



Deloitte WA Index 2023

Diggers & Dealers Special Edition

A review of Western Australian companies
listed on the Australian Securities Exchange

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Executive summary

Welcome to the 2023 Diggers & Dealers special edition of the Deloitte WA Index.

Having navigated the challenges of COVID-19 in 2020/21, the economic upheaval stemming from targeted economic sanctions, prolonged supply chain disruptions and the impacts of rising inflation in most global economies, there's a realisation that the only certainty for global markets, is uncertainty.

As we reflect on the past 12 months, the performance of global equity markets really highlights it's been a year of getting on with the job.

To that end, the market capitalisation of Western Australian listed entities closed at A\$363.3 billion, up 21% for the year to 30 June 2023, which is a remarkable response following a comparatively flat performance over the previous 12 months.

Global markets reacted favourably in early calendar 2023 as the acceleration of global growth numbers drove improved sentiment. All major indices surveyed achieved gains this year, with the Nikkei in particular closing out the year very strongly, reaching levels not seen since the early 1990's. Additionally, a late surge from the S&P 500 came off the back of data-fuelled speculation that the U.S Federal Reserve may be readying to slow its aggressive interest rate hikes as annualised inflation numbers looked to be normalising.

Closer to home, the Deloitte WA Index again outperformed the broader ASX All Ordinaries with our local portfolio delivering strong returns for investors throughout the year.

Interestingly, the WA Index performance this year comes unphased by the broader commodity markets which did it tough this year. Pockets of optimism in uranium, gold, lead and tin were outweighed by significant price retractions across many of the commodities surveyed.

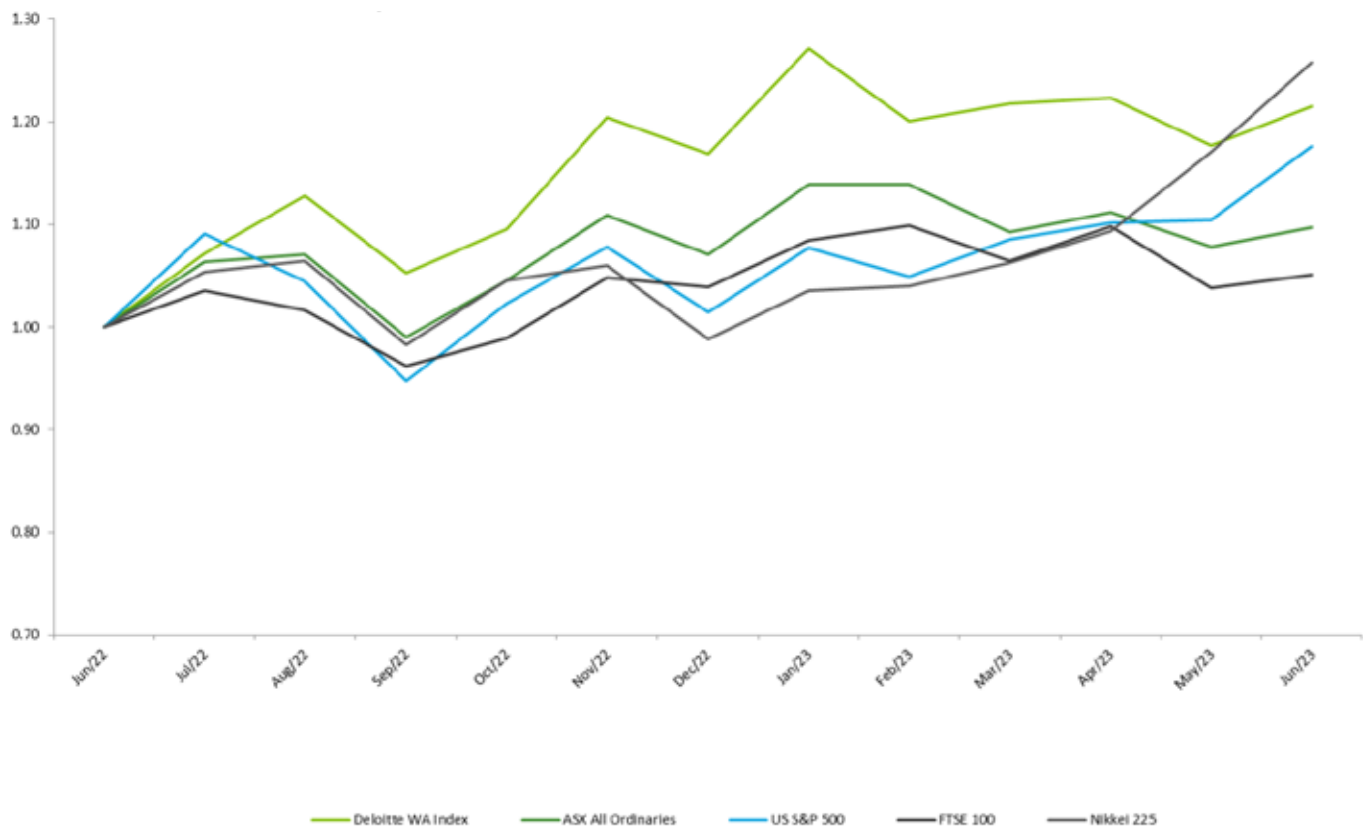
Thermal coal and coking coal finished down 39% and 42% respectively. LNG fell 68%, crude oil was down 34%, and iron ore lost 7%. Palladium, heavily reliant on supply out of Russia, also saw a 34% retraction.

In more upbeat news, uranium jumped 15% on positive rhetoric stemming from the World Nuclear Fuel Market conference in Slovenia during June 2023. Gold fought to hold its ground, finishing the year up 5%, while lead and tin enjoyed gains of 13% and 3% respectively.

Lithium carbonate also faced headwinds this year, and ultimately finished the year down 18%. Similarly, rare earth elements also fell sharply (down 63%) following a significant supply-side response from China. Although don't let a short-term price correction get in the way of a good long-term thematic. That's certainly what the equity market behaviour would imply this year as sustainable clean energy and battery development has again been a common thread amongst top performing WA Index participants.

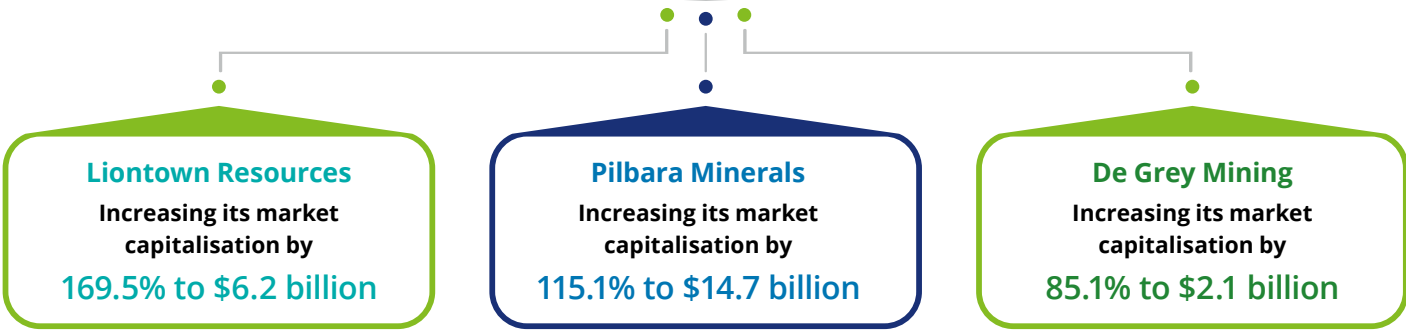
As is customary for our Diggers & Dealers Special Edition, we recognise the top performing companies in the Deloitte WA Index delivering outstanding market capitalisation growth over the year. We acknowledge success in two categories, the top three movers by market capitalisation in the Top 20 of the WA Index, and the top three movers by market capitalisation in the Top 100.

Performance of Global Financial Markets over the past 12 months

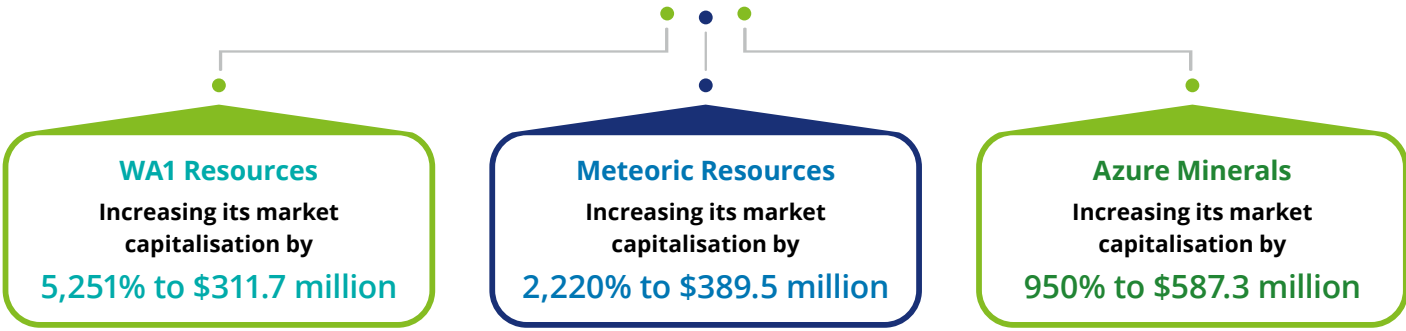


Source: Bloomberg, Deloitte

The Top 3 movers in the WA Index Top 20 in terms of market capitalisation growth for the year ended 30 June 2023 are:



The Top 3 movers in the WA Index Top 100 in terms of market capitalisation growth for the year ended 30 June 2023 are:



Congratulations to this year's winners!

Sustainability in mining is a continuous journey, and one that the industry should be proud to say it is making significant progress through innovation and investment. Iterative innovations and out of the box thinking continues to bring great advancement in how things are done in mining, through the consistent application of a sustainability mindset.

Recently, Deloitte ran a Future of Mining competition engaging the younger generation of up-and-coming leaders on important industry topics, with one important question posed- ‘What can the mining sector do now to create a more sustainable tomorrow?’

The responses to this competition have been captured and summarised in a separate report ‘Countdown to 2030; Bold action for a sustainable mining future’ which can be accessed on the Deloitte Australia webpage. As an exclusive for our WA Index readers, we set aside time for a chat with the competition winner, Elise Hilder, and her thoughts are captured in this special edition.

On the topic of sustainability, one of the first things that comes to mind is the reshaping of our energy supply, and the shift to be renewable and carbon neutral. It’s clear that battery-based solutions are critical to the electrification of vehicles and general mobility and it’s no surprise battery technologies, EVs and lithium stocks are the talk around town. The investments in this technology and rising uptake from consumers is a testament to its ongoing success.

That said, there remains the question of whether this solution will satisfy the requirements of such a geographically diverse state such as WA and the Western Australian government has called out hydrogen to play an important part in Western Australia’s energy future.

