

#### **ASX / TSX ANNOUNCEMENT**

14 November 2017

#### **Investor Presentation**

Orocobre Limited (ORE:ASX, ORL:TSX) (Orocobre) is pleased to provide a presentation that will be made at a number of conferences as detailed below:

- UBS Australasia Conference, Sydney
- Morgan Stanley Chemicals and Agriculture Conference, Boston
- Deutsche Bank Lithium Supply Chain & Energy Storage Conference, New York

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#### **About Orocobre Limited**

Orocobre Limited (Orocobre) is a dynamic global lithium carbonate supplier and an established producer of boron. Orocobre is dual listed on the Australia and Toronto Stock Exchanges (ASX: ORE), (TSE: ORL). Orocobre's operations include its Olaroz Lithium Facility in Northern Argentina, Borax Argentina, an established Argentine boron minerals and refined chemicals producer and a 35% interest in Advantage Lithium.

For further information, please visit www.orocobre.com



## **CAUTIONARY NOTES**

This presentation has been prepared by the management of Orocobre Limited (the 'Company') and does not constitute as specific advice to any particular party or person. The information is based on publicly available information, internally developed data and other sources. Where any opinion is expressed in this presentation, it is based on the assumptions and limitations mentioned herein and is an expression of present opinion only. No warranties or representations can be made as to the origin, validity, accuracy, completeness, currency or reliability of the information. The Company disclaims and excludes all liability (to the extent permitted by law) for losses, claims, damages, demands, costs and expenses of whatever nature arising in any way out of or in connection with the information, its accuracy, completeness or by reason of reliance by any person on any of it.

This presentation contains "forward-looking information" within the meaning of applicable securities legislation. Forward-looking information is often characterized by words such as "plan". "expect", "budget", "target", "project", "intend", "believe", "anticipate". "estimate" and other similar words or statements that certain events or conditions "may" or "will" occur. Forwardlooking information may include, but is not limited to, the successful ramp-up of the Olaroz Project, and the timing thereof, the design production rate for lithium carbonate at the Olaroz Project, the expected brine grade at the Olaroz Project, the Olaroz project's future financial and operating performance including production, rates of return, operating costs, capital costs and cash flows, the comparison of such expected costs to expected global operating costs, the ongoing working relationship between Orocobre and the Provinces of Jujuy and Salta, the on-going working relationship between Orocobre and Olaroz project financiers Mizuho Bank and JOGMEC and the satisfaction of any lending covenants, the future financial and operating performance of the Company, its affiliates and subsidiaries including Borax Argentina, the estimation and realization of mineral resources at the Company's projects, the viability, recoverability and processing of such resources, timing of future exploration at the Company's projects, timing and receipt of approvals, consents and permits under applicable legislation, trends in Argentina relating to the role of government in the economy (and particularly its role and participation in mining projects), adequacy of financial resources, forecasts relating to the lithium, boron and potash markets, potential operating synergies between the Cauchari projects and the Olaroz project, the potential processing of brines from the Cauchari Project and the incremental capital cost of such processing, expansion, growth and optimisation of Borax Argentina's operations, the integration of Borax Argentina's operations with those of Orocobre and any synergies relating thereto and other matters related to the development of the Company's projects and the timing of the foregoing matters.

Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause actual results to be materially different from those expressed or implied by such forward-looking information, including but not limited to the risk of further changes in government regulations, policies or legislation: that further funding may be required, but unavailable, for the ongoing development of the Company's projects: fluctuations or decreases in commodity prices: uncertainty in the estimation, economic viability, recoverability and processing of mineral resources: risks associated with development of the Olaroz Project: unexpected capital or operating cost increases; uncertainty of meeting anticipated program milestones at the Olaroz Project or the Company's other projects: general risks associated with the feasibility and development of the Olaroz Project and the Company's other projects; risks associated with investments in publicly listed companies, such as the Company; risks associated with general economic conditions: the risk that the historical estimates for Borax Argentina's properties that were prepared by Rio Tinto. Borax Argentina and/or their consultants (including the size and grade of such resources) are incorrect in any material respect; the inability to efficiently integrate the operations of Borax Argentina with those of Orocobre; as well as those factors disclosed in the Company's Annual Report for the year ended June 30, 2017 filed at www sedar.com.

