



# ARGOSY A NEW LITHIUM PRODUCER

ASX: AGY  
[www.argosyminerals.com.au](http://www.argosyminerals.com.au)

November 2019

# DISCLAIMER

This presentation is for information purposes only. Neither this presentation nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of shares in any jurisdiction. This presentation may not be distributed in any jurisdiction except in accordance with the legal requirements applicable in such jurisdiction. Recipients should inform themselves of the restrictions that apply in their own jurisdiction. A failure to do so may result in a violation of securities laws in such jurisdiction. This presentation does not constitute financial product advice and has been prepared without taking into account the recipient's investment objectives, financial circumstances or particular needs and the opinions and recommendations in this presentation are not intended to represent recommendations of particular investments to particular persons. Recipients should seek professional advice when deciding if an investment is appropriate. All securities transactions involve risks, which include (among others) the risk of adverse or unanticipated market, financial or political developments.

Certain statements contained in this presentation, including information as to the future financial or operating performance of Argosy Minerals Limited ("Argosy" or "AGY") and its projects, are forward-looking statements. Such forward-looking statements: are necessarily based upon a number of estimates and assumptions that, whilst considered reasonable by Argosy, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies; involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements; and may include, among other things, statements regarding targets, estimates and

assumptions in respect of metal production and prices, operating costs and results, capital expenditures, ore reserves and mineral resources and anticipated grades and recovery rates, and are or may be based on assumptions and estimates related to future technical, economic, market, political, social and other conditions. Argosy disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise. The words "believe", "expect", "anticipate", "indicate", "contemplate", "target", "plan", "intends", "continue", "budget", "estimate", "may", "will", "schedule" and other similar expressions identify forward-looking statements. All forward-looking statements made in this presentation are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein.

**Competent Person's Statement – Rincon Lithium Project:** The information contained in this ASX release relating to Exploration Results and Mineral Resource Estimates has been prepared by Mr Duncan Storey. Mr Storey is a Hydrogeologist, a Chartered Geologist and Fellow of the Geological Society of London (an RPO under JORC 2012). Mr Storey 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.

Duncan Storey is an employee of AQ2 Pty Ltd and an independent consultant to Argosy Minerals Ltd. Mr Storey consents to the inclusion in this announcement

of this information in the form and context in which it appears. The information in this announcement is an accurate representation of the available data from exploration at the Rincon Lithium Project.

The information in this report that relates to technical matters is based on information compiled by Jerko Zuvela who is the Managing Director of AGY. Mr Zuvela is a Member of the Australasian Institute of Mining and Metallurgy.

**Chemical Engineer's Statement:** The information that relates to lithium processing and test-works is based on information compiled and/or reviewed by Mr Pablo Alurralde. Mr Alurralde is a chemical engineer with a degree in Chemical Engineering from Salta National University in Argentina. Mr Alurralde has sufficient experience which is relevant to the lithium carbonate and lithium hydroxide processing and testing undertaken to evaluate the data presented.

Certain information in this presentation has been derived from third parties and though AGY has no reason to believe that it is not accurate, reliable or complete, it has not been independently audited or verified by AGY.

To the extent permitted by law, AGY and its officers, employees, related bodies corporate and agents disclaim all liability, direct, indirect or consequential (and whether or not arising out of the negligence, default or lack of care of AGY and/or any of its agents) for any loss or damage suffered by a recipient or other persons arising out of, or in connection with, any use or reliance on this presentation or information.

All amounts in A\$ unless stated otherwise.

# CAUTIONARY STATEMENTS

- The PEA is a preliminary technical and economic study of the potential viability of the Rincon Lithium Project required to reach a decision to proceed with more definitive studies (equivalent to a JORC Scoping Study). It is based on preliminary/low-level technical and economic assessments that are not sufficient to support the estimation of Ore Reserves or provide certainty that the conclusions/results of the PEA will be realised. Further exploration and evaluation work and appropriate studies are required before Argosy will be in a position to estimate any Ore Reserves or to provide any assurance of an economic development case.
- The economic analysis results should be treated as preliminary in nature and caution should be exercised in their use as a basis for assessing project feasibility. The PEA was based on material assumptions including assumptions about the availability of funding. While Argosy considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the PEA will be achieved.
- To achieve the range of proposed feasibility studies and potential mine development outcomes indicated in the PEA, additional funding will be required. Investors should note that there is no certainty that Argosy will be able to raise funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Argosy's existing shares. It is also possible that Argosy could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce Argosy's proportionate ownership of the project.
- 100% of material included in the PEA proposed mining schedules for all cases is included within Indicated Mineral Resources.
- Process and engineering works for the PEA were developed to support capital and operating estimates (and following AUSIMM Guidelines for this study level), and given the preliminary and confidential nature of the plant information, the capital cost margin of error is  $\pm 50\%$  on the 'factored cases' estimated figures and operating cost is  $\pm 35\%$ . Key assumptions that the PEA are based on are outlined in the body of this announcement. Argosy has concluded it has a reasonable basis for providing the forward-looking statements in this announcement.
- The Mineral Resources information in this report is extracted from the report entitled "Argosy Upgrades Lithium Rincon Lithium Project JORC resource" dated 13 November 2018 available at [www.argosyminerals.com.au](http://www.argosyminerals.com.au) and [www.asx.com](http://www.asx.com). Argosy confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Argosy confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.
- Given the uncertainties involved, all figures, costs, estimates quoted are approximate values and within the margin of error range expressed in the relevant sections throughout this announcement. Investors should not make any investment decisions based solely on the results of the PEA.

