

**17 October 2019**

## **INVESTOR PRESENTATION 121 MINING INVESTMENT CONFERENCE**

Hawkstone Mining Limited (ASX:HWK) ("Hawkstone", the "Company") is pleased to present an updated Investor Presentation for October 2019. The document will be presented to investors and brokers in New York for the 121 Mining Investment Conference on 17 and 18 October 2019.

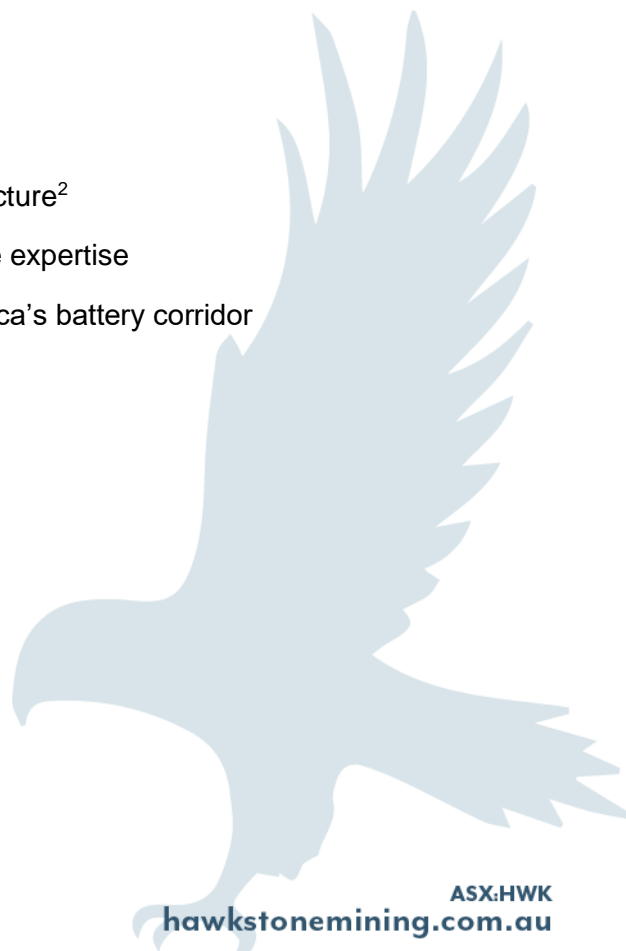
### **Investment highlights include:**

- **Maiden JORC resource announced September 2019**
- **Total Indicated and Inferred Resources of 32.5 Million Tonnes (Mt) grading 1,850 parts per million (ppm) Li or 320,800 tonnes Lithium Carbonate**
- **Equivalent (LCE), reported above an 800 ppm Li cut-off.**
- **The high grade zone of the JORC Resource comprises 49% of the resource at 2,380ppm with a cut off of 2,000 ppm**
- **Underexplored with Only 4% of the 100% owned 25km<sup>2</sup> Big Sandy Project drilled**
- **Further drilling planned targeting Blocks B and C in the Northern Mineralised Zone, which remains open to the north, south and west**
- **Peak Lithium value – 4,380ppm Li**
- **Proven leaching concept and recovery process<sup>1</sup>**
- **Arizona Top 10 global mining location, excellent infrastructure<sup>2</sup>**
- **Recently strengthened Board with technical and finance expertise**
- **Capturing battery demand strategically located in America's battery corridor**

### **FOR FURTHER INFORMATION PLEASE CONTACT:**

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## ABOUT HAWKSTONE

Hawkstone's 100% owned Big Sandy and Lordsburg Projects (Figure 1) are located within the United States **Battery Corridor**, which includes Tesla Motors (NASDAQ:TSLA) Gigafactory 1, a lithium-ion battery and electric vehicle subassembly factory near Reno, Nevada.

The Company's flagship Big Sandy project is located some 2.5 hours' drive northwest of the state capital Phoenix, with access to world-class infrastructure including rail, road and grid power. The project is connected through the Interstate Highway System (I40) and cross-country Route 66, which both pass through the town of Kingman, 87km northeast of Big Sandy.

Kingman is located on the Southern Transcon route of the BNSF Railway, the main transcontinental route between Los Angeles and Chicago.

Big Sandy's 25.2km<sup>2</sup> project area contains an 11km-long lithium horizon with simple geology, lithium mineralisation from surface to a depth of 110m and a current Exploration Target of **280.1Mt - 492.6Mt at 1,000 - >2,000ppm Li<sup>1</sup>**. (Note that 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 whether future exploration will result in the definition of a mineral resource).

Arizona is a top 10 global mining investment destination<sup>2</sup> with the Big Sandy Project located within an area that has recently been designated as an economic opportunity zone<sup>3</sup>, allowing companies to access tax concessions from state and federal authorities. Big Sandy's prospectivity is also bolstered by the recent designation of lithium by the US Commerce Department as a mineral deemed critical to U.S. national security and the economy by the US Federal Government<sup>4</sup>.

<sup>1</sup> ASX Announcement - BIG SANDY PROJECT – LITHIUM EXPLORATION TARGET  
<https://www.asx.com.au/asxpdf/20190328/pdf/443tym6c5wl88s.pdf>

<sup>2</sup> Frasier Institute – 2018 Survey of Mining Companies  
<https://www.fraserinstitute.org/sites/default/files/annual-survey-of-mining-companies-2018.pdf>

<sup>3</sup> ARIZONA COMMERCE AUTHORITY - OPPORTUNITY ZONES  
<https://www.azcommerce.com/arizona-opportunity-zones/>

<sup>4</sup> Interior's U.S. Geological Survey - list of critical minerals  
<https://www.usgs.gov/news/interior-releases-2018-s-final-list-35-minerals-deemed-critical-us-national-security-and>