Forward-looking information is based on a number of assumptions and estimates that, while considered reasonable by the Company, may prove to be incorrect. Assumptions have been made regarding, among other things: the Company's ability to carry on its exploration and development activities at its projects and to continue production at Borax Argentina's properties, the timely receipt of required approvals, the prices of

lithium, potash and boron, the ability of the Company to operate in a safe, efficient and effective manner and the ability of the Company to obtain financing as and when required and on reasonable terms. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information. there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. The Company does not undertake to update any forward-looking information, except in accordance with applicable securities laws.

The technical information in this announcement has been prepared by Murray Brooker of Hydrominex Geoscience. Murray Brooker is a geologist and hydrogeologist and is a Member of the Australian Institute of Geoscientists. Murray has sufficient relevant experience 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. He is also a "Qualified Person" as defined by Canadian Securities Administrators' National Instrument 43-101. Murray Brooker consents to the inclusion in this announcement of this information in the form and context in which it appears.

Additional information relating to the Company's projects is available on the Company's website in "Technical Report – Salar de Olaroz Lithium-Potash Project, Argentina" dated May 13, 2011, (the Olaroz Report), and the "Technical Report – Salar de Cauchari Project, Argentina" dated April 30, 2010, respectively, which have each been prepared by John Houston, Consulting Hydrogeologist, together with, in the case of the Olaroz Report, Mike Gunn, Consulting Processing Engineer, in accordance with NI 43-101.



## **OLAROZ EXPLORATION TARGET**

Exploration target between 1.6 and 7.5 million tonnes of lithium carbonate equivalent between 197m and 323m depth. Basin potentially 600m deep and additional targets to the north and the south of the exploration target area. It must be stressed that an exploration target is not a mineral resource. The potential quantity and grade of the exploration target is conceptual in nature, and there has been insufficient exploration to define a Mineral Resource in the volume where the Exploration Target is outlined. It is uncertain if further exploration drilling will result in the determination of a Mineral Resource in this volume.

Area km²	Thickness m (to 323 m depth)	Mean specific yield %	Brine volume million m <sup>3</sup>	Li mg/l UI	Contained Li million metric tonnes	Lithium carbonate million metric tonnes PTION ESTIMAT	K mg/l	Contained K million metric tonnes	Potash million metric tonnes	B mg/I	Boron million metric tonnes
80	126	20%	2,000	700	1.4	7.5	5400	10.9	20.8	1,200	2.4
LOWER ASSUMPTION ESTIMATE											
80	126	6%	605	500	0.3	1.6	4000	2.4	4.6	900	0.5

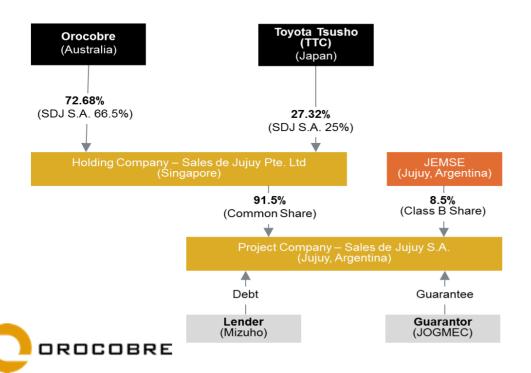
The information in this table that relates to exploration target at the Olaroz project was prepared by Mr Murray Brooker, an independent consultant employed by Hydrominex Geoscience Pty Ltd. Murray Brooker is a geologist and hydrogeologist and is a Member of the Australian Institute of Geoscientists. Murray has sufficient relevant experience 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. He is also a "Qualified Person" as defined in NI 43-101. The information is extracted from the report entitled "Olaroz Project Large Exploration Target Defined", dated 23 October 2014 and is available to view on the Company website www.orocobre.com.

