

LITHIUM: BATTERY POWERED DEMAND

Prices rising due to increasing demand as EV sales go through the roof and looming lithium supply deficits benefits producers.

The upward price momentum for lithium prices is continuing for lithium products throughout the supply chain, and just as important, is forecast to continue well into the future.

High profile market researchers such as Benchmark Minerals are forecasting sustained elevated product pricing due to increasing demand for lithium, not met by supply, with significant lithium supply deficits from 2024. To guarantee supply, customers such as battery manufacturers, are requesting long-term agreements with lithium suppliers.

Benchmark Minerals forecasts that EV demand will rise at a compound growth rate of 30% a year in the coming decade. In the year to October, global EV sales were 5 million units, up 130% over the same period a year ago. Europe and China are leading, up 100% and 180% respectively.

In July this year (1 July 2021/Issue 453) we said global battery gigafactory capacity planned to be achieved by 2030 had just increased by 460 gigawatt hours to 4,200GWh. The latest projections point to an increase of a further 600GWh to 4,800GWh by 2030.

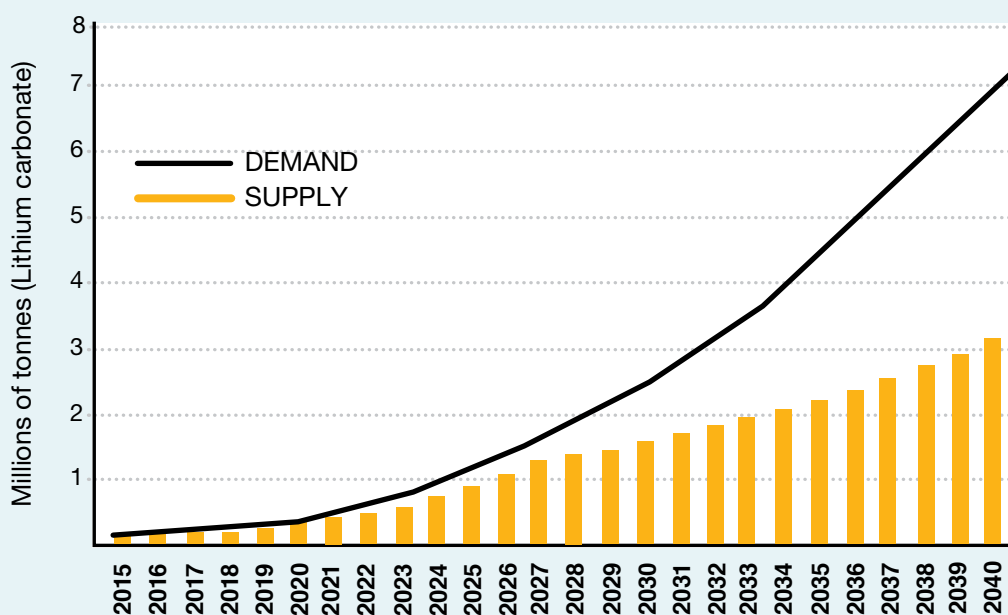
In October, Orocobre, now named **Alkem (AKE)** said average pricing for lithium concentrate (spodumene) shipments had increased to US\$1,650/tonne CIF, double that of only three months prior! Demand has been strong because utilisation of the spodumene converters in China was rising, driving downstream lithium product output higher.

Sector flagbearer **Pilbara Minerals (PLS)** has been achieving higher spodumene “spot” prices at its BMX online auctions. At its inaugural online auction for spodumene concentrate in July 2021, Pilbara Minerals sold lithium at US\$1,250/dry metric tonne (dmt) FOB. Its second online auction delivered almost twice the price with a winning bid of US\$2,240/dmt. In its third online auction for deferred delivery in February 2022, the company had 25 online bids from 8 independent buyers. The winning bid was US\$2,350/dmt.

Over the same time period, lithium carbonate and lithium hydroxide prices have continued to rally, rising from a price range of around US\$13-16,000/tonne in mid 2021 to current prices of over US\$25,000/tonne. Lithium hydroxide is generally priced at a US\$1,000/tonne premium to lithium carbonate.

LITHIUM MARKET

Forecast lithium market balance highlighting growing gap between supply and demand.