A photograph showing three men in an industrial environment. They are all wearing white hard hats. The man on the left is wearing a checkered shirt and looking down at a document. The man in the center is wearing a pink shirt and looking towards the right. The man on the right is wearing a teal sweater and pointing at a document on a table. The background shows industrial pipes and structures.

# Company Overview



**ARGOSY MINERALS**  
LIMITED

# INVESTMENT SNAPSHOT

## AGY SHARE PRICE PERFORMANCE (AGY:ASX)



**Average Daily  
Trading Volume:**

~3.3m shares

**Average Daily  
Trading Value:**

\$662,851

CAPITAL STRUCTURE		LISTED OPTIONS		BOARD & MANAGEMENT	
Issued shares	1,015,502,141	Issued options	39,334,670	Alexander Molyneux	Non-Executive Chairman
Share price <sup>1</sup>	A\$0.086	Exercise price	A\$0.20	Jerko Zuvela	Managing Director
Market cap <sup>1</sup>	A\$87M	Expiry date	31 March 2022	Ranko Matic	Non-Executive Director
		Code	AGYO	Mal Randall	Non-Executive Director
				Pablo Alurralde	President Puna Mining S.A.

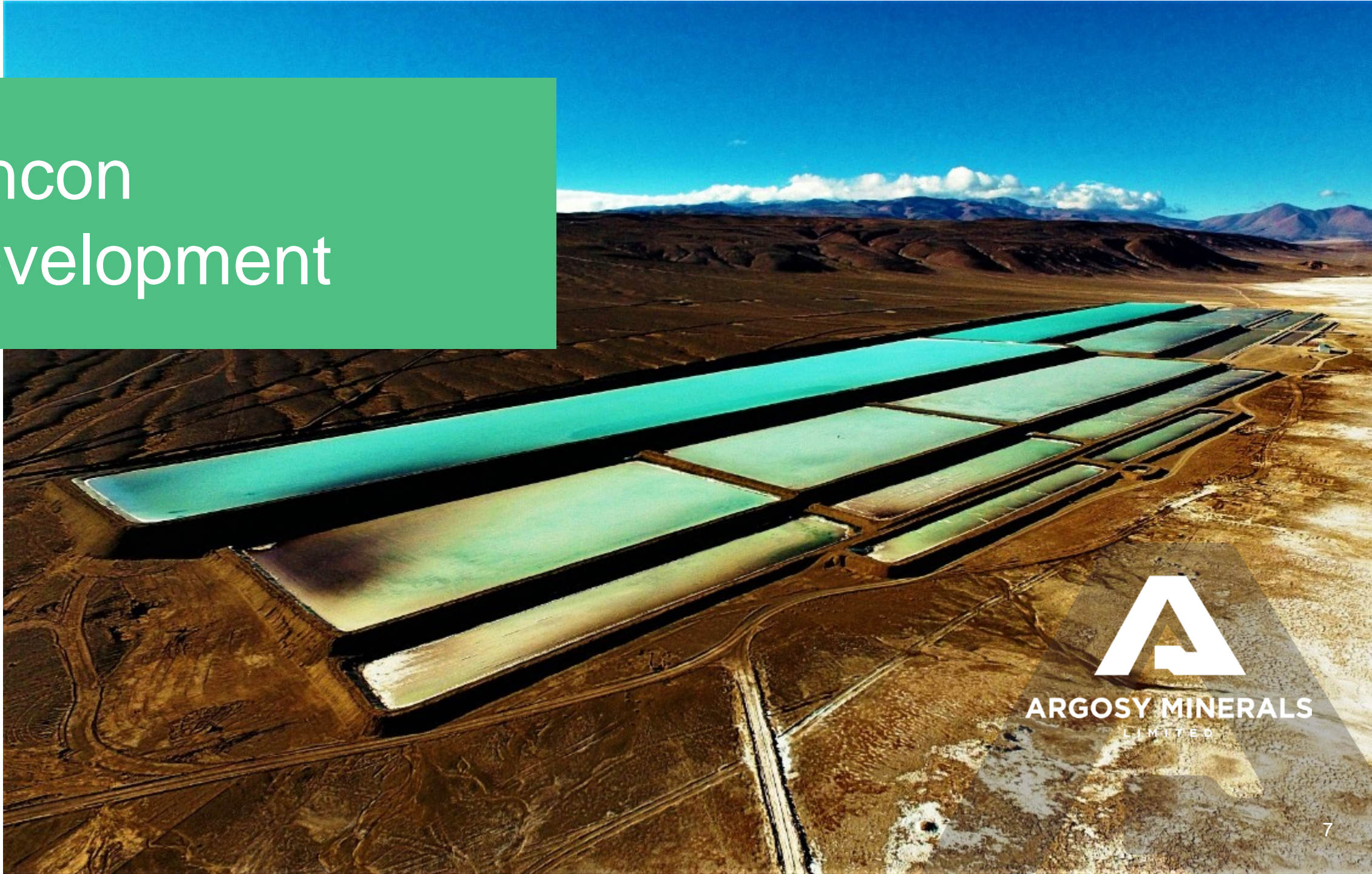
<sup>1</sup> As at 14 November 2019

# INVESTMENT HIGHLIGHTS

- Focussed on becoming the next lithium carbonate producer in South America
- Successful fast-track lithium development strategy
- Sector-leading lithium processing expertise – Pablo Alurralde +30years industry experience and 15 years for a major international lithium producer
- Established local and federal government relationships
- Extensive experience in the region with strong relationships with local services/contractors
- Exceptional PEA results with an IRR of 53%, Pre-tax NPV of US\$399m and average annual pre-tax cashflows of ~US\$74m over the life of mine
- Executed an initial off-take arrangement for up to 100tpa & non-binding HOA with Mitsubishi RtM for 2,000tpa
- Production operations from industrial-scale pilot plant
- Experienced Board and management team able to deliver on large scale development
- Acquired Tonopah Lithium Project in Nevada, USA, located near Silver Peak lithium operation owned by Albemarle



# Rincon Development



**ARGOSY MINERALS**  
LIMITED

# RINCON LITHIUM PROJECT

- ✓ Rincon Lithium Project located in the world-class “Lithium Triangle” in Salta Province, Argentina
- ✓ Argosy currently owns 77.5%, moving to 90% ownership of Puna Mining S.A. upon commercial development milestone
- ✓ One of the most advanced lithium developments in South America
  - Industrial Scale Pilot Plant commenced production operations
