# ARGOSY MINERALS LIMITED



# **Research Note**

# PROOF OF CONCEPT TO ENABLE LITHIUM CARBONATE PRODUCTION

- Argosy Minerals Limited (AGY) is an Australian-based lithium brine explorer and developer with projects in northern Argentina within the "Lithium Triangle" in South America. AGY's recent deal with a Chinese lithium battery materials producer for a 19.9% placement in AGY included a production pre-payment and a partial off-take (subject to regulatory approvals, including upfront payment of A\$26.4m) is fast-tracking its industrial production plans of battery grade lithium carbonate from the Rincon Lithium Project. AGY has entered into a strategic Joint Venture (JV) with a local partner in Argentina (with lithium brine processing experience) to earn up to 90% and develop the Rincon Project. We retain our Speculative Buy recommendation on AGY.
- Key Cornerstone Investor: On 17 August 2017, AGY announced a binding investment for a placement of 19.9% of AGY (for A\$16.9m at a 7.6% premium), a production prepayment for US\$7.5m (A\$9.6m) and off-take agreement with Qingdao Qianyun High-tech New Material Co Ltd (Qianyun) for 1,000tpa of Lithium Carbonate Equivalent (LCE) for 5 years. Both companies also signed an agreement to jointly consider acquisition and development of lithium opportunities in China. The transaction is currently under due diligence and Chinese regulatory approvals for 30 days. AGY has thus far received US\$750k of the agreed production prepayment.
- Local JV Partner: AGY's Rincon JV is with a local partner, which includes Mr. Pablo Alurralde. Mr Alurralde has developed a conceptual chemical solution to extract lithium from brines at Rincon. Mr. Alurralde has over 15 years' experience producing lithium carbonate and more than 30 years in chemical process design.
- Potentially fully funded Stage 2: AGY is currently earning a 50% interest in the JV, but can increase its project ownership to 77.5% by developing Stage 2 of the Project – i.e. expanding the pilot plant and targeting production of 1,000-1,500tpa of LCE. Stage 3 will be reached once development works for full commercial LCE production has been achieved, granting AGY 90% interest, whilst the local partners will then own the remaining 10%.
- Close to infrastructure, Port and Mining Cities: AGY's projects are close to existing international roads, rail, power and gas pipelines. The project can be serviced from the city of Salta in Argentina and could also be supplied from the mining cities of Antofagasta (also a port) and Calama in Chile.
- Argentina is Open for Business: Argentina has a new pro-investment Government. The Country has removed its tariffs, floated its exchange rate, removed business restrictions and has seemingly opened its doors to foreign investment.
- Catalysts: (1) Completion of the transaction by Qianyun; (2) March 2018
  Q: first batch of LCE to prove business concept with production of LCE;
  (3) further tenement acquisition at Rincon; (4) December 2017 Q: maiden JORC on Rincon, (5) Late CY2018 Completion of Stage 2; (6) further off-take agreement and (7) funding and construction of Stage 3.

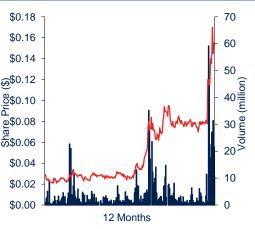
1 September 2017		
12mth Rating	SPECI	JLATIVE BUY
Price	A\$	0.15
RIC: AGY.AX		BBG: AGY AU
Shares o/s	m	799
Free Float	%	91.4
Market Cap.	A\$m	119.9
Net Debt (Cash)	A\$m	3.9
Net Debt/Equity	%	n/a
3m Av. D. T'over	A\$m	0.7
52wk High/Low	A\$	0.17/0.02

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Disclosure: Patersons Securities Limited was Lead Manager and Underwriter to the placement and share purchase plan that raised \$2.0m at \$0.073/share in May 2017 and received fees for these services.

An investment in this company should be considered speculative and note assumptions employed are contingent on broader market conditions remaining supportive. These can change at short notice. Recommendations are current at the time of publication.





#### **RESEARCH NOTE – PATERSONS SECURITIES LIMITED**



# **INVESTMENT UPDATE**

AGY has a strong lithium brine focus with three lithium projects in northern Argentina. The most advanced project is the Rincon Project (Rincon) (JV to earn up to 90% equity). AGY is currently earning a 50% interest in the JV, but can increase its project ownership to 77.5% by developing Stage 2 of the project – i.e. expanding the pilot plant and targeting production of 1,000-1,500tpa of LCE. Stage 3 will be reached once development works for full commercial LCE production has been achieved, granting AGY 90% interest whilst the local partners will then own the remaining 10%. AGY's two other lithium brine projects are the Pocitos Project and the Mina Teresa Project, as illustrated on Figure 2 (next page).

