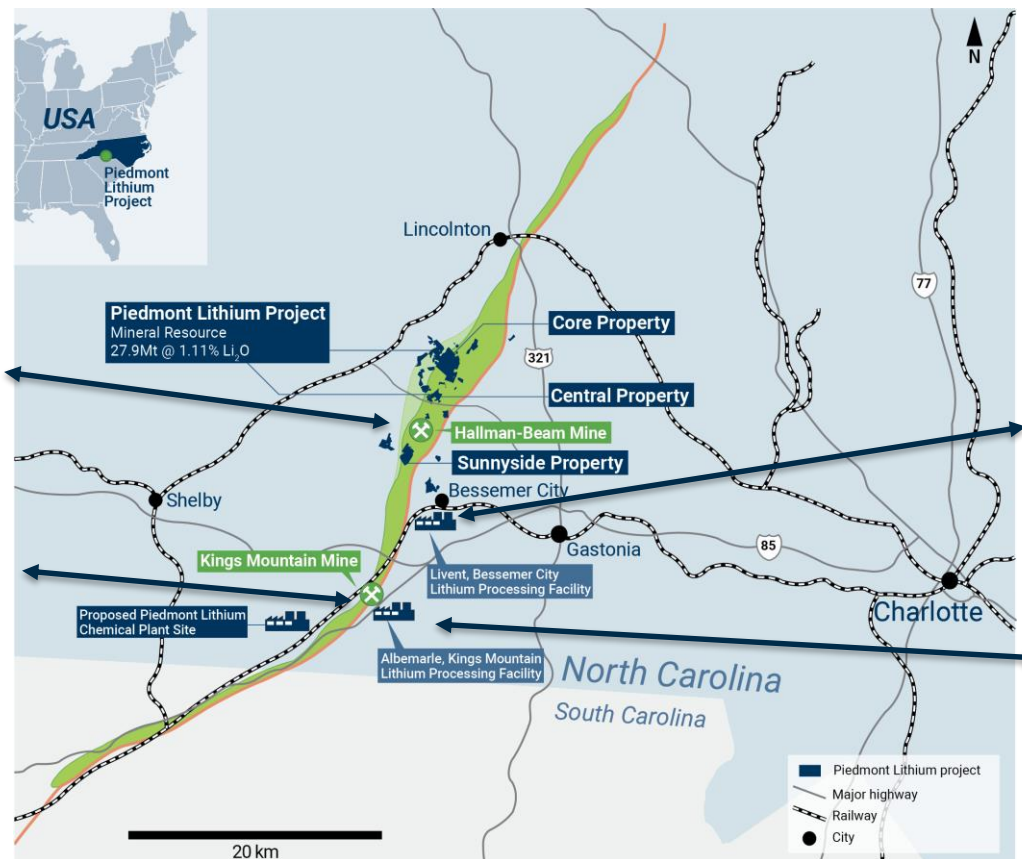
State Mining Royalties

23%

Corporate Tax Rate

~100%

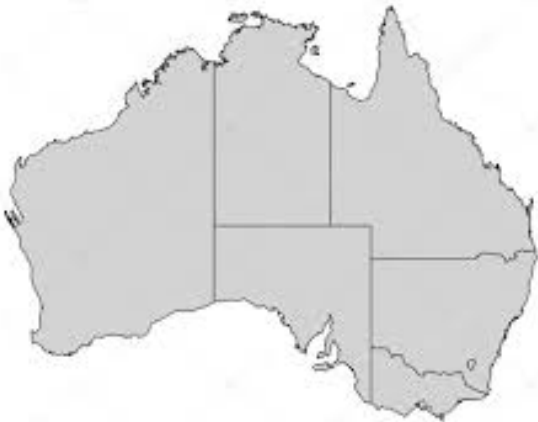
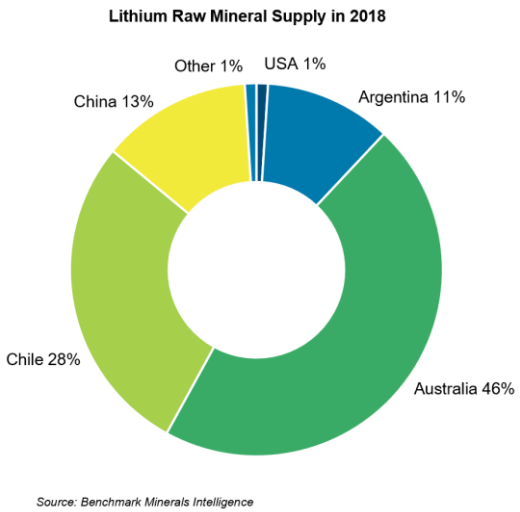
Past Lithium Production