  - Produced  $\geq 99.5\%$  battery grade  $\text{Li}_2\text{CO}_3$  product
  - LiOH analysis works confirm 56.84% LiOH content
- ✓ PEA completed November 2018 - IRR of 53%, Pre-tax NPV of US\$399m
- ✓ JORC Resource 245,120t of LCE (to 100m depth) – 16.5 year mine life<sup>1</sup>
- ✓ Ideally located near high quality infrastructure
- ✓ Permitting approval process continuing
- ✓ Fast-track development strategy



<sup>1</sup> based on 10,000tpa LCE production scenario



# STAGED PROJECT DEVELOPMENT

## RATIONALE AND BENEFITS OF STRATEGY

### Industrial Scale Pilot Plant

- Outcome of fast-tracked development strategy
- Aim to prove chemical process solution to produce battery grade  $\text{Li}_2\text{CO}_3$  on a commercial scale - Achieved
- Confirm homogenous brine mineral chemistry within salar - Achieved
- Demonstrate ability to produce high quality battery grade product - Achieved

### ~2,000tpa LCE Plant Capacity

- 38 hectares of evaporation ponds constructed and ready to feed plant
- Shorter construction period vs commercial scale plant
- Expedite the timeline to revenue generation
- Further de-risks Project with significantly smaller capital outlay
- Reduce funding requirement for expansion to commercial scale operation

### ~10,000tpa LCE Plant Capacity

- Modular add-on to existing operation – increasing production from ~2,000tpa to ~10,000tpa LCE
- Low per tonne unit operating cost in line with Tier one peers
- Long life asset, with ability to extend via deeper drilling of salar
- Fully de-risked post operation of ~2,000tpa plant

# STAGED PROJECT DEVELOPMENT - UPDATE

## Industrial Scale Pilot Plant

- Sales Agreement executed with Mitsubishi RtM in March 2019 to sell up to 100t LCE Product
- Flexibility in the Sales Agreement to modify the terms of the contract by mutual agreement
- Product quality exceeding original expectations – up to 99.8%  $\text{Li}_2\text{CO}_3$  content
- Due to current lithium market dynamics - focus on determining ideal scale
- Industrial Scale Pilot Plant has delivered on its original goal and retains upside

## ~2,000tpa LCE Plant Capacity

- Construction period ~12-15 months
- Permitting for ~2,000tpa operation submitted
- Process plant CAPEX estimated at ~US\$15 million
- Executed non-binding HOA with Mitsubishi RtM - provides for the supply of 2,000tpa for a term of 3-years with an option to extend for a further 2-years
- Seeking to secure binding 2,000tpa offtake arrangement
- Company is in ongoing discussions with a number of capital providers for construction funding