Since our last report, AGY has increased its tenement size close to four times at Rincon (from 654ha to 2,346ha [6.5km<sup>2</sup> to 23.5km<sup>2</sup>], see Figure 3, Page 3), successfully raised c.\$3.2m in equity, started works on Stage 2 and signed a binding agreement with a Chinese battery materials producer. We are of the view that AGY has a significant near term scalable production opportunity that has the potential to include AGY on the map of lithium brine producers.

Our confidence in the Company has been boosted by the recent transaction on 17 August 2017 with Qianyun (pending confirmatory due diligence and Chinese government approvals) with a potential placement of 19.9% of AGY and partial 5 year off-take agreement (transaction details on Page 5, transaction includes upfront payment of A\$26.4m). The transaction has the potential to fully fund AGY's Stage 2 development works, and have a cornerstone investor to potentially participate in funding Stage 3 capital.

We highlight the pre-payment production component of the transaction with Qianyun as we can see it as a reflection of the market shortage in lithium carbonate availability in the market. Especially when considering that the pilot plant has not been finalised and the duration of producing lithium carbonate takes an average of 9-12 months. On the other hand, Qianyun is validating AGY JV's technical credentials with the potential for near-term production of battery grade lithium carbonate from the Rincon Lithium Project.



Source: Argosy Minerals Limited

We believe that AGY's business success comes from having strategically JV'ed its Argentinian project, with Pablo Alurralde and Francisco Menendez. Mr. Alurralde is an Argentinian national, Chemical Engineer based in Salta, Argentina. Mr Alurralde has extensive experience working at lithium-brine deposits in Argentina with FMC (a US based, lithium company) and was the co-inventor (US patented) for the "Production of Lithium Carbonate from concentrated brines on sodium chloride". Mr Alurralde has a conceptual chemical solution to extract lithium from the Rincon brines. If accomplished, Stage 3 now looks like AGY's next target if the expected production of first lithium carbonate proves successful during the March 2018

#### **RESEARCH NOTE – PATERSONS SECURITIES LIMITED**





Source: Argosy Minerals Limited

The Rincon Lithium Project is located on a salt flat called Salar del Rincon in the Salta province in northern Argentina and close to the Chilean border. The province of Salta is a mining-friendly jurisdiction, the city of Salta has a population of 600,000, it is 230km east of Rincon and can be used as an operational hub. The Project is close to infrastructure including an international gas pipeline and road to Chile that connects to the main mining port of Antofagasta in the Pacific Ocean and the mining city of Calama in Chile.

AGY is currently developing its 2,346ha [23.5km<sup>2</sup>] of tenements on the Salar del Rincon (as illustrated next page on Figure 3) and will target exploration works for a maiden JORC Resource expected during December Q2017. Meanwhile, we can point out the existence of several geological studies performed in the past on Salar del Rincon, which highlight the conceptual lithium prospectively of the whole salt plain. Admiralty Resources NL (ADY) tried unsuccessfully to produce commercial LCE at Salar del Rincon before selling it in 2008 to the Sentient Group. Since then, the Enirgi Group (a Sentient Group company) performed a Definitive Feasibility Study (DFS) in accordance with the Canadian National Instrument 43-101 and in July 2016 released the results. The DFS was performed by SRK Consulting (SRK). The study concluded that Enirgi's Project has Probable Reserves of 1.2Mt LCE and has capability to produce 50kt LCE per annum for 24.5 years after a US\$720m capital investment with a NPV @9% of US\$1.36bn (the project uses new energy intensive technology producing LCE within 24 hours). The study assumed a discount rate of 9%, Opex of US\$2,070 per tonne LCE for life of mine and a LCE price of US\$8,487/t LCE.

The NI 43-101 report from Enirgi mentions "Brine aquifer tests indicate that the near surface (i.e., less than 65m in depth) "communication" between holes within the Upper Fractured Halite unit is unrestricted and that widespread, impervious clay layers are not present". This could dictate a potential good precedent for AGY resulting with a higher yield and potentially increase the resource estimation. Drilling for a maiden JORC Resource estimation is underway and expected during 4Q CY17.