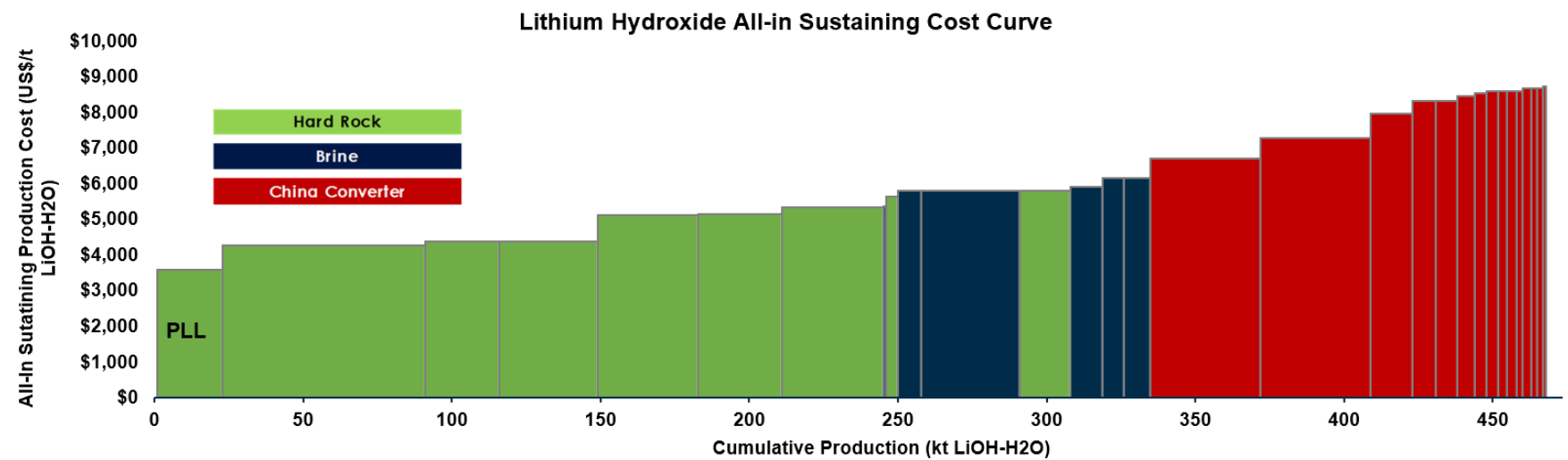


# ...in the Heart of 'Auto Alley'




Location drives lower costs and more sustainable supply chain



# Location Drives Low Production Costs



Source - Roskill. AISC includes all direct and indirect operating costs including feedstock costs (internal AISC or external supply), refining, on-site G&S costs

			
	NORTH CAROLINA	WESTERN AUSTRALIA	CANADA
LABOR	\$42 / Hr	\$72 / Hr	\$96 / Hr
ELECTRICITY	6c / kWh	17c / kWh	4c / kWh
DIESEL	\$0.65 / L	\$1.02 / L	\$0.91 / L
NATURAL GAS	\$4.00 / Gj	\$6.57 / Gj	\$12.54 / Gj
TRANSPORTATION	\$6 / T	\$46 / T	\$50 / T
GOVERNMENT ROYALTIES	0%	5%	0%
EFFECTIVE TAX RATE	23%	30%	33%

Source: Public filings, Primero and Company estimates

# Low Costs Underpin Strong Project Economics

## Enlarged Mineral Resource Drives Improved Economics

25

Year Mine Life

US\$298 M  
(A\$438 M)

Run-rate EBITDA

US\$1.45 B  
(A\$2.13 B)

After-tax NPV

34%

After-tax IRR

Updated Scoping Study Comparative Results	Unit	2019 Study	2018 Study	% Change
Mineral Resource Estimate		27.9Mt @ 1.11% Li <sub>2</sub> O	16.2Mt @ 1.12% Li <sub>2</sub> O	72%
Project Life	years	25	13	92%
Life-of-Project Spodumene Concentrate Produced	kt	3,810	1,960	94%
Life-of-Project Lithium Hydroxide Produced	kt	489	216	126%
Average Steady State EBITDA	US\$/y	\$298	\$235	27%
After-Tax Net Present Value (NPV <sub>8</sub> )	US\$/M	\$1,447	\$888	63%
Internal Rate of Return (IRR)	%	34	46	-26%
Initial Capex – Integrated Project	US\$/M	512	470	9%
Lithium Hydroxide Cash Costs	US\$/t	3,105	3,112	-

Source: Updated Scoping Study. Refer to the announcement dated August 7, 2019.

# Highly-Experienced Leadership Team

## Management Team

### Keith Phillips

#### Managing Director & CEO

30+ Years Wall Street experience with JPMorgan, Merrill Lynch and Dahlman Rose

### Taso Arima

#### Founder and Director

12+ years natural resource visionary executive; founder of multiple natural resource companies

### Patrick Brindle

#### VP – Project Management

20+ years US and global engineering, procurement and construction experience

### David Buckley

#### VP – Process Engineering

25+ years lithium extraction and conversion expert, ex-FMC and Albemarle

### Lamont Leatherman

#### VP – Chief Geologist

25+ years as an exploration geologist, senior positions in BHP & Noranda in the Carolinas