**HAWKSTONE**  
MINING

# DEVELOPING A LOW-COST LITHIUM PROJECT IN AMERICA'S BATTERY CORRIDOR

INVESTOR PRESENTATION OCTOBER 2019





# DISCLAIMER

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This presentation is not a prospectus nor an offer of securities for subscription or sale in any jurisdiction nor a securities recommendation. The information in this presentation is an overview and does not contain all information necessary for investment decisions. In making investment decisions, investors should rely on their own examination of Hawkstone Mining Limited (Company) and consult with their own legal, tax, business and/or financial advisers in connection with any acquisition of securities or interest in the Big Sandy and Lordsburg Lithium Projects. The information contained in this presentation has been prepared in good faith by the Company. However, no representation or warranty, express or implied, is made as to the completeness or adequacy of any statements, estimates, opinions or other information contained in this presentation. To the maximum extent permitted by law, the Company, its directors, officers, employees and agents disclaim liability for any loss or damage which may be suffered by any person through the use of, or reliance on, anything contained in or omitted from this presentation. Certain information in this presentation refers to the intentions of the Company, but these are not intended to be forecasts, forward looking statements, or statements about future matters for the purposes of the Corporations Act 2001 (Cth) or any other applicable law. The occurrence of events in the future are subject to risks, uncertainties and other factors that may the Company's actual results, performance or achievements to differ from those referred to in this presentation to occur as contemplated. The presentation contains only a synopsis of more detailed information available in relation to the matters described in this document and accordingly no reliance may be placed for any purpose whatsoever on the sufficiency or completeness of such information and to do so could potentially expose you to a significant risk of losing any of the property invested by you or incurring by you of additional liability. Recipients of this presentation should conduct their

own investigation, evaluation and analysis of the business, data and property described in this presentation. In particular, any estimates or projections or opinions contained herein necessarily involve significant elements of subjective judgment, analysis and assumptions and you should satisfy yourself in relation to such matters.

## COMPETENT PERSON STATEMENT

The information in this report that relates to exploration results and exploration targets is based on and fairly represents information compiled by Mr Greg Smith, a Competent Person whom is a Member of the Australasian Institute of Mining and Metallurgy. Mr Smith is the Company's Chief Technical Officer and holds securities in the Company. Mr Smith has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Smith consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

All parties have consented to the inclusion of their work for the purposes of this presentation. The interpretations and conclusions reached in this presentation are based on current geological theory and the best evidence available to the author at the time of writing. It is the nature of all scientific conclusions that they are founded on an assessment of probabilities and, however high these probabilities might be, they make no claim for absolute certainty. Any economic decisions which might be taken on the basis of interpretations or conclusions contained in this presentation will therefore carry an element of risk.



# OVERVIEW

## CORPORATE SNAPSHOT



**\$8.396m**

Market Cap at A\$0.011

**815.3m**

Shares on Issue

Hawkstone Mining Limited (ASX: HWK) is an ASX listed company focused primarily on the development of a low-cost lithium project in America's battery corridor. The Big Sandy Project is located on interstate I93 between Phoenix and Las Vegas and comprises 311 Bureau of Land Management (BLM) claims in Arizona, covering approximately 25km<sup>2</sup>.

**Hawkstone has rapidly de-risked the Big Sandy lithium project by fast tracking to a JORC Estimated Resource in September 2019, only 14 months after the first drill program commenced.**





# BIG SANDY'S BIG POTENTIAL

## DEVELOPING A LOW-COST LITHIUM PROJECT

**Maiden JORC resource announced September 2019**

**Total Indicated and Inferred Resources of 32.5 Million Tonnes (Mt) grading 1,850 parts per million (ppm) Li or 320,800 tonnes Lithium Carbonate Equivalent (LCE), reported above an 800 ppm Li cut-off.**

**The high grade zone of the JORC Resource comprises 49% of the resource at 2,380ppm with a cut off of 2,000 ppm**

**Underexplored with Only 4% of the 100% owned 25km<sup>2</sup> Big Sandy Project drilled**

**Further drilling planned targeting Blocks B and C in the Northern Mineralised Zone, which remains open to the north, south and west**

**Peak Lithium value – 4,380ppm Li**

**Proven leaching concept and recovery process<sup>1</sup>**

**Arizona Top 10 global mining location, excellent infrastructure<sup>2</sup>**

**Recently strengthened Board with technical and finance expertise**

**Capturing battery demand strategically located in America's battery corridor**



<sup>1</sup> ASX Announcement 29/11/18 – Preliminary metallurgical test work proves highly successful at Big Sandy Lithium Project  
<sup>2</sup> Fraser Institute – Annual survey of mining companies 2018



# BIG SANDY MAIDEN MINERAL RESOURCE

320,800 TONNES LITHIUM CARBONATE EQUIVALENT (LCE)

## 320,800

Tonnes Lithium Carbonate  
Equivalent (LCE)

## 14 Months

JORC Resource delivered 14  
months after first drilling

## 4%

Of Big Sandy has been drilled

- Maiden Mineral Resource delivered 14 months after first drilling commenced at Big Sandy, in line with the Company's rapid de-risking strategy.
- Excellent potential to further expand the size of the Mineral Resource with further drilling planned targeting Blocks B and C in the Northern Mineralised Zone, which remains open to the north, south and west.
- Total Resource tonnes are in the range reported in the Exploration Target.
- Phoenix based engineer appointed to commence an examination of the key development elements leading to the commencement of a pre-feasibility study.



# BIG SANDY MAIDEN MINERAL RESOURCE

320,800 TONNES LITHIUM CARBONATE EQUIVALENT (LCE)

The Total Indicated and Inferred Resources were for a total 32.5 Million Tonnes (Mt) grading 1,850 parts per million (ppm) Li or 320,800 tonnes Lithium Carbonate Equivalent (LCE), reported above an 800 ppm Li cut-off.