On 23 August 2017, AGY announced the increase of the footprint tenement by pegging new available ground. The cost of this ground is nominal to AGY. However, the focus of the new land lodgement is to have available land to build evaporation ponds and process plant construction for a potential Stage 3 development. The new acquired area is highlighted in yellow on Figure 3 below.



### Figure 3: Rincon Tenements and New Acquisition



Source: Argosy Minerals Limited

The Company has also ~2,500ha [25km<sup>2</sup>] of tenements at the Salinas Grandes salt flat distance 100km from Rincon. Orocobre (ORE) has also studied the Salar under a National instrument 43-101 Technical Report at Salinas Grandes in 2012 with a DFS.

We point out that acquisition of further tenements within Rincon would be key to AGY to add value by extending the life of the project and/or increase production beyond our initial assessment.

We believe that AGY has the right mix of people, project and potential funding to deliver on the Rincon Project. Hence, our approach to assess the Rincon Lithium Project. The key element for success for AGY still remains with Mr. Alurralde's capability to commercially produce LCE next year and the Company to produce a JORC Resource at Rincon (and Teresa at a later stage). If results prove to be positive, then the Company could potentially have a company-making project producing at the right time when lithium carbonate pricing is at historical highs in the market.



Figure 4: Rincon Lithium Project – Stage 2 Evaporation Ponds Construction Works

Source: Argosy Minerals Limited

### **RESEARCH NOTE – PATERSONS SECURITIES LIMITED**



# **CAPITAL STRUCTURE**

Figure 5: Current Capitalisation	
Price in AUD	0.15
Shares Outstanding	799
Market Capitalisation	119.9
- Cash (estimate)	3.9
+ Total Debt	0.0
+ Preferred Equity	0.0
+ Minority Interest	0.0
Enterprise Value	116.0

Source: Argosy Minerals Limited, Patersons Securities Limited

At the time of this report, AGY has no debt. However, AGY could potentially consider to accommodate a debt position to fund the development of the Rincon Project at Stage 3.

AGY currently has 799m shares on issue and trades with a market capitalisation of \$119.9m (@ \$0.15/sh). Adjusting for the net cash and cash equivalents position of \$3.9m, AGY has an enterprise value of \$116.0m. The Company currently has two tranches of unquoted options, which expire on 31 December 2019, 6 April 2020 and has 10m shares under performance rights.

Currently the only shareholder of AGY above 5% is Mr. Jerko Zuvela with a direct and indirect interest in 68.9m shares representing 8.62% of the Company. This would be likely diluted as Qianyun expects to hold 19.9% of AGY after the potential transaction is completed.

Figure 6: Unquoted Options				
Exercise Price	On Issue (m)	Exercise Date		
4.5c	5.0m	31-Dec-19		
4.5c	10.0m	6-Apr-20		

Source: Argosy Minerals Limited, Patersons Securities Limited

# CORPORATE

AGY's cash position as at 30 June 2017 was approximately \$3.9m, after exploration, evaluation and administration costs. On 17 August 2017 AGY announced the raise of a potential \$16.9m in equity (19.9%) and \$9.6m in lithium production pre-payment of which a deposit has been received of 10% to date. The completion of the transaction is subject to 30 days confirmatory due diligence by Qianyun and Chinese regulatory approvals.

AGY estimates a cash burn of \$1.6m for next quarter of which \$1.2m expenditure is for the Rincon Project development. Given the recent announcement with Qianyun this expenditure could increase significantly. If the transaction with Qianyun goes without issue, we estimate that the Company is funded for the next 12-18 months depending on Rincon's advancements and AGY's development plans.

The potential funds available could fund the initial target of Stage 2 LCE production of 1-1.5ktpa of installed capacity. Beyond that, we believe that the Rincon Project is likely to find a financial solution as it has in theory a cornerstone investor. Nevertheless, further funding is still likely, this is due to the current positive expectations in the lithium market driven by constraints with LCE product availability and increase in demand driven by electrical vehicles.