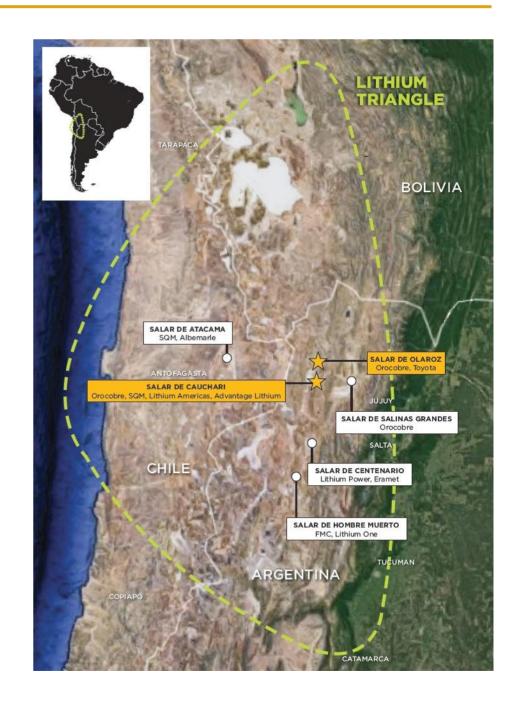
The Company is not aware of any information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The company 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.



## FIRST NEW LITHIUM BRINE PRODUCER IN 20 YEARS

- A very large resource of +40 years at current production which is open at depth and laterally
- Stage 1 ramp up nearing completion, capable of hosting multiple expansion phases
- Strong and mutually beneficial JV partnership with Toyota Tsusho





## CAPITAL MARKETS SNAPSHOT (ASX:ORE, TSX:ORL)

## **CAPITAL STRUCTURE**

(AS AT 9th November 2017)

Shares outstanding	210.9M					
Performance Rights and Options Outstanding	1.4M					
<b>Cash Balance</b> (30/9/17)	US\$46.6M					
Share price ASX/TSX	A\$6.09/C\$6.10					
Market capitalisation	A\$1,284M					
52 week share price range (close):						
ASX	A\$1.33–A\$6.09					
TSX	C\$1.25–C\$6.10					

## **SHARE PRICE**



#### **SHAREHOLDERS**

Executives and Directors	~3.2%
Institutions, Banks and Brokers	~62%



## OROCOBRE TODAY

Production rate improving

FY18 production expected to be approximately **14,000 tonnes** Strong Q2FY18 production, up significantly on Q1FY18

Profitable

FY17 record net profit of US\$19.4M1

✓ Low cost & high margin

Average cost of production for FY17 of US\$3,710/t Olaroz gross cash margin of US**\$6,053**/tonne **(62%)** 

Strongly cashflow positive and rapid paydown of debt

Paid project debt balance down to US\$144.9M from US\$191.9M original facility ORE **cash of \$US46.6m** and ORE share net debt at US\$68.4 m

Ready for expansion

Phase 2 expansion to double production capacity **to 35,000 tpa** lithium carbonate is on track

First module of 10,000 tpa lithium hydroxide plant will be fed by Olaroz primary product

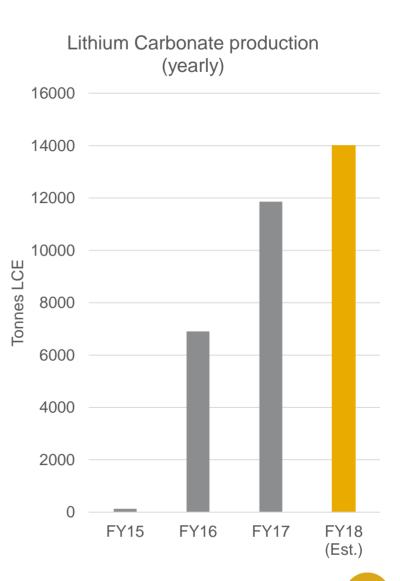
Strong partners

Toyota Tsusho Corporation ("TTC") and local provincial government owned Jujuy Energía y Minería Sociedad del Estado ("JEMSE")