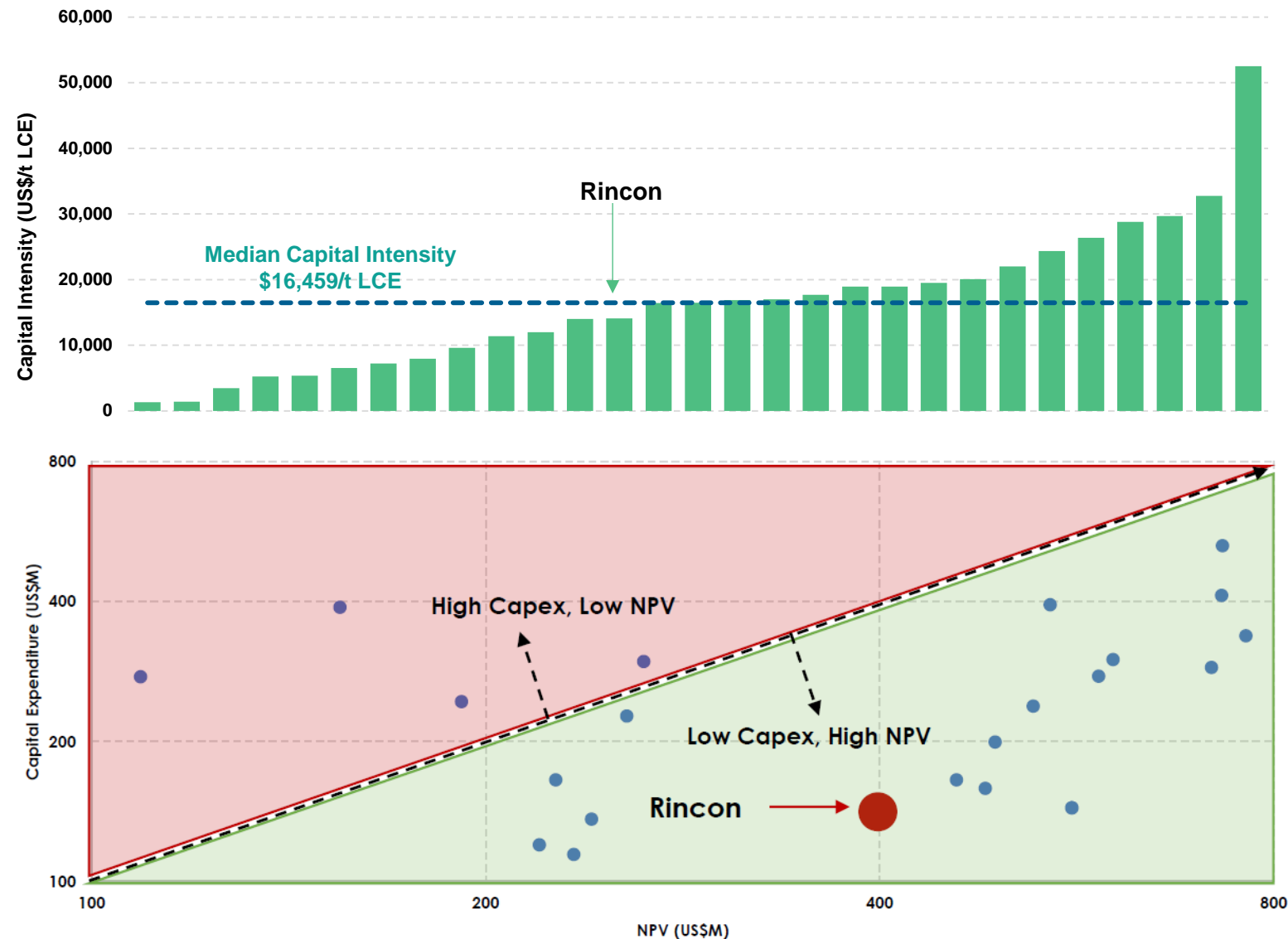
## ~10,000tpa LCE Plant Capacity

- PEA completed on base case ~10,000tpa operation (with scope for increase to 15,000tpa)
- PEA resulted in a pre-tax NPV (10% discount rate) of US\$399m and an IRR of 53%
- Forecast Capex of US\$141m including 15% contingency of US\$18.4m
- 2.1 year payback
- 16.5 year mine life, with ability to extend with deeper drilling (>100m depth)
- Total Estimated Operating Cost US\$4,645/t
- Average annual pre-tax free cash flow over life-of-mine ~US\$74m, EBITDA margin 61%
- Permitting process has begun for ~10,000tpa production operation

# RINCON PROJECT – A STAND OUT LITHIUM ASSET

## Rincon PEA delivers world-class project economics

- Low Capex and low capital intensity
- The modelled NPV is ~3x the anticipated initial capital outlay
- Strong IRR of 53% and a short payback period of 2.1 years
- Expected to fall in the lower quartiles of the global lithium cash cost curve



# RINCON PROJECT: LOCATION AND INFRASTRUCTURE

RINCON LIES CLOSE TO INFRASTRUCTURE IN SALTA PROVINCE, A PROLIFIC MINING JURISDICTION



The Project lies within Salta Province, ~3,700m ASL, serviced by city of Salta with population of ~600,000

The Puna region is known for its high evaporation rates, given UV is very high, predominant clear skies and minimal rainfall

High quality regional and site infrastructure will facilitate project development, with road, rail, port facilities