We have included in this special edition of the WA Index a brief article on the progress of hydrogen-based energy and to what extent green hydrogen could become a viable and complementary solution to solving domestic challenges in heavy haulage and long-haul transport networks.

More broadly, Western Australia’s decarbonisation journey requires bold transformation to meet a 43% reduction in emissions by 2030 (from 2005 levels) and Net Zero by 2050.

Yes, energy transition is a key pillar in the journey and requires significant capital investment from both government and private industry on an accelerated timeline. However, delivering nation-defining projects in areas such as wind, solar, pumped-hydro, battery storage, and hydrogen is not without its obstacles.

Deloitte subject matter experts have shared some thoughts about their tips for success in renewable energy capital projects in a special report included in this Deloitte WA Index.

Deloitte will be at this year’s Diggers and Dealers conference in Kalgoorlie from 7 – 9 August 2023. Please come and see us at Booth 10 for a chat and join the conversation around creating a more sustainable tomorrow.

Dave

Dave Andrews
Partner, Audit & Assurance

Views from Australia’s Future Leaders on Sustainable Mining

The viewpoints and ideas of our future leaders should not only be considered highly valuable, they should be taken seriously by current business leaders, as this next generation will be the leaders across Australia’s key sectors in years to come.

Engaging with the younger generation on an important topic of interest to them was the catalyst behind Deloitte’s Future of Mining Competition launched in March 2023. Held in conjunction with the WA Mining Club, this competition was open to tertiary students and young professionals with less than 5 experience in the Australian workforce to gather their ideas on one question - ‘**What can the mining sector do now to create a more sustainable tomorrow**’.

The responses to this competition are outlined in a separate report; **Countdown to 2030; Bold action for a sustainable mining future**. In this issue of the WA Index, we delve deeper into 1st prize winner; Elise Hilder’s views on the mining industry, its future and why this topic is so important to the younger generation.



Photo: Winner announcement presentation at WA Mining Club luncheon, May 26 2023. Nicki Ivory; Deloitte (left), Elise Hilder; 1st Prize winner (middle), and Ian Skelton; Deloitte (right).



For more information on the Future of Mining Competition and the ideas submitted by the younger generation, download Deloitte's report - Countdown to 2030; Bold action for a sustainable mining future;
<https://www.deloitte.com/au/en/Industries/mining-metals/perspectives/countdown-to-2030.html>.
Visit the Future of Mining webpage to view a short video on the winning 3 entries and responses from Australia's mining leaders -
<https://www.deloitte.com/au/en/Industries/mining-metals/perspectives/future-of-mining-competition.html>.

Deloitte WA Index Top Movers 2023

At Diggers & Dealers we traditionally acknowledge WA resource companies that have delivered exceptional growth in market capitalisation during the year. We acknowledge successes in two categories, the top three movers by market capitalisation in the Top 20, and the top three movers in market capitalisation in the Top 100.

Top 20 – Three largest movers

WA Index Ranking	ASX	Name	Mkt Cap 30 June 2023 \$ million	Mkt Cap 30 June 2022 \$ million	%Change
10	LTR	Liontown Resources Ltd	6,232.38	2,312.80	169%
5	PLS	Pilbara Minerals Ltd	14,661.14	6,816.98	115%
19	DEG	De Grey Mining Ltd	2,099.77	1,134.12	85%

Source: Capital IQ, ASX

Top 100 – Three largest movers

WA Index Ranking	ASX	Name	Mkt Cap 30 June 2023 \$ million	Mkt Cap 30 June 2022 \$ million	%Change
76	WA1	WA1 Resources Limited	311.67	5.82	5,252%
64	MEI	Meteoric Resources NL	389.53	16.79	2,220%
47	AZS	Azure Minerals Limited	587.31	55.93	950%

Source: Capital IQ, ASX

Deloitte WA Index top movers in the Top 20

Liontown Resources Ltd

Liontown Resources Ltd ('Liontown') delivered a 169% increase in market capitalisation during the year ended 30 June 2023, jumping to 10th in the WA Index rankings.

Background

Liontown is a mineral exploration and development company engaging in the development of high-quality lithium and tantalum projects in Western Australia. Liontown is the sole controller and owner of lithium rights to two prospective projects located in WA - Kathleen Valley and Buldania. Headquartered in Perth, this company is exposed to the transforming lithium market.

Operational review

In January 2023, Liontown announced an update to the company's flagship lithium project, Kathleen Valley, where it is currently progressing through to the pre-production phase. Off the back of continued strength in investor sentiment towards battery technology and the important role lithium has in the clean energy value chain, Liontown has enjoyed strong support from local and international investor communities.

This was again evidenced in March 2023, as Liontown received a third takeover proposal from American specialty chemicals manufacturing company, Albermarle Corporation, who are seeking to grow and solidify their ore feed for the coming decades. The takeover attempt was an unsolicited indicative proposal to acquire all Liontown shares at a price of \$2.50ps, following two lower bids at \$2.00ps and \$2.25ps. It was found that RT Lithium Ltd, a subsidiary of Albermarle, had also been building a stake in Liontown through on-market purchases where it held approximately 2.2% of Liontown's issued shares at the time of the proposal.

The Board of Liontown determined that the proposal substantially undervalued Liontown and was not in the best interest of shareholders. The Board further noted the opportunistic timing of the indicative proposal, where lithium prices had been in sharp decline since November 2022, as well as the pre-production status of the Kathleen Valley Project.

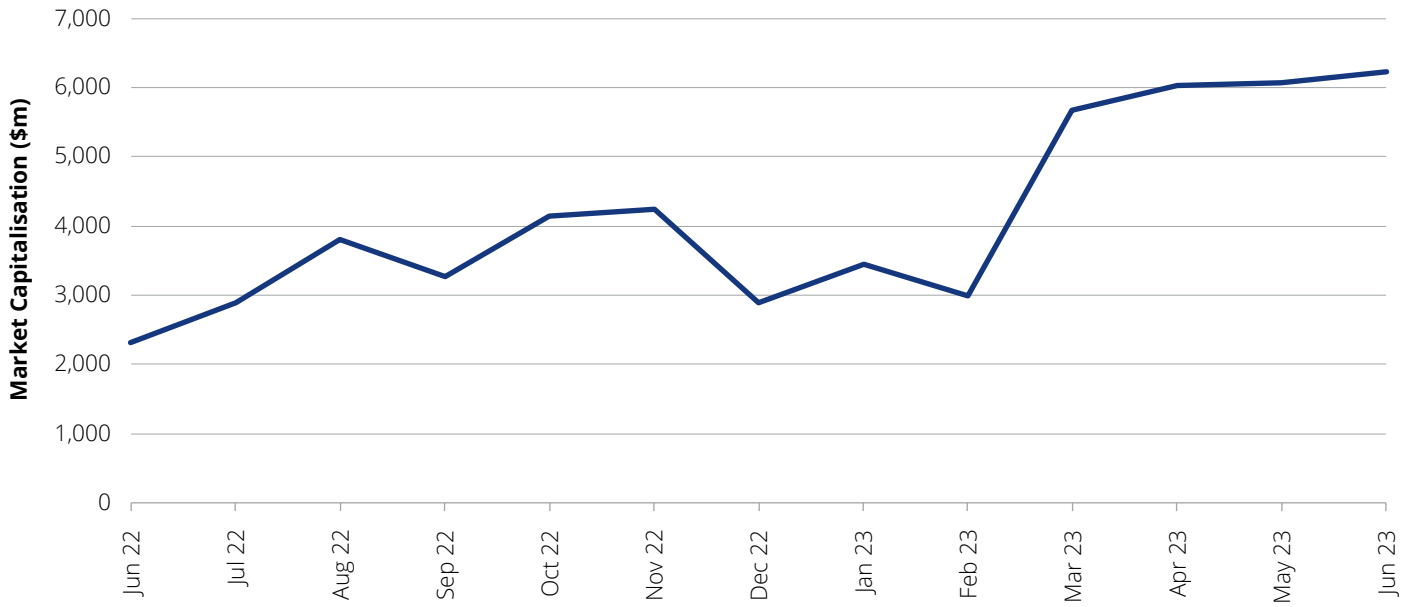
Shares jumped to all-time highs for Liontown immediately following the announcement with the share price closing at \$2.84ps on 30 June 2023; notably higher than the Albermarle offer.

Going forward

Liontown is well positioned to realise value from its Kathleen Valley project where it expects to deliver first production in Mid-2024. Liontown already holds offtake contracts with Tesla, Ford, and South Korean-based LG Energy Solutions (LGES) for its spodumene concentrate, which will come into effect upon commencement of production.

Despite Albermarle's failed third takeover attempt, it would be difficult to rule out any further attempts to secure this strategic lithium asset. The corporate interest from overseas entities is a testament to the scarcity and quality of the Kathleen Valley lithium project.

Liontown Resources Limited



Source: Bloomberg, Deloitte

Pilbara Minerals Ltd

Pilbara Minerals Ltd (‘Pilbara Minerals’) achieved a 115% increase in market capitalisation during the year to 30 June 2023. Pilbara Minerals now ranks 5th in the WA Index.

Background

Pilbara Minerals engages in the exploration, development and mining of lithium. Its 100%-owned flagship Pilgangoora Project is located in the Pilbara region of Western Australia and is currently the world’s largest independent hard-rock lithium operation.

Operational Review

Pilbara Minerals share price experienced strong growth in July through to October 2022. This was underpinned by successful auctions of lithium oxide via the company’s propriety Battery Material Exchange platform (BMX), which allowed for a secondary market of smaller parcels of lithia.

Auctions were held on 13 July 2022 and 2 August 2022 for 5,000dmt of lithium oxide where strong interest was gathered from a participation and bidding perspective; with a total of 41 and 67 bids within a 30-minute auction window, respectively. Successful BMX auctions continued throughout the year, generating additional cashflow for the company.

On 28 November 2022, it was announced that Pilbara and Calix entered into a 55/45 joint venture agreement for the development of a demonstration plant at the Pilgangoora project. The aim of this project is to produce lithium salts via a midstream refining process utilising Calix’s patented calcination technology. Successful demonstration of this calcination technology may lead to the commercialisation and licensing of the technology to the global spodumene processing industry.

Lithium prices began to fall sharply from November 2022, which was felt across the industry and reflected in the company’s share price short-term.

In February 2023, a \$250 million Australian Government debt facility was approved to support Pilbara Minerals’ P680 expansion project, which is currently undergoing construction to increase production capacity. The project includes a 5Mtpa integrated crushing and ore sorting facility which provides a pathway to deliver up to 1Mtpa of spodumene concentrate from the Pilgangoora project.