### Tim McKenna

#### Advisor – Government Relations

30+ years government & investor relations, including with Rockwood Lithium

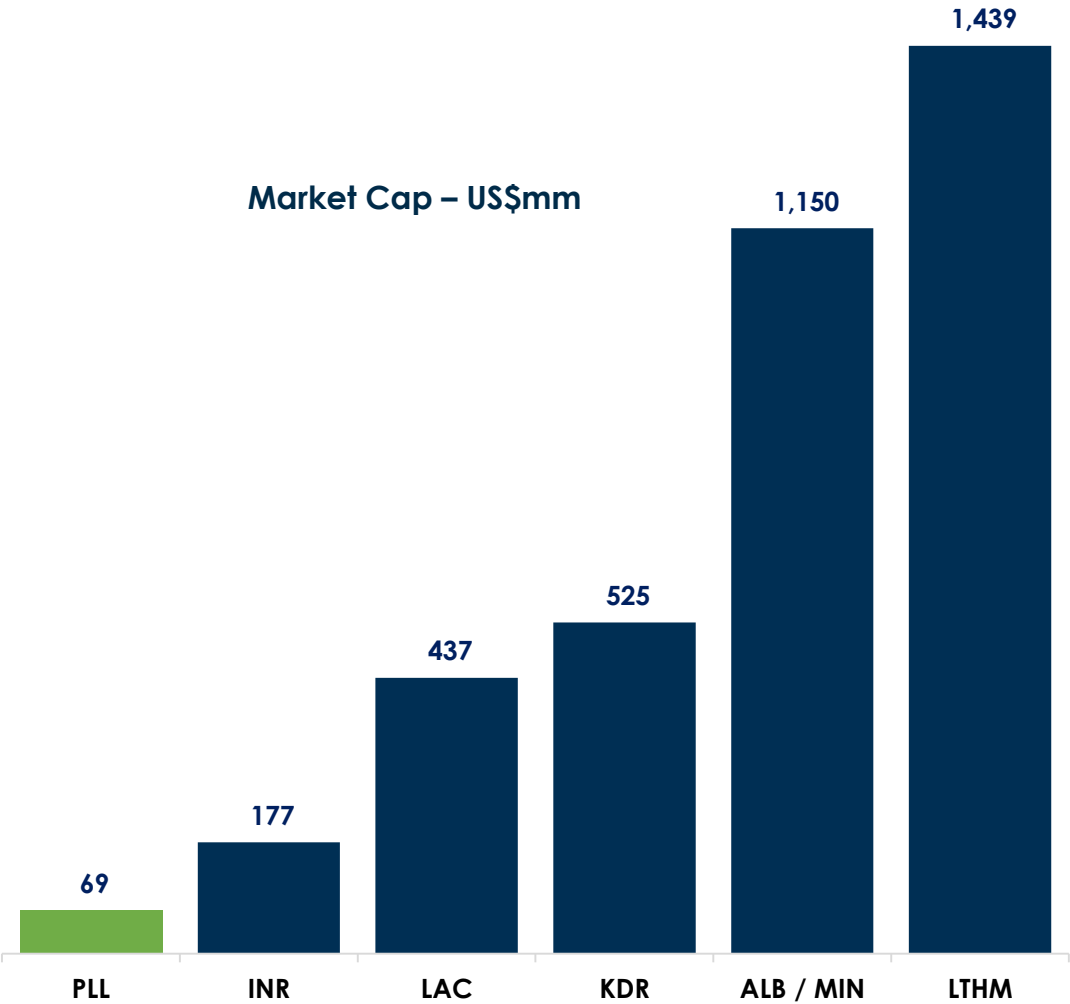
## Technical Consultants







# Hitting Milestones Should Drive Re-Rating in 2020

- ☒ First-mover land package
- ☒ 55,000m drilling
- ☒ Large high-grade resource
- ☒ Robust scoping study
- ☒ Section 404 permit
- ☐ Hydroxide testwork
- ☐ Prefeasibility study
- ☐ Offtake agreements
- ☐ Definitive feasibility study
- ☐ Financing and construction



# Corporate Snapshot

Piedmont Lithium Limited		
	 ASX	 Nasdaq
Shares / ADRs (1 ADR = 100 Shares)	824.3 mm	8.24 mm
Price (@ 2/7/20)	A\$0.13	US\$8.25
Market Cap (@ 2/7/20)	A\$107 mm	US\$69 mm
Cash (@ 12/31/19)	A\$17.1 mm	US\$11.4 mm

Key Shareholders	
Australian Super	13.1%
Fidelity	9.0%
BNY Mellon (ADRs)	7.5%
Officers and Directors	10.4%

Board of Directors		
Ian Middlemas	Australia	Chairman
Keith D. Phillips	USA	CEO
Anastasios Arima	USA	Director
Jeff Armstrong	USA	Director
Jorge Beristain	USA	Director
Levi Mochkin	Australia	Director

## Research Coverage







## Share Price Performance - Last 3 Months



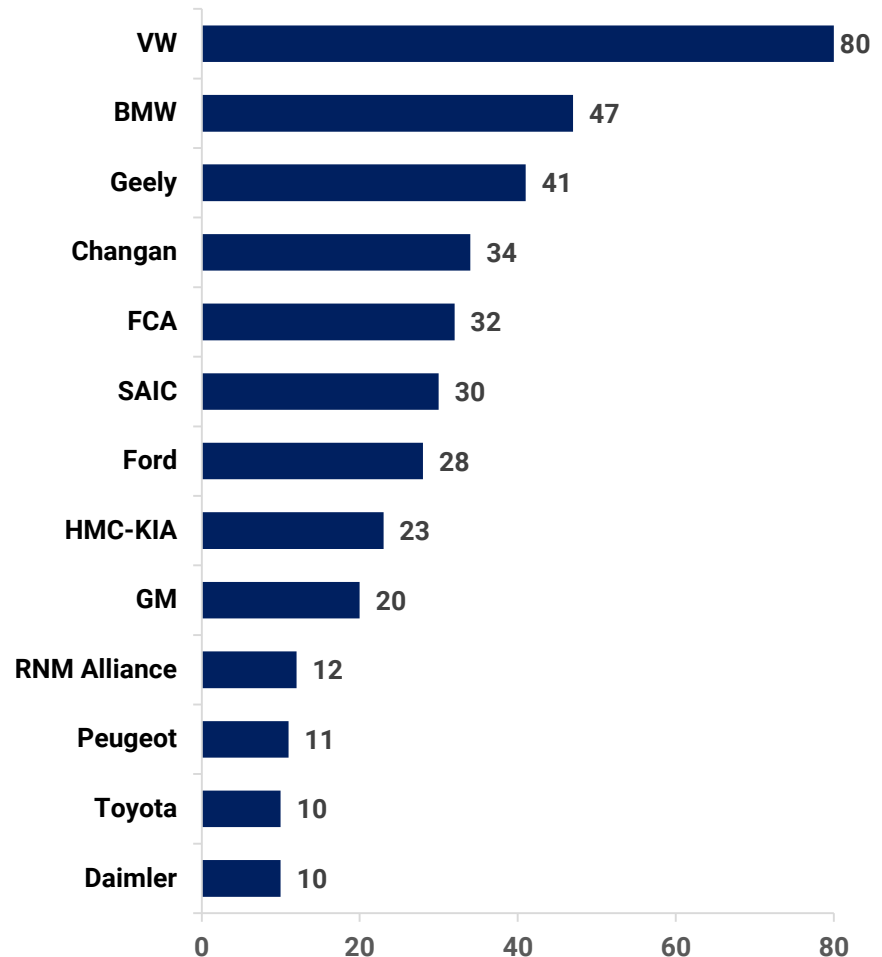
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# Lithium Markets