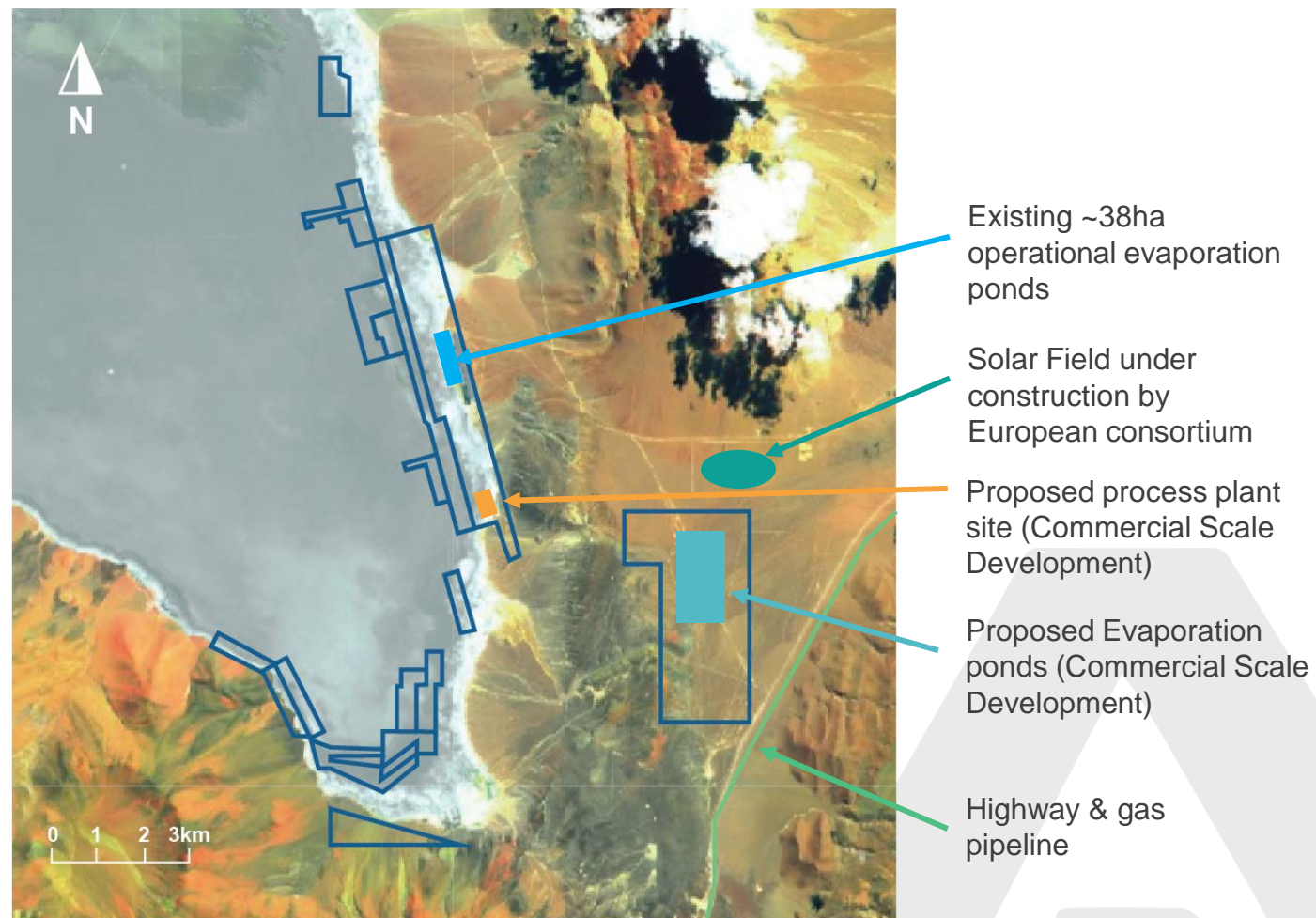
Power line adjacent to Project area with transformer approximately 7km to NE

Railway siding located at Pocitos - approximately 20km

# RINCON PROJECT: LOCATION AND INFRASTRUCTURE

RINCON LIES CLOSE TO INFRASTRUCTURE IN SALTA PROVINCE, A PROLIFIC MINING JURISDICTION

- The Project ideally located to nearby infrastructure
- Commercial scale (~300ha) evaporation ponds to be constructed ~3km from production wells and proposed process plant
- Project area located adjacent to highway and gas pipeline
- Approximately 20km NE is the industrial town of Olacapato, providing services and accommodation during construction
- New solar field currently under construction by European consortium provides option for power generation source
- An abundance of nearby potential energy sources and transport options