## Qianyun Investment in AGY -Transaction Terms

AGY has signed a binding agreement with Qianyun on 17 August 2017, the main terms are:

Placement of AGY shares to Qianyun representing 19.9% of the issued capital of AGY at an issue price of \$0.085/sh representing a 7.6% premium to the 30-day volume weighted average prices of AGY to 15 August 2017. The placement would raise c. A\$16.9m. The share placement is expected to be undertaken in two tranches. Tranche 1 consists of 150m shares from within the existing placement capacity available to the Company under ASX rule 7.1 and 7.1A. Qianyun is restricted for buying or selling their shares for 18 months

unless approved by AGY. Tranche 2, consists of 48,516,087 shares to be issued subject to shareholder approval under ASX listing rule 7.1. The shareholders meeting has not been agreed yet at the time of this report.

Qianyun has agreed to a US\$7.5m (A\$9.6m) upfront prepayment for an agreed quantity (not disclosed) of battery grade LCE product during the first year of production from the Rincon Lithium Project. On 24 August 2017, AGY announced that it had received 10% of the agreed prepayment as a deposit.

A separate five-year off-take agreement for 1,000tpa of LCE from year two to six from production at the Rincon Lithium Project (Stage 2) at a sale price derived from the China battery grade lithium carbonate import price.

The Companies agreed for Qianyun to have a limited right to offer funding of capital expenditure for Stage 3 development of the Rincon Project. Potential production from Stage 3 remains uncontracted.

Subject to Tranche 1 completion, AGY will appoint Qianyun's Chairman, Mr Sun Qi, as a Non-Executive Director of AGY. Qianyun can continue to hold onto the position on the Board subject to Qianyun maintaining an equity investment interest at not less than 15% of AGY shares on issue at any time. Mr. Sun will be granted 5m options at an exercise price \$0.10/sh (subject to shareholder approval).

The companies have also agreed to a JV to collaboratively consider acquisition and development of lithium opportunities in China for the next two years.

AGY, at its discretion, may elect to offer Qianyun the opportunity to subscribe for an additional 5% equity interest (subject to all required regulatory and shareholder approvals).

## About Qingdao Qianyun High Tech New Material Co. Ltd

(http://www.qianyuntech.com/En/index.asp)

Founded in Qingdao, Qianyun is a fast growing Chinese battery materials, R&D, high tech and new materials technology-intensive enterprise producing high quality lithium-ion battery cathode material at its technology centre and industrial base.

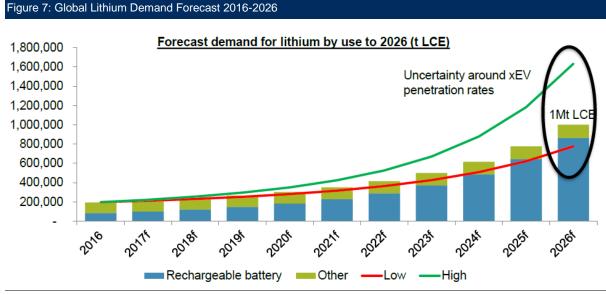
On its Company website, Qianyun indicates that has invested 160m Yuan (c.A\$30.4m) on its plant which can produce "lithium manganese oxide, lithium iron phosphate, ternary materials, lithium cobalt oxide as the starting point, seven series of products of more than ten kinds of specifications, is the current large-scale power batteries, storage batteries, large uninterruptible power supplies and notebook computer batteries , cell phone batteries, digital products batteries, battery miner's lamp, and other cathode materials for lithium ion batteries in the product of choice is a national priority to support the development of the industry. The company's annual production capacity of 5,000 tons (*of products mentioned above*), for the three years to become the largest and most complete variety, best quality lithium-ion battery cathode material level technology centre and industrial base".

# LITHIUM MARKET UPDATE

## Demand

The lithium market is experiencing significant growth. Demand has almost doubled from 2009 to 2016 and is estimated to increase slightly more than four times (850ktpa-1Mt of LCE) by 2025-2026 as illustrated below on Figure 7. The main driver for new lithium comes from the new batteries needed to power the electric vehicles (EV). We see at strong trend in the production of EV, this time around the change is led by the Chinese Government and new legislation phasing out the internal combustion engine for small vehicles and new legislation in Europe to become effective from 2025 onwards. In light of all of the above, we believe that the EVs will eventually replace the internal combustion engine cars, at some point in the future. This phase out process might take 20-30 years to occur at a global level.

Figure 7 below shows the expected lithium demand to 2026. The red line indicates a low demand scenario with an expected 800kt of LCE, the stacked bar is the mid case with the previously mentioned mid-case demand with 1Mt of LCE and the green light is high case scenario with a forecasted demand of 1.6Mt of LCE.