Table 1 – Big Sandy Project Mineral Resource Statement (above 800 ppm Li cut-off)

Resource Classification	Tonnes (Mt)	Li Grade(ppm)	Contained Li Metal (t)	Contained LCE (t)
Indicated	14.6	1,940	28,400	150,900
Inferred	17.9	1,780	31,900	169,900
Total	32.5	1,850	60,300	320,800

The Resource also included a higher-grade zone of 12.7 Mt grading 2,360 ppm Li above a cut-off of 2,000 ppm Li for 159,500 tonnes LCE, representing 49% of the total contained LCE.

Table 2 – Big Sandy Project Mineral Resource Statement (above 2,000 ppm Li cut-off)

Resource Classification	Tonnes (Mt)	Li Grade(ppm)	Contained Li Metal (t)	Contained LCE (t)
Indicated	6.4	2,330	15,000	79,800
Inferred	6.3	2,390	15,000	79,800
Total	12.7	2,360	30,000	159,500

The calculation of the maiden resource from a limited number of tightly spaced drill holes, comprising only 4% of the Big Sandy project area, highlighting the size and potential of this world class lithium resource.

NB: Numbers may not add up due to rounding



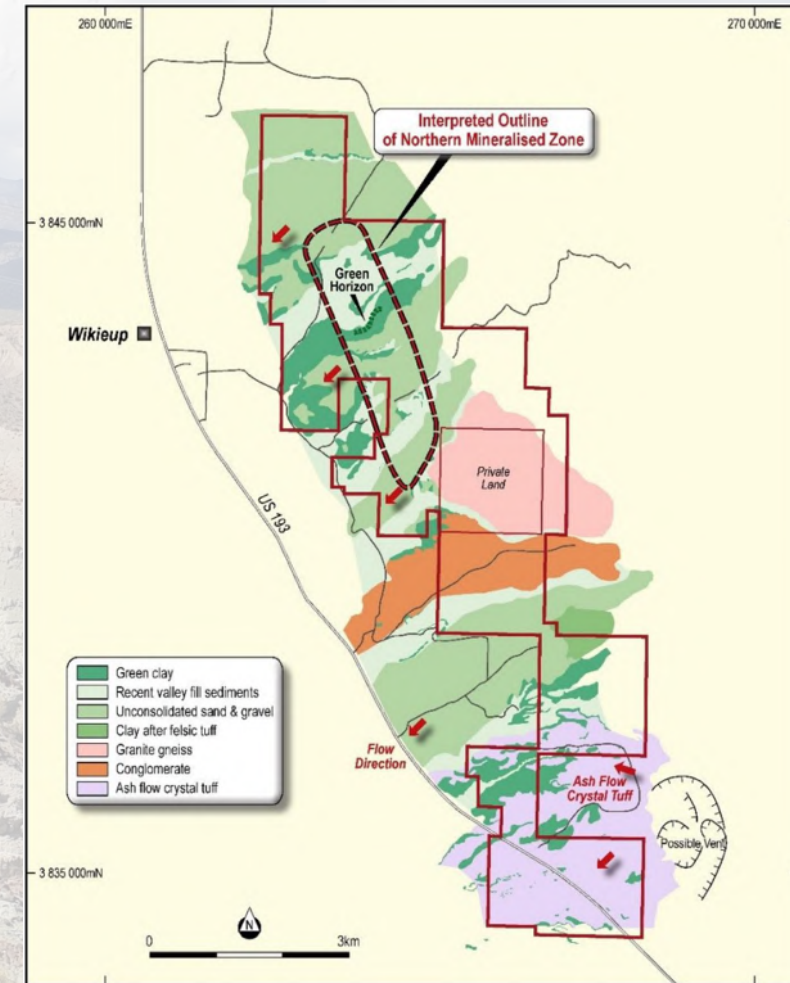
# FURTHER DRILING PLANNED

## MINERALISATION REMAINS OPEN TO THE NORTH, SOUTH & WEST

- Further drilling is planned for Blocks B and C in the Northern Mineralised Zone (NMZ), as well as Block 1 in the Southern Mineralised Zone (SMZ)
- The calculation of the maiden Resource represents a mere 4% of the landholding at the Big Sandy Lithium project

**"A stage 3 drilling program is planned for 2020 with the objective of converting the current reported Exploration Targets. This drilling will target Blocks B and C in the Northern Mineralised Zone as we continue to develop the Big Sandy Lithium Project."**

**Paul Lloyd**  
Managing Director



Northern Mineralised Zone, Geology, Blocks and Drilling



# AN EXPERIENCED TEAM WITH A PROVEN TRACK RECORD

## THE TEAM



### **PAUL LLOYD** - Managing Director

Paul is a Chartered Accountant with over 30 years' commercial experience and operates his own corporate consulting business, specialising in the area of corporate, financial and management advisory services. After commencing his career with an international accounting firm, he was employed for approximately 10 years as the General Manager of Finance for a Western Australian based international drilling contractor working extensively in Asia and Africa. Paul has been responsible for a number of IPOs, RTOs, project acquisitions and capital raisings for ASX listed public companies.



### **BARNABY EGERTON-WARBURTON** - Non-Executive Chairman

Barnaby has over 20 years of trading, investment banking, international investment and market experience with positions at JP Morgan, BNP Equities (New York) and Prudential Securities (New York). An experienced investment banker and corporate advisor, having held managing director and non-executive director positions in the investment banking, oil & gas and resource sectors. He holds a degree in economics, is a graduate of the Australian Institute of Company Directors, and a member of the American Association of Petroleum Geologists.

## US BASED MANAGEMENT



### **DR. DAVID DEAK** – Advisor

Dr. David Deak is an engineer and built his career on emerging technologies and supply chain development in renewable energy, energy storage, and electric vehicles. Formerly, he held the role of Senior Development Engineer at Tesla Motors Inc., where he oversaw special supply chain projects and battery engineering programs. Dr. Deak has also served as Chief Technical Officer at Lithium America's Corp (Market Cap AU\$485M+). Dr Deak holds a D.Phil. in Materials Science from Oxford University and a B.A.Sc. in Engineering Science from the University of Toronto.