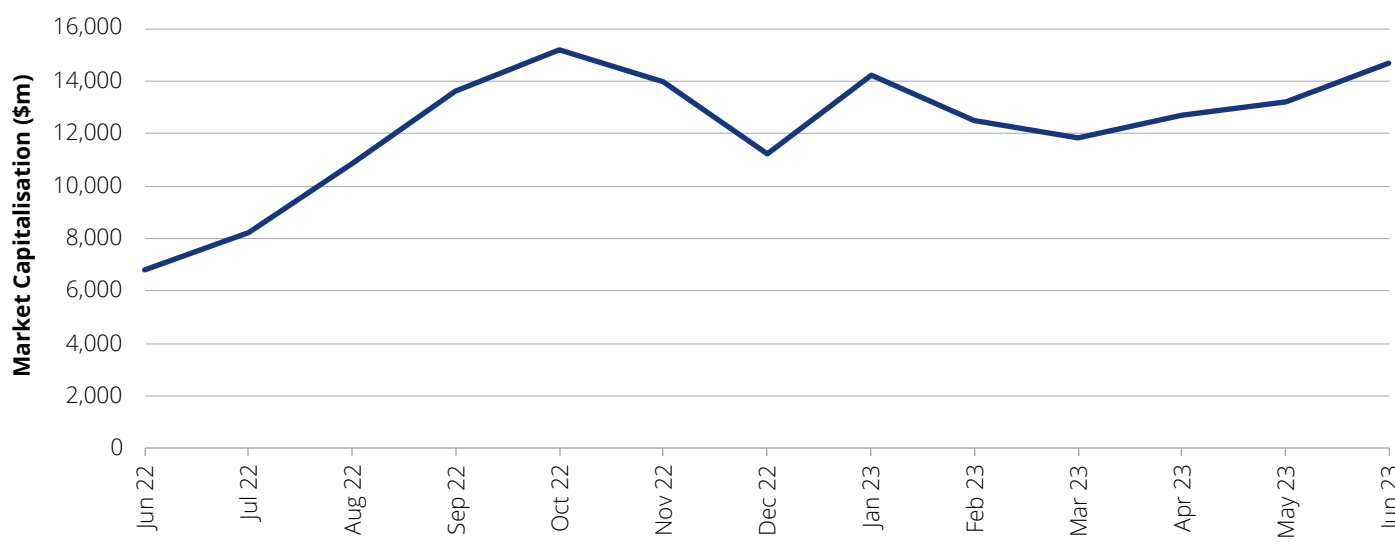
A further KRW600 billion (US\$460 million) debt facility was obtained from the South Korean state-owned banks, allowing for the development of the 43ktpa Lithium Hydroxide Monohydrate (LHM) Chemical Facility currently under construction in Gwangyang, South Korea. Construction is on track with the commission of the first 21,500tpa train scheduled from late 2023.

In March, a final investment decision was made to increase production capacity of the Pilgangoora project to 1Mtpa of spodumene concentrate via the P1000 expansion project. Since this announcement, prices have continued to rally for Pilbara Minerals.

Going forward:

Pilbara Minerals is positioned for growth as it continues to expand its production capacity via the P680 project and now the P1000 project, where the company aims to reach a target 1Mtpa capacity by 2025.

Pilbara Minerals Limited



Source: Bloomberg, Deloitte

De Grey Mining Ltd

De Grey Mining Ltd (‘De Grey’) delivered an 85% increase in its market capitalisation during the year ended 30 June 2023, lifting the Company into the Top 20 rankings of the WA Index.

Background

De Grey is a gold exploration and development company, with its flagship Mallina project located in the Pilbara region of Western Australia. This asset boasts an impressive 9.5-million-ounce gold resource at an overall grade of 1.3 grams per tonne.

Operational Review

In August 2022, the company announced major gold intersections 200m below the most recent mineral resource estimate. These intersections posed significant upside to the mineral resource and had potential to further increase the future production profile of the Mallina project. August also saw gold producer ‘Gold Road Resources’ increase its stake in the company to 19.99% - this spurring on a flurry of M&A gossip surrounding the company.

Early September the company released its Preliminary Feasibility Study for the Mallina project. This study incorporated a maiden 5.1 million ounce reserve and touted an overall \$2.7 billion post-tax net present value. The study stated the project is due to produce 500,000 – 520,000 ounces per annum, placing it in the top five of Australian gold mines by production.

Following a positive study, the company raised a total of \$150 million which would be put towards the completion of a Definitive Feasibility Study as well as other infill and exploratory drilling programs.

To close out the calendar year, the company announced a landmark Native Title Agreement had been signed with the Kariyarra People which provides pathways for employment, training and contracting of the Kariyarra People and also supports the path towards development of the project.

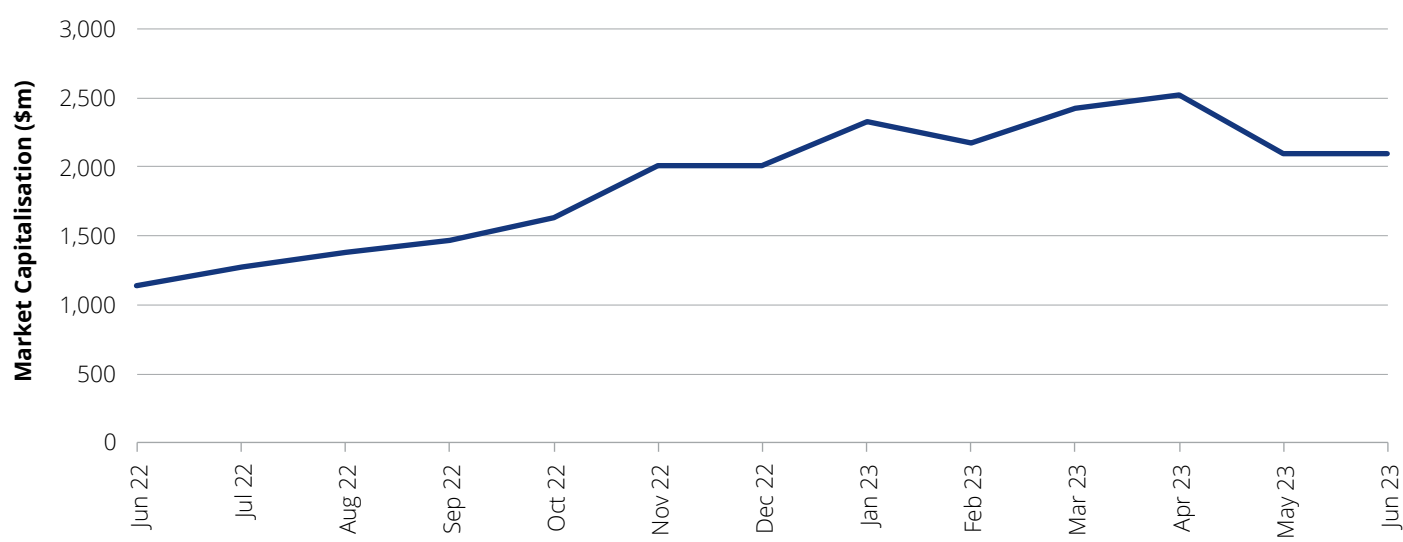
This major milestone allowed the company to progress with evaluating financing options, which led the company to update the market in February in relation to potential debt funding. The company stated it had received 14 non-binding proposals from leading financial institutions to support development of the project, with many of the institutions indicating a debt capacity of \$800 million based on the released PFS.

In June the company upgraded the projects mineral resource to 9.5 million ounces, providing a strong platform for the upcoming Definitive Feasibility Study.

Going forward

De Grey’s prospects are promising as they continue to progress the highly anticipated Definitive Feasibility study for its flagship asset. The company also stays committed to further gold exploration via signing an exploration agreement with Novo Resources Corporation.

De Grey Mining Limited



Source: Bloomberg, Deloitte

Deloitte WA Index top movers in the Top 100

WA1 Resources Limited

WA1 Resources Limited (‘WA1’) catapulted into the WA Index Top 100 this year, increasing its market capitalisation 5,252% to finish at 76th in the WA Index rankings on 30 June 2023.

Background

WA1 are a resources company, focused on the exploration for Niobium at the West Arunta Project. Whilst no reserve or resource has yet been associated to the project, drilling results during 2023 have been exceptional with significant target intercepts.

Operational Review

Niobium is a rare element, with few global projects in production. It is used predominantly as an alloying agent for steel, to improve strength and corrosion resistance. Global supply is concentrated; with currently two Brazilian producers accounting for approximately 90% of production.

Niobium has widely been considered a critical mineral, expected to have a key role in the green-energy transition given it’s uses in wind turbine construction and potential role in batteries.

The WA1 story kicked off in late October, following the discovery of the Luni Carbonatite; a type of igneous rock known to be mineralised with rare earth elements including niobium.

Since the discovery of the carbonatite, the project has returned exceptional intersections. In June 2023, the best results were seen – 10m @ 8.3%. Overall intervals from RC drilling have consistently suggested that this project may be a globally significant Niobium discovery– in terms of both quantity and grades. During the current field season, 51 RC drill holes have been completed, with resource definition progressing.

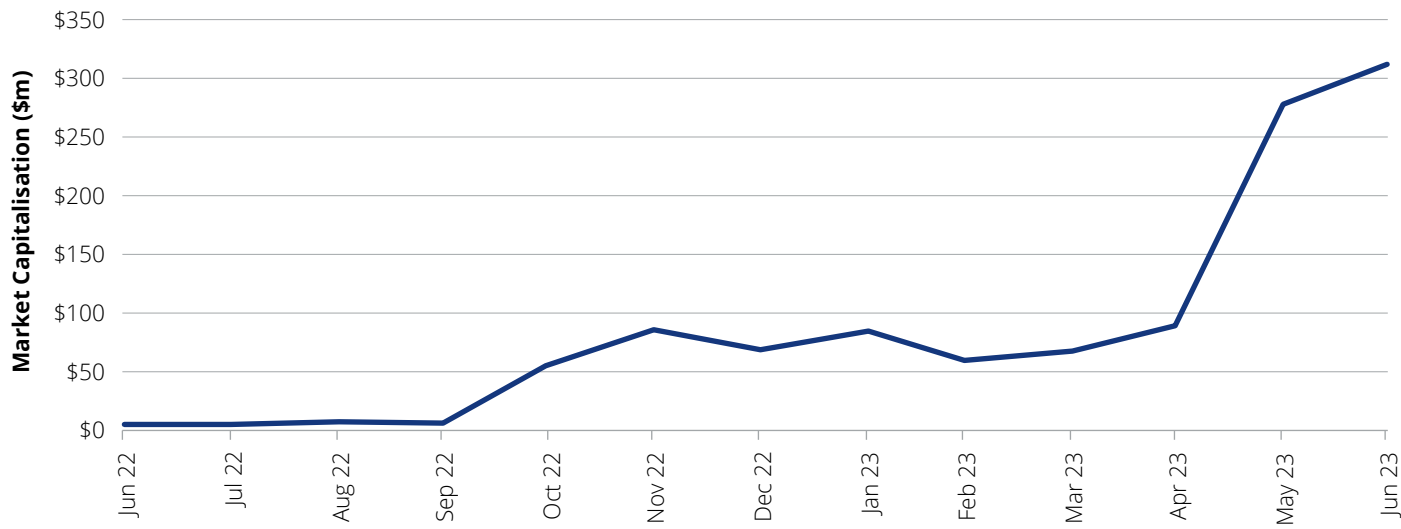
In order to fund the aggressive drilling campaign, WA1 undertook a \$10 million institutional placement in May 2023, with Regal Funds subscribed for all of the placement shares. This capital will help facilitate the ongoing drilling and progression of the project.