Source: Roskill

Meanwhile, the production of EVs is showing that growth is increasing rapidly with sources indicating that the year-on-year growth rate for lithium demand ranging from 15-20%pa. If the changes happen as expected, the growth curve is expected to plateau (and return to the global market average demand for vehicles) by the end of the next decade. With this in mind, the demand for lithium batteries does not look like it will be reduced anytime soon.

# Why is this time being different to the previous lithium boom?

If we look at the historical data, the increase in demand (driven by laptop and mobile phone batteries) from 2000 to 2009 was met by the large lithium producers in Australia (spodumene), Argentina and Chile (brines) being Albemarle, FMC and SQM. These companies had spare capacity to increase production and match demand whilst competing in a market where LCE pricing was below US\$5,000/t. The lithium market is not an open market and is driven by contracts, and with a small market of few buyers and players. Hence, the barriers of entry on a tight market were high. This time around the expected growth for lithium demand is significantly higher.

In a global context, in 2009 the total lithium market was worth c.US\$500m, in 2017 the market is estimated to be worth US\$2.4b (assuming 200kt of LCE at US\$12,000/t) and US\$8.5b by 2025 (assuming 850kt of LCE at US\$10,000/t). Overall, this growth is significant, reviewing past market experience as a proxy, we see that the market could potentially experience challenges to meet demand.

How do we know that 2009 won't happen again with a price bursting in the short term? We believe this for two reasons. The first reason, this time around Albemarle, FMC and SQM do not have spare capacity as they all have announced expansion plans and currently investing in JVs. Second reason is that it is not often that a mineral commodity can be expected to grow more than four folds in seven years to meet demand. As a result, the current lithium prices may remain as we see them today (US\$20,600/t) due to supply constraints.

We believe the risk of lithium substitution remains low within the next five years. However, lithium oversupply could react quickly to a further price increase. As lithium is a relatively abundant element, finding a solution to production is a question of pricing. As an example of non-conventional lithium sources, some oil and gas fields in Alberta, Canada are known to have brines with lithium concentration over 50ppm and up to 140ppm (3-8 times lower than Rincon's lithium grade) and other metals contained in the oilfields (Petrolithium). Currently brines are re-injected into the reservoirs with significant sunk cost already expensed. If the price is high enough, an extraction solution could potentially be found to produce lithium carbonate.

### **Human Factor**

We believe that there is another component that might affect the delivery of supply in time. Despite lithium being a relatively abundant element on Earth. The extraction of lithium to meet the purity requirements remains a challenge. The metallurgy of lithium deposits does not appear to be simple. On the other hand, as there have been a few lithium companies operating in lithium in the past 30 years, there could be a human factor involved in terms of direct experience in lithium operations. This is yet to be demonstrated in time as new operations will come on-line.

# Supply

In 2016 supply was estimated at 201kt LCE according to the U.S. Geological Survey. The future production is expected to be met initially by the Western Australian spodumene producers (Talison's Greenbushes (50:50 JV between Albemarle and Tianqi Lithium), Galaxy's Mt Cattlin, Neometals' Mt Marion) and other advanced projects, followed by the Argentinian brine producers (FMC and Orocobre) and new projects in the same region. It is unclear if new Chilean producers will join the trend due to the restrictions on lithium production by the Chilean government. However, SQM and Albemarle have already indicated that they will increment production from their salt flat operations in Chile. Canada has a new emerging region in Quebec for lithium projects, Europe is also seeing a pipeline of projects (hard rock) to potentially supply the European batteries for the car manufactures with advanced projects in Austria, Czech Republic, Serbia and Spain. The US also have a pipeline of brine projects concentrated in Nevada and Africa has a potentially significant spodumene project in the Democratic Republic of Congo (DRC).

With this in mind, we believe that the expansion of the current Chilean and Argentinean operations will be firm as they are well known deposits. Whilst in Australia the production and brownfields from current operations have a stable handle with their concentrate product. Thereafter, we believe that the new lithium projects (hard rock or brines) will supply lithium with a level of certainty in construction however, the time to reach production nameplate remains uncertain due to the technical chemical complexity of the lithium in a maturing industry. As a result, the production to market could take longer than initially planned.

