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Powering up: Battery metals get Biden bolt

Australian Resources & Investment, Melbourne

Page 1 of 2

BATTERY METALS

Drilling at Lake Resources' Kachi lithium project in Argentina.



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BY ANTHONY FENSOM

Optimism has been high for battery metals companies so far this year as market conditions have moved in their favour.

Battery metal prices have powered ahead in 2021, energised by the Biden Administration's electric vehicle (EV) spending plans and global drive towards 'net zero' emissions.

With analysts pointing to looming deficits for key battery metals, the sector is enjoying being back in the limelight among investors and policymakers.

On February 24, newly elected United States President Joe Biden signed an executive order aimed at securing America's "critical" supply chains, including critical minerals and clean energy technology.

Biden's \$US2 trillion (\$2.6 trillion) infrastructure plan includes around \$US175 billion to stimulate the EV industry, including manufacturing and purchasing, with analysts suggesting it could trigger a "green tidal wave" of investment.

US automakers have backed the policy shift, with General Motors announcing plans to go "all electric" by 2035 and Ford launching \$US22 billion worth of EV investments.

The action has not been limited to the United States, however. "Net zero" plans by Canada, the European Union and Asian nations such as China and Japan have put the spotlight on transport emissions, with EVs considered a key part of the solution.

In Europe, Volkswagen announced at its Tesla-style 'Power Day' on

March 15 it would build six battery gigafactories by 2030, with a total production capacity of 240 gigawatt hours (GWh).

Notably, VW's planned gigafactories would consume around 200,000 tonnes of lithium carbonate equivalent (LCE), or two-thirds of the world's total production last year.

Its planned production capacity would also exceed the industry's total output of 215 GWh, according to analysts Benchmark Mineral Intelligence (BMI).

As of March, BMI estimated some 208 battery 'gigafactories' were in the pipeline through to 2030, up from 181 last year. Total capacity is expected to reach 3.4 terawatt hours by 2030, up from 755 gigawatt hours in 2020.

The impact on battery metals demand will be significant. BMI expects the gigafactories will consume 3 million tonnes per annum of lithium, 4 million tonnes of graphite anode, 2 million tonnes of nickel and around half a million tonnes of cobalt and manganese. Copper will also benefit, since EVs use around four times as much copper as petrol-based cars.

RECESSION-PROOF

EV sales have proven resilient to the economic downturn caused by



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sector has been buoyed by the upturn. Production is being increased at mines in Western Australia such as Greenbushes and Mt Cattlin, together with new merger and acquisition activity and downstream investments.

On April 19, ASX-listed Orocobre and Galaxy Resources announced a \$4 billion “merger of equals,” creating the world’s fifth largest lithium producer with operations in Argentina and WA.

In the same month, IGO said work was set to resume on the completion of Australia’s first lithium hydroxide plant at Kwinana, WA. Battery ‘gigafactories’ have also been proposed near Newcastle and Townsville.

Steve Promnitz, managing director of ‘clean lithium’ company Lake Resources, sees the upturn as vindication of the company’s strategy.

“The EV revolution is going global and demand for battery-grade lithium is ramping up exponentially. The timing is perfect for Lake, as we have already demonstrated our ability to produce a high purity product on a sustainable basis through direct extraction technology, with the ability to scale up production to meet demand,” he says.

Brett Lynch, managing director of Quebec-focused Sayona Mining, sees particular benefits in North America’s battery expansion.

In January, the company announced a strategic partnership with Piedmont Lithium, which will see half of Sayona’s output supplied to Piedmont’s base in North Carolina.

“North America is seeking local supply sources of key battery metals and there’s none better than Quebec, which has environmentally sustainable, affordable hydropower, world-class infrastructure and proximity to key battery markets,” Lynch says.

Should Sayona’s proposed acquisition of the North American Lithium mine in Quebec prove successful, the company could join leading producers in North America, with plans to go downstream and produce a ‘clean and green’ lithium hydroxide product.

In addition to lithium miners, other metals could also receive a boost from the electrification trend.

Research by Argentina’s National University of Cordoba has suggested tin could provide a significant boost to silicon performance, confirming its potential for use in lithium-ion batteries.

Elementos chief executive officer Joe David says the new research is just another factor driving increased demand for the silvery metal.

“Tin is already heading for a supply deficit and this research shows there could be additional demand coming from the EV revolution. For emerging producers such as Elementos, it gives us even more motivation to advance our projects into production,” he says.

From copper to lithium, nickel and tin, Australia’s miners are hitting the accelerator as the world’s clean energy drive shifts up a gear. The effects could be long lasting, whether at home or abroad, for the nation’s innovative resources sector.^{ARKI}



Lake Resources MD Steve Promnitz.



Elementos CEO Joe David.



Sayona Mining MD Brett Lynch.

COVID-19, according to the International Energy Agency (IEA).

In its Global EV Outlook 2021 report, the Paris-based organisation reported there were 10 million EVs on the world’s roads at the end of 2020. EV registrations rose by 41 per cent last year, particularly in Europe and China, despite global car sales declining by 6 per cent.

Automakers stepped up too, launching 370 EV models in 2020, up 40 per cent from 2019.

Despite being hit by the COVID-induced global recession, consumer spending on EVs reached \$US120 billion in 2020, up 50 per cent from the previous year. EV sales have continued to rise in 2021, up 140 per cent in the first quarter.

Under current policy settings, the IEA sees total EV sales reaching 145 million in 2030, accounting for 7 per cent of the world’s road vehicle fleet. However, should governments take stronger actions to curb emissions, the global EV fleet could reach 230 million by 2030.

PRICE RISES

Battery metal prices have surged in 2021 amid growing projections of supply shortages.

In mid-March, BMI reported that technical-grade lithium carbonate prices had risen by 114 per cent since the start of the year, with battery-grade material up 103 per cent.

Adding to the bullish outlook, Macquarie analysts have projected the overall lithium market will be in deficit from 2022.

Already the world’s biggest exporter of spodumene (lithium), Australia’s battery metals