# EV Mega-Trend is Building Momentum

- **World-leader VW all-in on EVs**
  - Focus on LiOH from spodumene
    - “Mining is considered the future-proof solution, both commercially and in terms of sustainability”
- **EU CO<sub>2</sub> penalties a catalyst**
  - US\$39B exposure in 2021
- **Mass market vehicles coming**
  - Ford to produce electric F-150 “before 2022”
  - VW ID.3 launching in 2020
- **Technology leaders positioning**
  - Google / Waymo
  - Apple / Titan
  - Amazon / Rivian
  - Sony introduced EV at CES

# of EVs to be launched by 2025

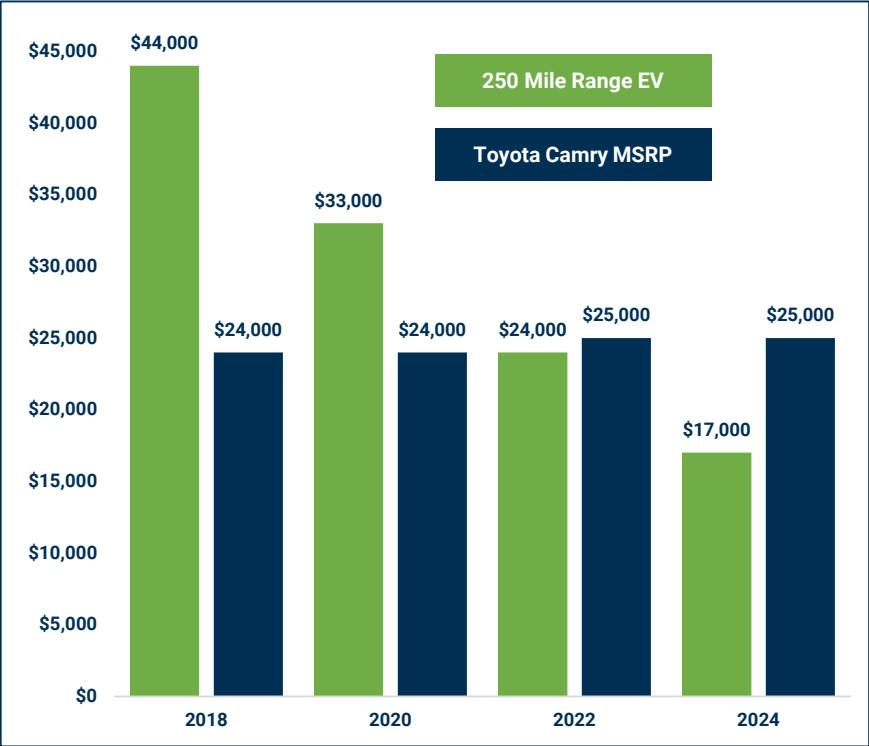


Source: Bloomberg New Energy Finance



# Economics are the Key Driver of EV Demand

- EVs are superior cars – they are smoother, quieter and faster
- EVs reduce greenhouse gas emissions by 67% vs. ICEs (“Wood Mackenzie”)
- EVs offer lower ‘total cost of ownership’ (“TCO”)
  - Far less expensive to fuel
  - Far less expensive to maintain
- EV:ICE purchase price parity is approaching; Tesla has already achieved this with the Model 3