### **J.D (DOUG) PITTS** – US General Manager

J.D is currently CEO of Pitts and Associates and since 2016, he has been an Adjunct Professor for the Entrepreneurship Program at Grand Canyon University. He was formerly CEO of Frontier Applied Sciences, an Arizona-based startup for a clean-fuels from coal technology. From 2008 to 2012, he served as Chief Industrial Officer for AREVA and was President of Parsons Latin America, Vice President of Bechtel Group, Executive Vice President of Molten Metal Technology, project manager with Asarco, Inc./Mt. Isa Mines Ltd., and a research engineer with Hazen Research. He holds an Engineering degree in chemical and metallurgical engineering from the Colorado School of Mines and an MBA from Golden Gate University.



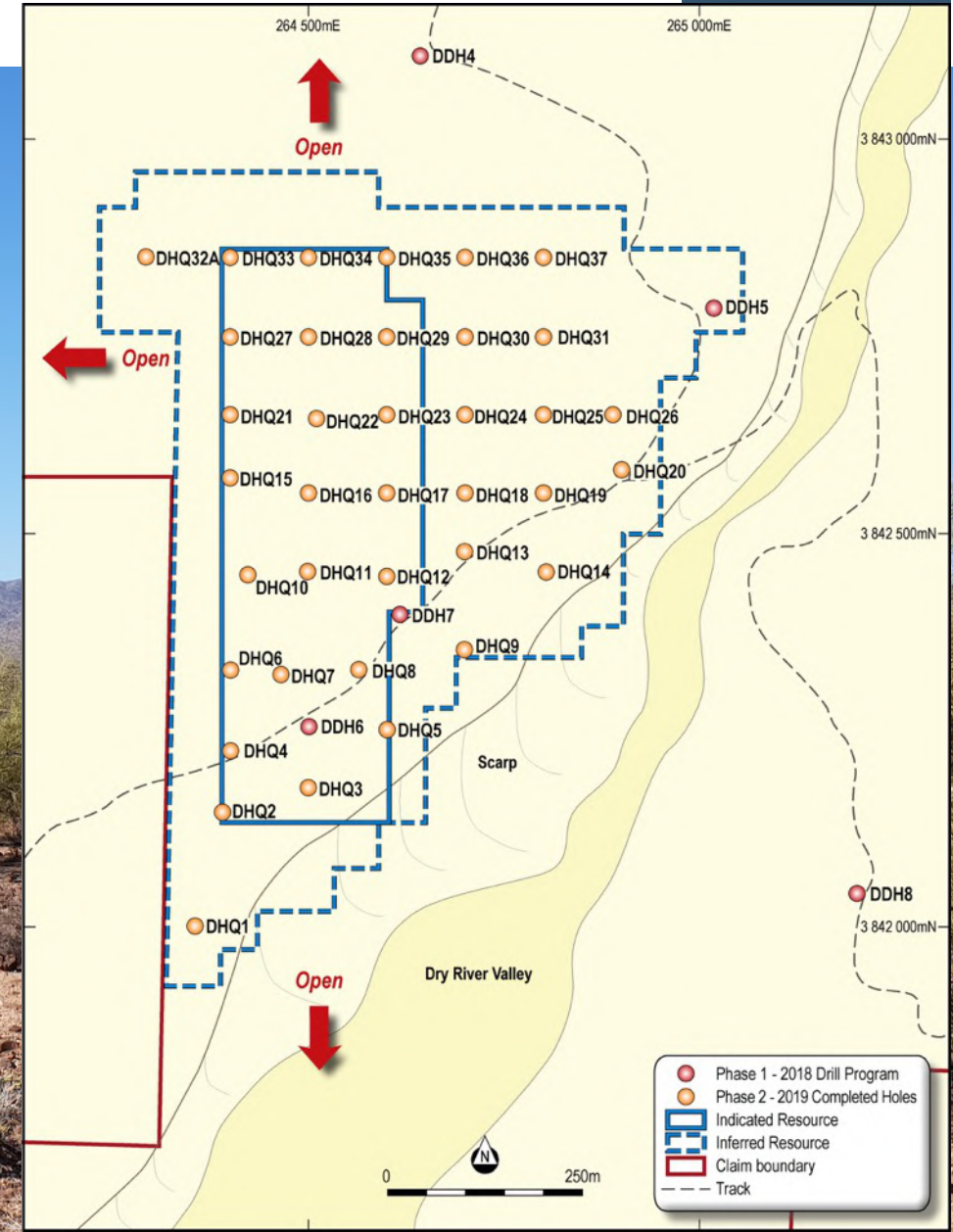
# BIG SANDY'S RESOURCE DRILLING

## Diamond Drilling at Big Sandy

**Hawkstone recently completed a 37 hole diamond drilling program for 3,700m at Big Sandy with best results including<sup>2</sup>**

54.0m @ 2,041 ppm Li from 10.0m to 64.0m  
34.0m @ 1,941 ppm Li from 32.0m to 66.0m  
36.0m @ 1,892 ppm Li from 31.0m to 67.0m  
44.0m @ 2,040 ppm Li from 12.0m to 56.0m  
52.0m @ 1,953 ppm Li from 11.0m to 63.0m  
47.0m @ 2,130 ppm Li from 12.0m to 59.0m

- Aim of programme to identify sufficient resources to enable commencement of PFS (+20Mt)