Long life project – multiple expansions

World class asset with very large resource capable of sustaining multiple internally funded expansions

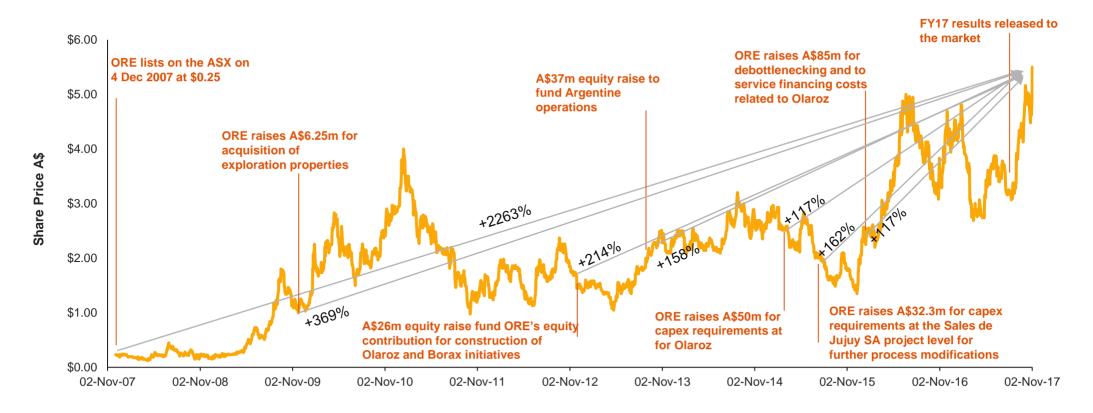




# PROVEN TRACK RECORD OF DELIVERING LONG TERM SHAREHOLDER VALUE

Orocobre equity capital markets life cycle post admission to the ASX in 2007

Orocobre has returned significant long term value to shareholders through the ramp up to nameplate production





## AND HAS TICKED THE BOXES







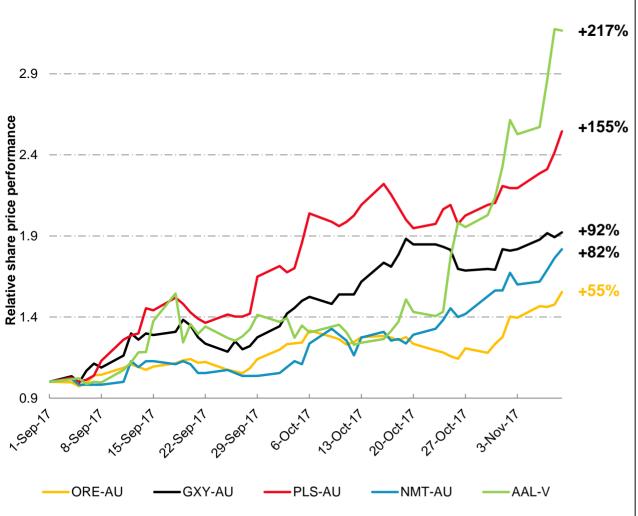


(1/2) 50% complete (X) Not complete



## YET, REMAINS CHEAP COMPARED TO PEERS

#### Recent share price movement for ASX listed Lithium peers



- ASX listed companies with Lithium exposure have experienced significant share price momentum in recent months
- Orocobre has under performed the peer group despite delivering strong FY17 results including:
  - First full year of commercial production
  - 72% increase on prior comparative period (pcp)
  - Olaroz sales revenue of US120M1 on 12,296 tonnes
  - Olaroz gross cash margin of US\$6.053/tonne
  - Olaroz operating EBITDAX1 of US\$72.1M
- Orocobre is the only company amongst this peer group producing high purity lithium carbonate chemicals and an increasing proportion of battery grade
  - Cash operating cost of ~US\$3,700/tonne means Orocobre is one of the lowest cost lithium producers globally