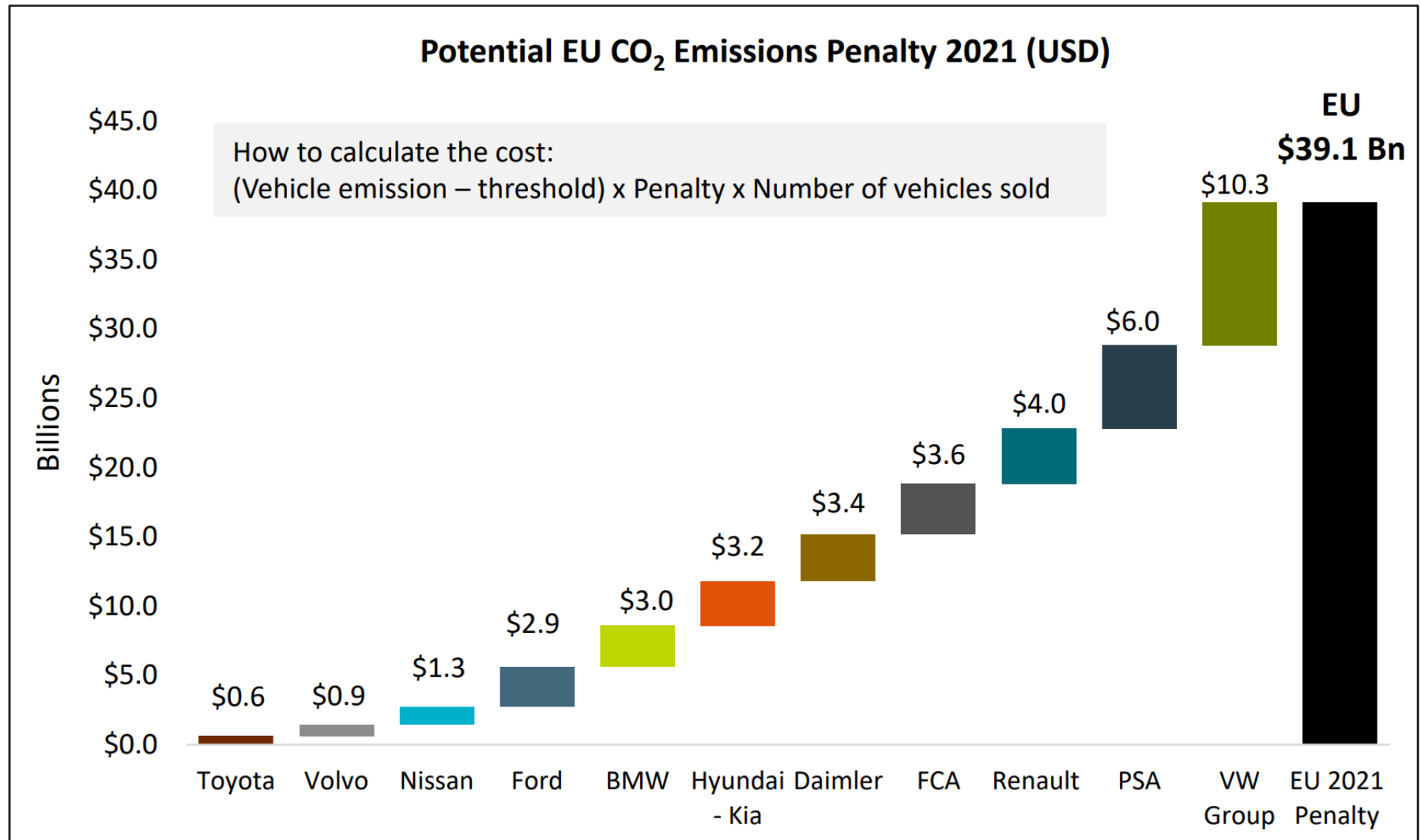


Source: ARK Innovation – Big Ideas 2020

	TESLA MODEL 3	AUDI S4
CATEGORY	Luxury sport sedan	Luxury sport sedan
0-60 MPH	3.9 seconds	4.4 seconds
RANGE	322 miles	420 miles
PURCHASE PRICE	\$50,990	\$58,145
5-YEAR FUEL <sup>1</sup>	\$2,549	\$10,194
5-YEAR MAINTENANCE <sup>1</sup>	\$3,018	\$9,551
5-YEAR INSURANCE <sup>1</sup>	\$4,430	\$4,513
TAX INCENTIVE	\$3,378	\$0
5-YEAR TCO <sup>2</sup>	\$57,609	\$82,403

1. Source: Clean Technica and OEM websites  
2. Reflects New Jersey waiver of 6.625% state sales tax

# EU CO<sub>2</sub> Emissions Penalties Spurring EV Development



Source: Orocobre

# Supply Curtailments Support Positive Market Outlook



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Wodgina on care and maintenance; Kemerton delayed 9 months

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Mt. Holland deferred at least one year

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Stage 2 and 3 expansions deferred indefinitely

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Mt. Cattlin mine shutdown; Sal de Vida downsized

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Bald Hill on care and maintenance

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La Corne on care and maintenance

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Kwinana Phase 2 deferred

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Construction halted pending financing for cost overruns

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# USA is Favorable Jurisdiction vs. Leading Producers



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40% royalties / social unrest / *'war for water'*

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Kirchnerist politics / hyperinflation / export taxes

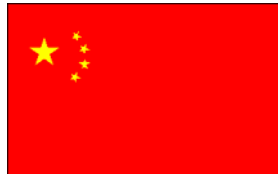
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High cost power and transport / labor shortages

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Imported raw materials / 16% VAT on re-exports

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Low costs and taxes / large market / critical material

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# Recent Developments in the US Electric Vehicle Space

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Nevada battery capacity to increase to 57 GWh and 'Giga-Texas' is rumored as next project

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Investing \$600M to produce XC90 e-SUV and battery packs at Ridgeville, SC plant

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Joint venture to build \$2.3B battery plant in Lordstown, OH

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Investing \$2.7B to build 20 GWh battery plant in Commerce, GA

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Investing \$12.5B to build EVs including the Mustang Mach-E and the electric F-150

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Converting Detroit-Hamtramck plant to all-EV; reintroducing the Hummer as an EV brand

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To produce delivery trucks for Amazon and an SUV for Lincoln

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Investing \$800M to expand Chattanooga, TN plant to make EVs and assemble batteries

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# Piedmont Positioned as a Domestic Supplier to the US EV Sector

Raw  
Materials

Lithium  
Chemicals

Cathode

Batteries

Vehicles

USA

PIEDMONT  
LITHIUM

PIEDMONT  
LITHIUM

Livent

ALBEMARLE®

BASF  
The Chemical Company

TODA KOGYO CORP.