**The Big Sandy project  
offers a compelling  
opportunity in lithium  
exploration and  
project development.**



**Dr. David Deak**  
Advisor and Global Lithium Expert

**"There is potential here for a world-class project that is scalable and accessible to the market. The progress being made with select engineering partners on early-stage hydrometallurgical process testing is encouraging. Big Sandy is in an attractive location within Arizona that intersects critical infrastructure, and is very close to industry resources as well as the major population centres of Las Vegas and Phoenix."**



# BIG SANDY'S 11KM-LONG LITHIUM HORIZON



**Paul Lloyd**  
Managing Director

**We look forward to creating significant shareholder value as the project continues to develop.**

**“After staking the Big Sandy project ground three and a half years ago based on a geological interpretation, we have aggressively advanced the project through exploration that is both targeted and cost effective. With mineralisation remaining open to the north, south and west, the project potential is huge.”**





# BIG SANDY'S EXPLORATION

Exploration Target: 280.1Mt - 492.6Mt

## Growing exploration target

- 15% increase in the Exploration Target potential as announced 28 August 2019
- Further drilling is planned for Blocks B and C in the Northern Mineralised Zone (NMZ), as well as Block 1 in the Southern Mineralised Zone (SMZ)

ZONE	RESOURCE BLOCK	GRADE RANGE LI PPM	THICKNESS LOWER (M)	THICKNESS UPPER (M)	LOWER (TONNES)	UPPER (TONNES)
North	A	1,000 → 2,000	30	50	21,600,000	36,000,000
North	B	1,000 → 2,000	40	60	82,800,000	124,200,000
North	C	1,000 → 2,000	15	25	27,000,000	45,000,000
North	D	1,000 → 2,000	30	50	27,000,000	45,000,000
South	SMZ 1	1,000 → 1,500	30	60	83,700,000	167,400,000
South	SMZ 2	1,000 → 1,500	30	60	38,000,000	75,000,000
<b>TOTAL</b>		1,000 → 2,000			<b>280,100,000</b>	<b>492,600,000</b>

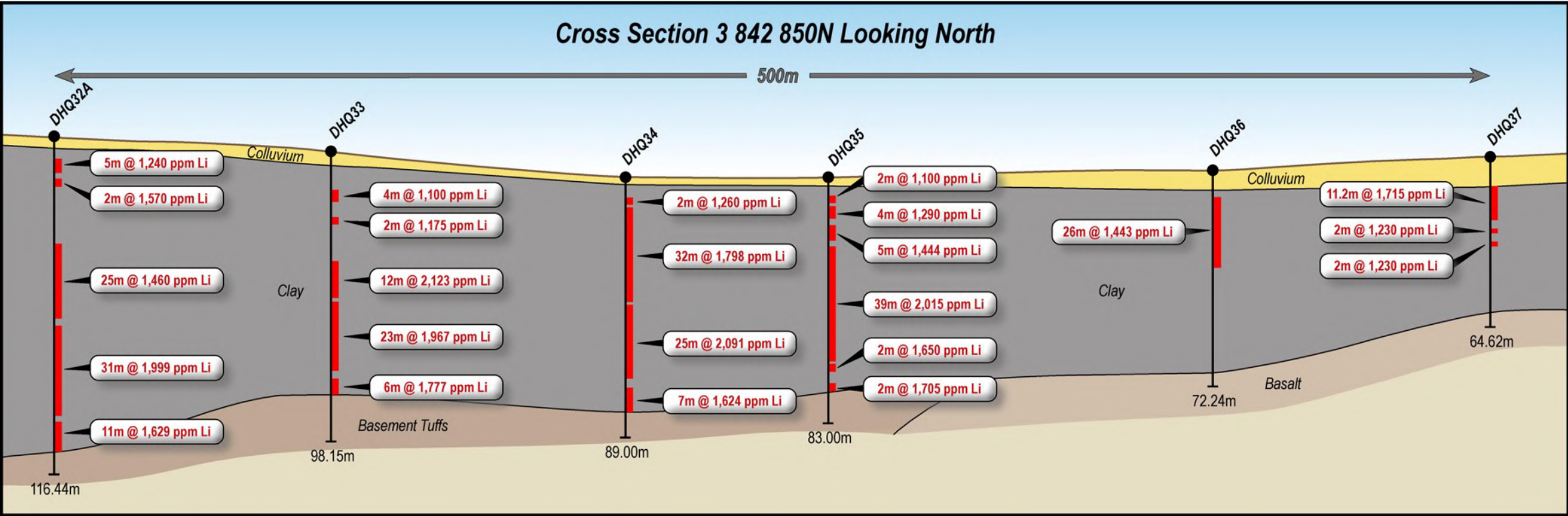
*Note that the potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a mineral resource and it is uncertain if future exploration will result in the definition of a mineral resource.*

*The Exploration Target has been estimated using a range of thicknesses for the mineralised sediments calculated from drill intercepts, surface sampling and geological mapping. The grade estimates a range of values demonstrated from drilling and surface sampling.*

*Considerable exploration has been completed on the Big Sandy Lithium Project in the form of geological mapping, surface sampling and a Phase 1 drilling program, enabling the definition of the Northern Mineralised Zone, as well as an area in the southern claim area that contains large areas of flat lying lithium bearing lacustrine sediments. This data has been used in the estimation of an Exploration Target for the Big Sandy Project. The Company has already commenced testing the target via a 37-hole diamond drill program (see ASX announcement dated 21 February 2019). This program follows the successful maiden drilling program (see ASX announcement dated 13 November 2018) which confirmed lithium mineralisation across the project area. All 37 holes have been completed and the results of all holes have been announced as per ASX releases dated 4 April 2019, 29 April 2019, 6 May 2019, 14 May 2019, 23 May 2019, 27 June 2019, 10 July 2019, 23 July 2019 and 14 August 2019.*



# BIG SANDY RESOURCE DRILLING





**The U.S. investment community has a strong appetite for this type of project and we look forward to advancing Big Sandy over the coming months.**