A potential short term oversupply in lithium from direct shipping lithium ore (DSO) spodumene from Australia has been pointed out as a risk to the market. In specific, the Wodgina Project (4-5Mtpa @1.2%Li<sub>2</sub>O, Mineral Resources Limited) and potentially the Pilgangoora Lithium Project (1.9Mt @1.5Li<sub>2</sub>O batch, Pilbara Minerals Limited). There are technical factors (recovery, impurities and product specifications) and a learning curve that need to be proven before DSO becomes an alternative to the lithium supply in China. Even if the current plan for DSO if successful, we believe that by the time the new DSO is processed and reaches the battery market the demand as it could take a further two years to be noticeable. However, given concerns too sharp a rise in price may force buyers to look to potential substitutions, successful DSO production may result in a more sustainable price trajectory through softening expected price rises (through the resultant increased lithium supply).

### **Price Forecast**

The year 2017 was meant to see significant lower prices in lithium compared to the US\$22,000/t highs of 2016. Our latest review of the price contracts for lithium battery grade LCE ranges from US\$19,600-20,600/t (as 25 August 2017, source: Asian Metal). With this information, we can infer that the current lithium market remains constrained. An example of the short supply is the recent potential transaction of Qianyun's recent pre-payment deal announced with AGY, despite the fact the projects haven't yet been proven viable shows the strength of short term demand.

We expect lithium prices to recede in the future from the current price levels. However, the forecasted demand and supply to 2025 seems to struggle an equilibrium depending of which view we take of future demand and supply. We believe that the LCE will remain at high levels with a tendency of price reduction to match the marginal lithium producer with a range of US\$8,000-10,000/t LCE from 2025 onwards. We project a gentle declining price from US\$20,000/t (2017) to US\$10,000/t to 2025 and remain flat from there onwards. These assumptions will remain challenged as it is hard to predict the effect of electric vehicle production. We note that if the market continues to remain tight in the future, the price for lithium concentrate could experience a decoupling from the increases in price LCE. This is due to the fact that China is the only market that buys lithium



concentrate. If this happens, most of the Australian lithium concentrate producers could potentially be affected. As a result, we believe that in the near future the Australian lithium concentrate producers will evaluate or potentially de-risk part of its lithium concentrate production with investment in lithium carbonate plants in Australia.

# CONCLUSION

We believe that the lithium batteries will continue to be used as a power supply to EVs. This trend is unlikely to be changed in the next 5 years (and potentially 10 years) as the battery producers do not move too quickly once the investment for the battery plant has been made. We see that the improvement in lithium battery performance will continue in the future providing a longer range, reduced weight, and more power to the EVs. We believe that the risk of substitution for lithium batteries comes from the fuel cell hydrogen batteries currently used with a few car manufactures. However, with a high cost to produce the fuel cells. Regardless, in the long term, the years of the internal combustion engines (ICE) seems to numbered.

AGY has moved very quickly from a concept company with a lithium brine project to a potential industrial lithium carbonate producer. As a result, AGY is now well placed to deliver on its strategy. Time is of the essence in brine operations. Despite the significant increase in share price since initiation, we believe that new opportunities may open up to the Company. The key aspect of AGY is having the expertise in lithium carbonate production, with limited experienced players in the current market.

We estimate that the key catalysts in the near-term are: (1) Completion of the transaction by Qianyun; (2) March 2018 Q first batch of LCE to prove business concept with production of LCE; (3) further tenement acquisition at Rincon; (4) December 2017 Q maiden JORC on Rincon; (5) Late 2H/CY2018 Completion of Stage 2, (6) further off-take agreement and (7) funding and construction of Stage 3.

# **RISKS**

AGY essentially has sufficient funds currently to execute Stage 1 at the Rincon Project and other commitments to late 2017, and potentially fully-funded for Stage 2 development works. We outline the key risks to AGY's plans:

**Lithium Reservoir:** Results may differ materially from those outlined by SRK at Salar del Rincon due to changes in the geology of the reservoir at AGY's tenements. Salar de Pocitos and Salinas Grandes Salar could prove to be immature Salars and may not be economic.

**Failure of Pilot Plant:** Whilst we believe that AGY's plans for the pilot plant are sound, there is a risk that the conceptual design may not perform as expected. As a result, this has the potential to affect AGY's plans to become a lithium brine producer.

**Commodity Price:** The majority of future revenues may be derived from the sale of LCE. Fluctuations in the Lithium price could affect the Company's ability to extract LCE at a profitable margin in the future. We expect the long-term lithium price to continue to hold at similar levels to the current contract prices. However, we note that the current world trend to find other ways of storing energy and substitute lithium could adversely impact lithium prices.