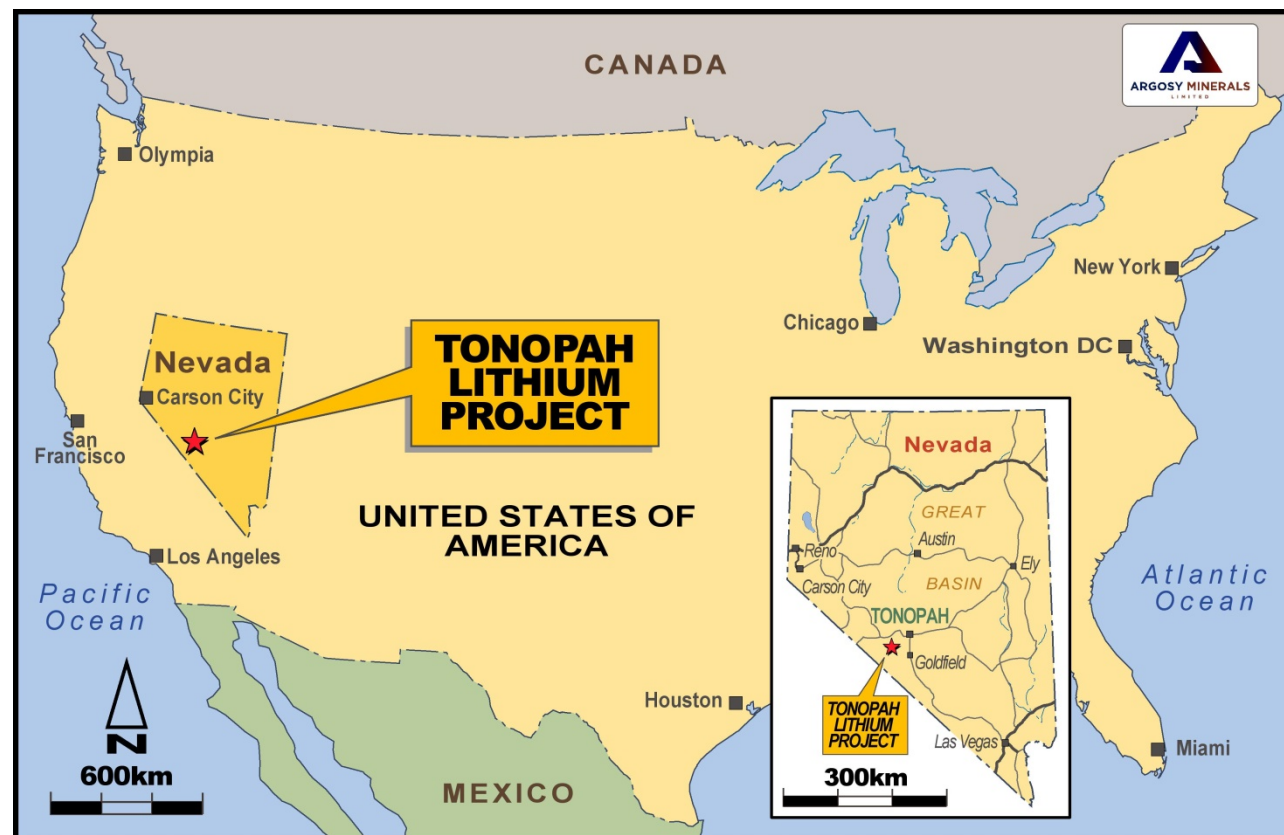
# Tonopah Development



  
**ARGOSY MINERALS**  
LIMITED

# TONOPAH PROJECT: STRATEGIC LITHIUM PROSPECT

TONOPAH IS STRATEGICALLY LOCATED IN THE LITHIUM BATTERY VALLEY



Argosy acquired the project August 2019

Project lies ~4km from Albemarle’s Silver Peak lithium brine operation – the only lithium carbonate producer in the USA (+50yrs)

Secured a strategic foothold in a world class mining jurisdiction, being ~300km from the Tesla Gigafactory

Lithium included in the USA’s list of ‘critical minerals’ and actions are being prepared to further support US lithium domestic resource development

Significant opportunity to leverage Argosy’s lithium brine processing expertise over an expanded asset base

# TONOPAH PROJECT: LOCATION AND INFRASTRUCTURE

## HIGHLY PROSPECTIVE LITHIUM PROSPECT

- The Project is located within the Big Smokey Valley region in Nevada, USA, and comprises 425 claims covering an area of ~34.25km<sup>2</sup>
- The Project is directly analogous to the neighbouring Silver Peak Lithium Mine deposit model, both geologically and structurally
- SRK completed a technical review of the Project and provided positive validation of the lithium brine resource potential
- Geophysical survey data available over the Project area, identifying lithium brine target areas
- Positive geological features - closed basin structures, with lithium bearing host rocks in an area of high evaporation
- High quality regional and site infrastructure - within a 40 minute drive from the regional mining centre of Tonopah - located 336km from Las Vegas and 380km from Reno, Nevada