Panasonic  
TESLA

LG Chem

SK innovation

Envision AESC

TESLA

GM

Ford

VW

VOLVO

RIVIAN

Import

Livent

ALBEMARLE®

SQM

赣锋锂业  
GanfengLithium

SUMITOMO METAL MINING

LG Chem

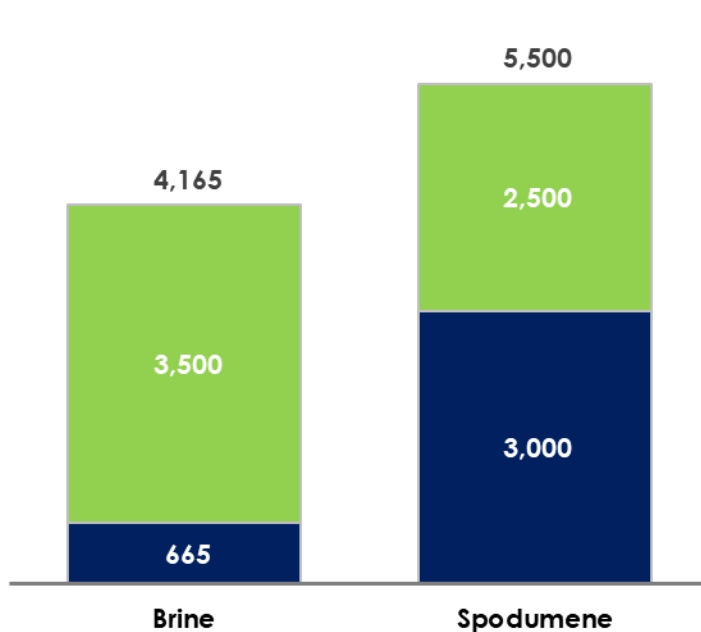
EcoPro

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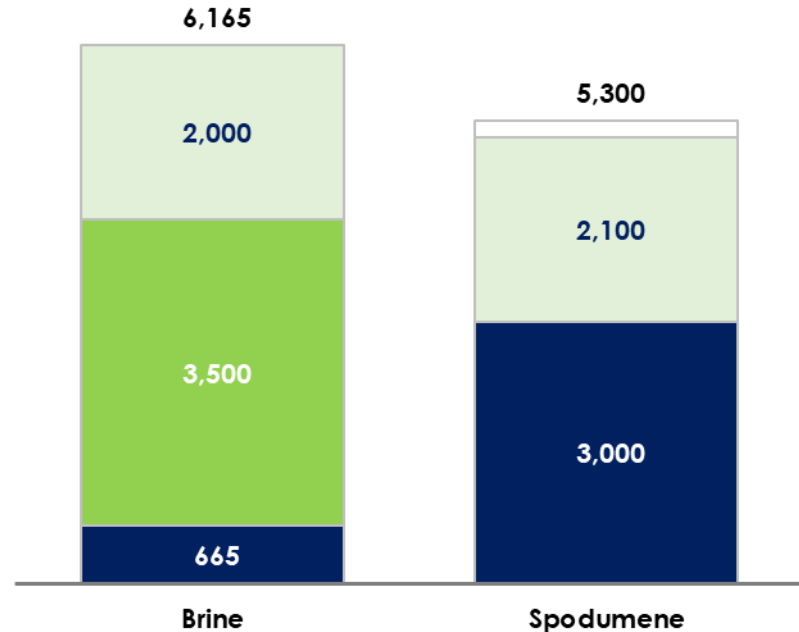
# Spodumene's Hydroxide Cost Advantage

*"Spodumene is ~15% more cost-effective to produce lithium hydroxide than salt brine" – McKinsey & Co.*

**Brine is typically lower cost for carbonate...**



**...but spodumene is typically lower cost for hydroxide**



Source: McKinsey & Co., costs represent indicative 2025 costs for typical South American brine operations and typical Western Australian spodumene operations.

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# Project Background Materials

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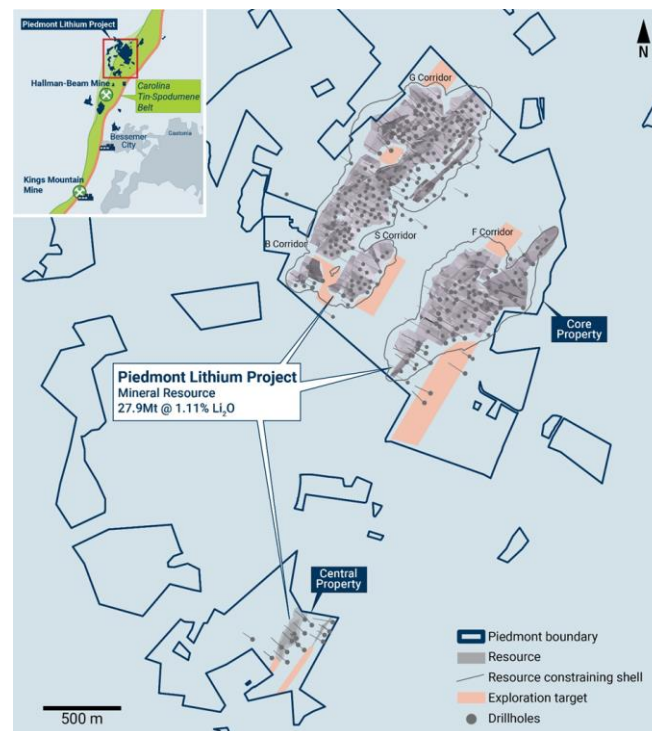


# High-Grade Mineral Resource

## One of North America's Largest Hard-Rock Lithium Resources

**27.9 Mt @ 1.11% Li<sub>2</sub>O**

- 764,000 tonnes of contained LCE
- 100% of the lithium is attributable to spodumene mineralization
- Shallow open pits – 74% of resource within 100m of surface and 97% within 150m
- Open along strike and at depth