Going Forward

Drilling at the project is expected to continue to facilitate resource definition, with an RC and Diamond drill rig currently on site to fully understand the mineralisation within the carbonatite.

Niobium is often sold in markets as a ‘Ferroniobium’ and hosts a number of complexities from a metallurgical standpoint in processing. The success of WA1 will be influenced by ongoing metallurgical test work, to ensure that the niobium can be effectively extracted.

WA1 Resources Limited



Source: Bloomberg, Deloitte

Meteoric Resources NL

Meteoric Resources NL (‘Meteoric’) jumped into the WA Index Top 100 during the year ending 30 June 2023, with its market capitalisation increasing 2,220% placing it at 64 in the WA Index rankings.

Background

Meteoric is a rare-earths exploration company with projects in Brazil and in Western Australia, with its Brazilian holdings for the ‘Caldeira Project’ acquired during the December Quarter.

Operational Review

The Caldeira acquisition was a key event of the year, symbolising a transition for Meteoric into the rare earth’s space. Consideration for the investment included US\$20 million cash paid in instalments until 2026 and a 4.75% royalty based on the rare earth oxide value over the first 4 years of production.

This extended Meteoric’s holdings in Brazil, following the term sheet for the sale of the Juruena Gold Project being terminated and Meteoric retaining 100% ownership and control of the Project.

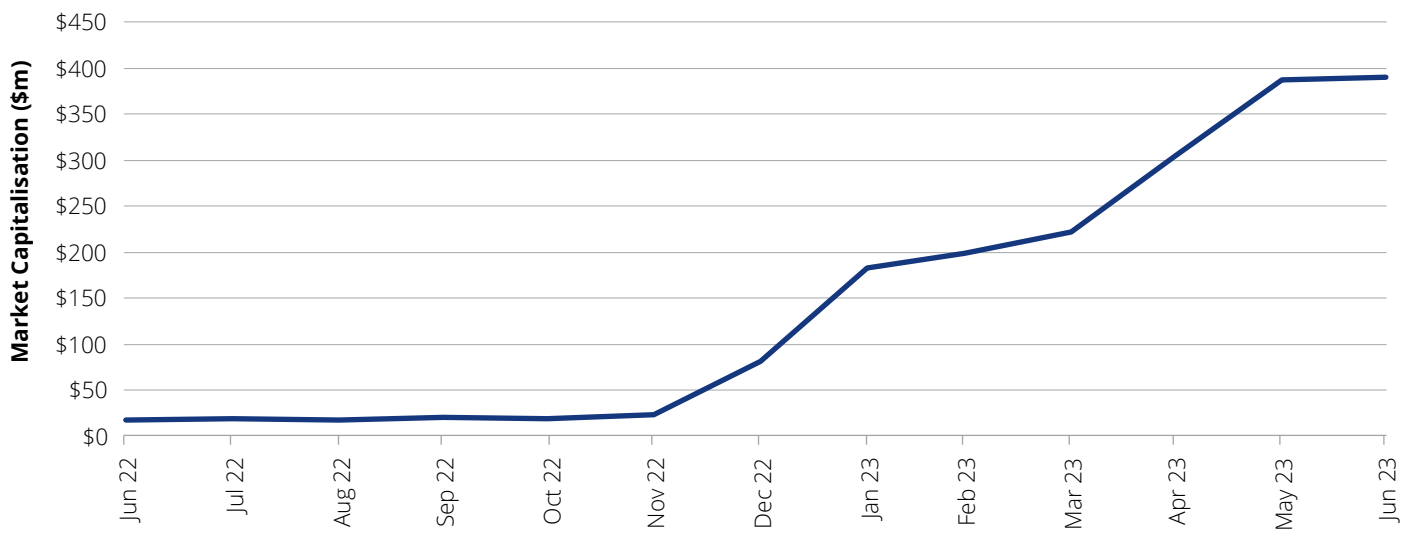
The Caldeira project underwent extensive surface-drilling, resulting in a maiden resource for the project of 409Mt @ 2,626 ppm TREO, at a 1000ppm cut off based on this drilling and historic exploration data. Given the shallowness of the resource; with an average drill depth of 6.9m, the maiden resource looked to indicate positive signs going forth for resource-extension given the deposit was considered to be open at depth. The company noted that early diamond drilling appeared promising to suggest extension.

The Company’s Australian based Palm Springs gold project also delivered promising results in February 2023, with further RC drilling to continue.

Going Forward

The Caldeira project has had a scoping and prefeasibility study commence in the June 2023 quarter, and the project expected to continue to be subject to air core and diamond drilling, with the acquisition of a new drill rig to assist the drilling campaign. Metallurgical test work will also continue to assess recovery of the underlying resource estimate of the project.

Meteoric Resources NL



Source: Bloomberg, Deloitte

Azure Minerals Limited

Azure Minerals Limited's ('Azure') market capitalisation climbed 950% during the year ended 30 June 2023 to rank 47th in the WA Index.

Background

Azure is a company exploring for and developing assets related to battery metals, specifically lithium and nickel. The company owns 60% of the Andover project in the Pilbara, which contains a JORC compliant nickel resource and shows potential to host a large-scale lithium deposit.

Operational Review

In October 2022, the company announced the discovery of lithium bearing pegmatites at its Andover project. Results from the ground mapping and sampling program had confirmed lithium grades of up to 1.62%. The company also announced it had intercepted two pegmatites containing visual spodumene within a recent nickel drilling campaign. Shortly after this announcement, further impressive sampling results were released to the market, with peak grades of 3.32% lithium.

In early January 2023, global lithium producer Sociedad Quimica y Minera ('SQM') invested A\$20 million to acquire an interest of 19.99% in Azure. This investment is a strong endorsement for the lithium potential at the company's Andover project.

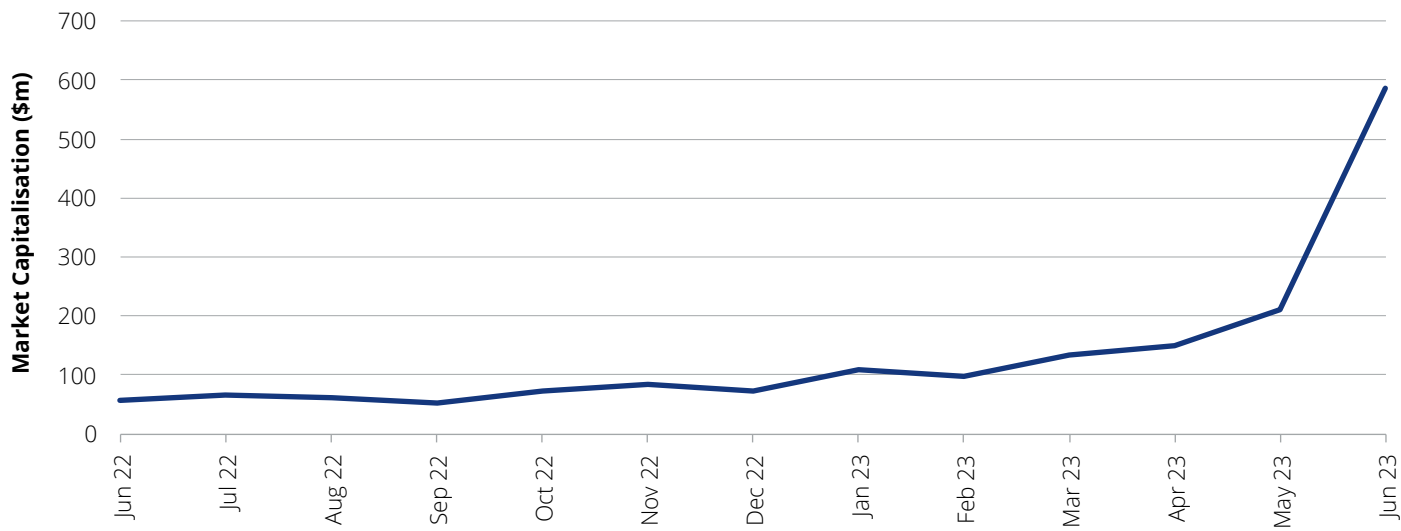
In February 2023, the company received lithium rich assays for the pegmatite it had intercepted back in October 2022. The assays produced an intersection of 7.2m @ 1.51% lithium. This was considered highly encouraging as it confirmed lithium mineralisation found at surface could correlate to lithium beneath surface.

Following the encouraging results above, the company launched a 40,000m reverse circulation drilling program to work in conjunction with the current diamond drilling program. In both early and late June, the company released exceptional drill results with headline assays of 105m @1.26% lithium and 90.2m @1.23% lithium respectively.

Going forward

Azure is very much in the infancy of its lithium exploration, but results to date have outlined the Andover projects potential to host a significant lithium deposit of global scale. Further to these results, the company recently received new exploration licenses for tenements which contain abundant pegmatites prospective for lithium mineralisation.

Azure Minerals Limited



Source: Bloomberg, Deloitte



Commodities

A strong WA Index performance to 30 June 2023 has come largely unphased by the broader commodity markets which did it tough this year.

Pockets of optimism in uranium, gold, lead and tin were outweighed by significant price retractions across many of the commodities surveyed. Thermal and coking coal finished down 39% and 42% respectively. LNG fell 68%, crude oil was down 34%, and iron ore lost 7%. Palladium, heavily reliant on supply out of Russia, also saw a 34% retraction as consumers looked elsewhere for alternatives.

In more upbeat news, uranium jumped 15% to US\$56 per pound on positive rhetoric stemming from the World Nuclear Fuel Market conference in Slovenia during June 2023. Gold fought to hold its ground, closing at US\$1,912 per ounce which is a 5% increase over the previous year, while lead and tin enjoyed gains of 13% and 3% respectively.

Lithium carbonate faced headwinds this year, and ultimately finished the year down 18% at US\$53 per kilogram. Similarly, rare earth elements also fell following significant supply side response from China. Despite the price retractions, this does not appear to have had much of a direct translation into share price performance, with many lithium and rare earth hopefuls still seeing strong investor support.