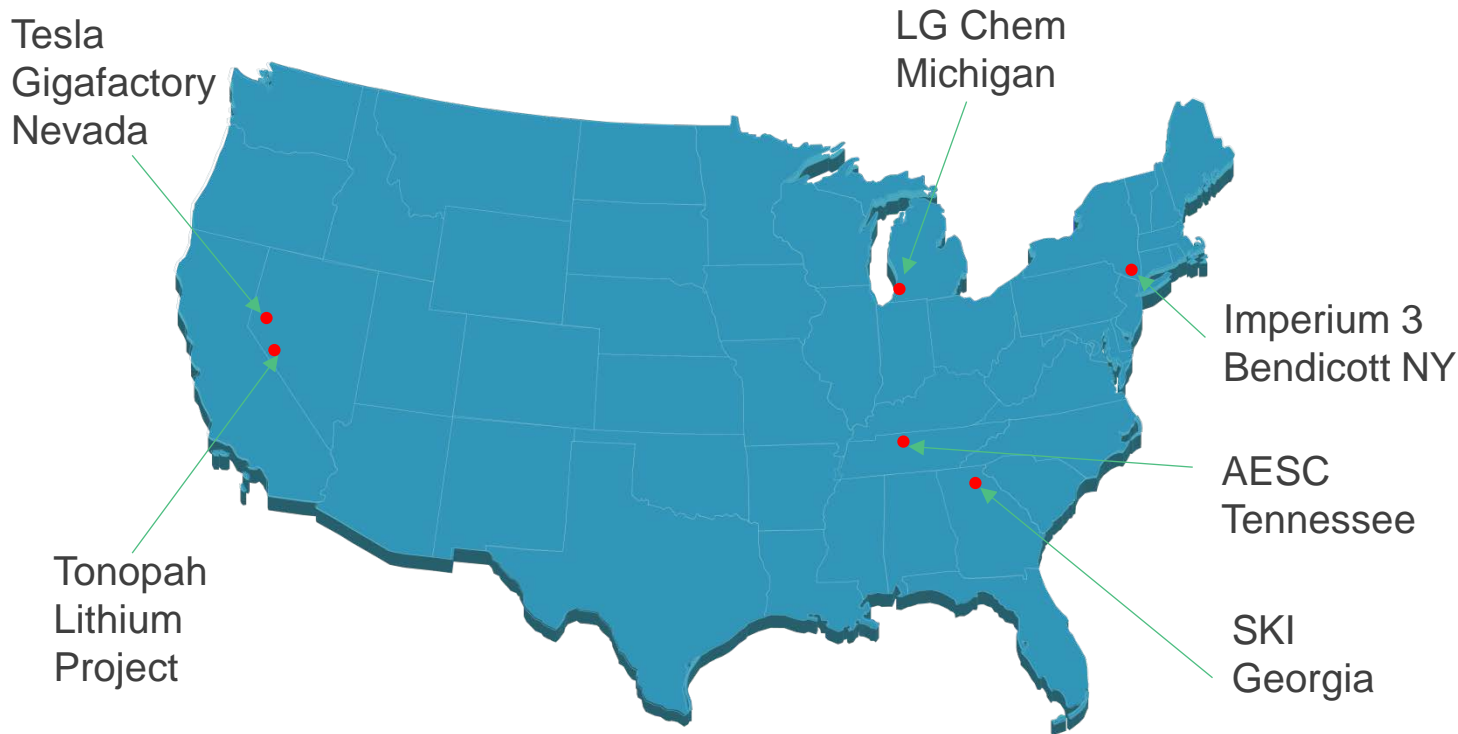




# US BATTERY MARKET ASPIRATIONS

U.S. MOVING FAST TO BUILD BATTERY CAPACITY

*Dr. Herbert Diess, CEO of Volkswagen AG, said in January, "The US is one of the most important locations for us and producing electric cars in Chattanooga (Tennessee) is a key part of our growth strategy in North America."*



Favourable mining jurisdiction, supporting development of critical minerals (Li)

Up to five gigafactories forecast by 2028, potentially ~150GW<sup>1</sup>

VW breaks ground on Tennessee EV plant (Nov 19). VW U.S. CEO equates it to introduction of the Beetle

Benchmark Mineral Intelligence briefed The White House on developing a domestic EV industry and supply chain for the 21st Century (Oct 19)

Ford Motor Co unveil its Mustang-inspired electric SUV as part of its plan to invest US \$11.5 billion electrifying its vehicles by 2022

12 states plus Washington D.C have adopted California's Clean Car standards

# MARKET ANALYSIS



# LITHIUM MARKET: SWOT ANALYSIS

FUNDAMENTALS REMAIN STRONG – DOWNSIDE REMAINS WEAK

Short-Term:  
Result of  
Price Spike



## Weakness

- Excessive spodumene, surplus production translated to large stockpiles
- China conversion capacity growth stalled
- China EV subsidy cuts
- Prolonged US/China trade war

## Strengths

- EV battery cost continues to reduce
- Government incentives for EV's (Germany extends subsidies to 2025)
- Global push towards carbon emission reduction
- European emission limits forcing move to cleaner vehicle technology

Continue to  
Strengthen



**Lithium Market  
Fundamentals  
Remain Sound**

## Threats

- China & Europe – abandon push towards EV's and revert to ICE
- Global car manufacturers stop spending tens of billions dollars on new EV development technology
- Global governments abandon plans to reduce carbon emission
- Tesla files for bankruptcy

Market  
Transactions  
Continue



## Opportunities

- Integration between hard rock and brine producers
- Vertical integration between upstream producers and downstream battery manufacturers
- Increasing Government support for industry
- Ability to produce a high quality end product