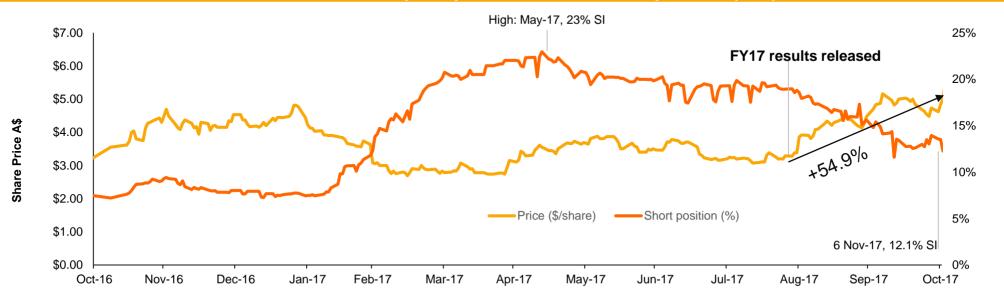


Olaroz 100% basis

EBITDAX is 'Earnings before interest, tax, depreciation, amortization, impairment and foreign exchange losses/gains

## ORE SHORT INTEREST POSITION HAS IMPACTED

### Orocobre share price performance vs. short position (%SI)



- Orocobre has recently been the most shorted stock on the ASX with short interest rapidly increased due to:
  - Missed guidance
  - Market perception of operational issues regarding pond inventory and capex required for re-build
  - Short interested reached a high of 23% in May 2017
- Positive FY17 results announcement demonstrated positive pond data, operational improvements, increasing cash generation and strong product pricing
  - Positive data has reduced the short interest to 12.1% of shares on issue
  - Share price increase post release of FY17 results has been up 54.9%
  - Despite the reduction in short interest and share price increase, ORE remains undervalued relative to peers



Source IRESS 10 November 2017

Notes Short interest as at 6 November 2017

Short Interest %

# DECEMBER QUARTER WILL SEE SIGNIFICANT PRODUCTION GROWTH

- 2,135 tonnes produced in September quarter, consecutive increases month on month during the quarter
- Increases continued in October, with modest over budget production at 1,227 tonnes for the month
- Record production expected in the December quarter at a production cost of <US\$4,000/tonne</li>
- Sales revenue for the September quarter US\$23.2 million, total sales of 2,072 tonnes
- Average September quarter FOB price US\$11,190/tonne, up 5% quarter on quarter
- Prices to exceed US\$11,000 per tonne FOB in the December quarter
- Gross cash margins US\$6,203/tonne for September quarter, will increase as costs reduce to previous levels with increased production rates, normalised soda ash costs and consumption
- Experts from the Chilean office of GHD reviewed the pond design and found there were "no design faults that would prevent overall plant production of 17,500 tonnes per year"

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Pond actual performance generally in line with production model forecast



## **EXPANSION READY**



## **GROWTH AT OLAROZ**

# World class asset with very large resource capable of sustaining multiple internally funded expansions

#### Olaroz Basin - existing resource of 6.4 million tonnes of LCE to 200 metres

- Exploration Target of 1.6 7.5 million tonnes LCE to 323 metres
- Drilling indicates depth resource extension to at least 450 metres, and geophysical surveys to 600 metres
- Phase 2 to double production to 35,000 tpa lithium carbonate expansion studies advancing
- Final investment decisions expected in 1H 2018
- Olaroz primary product to supply 10,000 tpa lithium hydroxide plant

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## **EXPANSION STRATEGY**

#### **Proposed product mix**

 17,500tpa Battery Grade from existing purification circuit, and 17,500tpa Industrial/Technical Grade, of which 9,000tpa will be used to feed the planned 10,000tpa\* lithium hydroxide plant in Japan

#### Benefits of the proposed product mix

- Lower risk simple duplication of bores, ponds and primary circuit
- Higher pricing lithium hydroxide price premium to be captured

## **Capital Cost**

• Olaroz expansion estimated capex \$US160M – lower capex with no duplication of purification circuit

### **Funding and Subsidies**

- Discussions on financing are well advanced
- Subsidies available at both Japanese national and prefecture level to support the Lithium Hydroxide project