Lithium

The darling of the battery revolution had an intriguing year, with the story of high-concentrate lithium carbonates differing to that of hydroxide concentrates and spodumene. The lithium carbonate 99.5% concentrate is predominantly an intermediary form of lithium that requires further conversion to lithium hydroxide for use in lithium-ion batteries. Whilst high-concentrate lithium carbonate has had a slight downward trend, closing at 52-week lows at \$52.75 per kilogram, the reality for Australian sellers has been much more optimistic. Australia's current 'downstream' role in the mining of spodumene has resulted in exposure to generally better prices; selling a less refined product that has paid dividends for the Australian hard rock lithium industry.

Rare Earth Elements

This year marked the first year in which the WA index tracked neodymium praseodymium alloy ('NdPr alloy') prices. NdPr are considered 'magnet rare earths' within the rare earth element basket. Magnet rare earths are used in numerous devices considered critical for decarbonisation such as electric vehicles and wind turbines.

NdPr alloy prices finished the year at US\$77,607 per tonne, representing a 54% decline from prices during the period. The price of NdPr fell over the year as a result of higher-than-expected output from China, which accounts for 63% of rare earth mining. Inventory levels are now considered excessive as a result of this significant output from China however demand outlook remains favourable.

Battery Metals



Source: Bloomberg, Deloitte

Crude Oil

Crude Oil prices fell 34% to US\$76 per barrel during the year ended June 2023. Four straight quarterly losses were posted throughout the year as concerns increased around global lacklustre economic activity curbing fuel demand. Prices saw significant downwards pressure from rising interest rates in the US and other key economies as well as a sluggish recovery in Chinese consumption and manufacturing. A price cap imposed by the G7 in December 2022 on Russian oil, amid the Russian-Ukraine conflict furthered this decline in price.

Nevertheless, pockets of strengthening demand were scattered across the year; a sharp decline in US oil inventories in June 2023 and the agreement to cut output by 2 million barrels per day by OPEC+ in October 2022 offered some relief. Oil prices remained below US\$80 per barrel for a significant portion of the year, suggesting that the commodity was driven more by macroeconomic worries and less by fundamentals.

LNG

LNG prices had a volatile year; prices shot up to peak at \$69.96 per mmbtu and dropped down to \$12.24 per mmbtu by the end of the financial year. In August 2022, prices reached record highs as Europe imported as much cargo as it could amid fears that the Russian pipeline supplies would be curtailed. Fears of shortages also plagued East Asia, as it attempted to snap up the chilled fuel ahead of the coming northern winter.

Demand for LNG in Europe softened pushing downwards pressure on LNG prices. Meanwhile, Japan's importers held steady in response to declining prices. Chinese utilities largely opted out of buying when prices surged in August, returning to the market with modest purchases throughout the first half of 2023.

Uranium

Uranium prices increased 15% to US\$56 per pound over the year. The spot price accelerated to its highest peak in 14 months in early June 2023 after the World Nuclear Fuel Market conference in Slovenia. Positive outcomes from the conference combined with growing interest on a Swiss physical uranium fund that recently launched were significant factors in this jump.

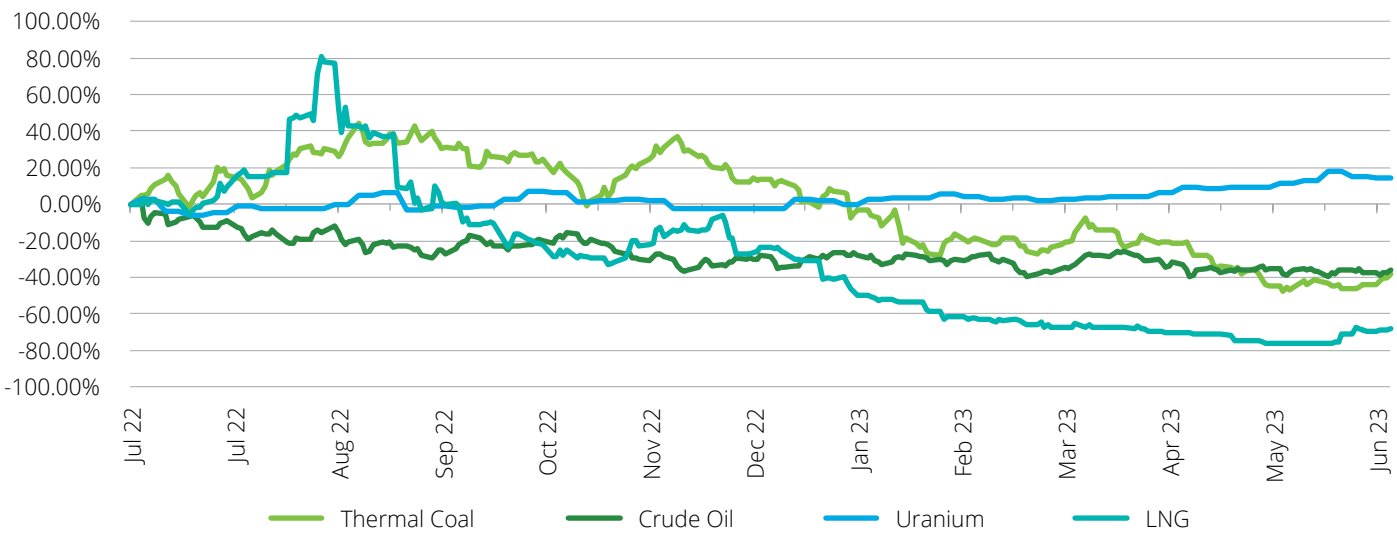
Swiss fund, Zuri-Invest AG, was expected to make significant purchases, with rumours that 800,000 pounds of uranium had been purchased already by March 2023. This expectation fuelled further demand for the material as investors attempted to buy before prices increased.

Thermal Coal

Thermal Coal prices slumped 39%, representing its lowest price in two years, closing at US\$158 per tonne.

Demand for energy coal in Europe returned. Widespread drought affected hydropower production and technical issues at French nuclear power plants saw reliance shift back to coal. This post-COVID rebound continued through to September 2022, but demand has been cooling since, fuelled by Europe's commitment to diverge from coal to renewable energy.

Moreover, demand grew in Asia as cheaper coal prices presented an attractive option. A surge in energy demand was fuelled by the economic rebound from COVID-19 across China and other Asian countries. However, it is apparent that the demand seen from Asia has not outweighed the effects of various global governments' commitments to reduce greenhouse gas emissions.



Source: Bloomberg, Deloitte

Lead

The price of lead closed the year at US\$2,144 per tonne, an increase of 13%. Lead prices were buoyed by continued increases in Chinese demand, as well as expectations of lower lead production going forward considering growing environmental restrictions associated with the metals' mining and smelting industry. Prices peaked in January 2023 at US\$2,336 per tonne, following their 52-week low of US\$1,737 per tonne in September. Whilst the outlook of one of lead's key uses (lead-acid batteries) may not be in parallel with the growth expected of lithium-ion batteries supporting the EV transition, expectations still project potential growth.

Aluminium

Aluminium prices were highly volatile through 2023, reaching as low as US\$2,092 per tonne in late September 2022, before a peak of US\$2,624 per tonne in late January 2023 before closing at US\$2,111 per tonne. Production remained consistent through the year, with smelting dominated by China averaging 3,413 thousand metric tonnes per month, representing 59% of global primary aluminium production.

China's dominance over global production was only aided by the challenges of European aluminium smelters who had to cut production on the back of the European energy crisis, with the likes of Alcoa and Liberty House both curtailing production. Aluminium is considered one of the most energy-intensive metals to produce, resulting in its high sensitivity to changes in cost-inputs and availability of electricity.

Nickel

Nickel prices declined by 10% this year to US\$20,346 per tonne, easing from the prior year's surging prices because of the Russian-Ukraine conflict. There was a healthy supply of the metal during the year, which saw growing output from Indonesia's pig iron industry. Output from Indonesia accounted for almost half of the world's total nickel production, an increase of 21% from the previous year.

This supply was matched with a growing demand for nickel from electric vehicle (EV) battery producers and car makers. Nickel accounts for 50-80% of the minerals used in EV cathodes. Moreover, inefficiencies in pricing mechanisms have caused uncertainty in nickel prices.

The LME nickel price is underpinned by trading of the metal at 99.8% purity. However, this only accounts for 25% of global nickel volumes, leaving waves of uncertainty around true nickel pricing. This is evident in the case of nickel sulphate crystals, the form of nickel especially desirable to battery makers, where there is no public daily market. This leaves a mismatch between the market and marketplace where premiums are negotiated outside the LME.

Cobalt

Cobalt prices have slumped 53%, closing at US\$33,000 per tonne, with the market experiencing lacklustre demand from EV battery manufacturers, who account for approximately 40% of the total cobalt market. Furthermore, demand for cobalt in consumer electronic batteries remained grim considering a slowdown in consumer discretionary spending.

Moreover, ESG concerns surrounding cobalt mined from the Democratic Republic of the Congo (DRC), the world's largest producer of cobalt, encouraged preference pivoted towards reduced-cobalt or cobalt-free batteries. Approximately 20% of cobalt mined in the DRC comes from artisanal mines, many of which have reportedly relied on child labour.

This downwards pressure from reducing demand was only furthered by a growing supply of the metal from Indonesia. Overtaking the Philippines and Australia, the country became the world's second-largest supplier of cobalt during 2023.

Tin

The tin market navigated a volatile period of changing supply and weaker demand across the year to achieve a modest 3% gain closing at US\$27,462 per tonne.

Almost half of the world's tin production is used in circuit-board soldering, a key component of semiconductors used in the consumer electronics industry. Conversely, consumer discretionary spending fell in the West as inflationary pressures impact households, which saw global semi-conductor sales retract bringing tin prices down.

Threats to Myanmar's production of tin pushed prices up in the second half of the financial year, on announcement that mining and processing activities would be suspended beginning August 2023. As the world's third-largest producer of tin, the unexpected news spread uncertainty over the global supply of the metal, reversing the losses experienced in the first half of the financial year.

Copper

Copper prices remained flat during the year, showing a 1% increase from the previous financial year to US\$8,322 per tonne. Chile, the world's largest producer of copper, saw production slide throughout the financial year, most notably in April 2023. The drag in production can be owed to a drop in mineral grades, delays in projects, logistical issues, and a lack of available solid copper projects. The demand from producers for reliable copper reserves was evident in BHP's acquisition of Oz Minerals to support the Olympic Dam copper project.