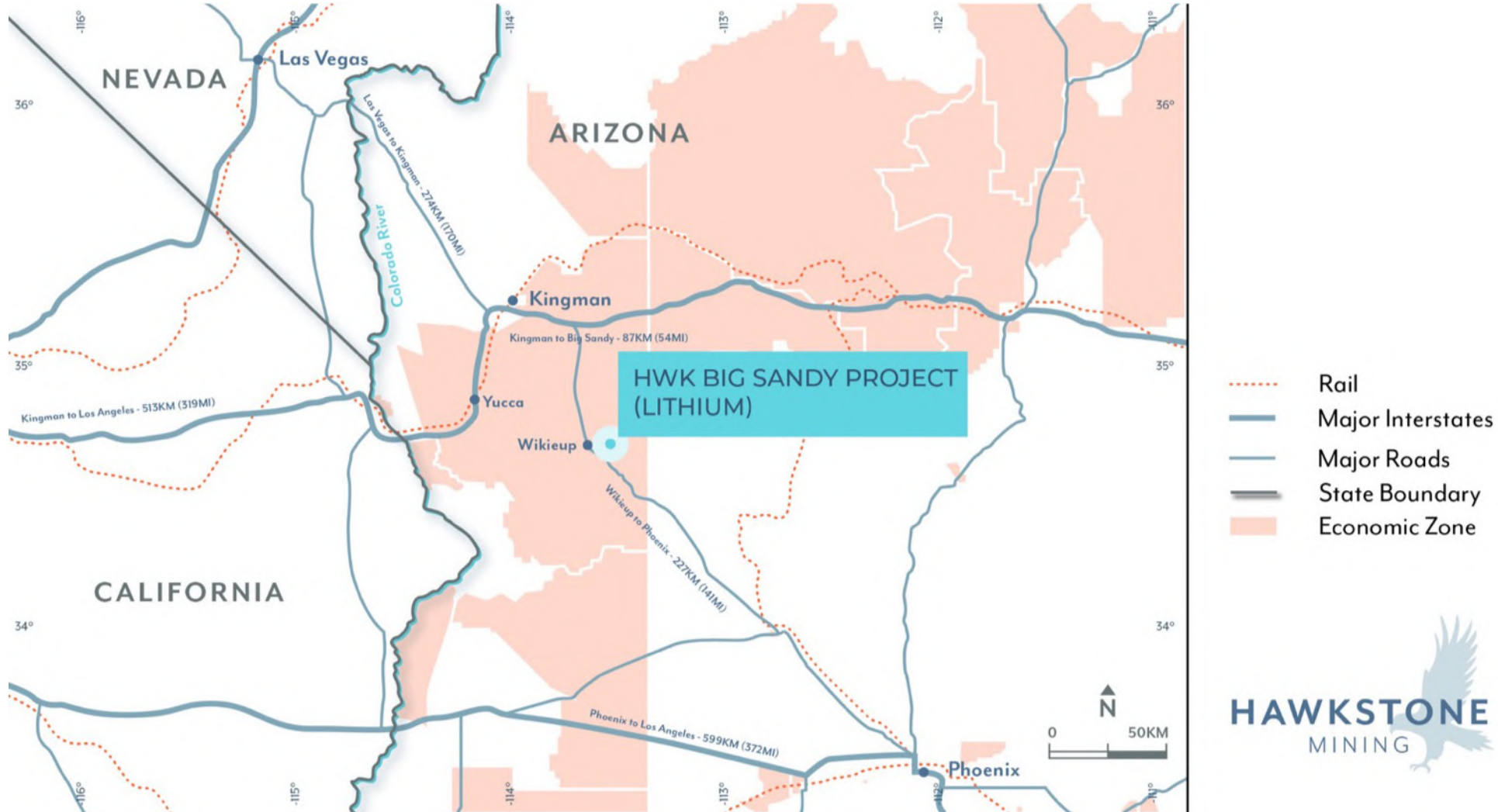
**Barnaby  
Egerton-Warburton**  
Non-Executive Chairman

**“Based on my experience with other U.S. sedimentary Lithium projects, I was immediately attracted to the Big Sandy project because of its potential to become a significant player in the evolving lithium industry and the EV revolution.”**



# REGIONAL INFRASTRUCTURE

WORLD CLASS INFRASTRUCTURE ON OUR DOOR STEP





# ACCELERATING THE BIG SANDY LITHIUM PROJECT

PHASE 2 DRILLING COMPLETE – NEXT STEPS FOR FY2020

## NEWS FLOW CATALYSTS

	Q2	Q3	Q4
JORC Estimated Resource			
Further strengthen Board			
U.S. investor roadshow			
Additional groundwork			
Appoint engineers to build pilot plant & design flow sheet			
Commence PFS			
Drilling Areas B & C			



# WHY LITHIUM SEDIMENTARY

## BENDING THE LITHIUM COST CURVE

### Industry leading lithium-sedimentary peer advantages

- Open-pittable, low-cost mining
- Low stripping ratio
- Little requirement for crushing/grinding
- Scale to support long mine life

#### LITHIUM DEPOSIT TYPES

	Estimated Cash Costs ( $\text{Li}_2\text{CO}_3$ )	Mine Product	Typical Grade	Production Steps
<b>SEDIMENTARY</b>	~ \$4,000 / tonne <sup>1</sup>	Lithium Carbonate/Hydroxide	1,000-3,000 ppm Li	Mining Acid Leaching Evaporation Crystallization
<b>BRINE</b>	\$2,500 - \$4,000/ tonne <sup>1</sup>	Lithium Carbonate ( $\text{Li}_2\text{CO}_3$ )	500-1,000 ppm Li	Pumping of Brine Evaporation Crystallization
<b>HARDROCK</b>	\$6,000 / tonne <sup>1</sup>	Spodumene Concentrate (6% $\text{Li}_2\text{O}$ )	4,500-7,000 ppm Li	Mining Crushing and Grinding Roasting Acidification