**Permitting/Environmental:** While all the permitting has been achieved for Stage 1 at the Rincon Project, further permitting will be required for Stages 2 and 3. There is a small risk that this may not be achieved.

**Country Risk:** Whilst AGY's Joint Venture partners have significant experience operating in Argentina, there is still risks associated with operating in a country with a troubled history of significant changes in macroeconomic policies.

**Exchange Rate:** AGY has an Argentinian project and is an Australian company. This means it is subject to fluctuations in foreign currency exchange rates between the Australian dollar, Argentinian Peso and US dollar, which have the potential to decrease the profitability of the Company.



# BOARD

## Mr Alexander Molyneux - Non-Executive Chairman

He is a Co-Founder of Azarga Resources Group and Non-Executive Chairman of Azarga Metals Corp. (TSX-V:AZR). He was previously President, CEO and Director of South Gobi Resources (TSX:SGQ, HKEX:1878) (2009 - 2012), an Ivanhoe Mines Group company, and a Non-Executive Director of Goldrock Mines Corp. (2012 - 2016).Prior to joining South Gobi, Alex had a 10-year career as a natural resources investment banker, including as managing Director, Head of Metals and Mining Investment Banking, Asia for Citigroup. Alex holds a Bachelor degree in Economics from Monash University in Australia.

## Jerko Zuvela - Managing Director

Jerko is a Chartered Professional Geologist having spent over 20 years in the mining and resources industry. Jerko has held executive management roles for private and public resources companies, with operational and corporate experience in various commodities covering exploration, project development, business development, finance, commercial and corporate activities involved with projects in Australia, Asia, Africa and South America.

Jerko has considerable experience in building junior resources companies and understands the requirements working within this sector, including fundamental parameters, strategic drivers and market requirements within the junior resources industry. He played a key role in transforming Kangaroo Resources Ltd to an ASX300 company taken over by Bayan Resources. Other executive roles have included Managing Director at Indicoal Mining Australia, Technical Director at OZ Coal, General Manager at Strike Resources and Alara Resources, and Chief Geologist at Fireside Resources.

Jerko is currently a director of ASX listed Discovery Africa Limited. He is a Chartered Professional (Geology) Member of the Australasian Institute of Mining and Metallurgy and holds a Bachelor of Science in Applied Geology from Curtin University in Western Australia.

### Ranko Matic - Non-Executive Director

Mr Matic is a Chartered Accountant with over 25 years' experience in the areas of financial and executive management, accounting, audit, business and corporate advisory. Mr Matic is a director of a chartered accounting firm and a corporate advisory company based in Perth, and has specialist expertise and exposure in areas of audit, corporate services, due diligence, mergers and acquisitions, and valuations.

Mr Matic is currently a director of several ASX listed companies including Valmec Ltd, Celsius Coal Ltd, Argosy Minerals Limited and Antilles Oil and Gas NL. Mr Matic has also acted as Chief Financial Officer and Company Secretary for companies in the private and public sector and currently holds several CFO and company secretarial roles with publicly listed companies.

## Mal Randall - Non-Executive Director

Mr Randall holds a Bachelor of Applied Chemistry and has more than 45 years' of extensive experience in corporate, management and marketing in the resources sector, including more than 25 years with the Rio Tinto group of companies. He has a proven track record in managing and supporting financial and corporate activities and this experience has afforded him significant exposure to the investment, broking and analyst community.

Mr Randall has held the position of chairman and director of a number of ASX listed companies, with current directorships including Kalium Lakes Limited, Thundelarra Limited, Summit Resources Limited and Magnetite Mines. Past directorships include Consolidated Minerals Limited, Titan Resources Limited, Northern Mining Limited, Iron Ore Holdings Limited, United Minerals Corporation NL and MZI Resources Limited.

## Andrea Betti - Company Secretary

Andrea is an accounting and corporate governance professional with over 18 years' experience in accounting, corporate governance, finance and corporate banking. She has a Bachelor of Commerce, Graduate Diploma in Corporate Governance, Graduate Diploma in Applied Finance and Investment and a Masters of Business Administration. Andrea Betti has acted as Chief Financial Officer and Assistant Company Secretary for companies in the private and public sector, as well as senior executive roles in the banking and finance industry.



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