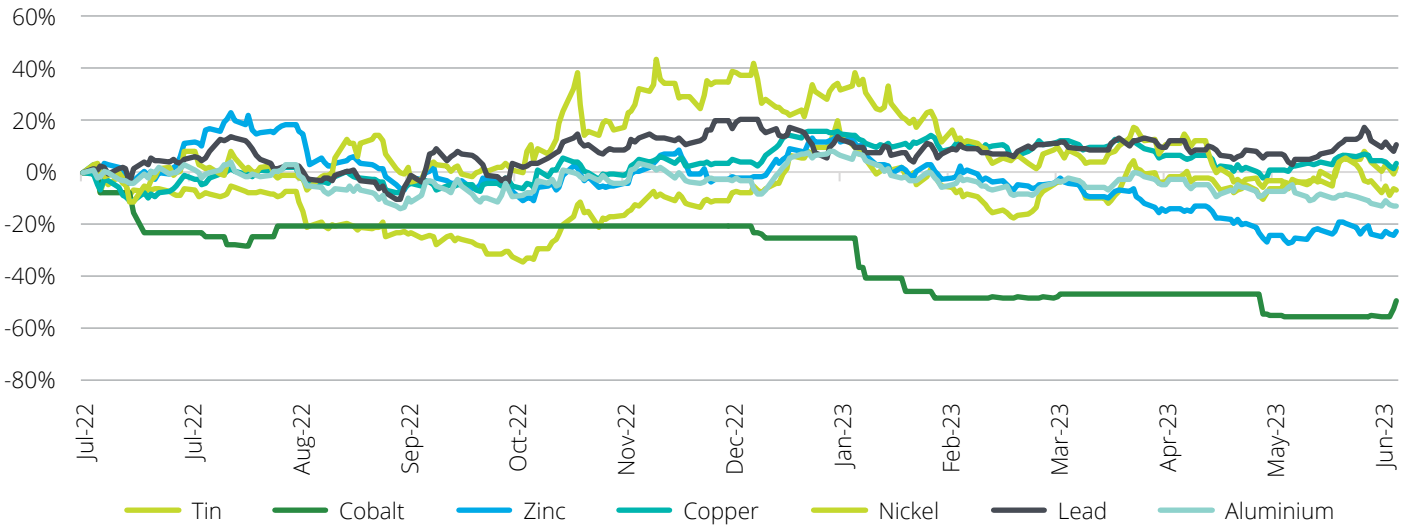
While these constraints to supply placed upwards pressure on prices, demand from China, the top consumer of copper, reduced as recovery of factory output following COVID-related lockdowns lagged. China's imports in Q3 were down 13% from last year, falling below market expectations and dampening copper price performance.

Zinc

Zinc prices fell 25% in the current year. The metal, primarily used for galvanising steel, closed at US\$2,382 per tonne.

Several smelters engaging in refined production across Europe closed in 2022 where surging power prices took a toll on operators. This created a smelter bottleneck where stockpiles of zinc concentrates grew. Expectations for a strong rebound in supply following this protracted bottleneck have dampened the prices for zinc.

Further, weak demand was also seen outside Europe. China's post-lockdown recovery had been disappointingly slow where its construction and automotive sectors made a sluggish recovery. As a sudden burst of demand from the country was yet to materialise, zinc prices remained low until the end of the financial year.



Source: Bloomberg, Deloitte

Gold

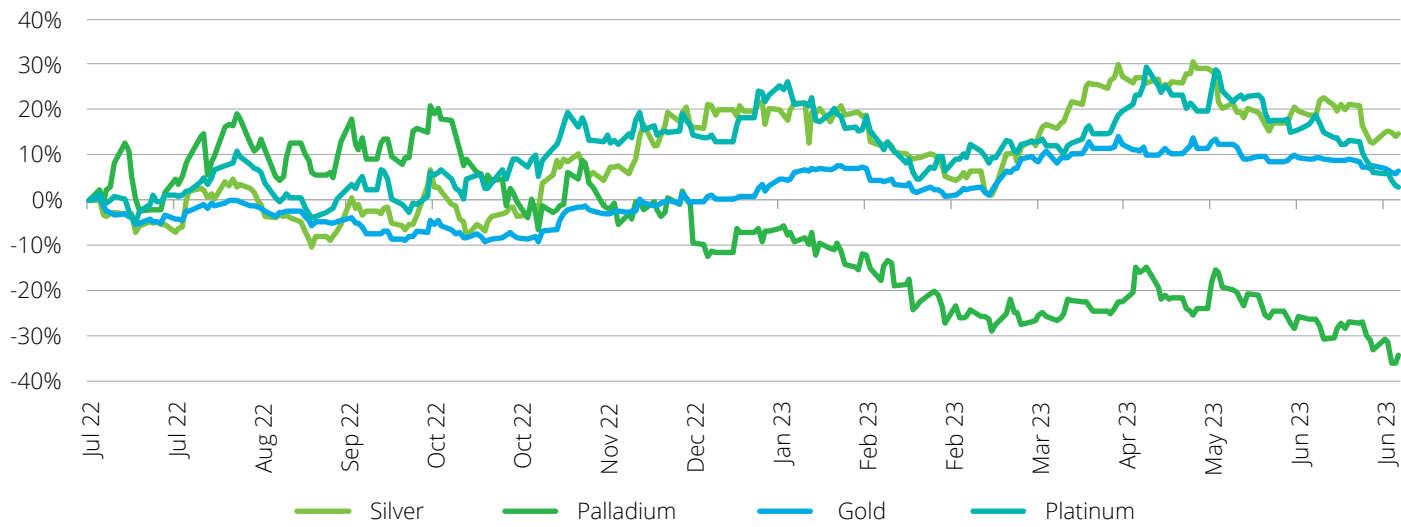
Gold has largely benefitted from the inflationary environment of FY23 and stood tall as a strong commodity despite changes to the balance sheets of many central banks. Gold peaked in April at US\$2,058 per ounce with lows in November of US\$1,629 per ounce. Growth over the last quarter was largely associated with the uncertainty surrounding the increase in the US debt ceiling with prices settling at US\$1,912 per ounce by 30 June 2023.

Continuing interest-rate hikes by the US Federal reserve have continued to impact demand for gold as a means for investors to hedge their bets against the consistent wave of inflation that has dominated markets. Central Banks have been integral to this demand, with many increasing their gold reserves which has been key to the resilience of gold prices throughout 2023.

Global gold production continues to be centred in China, Russia, and Australia. The gold-producing market is set for continued activity looking forward, following the significant Newcrest-Newmont merger and regional consolidation occurring in Western Australia.

Silver

Silver had a positive year closing at US\$22.76 per ounce – an increase of 11%. Growth was largely driven by changes in demand, given the wide uses of silver industrially and in jewellery, silverware, and photography. This leaves silver prices more susceptible to changes in global consumer trends.



Source: Bloomberg, Deloitte

Supply was bolstered by increases in lead-zinc mines and gold mines; with silver often being produced as a by-product from these projects. Mine production increased YoY in calendar year 2022, and the current outlook relating to the first few months of 2023 suggest further growth to come.

Palladium

Palladium prices have suffered during the year ended 30 June 2023, declining 34% and closing at US\$1,254 per ounce.

Palladium production has historically been concentrated in Russia, which produced 40% of global production in the years prior to the Russia/Ukraine crisis. Given the trade restrictions arising from the war, palladium markets have largely fallen out of favour of manufacturers, with many turning to alternatives such as platinum in their components. This softening in demand has driven the large decreases in price seen through the year.

Platinum

Platinum closed off the year flat at US\$897 per ounce. Production of the precious metal suffered at the hands of power cuts in South Africa, as well as ongoing civil unrest in Peru. Whilst demand for platinum continues to grow, in light of struggles in sourcing palladium for catalytic converters within new cars, platinum supply has struggled to keep up. Issues in supply not only in the mining of platinum but from recycled platinum, with expectations that this will not recover to above pre-pandemic levels in 2023, bode well for price support.

Coking Coal

Coking coal prices softened from the rampant highs of 2022, closing the year at US\$227.47 per tonne. Whilst trade restrictions continue to limit market supply from Russia, China's reopening of imports has helped to increase demand. A large portion of coking coal is sourced from Australia, resulting in stellar profits for Australian coal producers notwithstanding some disruption in February 2023 off the back of severe wet weather disruptions in Queensland and New South Wales.

Iron Ore

Iron ore closed out the year flat at US\$114 per tonne. Prices dipped through the first half of the year to a low of US\$80 per tonne in early November off the back of reduced steel manufacturing, poor factory data in China and a bleak outlook for China's property market during November. Chinese demand wasn't the only source of pain, with US markets also showing weakness in iron ore prices.

China was quick to revitalise its troubled real estate market in an attempt to address liquidity and boost financial support programs. This stimulus led to improved market prices for iron ore, driving a 4-month rally to reach highs in March 2023 of US\$135 per tonne. Continued interest rate hikes through the final months of the financial year softened capital development expectations, leading to iron ore prices cooling over the remainder of the year.