**Project Wide Mineral Resource Estimate for the Piedmont Lithium Project (0.4% cut-off)**

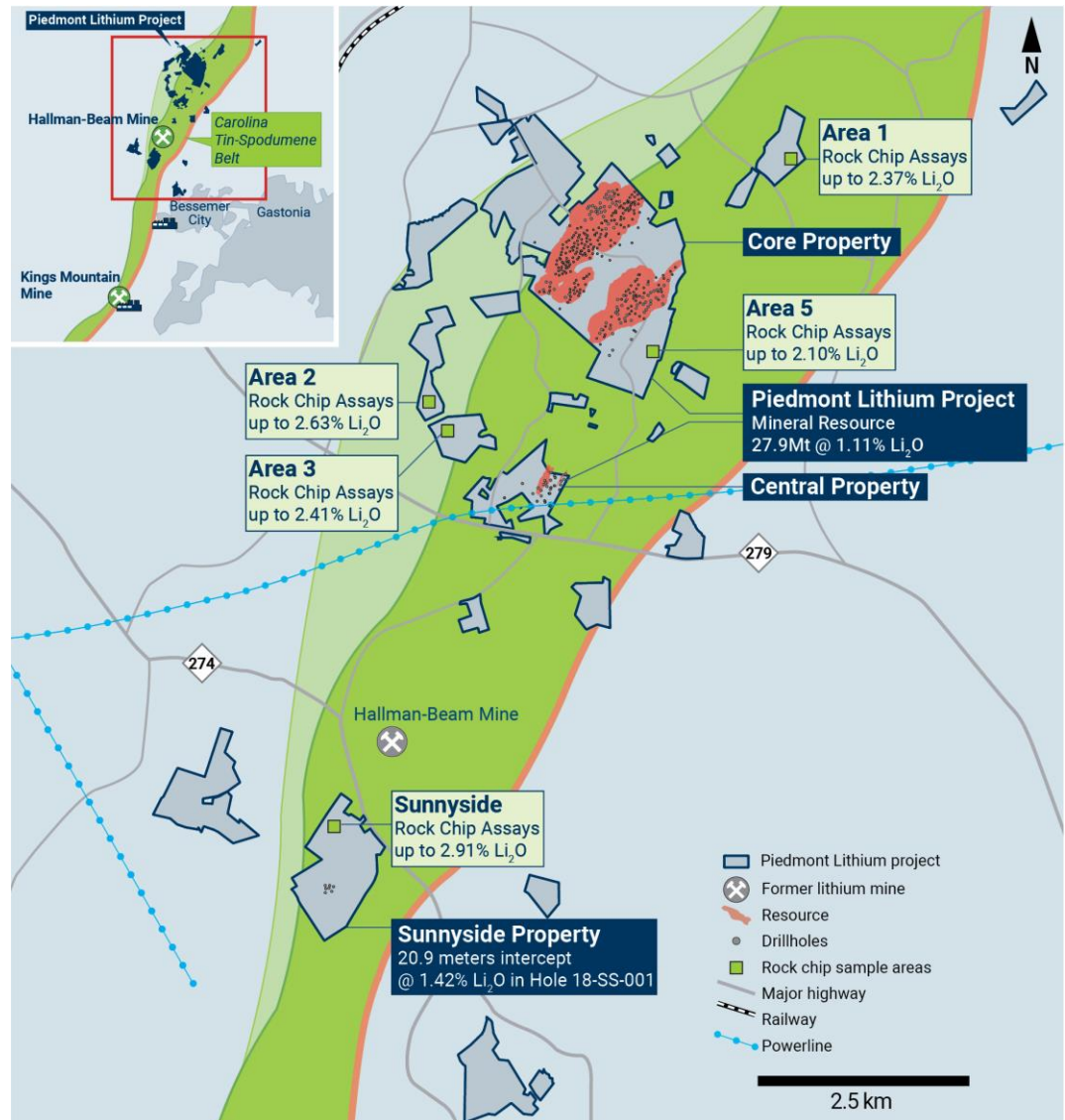
Resource Category	Core property		Central property		Total			
	Tonnes (Mt)	Grade (Li <sub>2</sub> O%)	Tonnes (Mt)	Grade (Li <sub>2</sub> O%)	Tonnes (Mt)	Grade (Li <sub>2</sub> O%)	Li <sub>2</sub> O (t)	LCE (t)
Indicated	12.5	1.13	1.41	1.38	13.9	1.16	161,000	398,000
Inferred	12.6	1.04	1.39	1.29	14.0	1.06	148,000	366,000
<b>Total</b>	<b>25.1</b>	<b>1.09</b>	<b>2.80</b>	<b>1.34</b>	<b>27.9</b>	<b>1.11</b>	<b>309,000</b>	<b>764,000</b>

# Vast Exploration Upside

## Large Areas of the Carolina Tin-Spodumene Belt Remain Unexplored

Current Exploration Target	
Core Property	
Tonnes (Mt)	Grade (Li <sub>2</sub> O%)
4.0-4.5	1.0-1.2
Central Property	
Tonnes (Mt)	Grade (Li <sub>2</sub> O%)
2.0-2.5	1.1-1.3
Total	
Tonnes (Mt)	Grade (Li <sub>2</sub> O%)
6.0-7.0	1.0-1.3

*\*The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.*



# Unique “Spodumene-Only” Mineralogy

- XRD analysis confirms pure spodumene nature of Piedmont’s ore body
- Absence of petalite and lepidolite in pegmatites expected to lead to high lithium recovery

“The first question an investor should ask a hard-rock lithium CEO is “how much of the lithium reports to spodumene?” – Jon Hykawy, PhD – President, Stormcrow Capital

Average XRD Analysis Results from 46 Drill Core and Composite Samples of Piedmont Ore						
Mineralogy		Average Wt. (%) of Mineral Types				
		Core Property			Central Property	Sunnyside Property
		Semi-quantitative Samples (13 Samples)	Quantitative Samples (19 Samples)	Composite Variability Samples (10 Samples)	Quantitative Samples (3 Samples)	Quantitative Sample (1 Sample)
Lithium-bearing minerals	Spodumene	17.8	19.9	16.6	15.9	14.8
	Petalite	-	-	-	-	-
	Lepidolite	-	-	-	-	-
	Zinnwaldite	-	-	-	-	-
	Holmquistite	-	-	0.5	-	-
Non-lithium bearing minerals		82.2	80.1	82.9	84.1	85.2
<b>Total</b>		<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

# Strong Metallurgical Recoveries

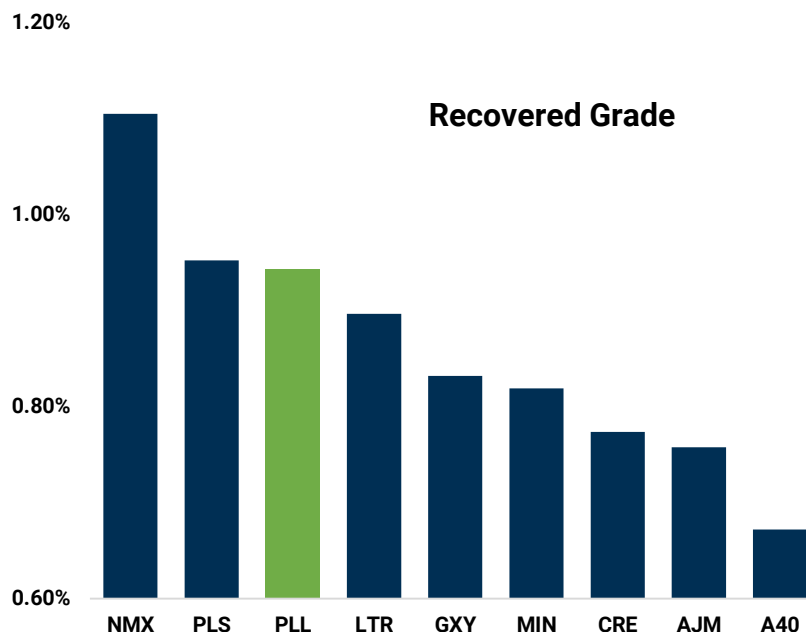
## Resource Grade of 1.11% Li<sub>2</sub>O