SOURCE: BENCHMARK MINERALS: LITHIUM FORECAST Q3 2021

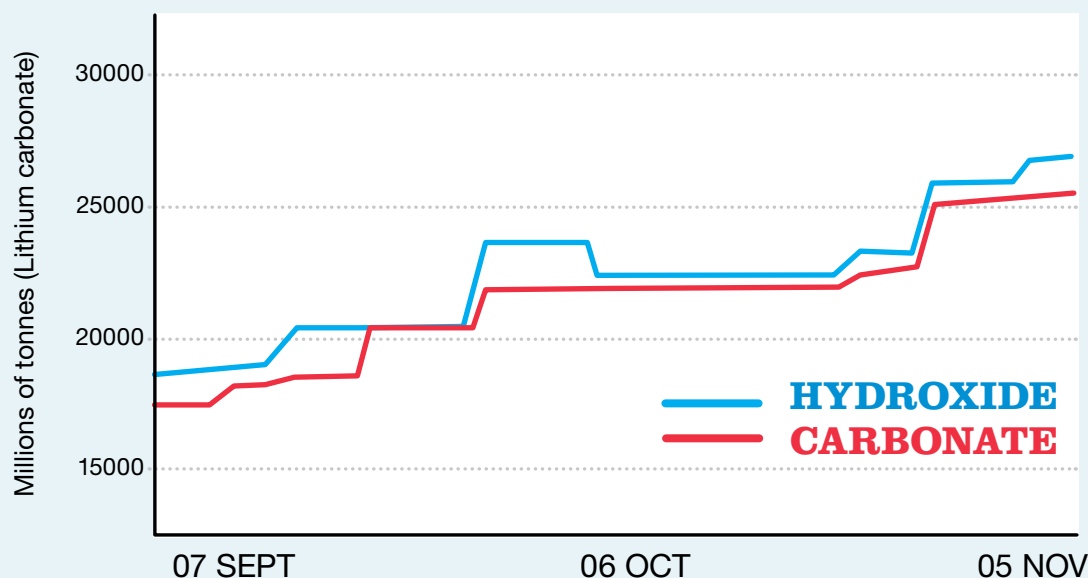
CONCLUSION

The supply/demand fundamentals for lithium look very good, underpinning valuations of our sector favourites, whether they are rock or spodumene based like **Pilbara Minerals (PLS)**, or brine based [Spec Buy], Orocobre, now **Allkem (AKE)**

and **Lake Resources (LKE)** – covered below. Stay tuned for updates on **Vulcan Energy (VUL)** and US based **Piedmont Lithium (PLL)**. ■

INCREASING LITHIUM PRICES

Platts lithium carbonate and lithium hydroxide price over the past 3 months.



SOURCE: S&P GLOBAL PLATTS

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LAKE RESOURCES

Lithium developer

LKE owns a 2,200 square kilometre lease in Argentina, which is the largest in the “Lithium Triangle” and is alongside the world’s five largest lithium producers, that all have equity in lithium extraction.

Less than six months ago we tipped Lake Resources (1 Jul 2021 / Issue 453). We were impressed by its process, its large landholding, large reserves, and exploration potential. The company also has the opportunity to expand production rapidly at low cost.

Fast forward to today and its stock has tripled! We take another look at why its flagship Kachi project is impressing investors.

LKE has four lithium projects: Kachi (advanced) and early-stage projects at Cauchari, Olaroz (same location as Orocobre, now known as **Allkem (AKE)**) and Paso. Kachi has a large JORC resource of 4.4m tonnes lithium carbonate equivalent with an exploration target of 8-17m tonnes on leases of 740 square kilometres.

A pre-feasibility study for Kachi schedules annual production of 25.5k tonnes LCE per year over a project life of over 25 years at a capital cost of US\$544m. A more advanced definitive feasibility study is underway which will include an expansion case to 51k tonnes/year. LKE is planning for approvals in mid-late 2022 followed by a construction start. First production at a 25k tonnes/ year rate is planned for 2024.

The developer plans to use Direct Lithium Extraction (DLE) technology rather than recovery by evaporation, developed by Lilac Solutions Inc. (Bill Gates is an investor). DLE has the advantage of higher lithium recoveries and a higher purity product. On the environmental (ESG) front, water wastage is minimised as the aquifer is replenished with the brine after the lithium has been removed.

Lilac is commercially tied to the project, contributing technology, engineering teams and an on-site demonstration plant, as well as US\$50m of funding in return for up to 25% of Kachi.

Moreover, project finance is secure, with 70% to come from UK Export Finance. Canada’s Export Credit Agency has also expressed interest. The funding term is 8.5 years after construction. Cost of capital would be significantly lower than traditional funding, which reflects ESG benefits of the project.

To further increase Lake’s production capacity, DLE testing at its Cauchari, Olaroz and Paso brine projects is being carried out. Resource drilling and scoping studies are planned for Cauchari and Olaroz in 2021/22. Cauchari is located adjacent to Ganfeng and Lithium Americas 23.0mt tonne LCE project and Allkem’s 6.3m tonne LCE project. ■

RADAR RATING HOLD

ASX CODE LKE

CURRENT PRICE \$0.865

MARKET CAP \$1.06BN

DIVIDEND YIELD 0%*

NET CASH \$63.0M



Data as at initial coverage

DATE 01 JULY 2021

PRICE \$0.3351

*FY22 forecast 0 cents

RADAR RATING: We are impressed by Lake Resources’ Kachi project’s fundamentals – large expansion capacity, increasing demand and established funding. Worth holding on for further momentum. HOLD.