Source: Bloomberg, Deloitte

Coking Coal US\$/t



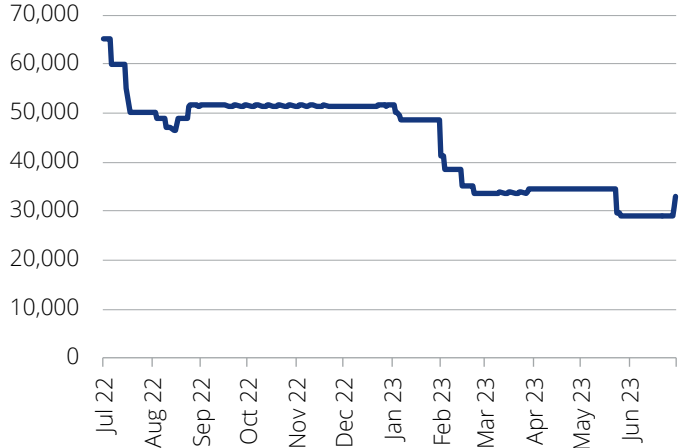
LNG US\$/mmbtu



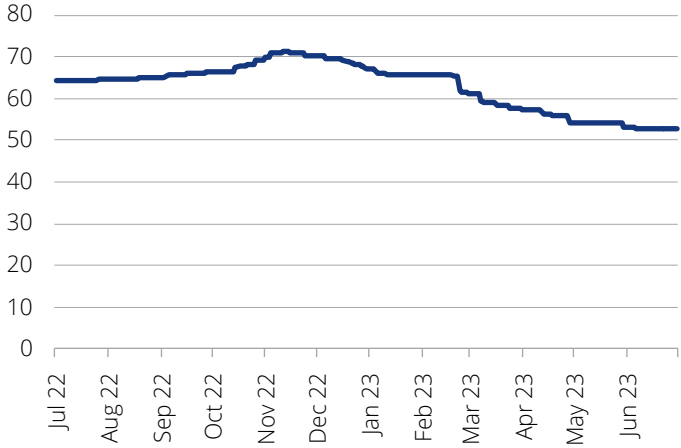
Tin US\$/t



Cobalt US\$/t



Lithium Carbonate US\$/Kg



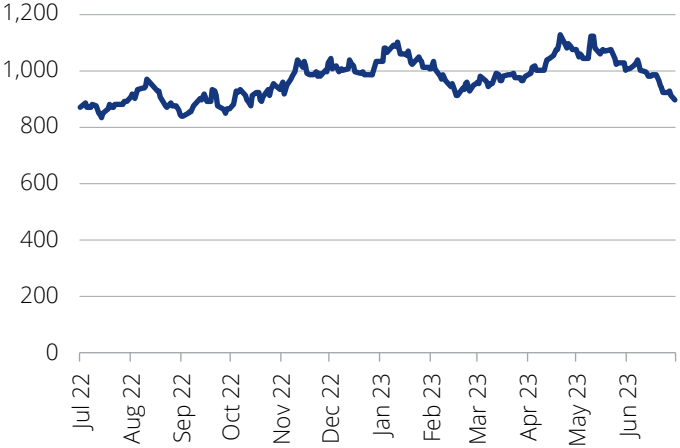
Thermal Coal US\$/t



Zinc US\$/t



Platinum US\$/oz



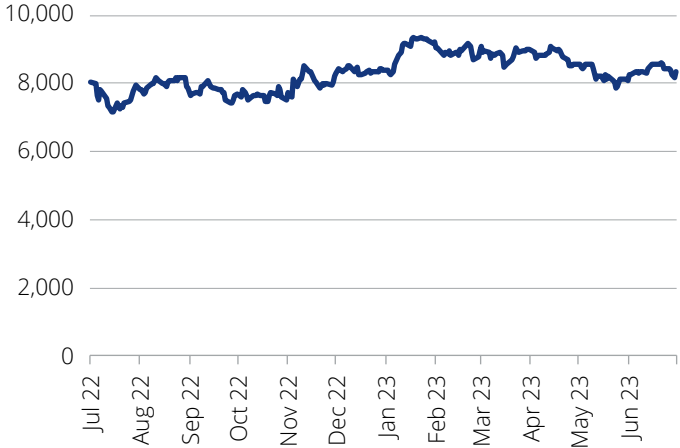
Uranium US\$/lb



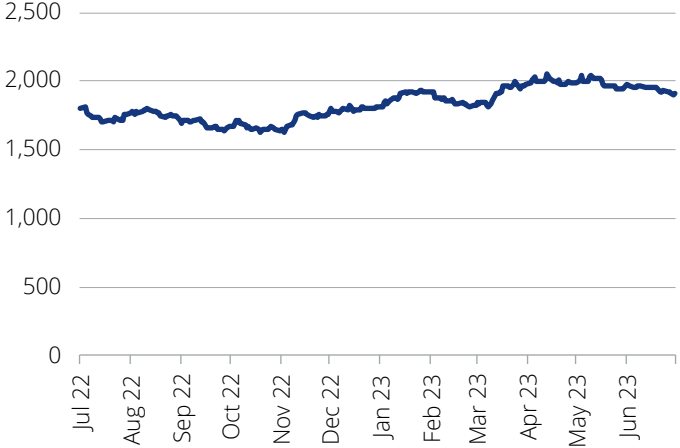
Crude Oil US\$/bbl



Copper US\$/t



Gold US\$/oz



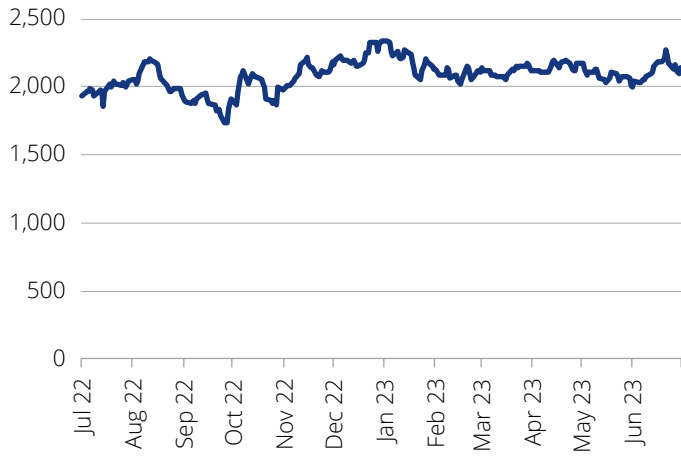
Source: Bloomberg, Deloitte

Source: Bloomberg, Deloitte

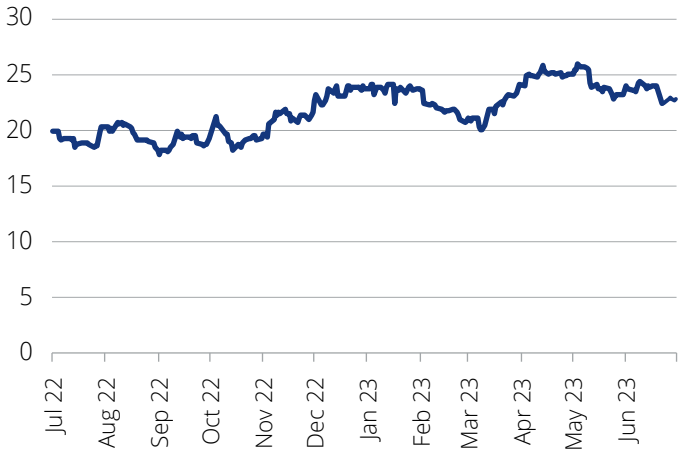
Nickel US\$/t



Lead US\$/t



Silver US\$/oz



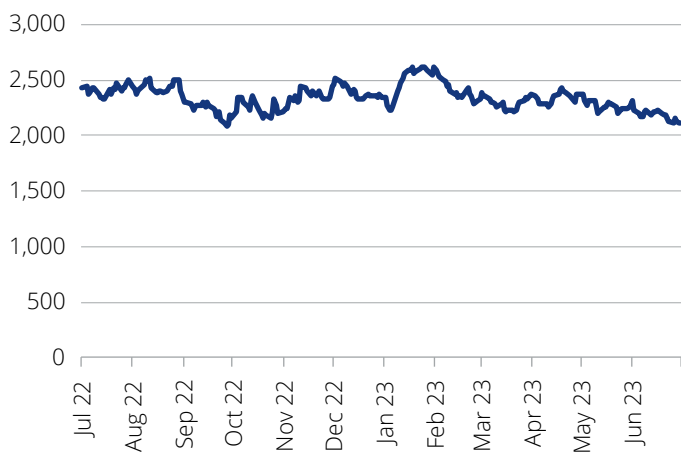
Palladium US\$/oz



Iron Ore US\$/t



Aluminium US\$/t



Source: Bloomberg, Deloitte



A role for hydrogen in Western Australia’s energy future

It has been pleasing to see so many companies within the WA Index making great strides in the pursuit of a clean energy future and a number have been rewarded in the process.

This is no more evident than on review of the WA Index high growth award winners this year, and even over the past few years, where lithium and battery-mineral focused companies have outperformed.

Battery-based solutions continue to dominate the narrative, which is not surprising given the significant investments into this technology and the comparatively more advanced status of electrification solutions compared with alternatives. However, there are some challenges to overcome.

Western Australia is a geographically diverse State, and our road networks span hundreds of kilometres of largely undeveloped land with little infrastructure in place. Much is being done to plan for upgrading infrastructure to deliver an EV highway, but it will unlikely extend ‘off the beaten track.’ Therefore, the clean energy future of WA will need broader considerations of appropriate energy solutions beyond electrification, to adequately serve the needs of transportation between cities, towns, and remote communities into the future.

This ongoing assessment and validation of alternate energy solutions is not necessarily to compete with electrification, rather to complement it in serving certain industries and sectors.

In recent times the efficacy of battery powered haul trucks has been questioned. Batteries used in haul trucks have been labelled as too heavy and slow at current battery density levels. No doubt OEM manufacturers are continuing to iron out and optimise their solutions, but it does highlight the current challenges of seeking a fast response to climate priorities.

Further criticisms have emerged regarding the lack of appropriate electric vehicle infrastructure on long distance and remote routes and while captive mine sites can manage their own infrastructure needs, the general public cannot, and these challenges are clearly exacerbated across Western Australia, with Perth one of the most isolated capital cities in the world.

To that end, Fortescue Future Industries (‘FFI’), a subsidiary of Fortescue Metals Group, has outwardly supported hydrogen as a viable green energy solution.

FFI note green hydrogen could be the solution that will revolutionise the way we power our planet, touting its potential use in hydrogen fuel-cells for both ground and air-based haulage, shipping and general transportation. Green hydrogen characteristics align with a clean energy thematic, being renewable, storable, non-toxic and containing zero carbon.

Green hydrogen is expected to play an essential role in decarbonising hard-to- abate sectors such as chemical and fertilizer production, alumina refining, steel, cement and heavy transport. In a mining industry context, it presents alternate options for material movement in shipping, rail and trucking, displacing the reliance on diesel and gas.

Large scale green hydrogen is not new to the table. The WA Government published its WA Renewable Hydrogen Strategy in July 2019. It aims to harness WA’s competitive advantages in this area. Stated focus areas include supply to export markets given WA’s proximity to key markets, as well as domestic supply serving remote industries and communities and mobility and freight transport.

Further, in late 2021, the WA Government applied for federal funding to match its own investment of \$117m in green hydrogen, with funds being used to create hydrogen hubs in Maitland, Karratha and the Pilbara regions. Fast forward to January 2023, giants such as the Australian Renewable Energy Hub, Alinta, FFI and others are actively progressing approvals for land valued at circa \$70 billion to be used for the creation of renewable energy and green-hydrogen hubs, with these green-hydrogen hubs projected to be some of the largest in the world.

Hydrogen created at these hubs is expected to be distributed in several ways, including the ‘H2 Refuelling Stations’. At the end of 2022, natural gas company ATCO along with FFI opened the first hydrogen refuelling station in WA. In addition to this, smaller local companies have also stated plans for creating hydrogen fuelling stations between Perth and Port Hedland.

These sorts of developments are aimed at improving the support infrastructure and viability of hydrogen for sustained use in heavy vehicles within the domestic transportation and haulage industries. Appetite outside of Government also appears strong, with a number of global organisations including Samsung actively supporting our WA companies leading these initiatives through recent offtake and investment agreements.

It’s exciting to think what could be possible as market participants continue to innovate and evolve green initiatives and we look forward to watching WA based organisations continuing to take a leading role in progressing our clean energy future.

Tips to deliver renewable energy capital projects

Western Australia has a complex and exciting challenge ahead. The decarbonisation journey requires bold transformation to meet a 43% reduction in emissions by 2030 (from 2005 levels) and Net Zero by 2050. The energy transition is a key pillar in the journey and requires significant capital investment from both government and private industry on an accelerated timeline. However, delivering nation-defining projects in areas such as wind, solar, pumped-hydro, battery storage, and hydrogen is not without its obstacles. From our experience, there are some clear challenges that are emerging in delivering these renewable energy projects in our WA context.

Getting to the start line...