#### **Further Potential**

Development of a second lithium hydroxide plant outside of Japan is being investigated



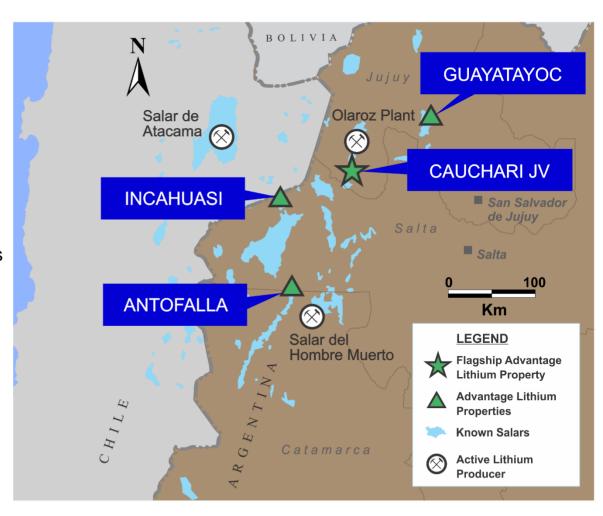
## **ADVANTAGE LITHIUM**

### **Advantage Lithium (AAL)**

- Orocobre hold ~35% of AAL after vending in 85,000 Ha of exploration assets
- AAL exploration program funded with C\$20M

## Cauchari Project (50% ORE, 50% AAL) (AAL earning 75%) (note 1)

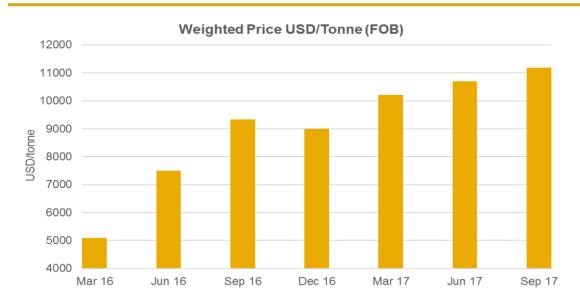
- Drilling underway with five rotary holes and 12 diamond holes planned
- Hole CAU10 averaged lithium grade of 682 milligrams per litre (mg/l) and a Mg/Li ratio averaging 2.1:1
- CAU09 rotary hole averaged 662 mg/l lithium with a Mg/Li ratio of 2.2:1.
- Initial results demonstrate that the brine chemistry is similar to Olaroz
- Located only 10-20Km from Olaroz potential to process Cauchari brine
- Rapid exploration and development timeline
- Low capex production options



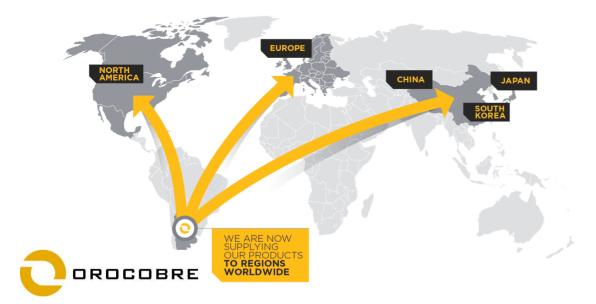




## OROCOBRE IS EXPOSED TO ALL KEY MARKETS



GEOGRAPHIC DISTRIBUTION OF LITHIUM CARBONATE SALES



- Geographically diverse customer base including Japan, South Korea, Europe, USA and China
- Continuing to sell into industrial, chemical and battery markets
- Average price received continues to improve, now seeing consistent >US\$11,000/T contract pricing (average across all products)
- SQM recently noted that market growth is likely to be around 14% this year

## THE LITHIUM MARKET IS BECOMING MORE DEFINED

### **Lithium Market Fundamentals remain strong**

- Pricing firmed to >\$11,000/T FOB, SQM commented, "market prices will trend up during the remainder of the year."
- Significant headwinds for new production, supply additions remain over-estimated

### The end game is becoming clearer – for example

- UK and France have banned the sale of internal combustion engine vehicles by 2040, China heading in the same direction, and India to only sell EVs by 2030
- Austria, China, Denmark, Germany, Ireland, Japan, the Netherlands, Portugal, Korea and Spain have set official targets for electric car sales
- 750k EVs were sold last year, OPEC suggests that by 2040 the global vehicle fleet will include 266 million EVs,
   Bloomberg New Energy Finance suggests by 2040 there could be 530 million, or one third of all cars will be EVs!