### + Exceptional Metallurgical Recoveries

- 'Spodumene-only' mineralogy
- Abundant clean process water
- 50+ years of precedent on TSB
- Bench scale testwork results

### = Leading 'Recovered Grade'

### Bench-Scale LiOH Testwork in Progress



Results of Dense Medium Separation + Locked Cycle Flotation Test Results							
Sample	Feed Grade Li <sub>2</sub> O (%)	Concentrate Grade Li <sub>2</sub> O (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	Na <sub>2</sub> O (%)	K <sub>2</sub> O (%)	CaO+ MgO + MnO (%)	P <sub>2</sub> O <sub>5</sub> (%)
Piedmont Composite Sample 1	1.11	6.35	0.93	0.63	0.49	0.96	0.32
Australian Producer 1	NR	6.00	1.20	NR	NR	NR	NR
Australian Producer 2	NR	5.90	1.50	NR	NR	NR	NR
Australian Producer 3	NR	6.10	0.61	0.80	0.76	0.79	0.30

# By-Product Industrial Minerals Provide Strong Credit

## Quartz



Solar Panel Glass



Quartz Composites



Technical Glass

## Feldspar



Architectural Glass



Industrial Ceramics



Coatings

## Mica



Cosmetics



Automotive Paints



Welding Rods



# Disclaimers

## Cautionary Statements and Important Information

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## Forward Looking Statements

This presentation contains forward-looking statements within the meaning of securities legislation in Australia and the United States, including statements regarding exploration and development activities; plans for Piedmont's mineral projects; projections of market demand and lithium prices; statements about the timing and amount of resource declarations; and statements about the timing and ability to complete scoping studies and feasibility studies.

Such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause actual events, results, performance or achievements to be materially different from events, results, performance or achievements expressed or implied by the forward-looking statements. Such factors include, among others, the risk that we will be unable to commercially extract mineral deposits, that our properties may not contain expected reserves, risks and hazards inherent in the mining business (including risks inherent in developing mining projects, environmental hazards, industrial accidents, weather or geologically related conditions), uncertainty about our ability to obtain required capital to execute our business plan, our ability to hire and retain required personnel, changes in the market prices of lithium, changes in technology or the development of substitute products, the uncertainties inherent in exploratory, developmental and production activities, including risks relating to permitting and regulatory delays, uncertainties inherent in the estimation of lithium resources, risks related to competition, as well as other uncertainties and risk factors set out in filings made from time to time with the Australian Stock Exchange and the U.S. Securities and Exchange Commission, including our most recent Form 20-F. Actual events, results, performance and achievements could vary significantly from the estimates presented in this presentation. Readers are cautioned not to put undue reliance on forward-looking statements. We disclaim any intent or obligation to update publicly such forward-looking statements, whether as a result of new information, future events or otherwise. Additionally, we undertake 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.

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

The information contained in this presentation has been prepared in accordance with the requirements of the securities laws in effect in Australia, which differ from the requirements of U.S. securities laws. The terms "mineral resource", "measured mineral resource", "indicated mineral resource" and "inferred mineral resource" are Australian terms defined in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code"). However, these terms are not defined in Industry Guide 7 ("SEC Industry Guide 7") under the U.S. Securities Act of 1933, as amended (the "U.S. Securities Act"), and are normally not permitted to be used in reports and filings with the U.S. Securities and Exchange Commission ("SEC"). Accordingly, information contained herein that describes Piedmont's mineral deposits may not be 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 closely the disclosure in Piedmont's Form 20-F, a copy of which may be obtained from Piedmont or from the EDGAR system on the SEC's website at <http://www.sec.gov/>.

## Competent Persons Statements

The information in this presentation that relates to Exploration Results, Exploration Targets, Mineral Resources, Metallurgical Testwork Results, Process Design, Process Plant Capital Costs, and Process Plant Operating Costs, Mining Engineering and Mining Schedule was extracted from our ASX announcement dated August 7, 2019 entitled "Updated Scoping Study Extends Project Life and Enhances Exceptional Economics" which is available to view on the Company's website at [www.piedmontlithium.com](http://www.piedmontlithium.com) 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 ASX announcements; b) all material assumptions and technical parameters underpinning Mineral Resources, Exploration Targets, Production Targets, and related forecast financial information derived from Production Targets included in the original ASX announcements 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 announcements.

## Exploration Target

The Exploration Target is based on the actual results of Piedmont's previous drill programs. To determine potential tonnage and grade ranges at the deposit, Li<sub>2</sub>O assay values and density values from drilling have been applied to the volume estimates. A density value of 2.71 g/cm<sup>3</sup> is applied to derive tonnage values. Using this methodology an Exploration Target of between 4.0 to 4.5 million tonnes at a grade of between 1.10% and 1.20% Li<sub>2</sub>O is approximated for the Core property and an Exploration Target of between 2.0 to 2.5 million tonnes at a grade of between 1.1% and 1.3% Li<sub>2</sub>O is approximated for the Central property. The potential quantity and grade of this Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.



# Piedmont Lithium Limited

## A Clean Energy Company

Corporate Presentation – February 2020

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*This presentation has been authorised for release by the Company's President & CEO, Keith D. Phillips*

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