# PROVEN LITHIUM EXTRACTION METHOD

## INITIAL TESTING - HIGH RECOVERY

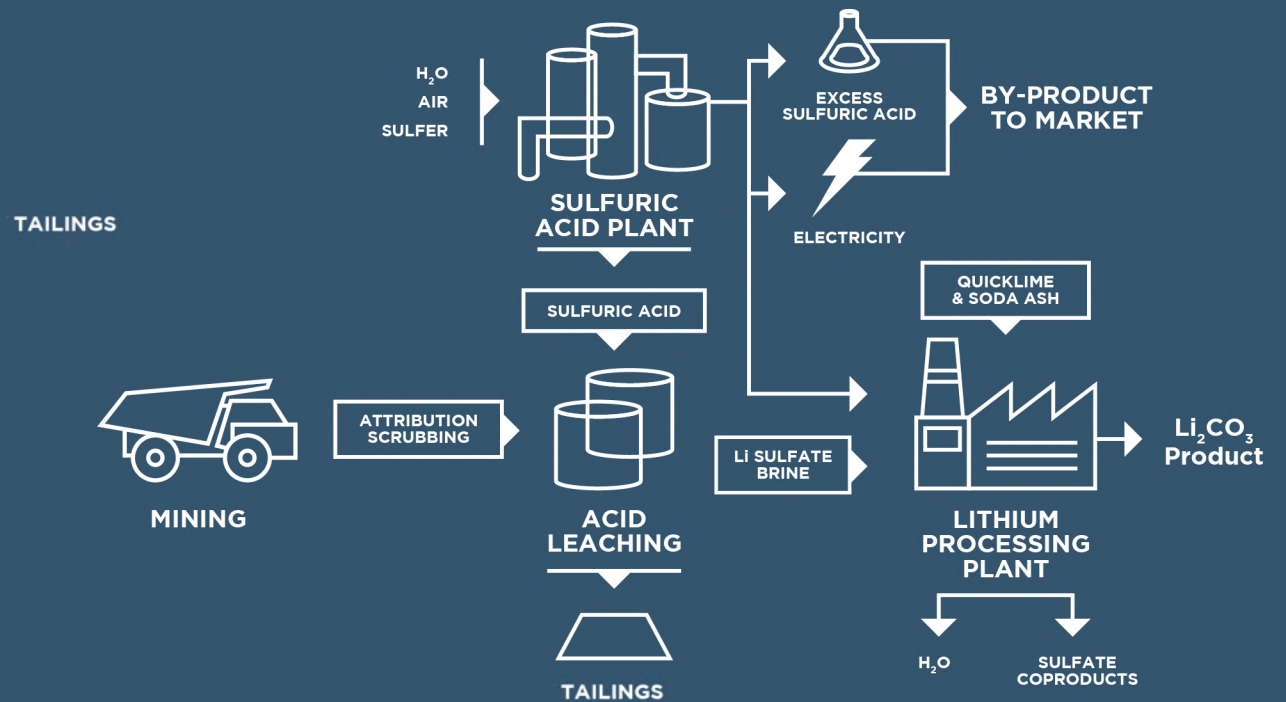
### Initial metallurgical test work

- Amenable to sulfuric acid lithium extraction
- Recovery 93% lithium within 2 hours
- Technology partners have completed similar test work on peer project

### Future Lithium Processing Plant

- Decision to mine includes lithium plant
- First-class infrastructure (roads, power, labour)
- Highly-skilled technology partners