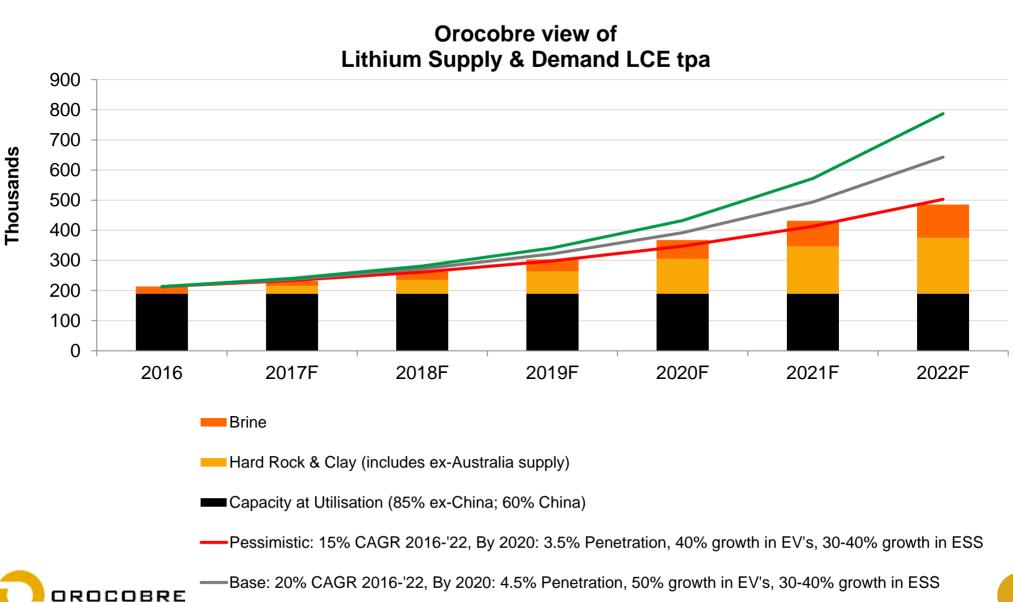
### The lithium supply model has to change to meet coming demand

- Demand growth is going to outstrip projected new supply
- Access to technical skills and experience will mean brownfields expansions are lowest risk and fastest to market
- Access to finance remains a key constraint for new projects
- · Strategic relationships will be key for lithium producers and lithium consumers

There is a clear opportunity for Orocobre to emulate the multi-phase Atacama development and create significant value for shareholders.



## DEMAND CONTINUES TO SURPRISE ON THE UPSIDE



•Growth: 24% CAGR 2016-'22, By 2020: 5.5% Penetration, 58% growth in EV's, 30-40% growth in ESS

## **KEY TAKEAWAYS**

#### **Orocobre**

- Pond management rectified
- Production increasing
- Shorts closing out / short squeeze is on
- Hydroxide expansion FID in 1H 2018CY
- Olaroz expansion FID in 1H 2018CY to double production



## **Supply**

- Supply will increasingly struggle to keep up with demand after 2020
- Hard rock supply may increase but there is a fast-growing bottleneck in conversion capacity
- Successful construction, commissioning and ramp up of large scale, continuous processing conversion plants is yet to be demonstrated

#### **Demand**

- The growth of the battery market driven by EVs and ESS is likely to surprise to the upside
- Declining battery costs and increasing energy density underpins continued lithium growth
- Lithium accounts for ~11% of cathode costs (3-4% of battery costs), therefore pricing growth should not impact future demand