Likelihood?  
Low



# BIFURCATION OF THE LITHIUM MARKET

## SPODUMENE Vs BRINE

### Bifurcation of spodumene and lithium carbonate markets

- Spodumene production being pulled back due to aggressive increase in supply capacity in recent years and delays in additional conversion capacity in China
- Additional lithium brine production from China evident but supply lines for carbonate direct to cathode manufacturers still open
- Delays in the take-up of NCM811 causing tempered demand for lithium hydroxide
- Lithium iron phosphate batteries providing a stronger market for lithium carbonate demand

### Rationale for recent trends:

#### Product

- Lithium carbonate is a finished end product delivered directly to cathode manufacturers
- Spodumene is delivered to (3rd party) conversion plants to produce LCE product to then be delivered to cathode manufacturers

#### History

- Lithium carbonate has been produced in a number of continents for decades (in the US +50 years)
- Spodumene produced in Australia on a small scale until relatively recently

#### Off-taker

- Lithium carbonate is delivered to a number of destinations across Asia, Europe and North America
- Spodumene is delivered solely to China based conversion plants

# BIFURCATION OF THE LITHIUM MARKET

## INCREASED CHALLENGES FACING SPODUMENE PRODUCTION

### Spodumene Producers



#### Alita Resources Ltd

Administrators & Receivers appointed  
– Ceased production



#### Galaxy Resources Ltd

Production reduced by 40%



#### Pilbara Minerals Ltd

On a moderated production strategy



#### Mineral Resources Ltd

Wodgina placed on care & maintenance



#### Talison Lithium Pty Ltd

Paused expansion plans at Greenbushes

Ceasing production or placed on care and maintenance

### Brine Producers



#### Albemarle Corp.

Carbonate production increasing



#### SQM

Carbonate production increasing



#### Ganfeng Lithium & Lithium Americas

Caucharí-Olaroz production to commence 2021



#### Livent

Carbonate production increasing

Increasing production levels

# A New Lithium Producer



# ARGOSY – A NEW LITHIUM PRODUCER

- ✓ Exceptional PEA results for the Rincon Project
  - Estimated operating costs at the lower end of the industry operational cost curve
  - Ability to generate exceptional annual cash flows under all lithium price outlook scenarios
  - Long asset life – 16.5 year mine life (to 100m resource depth), with ability to extend via deeper drilling
- ✓ Industrial Scale Pilot Plant in steady state production
  - High level of confidence in chemical process and construction costs
  - Development options now open for production of  $\text{Li}_2\text{CO}_3$  or  $\text{LiOH}$  – widening potential off-take pool
- ✓ Mitsubishi RtM off-take validates technical process and credibility as a legitimate producer
- ✓ Permit applications submitted for ~2,000tpa plant with approvals pending, whilst applications process for ~10,000tpa commercial scale operation have commenced
- ✓ Company fully funded for the medium term
- ✓ Positioned to continue fast-track development of Rincon Project

# Contact Us

To discuss how Argosy Minerals could benefit you,  
please contact:

*Jerko Zuvela - Managing Director*

*T: +61 8 6188 8181*

*E: [admin@argosyminerals.com.au](mailto:admin@argosyminerals.com.au)*

*Level 2, 22 Mount Street Perth WA 6000 Australia*





# Appendix – Market Transactions

Positive macro-economic developments underpin strong growth outlook

## Off-take Agreements

- Volkswagen (VW) signed a MOU with Ganfeng Lithium for a 10-year supply agreement (Apr 2019)
- SK Innovation signed 5-year supply agreement with Tianqi Lithium Kwinana (Apr 2019)
- Core Lithium Ltd's expanded offtake contract with Yahua to 2023 (Apr 2019)
- Kidman Resources MOU with LG Chem for a 10-year supply agreement (Dec 2018)
- Gangfeng Lithium sign 5 year supply agreement with BMW (Oct 2018)

## Strategic Investments

- Rosatom (via Uranium One) secures option to purchase up to a 51% stake in Wealth Minerals Ltd Atacama project in northern Chile (Oct 2019)
- Albermarle Corporation's US\$820m acquisition of a 60% interest in Mineral Resources Limited's Wodgina project in Western Australia and transfer of 40% of 50ktpa LiOH plant in Kemerton (Aug 2019)
- Gangfeng Lithium buy a 30% stake in Bacanora Minerals Ltd (May 2019)
- Galaxy Resources Limited and Jiangxi Special Electric Motor Co., Ltd group A\$32.5m strategic placement in Alliance Minerals Assets Ltd (May 2019)
- Wesfarmers (A\$776m) takeover of Kidman Resources Ltd (May 2019))
- Ganfeng's US\$160m investment in Lithium Americas (April 2019)
- PlusPetrol's C\$111m acquisition of LSC Lithium (March 2019)
- Galaxy Resources Ltd sale of northern tenements in the Sal Da Vida Project in Argentina for US\$280m to POSCO (March 2019)

**Motor vehicle manufacturers and energy companies showing a direct interest in upstream lithium sourcing**

# Appendix – Industrial Scale Pilot Plant