### TRADITIONAL LITHIUM EXTRACTION PROCESS



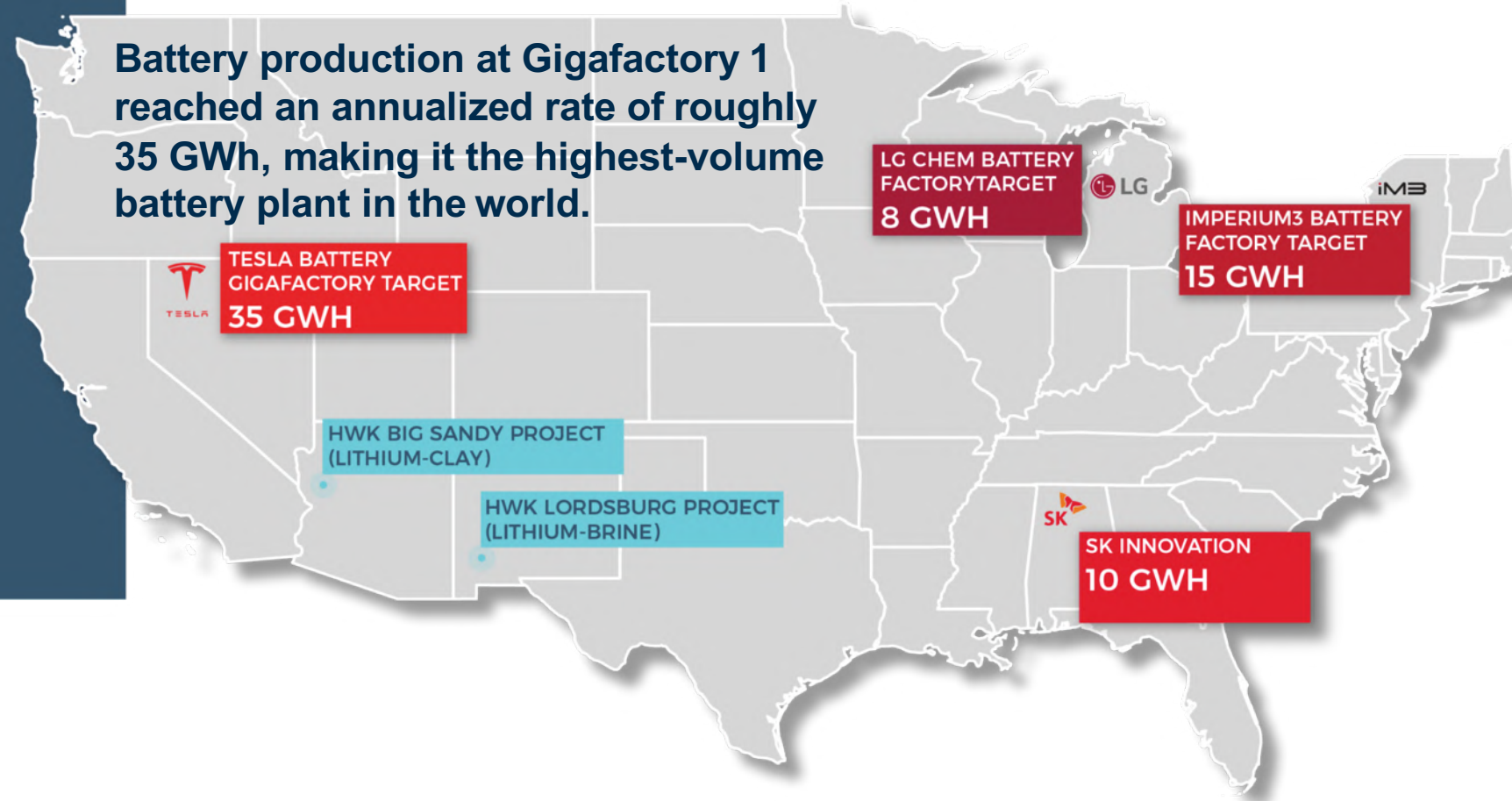


# US GOVERNMENT - LITHIUM AS A “CRITICAL MINERAL”

USA **favours** domestic sources of Lithium across the supply chain<sup>1</sup> to reduce the **Chinese dominance of this strategic commodity**.

Lithium serves an essential function in the manufacturing of lithium-ion batteries

Tesla, LG, SKI, Imperium3 manufacturing lithium-ion batteries in the USA



<sup>1</sup>Source: Office of the Federal Register - EXECUTIVE ORDER 13817



# LITHIUM IN THE UNITED STATES

## BREAKING CHINA'S CONTROL OF THE LITHIUM SUPPLY CHAIN

- In early 2019 there were 316 gigawatt-hours (GWh) of global lithium cell manufacturing capacity. China is home to 73% of this capacity, followed by the U.S., far behind in second place with 12% of global capacity.
- The development of the Big Sandy project will assist in the U.S. securing its own lithium supply amid the current trade war.

Elon Musk just said Tesla might get into the mining business to make sure it can make enough batteries for future vehicles



**"American manufacturers would be happy to use U.S.-made lithium-ion cells, but this is not realistic today. So we have to continue importing them from China."**

**OneCharge** CEO, Alex Pisarev

## Trump ratchets up tariffs on Chinese products including batteries

AUGUST 26, 2019 CHRISTIAN ROSELUND

LEGAL MARKETS POLICY CHINA UNITED STATES





# BATTERY TRANSFORMATION

BATTERIES POWER THE 4TH INDUSTRIAL REVOLUTION

## ELECTRIC VEHICLES



2017

3.1 million EVs

2030

125 million EVs

Ownership of EV's will increase by 40x in the next 13 years

Source: Visual Capitalist, The Critical Ingredients Needed to Fuel the Battery Boom

## ENERGY STORAGE



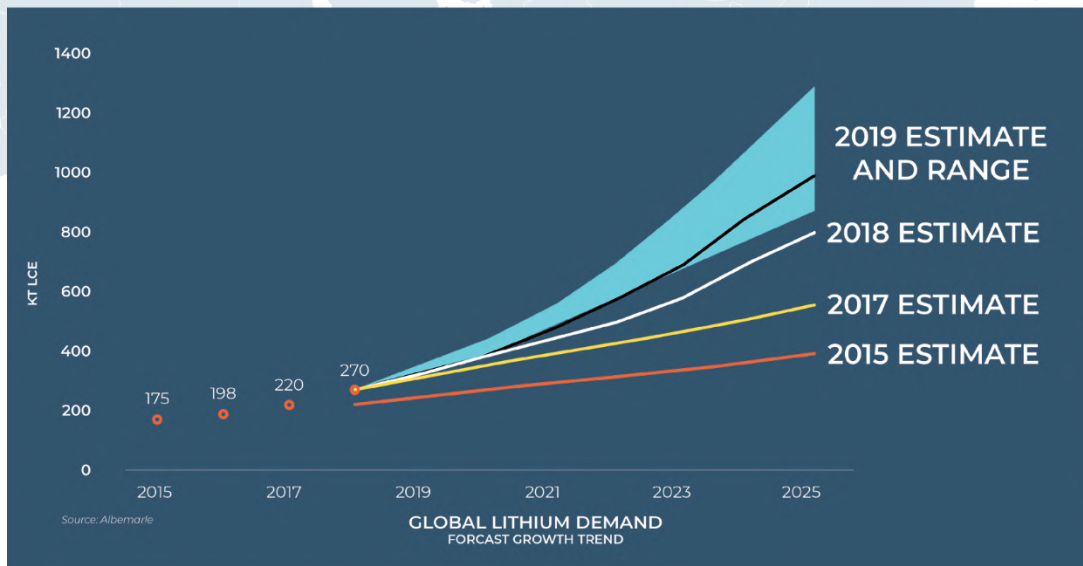
2017

\$194 billion global market

2024

\$296 billion

global market



~800/t Lithium  
Carbonate Equivalent  
is required per GWh of  
Lithium-ion batteries

Source: Roskill





**HAWKSTONE**  
MINING

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*Big Sandy - Exposed Green Clay containing lithium Mineralisation*