Leading Supply Chain & Procurement Capability

Delivering renewable energy projects is becoming an increasingly competitive landscape and an ‘arms race’ is emerging as organisations rush to get the same materials, and engineering and construction services for their projects. One region largely delivers production of many renewable energy components and as a result, organisations developing renewable capabilities may unintentionally take on modern slavery and supply chain risks. Lastly, components can be big (80 metres+ for wind turbine blades), so manufacturing, transport, storage and ongoing maintenance add to the challenge.

Tips and Learnings

To balance speed, cost, social (including modern slavery and community), safety, risk and environmental elements strategic supply chain decisions need to be made. This could include:

- Developing a **clear contractor strategy**, with more than one pathway to success is key given the heated market for renewables and shortage of experienced or available contractors.
- Developing **win-win relationships with contractors** to take a more balanced approach to sharing risks.
- **Collaboration with partners across the value chain** to grow local capability and drive innovation from adjacent industries . Additionally, collaborate across industries or with competitors to pilot new technologies rather than duplicating efforts.
- **Leading inventory management and logistics strategies** to ensure access and storage availability for components.
- Tailoring **approvals and delegations of authority** to enable ordering of long lead time items.
- **Improved data and insights capability** to provide visibility of the origin of the components being procured as well as visibility of the full carbon footprint of the supply chain.

The winning playbook...

Project Governance and Capability

Following years of limited investment into energy generation and storage infrastructure, organisations embarking on the construction of renewable energy projects can find themselves without the project governance capabilities to effectively design and construct the new wave of projects. There is often no standard project management approach, data quality is poor, and reporting fails to provide leaders with the information to make the right decisions. Additionally, as almost all organisations are striving towards Net Zero targets, there is an unprecedented demand for people who have capital project delivery experience.

Tips and Learnings

The old playbook no longer works, to move from ‘fighting fires’ to proactive renewable project delivery, it is important that organisations have the following building blocks in place:

- A clearly defined **capital project framework**. This should include stage gates that represent the nuances of big renewable energy projects. The accelerated pace at which renewable energy projects are executed means it may be necessary to implement a ‘sprint lane’ or streamlined version of governance to ensure swift progress.
- The right **capabilities**. Organisations need to be strategic about building the renewable energy capital project **capability they need** by defining what capabilities are essential to have in-house and which can be outsourced.
- Utilising **digital reporting and asset information tools**. The administrative aspects of project management can be simplified to focus on “what matters most” and targeted at the needs of each audience (including Board, SteerCo and Project Manager level). This not only facilitates more effective decision making but also enables a smooth transition into operation.

Keeping an eye on the ball...

Managing scope and change

Renewable energy technology is relatively new and complex, and few organisations possess experience in executing these intricate projects. Consequently, there is going to be change due to delayed understanding of site conditions, changes in scope and evolving regulations. If not managed effectively, the consequences of these changes can cause financial penalties and reputational damage.

Tips and Learnings

Project teams can proactively address potential issues, enhance stakeholder alignment, and minimise the need for changes during project execution by implementing the following measures:

- Fostering **collaboration** between project stakeholders, including designers, engineers, and clients, to ensure a shared understanding of project goals and requirements.
- Developing **detailed design documentation**, to provide a comprehensive reference for execution teams and minimise interpretation errors.
- Conducting rigorous **design reviews and risk assessments** with all relevant parties, ideally including site visits, to validate the design against requirements, and identify potential issues and risks.
- Implementing robust **change management processes** and contingency plans.



All hands in...

Collaboration with stakeholders and community

Renewable energy projects attract significant attention from state governments, regulators, Board and Exec members, investors, off-takers and the community. While there is a stronger sense of ‘we are all in this together’, with the energy transition organisations that fail to manage the expectations of their stakeholders face the risk of negative publicity and project teams becoming distracted by ad-hoc information requests and updates.

A challenge for renewable energy projects wishing to connect to the grid is navigating the regulations and complexities of that connection. ‘Gridlocked energy highways’ and a lack of capacity in transmission infrastructure means projects can stall if transmission providers, regulators and suppliers are not engaged effectively.

Tips and Learnings

- Carefully considering the needs of communities impacted by renewable projects and thoughtful and structured communications to project stakeholder groups can reduce distractions and pave the way for smooth project delivery. Understanding the complexities of connecting a renewable energy project to the grid and starting this process early is essential for a strong finish.
- A robust **communications strategy and engagement plan** will help present a united front and avoid unrealistic commitments being made by those not familiar with the project complexities.
 - Considered planning and **engagement with the community** particularly on topics like land access for transmission lines, will help to mitigate risks and ensure everyone has a vested interest in making the project work. This may include **aligned incentives and benefits sharing**.
 - Early planning and **engagement across the value chain** from suppliers, transmission providers to regulators will enable a smooth integration of the project in a complex regulatory environment.

Staying ahead of the game...

Leading technology and innovation capabilities

Renewable technology is evolving rapidly, and it can be difficult to find the right information to stay informed. Throughout the project lifecycle organisations will be asking themselves questions such as: Do I build? Do I pilot? Do I invest? Do I partner? Do I acquire? Do I operate? To answer these, it is critical to know what is happening in the market and be deliberate about applying the most appropriate technology.

Tips and Learnings

- Having **access to the latest technology developments and innovations** in renewable energy is an essential capability for organisations. Whether it is a wind turbine, solar farm, big battery, or hydrogen hub, getting the right information and market intelligence on technology maturity, abatement potential, and level of commercialisation is important for making informed decisions.

Conclusion

We have the opportunity to shape a low carbon economy and unlock the potential of renewable energy. To be successful, renewable energy projects need to forge strong supply chains, build robust governance frameworks, proactively manage scope and change, collaborate with stakeholders and communities, and harness the transformative power of technology.

Authors: Justine Winston-Smith; Partner, Consulting. David Melis; Principal, Consulting.



WA’s top 100 listed companies

WA's top 100 listed companies – at 30 June 2023

This Year	Last Year	ASX	Long Comp Name	Market Cap 30/06/2023	Market Cap 30/06/2022	Last Price (mth)	High Price (yr)	Low Price (yr)
1	2	FMG	Fortescue Metals Group Limited	68,225.11	53,934.62	19.22	23.33	14.50
2	1	WDS	Woodside Energy Group Ltd	65,394.39	60,518.54	34.30	39.58	29.22
3	3	WES	Wesfarmers Limited	55,976.94	47,532.00	47.67	52.79	40.03
4	4	S32	South32 Limited	17,047.64	18,190.02	3.88	5.18	3.40
5	9	PLS	Pilbara Minerals Limited	14,661.14	6,816.98	4.41	5.66	1.98
6	6	NST	Northern Star Resources Limited	13,894.97	7,969.46	12.91	14.44	6.60
7	5	MIN	Mineral Resources Ltd	13,785.67	9,081.44	70.79	96.97	42.75
8	8	IGO	IGO Limited	11,493.77	7,523.37	14.26	17.32	9.23
9	7	LYC	Lynas Corporation Limited	6,396.64	7,878.05	7.51	10.30	6.02
10	14	LTR	Liontown Resources Ltd.	6,232.38	2,312.80	2.76	3.02	0.88
11	10	ILU	Iluka Resources Ltd.	4,727.81	3,996.73	11.24	11.79	8.08
12	11	AVZ	AVZ Minerals Limited	2,752.41	2,752.41	0.78	-	-
13	17	SFR	Sandfire Resources Limited	2,695.66	1,824.42	5.75	7.22	3.27
14	15	DRR	Deterra Royalties Limited	2,431.28	2,240.95	4.49	4.99	3.91
15	19	CHN	Chalice Mining Limited	2,422.21	1,405.18	7.00	8.20	3.37
16	13	BWP	BWP Trust	2,331.85	2,498.87	3.73	4.35	3.51
17	16	PRU	Perseus Mining Limited	2,257.18	2,155.13	1.83	2.51	1.34
18	18	PDN	Paladin Energy Ltd	2,175.51	1,727.11	0.55	0.96	0.52
19	23	DEG	De Grey Mining Ltd.	2,099.77	1,134.12	1.34	1.72	0.73
20	12	APM	APM Human Services International Ltd	1,944.43	2,632.31	2.07	3.55	1.78
21	21	GOR	Gold Road Resources Limited	1,601.46	1,204.18	1.76	1.99	1.05
22	22	CMM	Capricorn Metals Ltd	1,515.11	1,164.13	4.32	5.22	2.50
23	32	BGL	Bellevue Gold Limited	1,435.33	660.12	1.29	1.54	0.62
24	25	RRL	Regis Resources Limited	1,381.80	981.29	2.02	2.46	1.29
25	64	GMD	Genesis Minerals Limited	1,309.96	319.08	1.26	1.59	0.85
26	N/A	LLL	Leo Lithium Limited	1,281.51	-	0.89	0.95	0.36
27	30	RMS	Ramelius Resources Limited	1,249.04	754.63	1.36	1.52	0.59
28	34	EMR	Emerald Resources	1,220.70	652.69	1.89	2.02	0.83
29	29	NWH	NRW Holdings Limited	1,141.66	761.38	2.18	3.15	1.66
30	40	MAD	Mader Group Limited	1,140.00	532.00	5.67	5.69	2.30
31	26	MND	Monadelphous Group Limited	1,129.12	947.86	12.17	14.64	9.71
32	41	STX	Strike Energy Limited	1,113.88	519.61	0.48	0.51	0.21
33	37	BOE	Boss Energy Limited	1,092.99	624.06	2.74	3.03	1.61
34	31	IMD	Imdex Limited	955.31	731.45	1.85	2.64	1.63
35	24	SLR	Silver Lake Resources Limited	897.21	1,128.36	1.05	1.65	0.95

This Year	Last Year	ASX	Long Comp Name	Market Cap 30/06/2023	Market Cap 30/06/2022	Last Price (mth)	High Price (yr)	Low Price (yr)
36	20	WAF	West African Resources, Ltd.	885.39	1,235.45	0.87	1.44	0.83
37	36	ASB	Austal Ltd.	855.38	649.18	1.97	2.82	1.58
38	82	RSG	Resolute Mining Limited	830.31	248.45	0.48	0.53	0.16
39	131	LRS	Latin Resources Limited	824.88	121.59	0.17	0.21	0.06
40	27	MCR	Mincor Resources NL	759.35	808.89	1.40	2.48	1.03
41	28	VUL	Vulcan Energy Resources Limited	701.13	775.57	3.66	9.88	3.56
42	46	PRN	Perenti Limited	699.23	460.76	1.18	1.35	0.56
43	39	WGX	WESTGOLD RESOURCES LIMITED.	682.02	561.09	1.55	1.74	0.70
44	38	RED	RED 5 LIMITED	657.30	589.09	0.15	0.42	0.13
45	48	ARU	Arafura Rare Earths Limited	644.58	442.93	0.37	0.70	0.26
46	62	DVP	Develop Global Limited	626.22	320.57	3.50	4.00	1.76
47	209	AZS	Azure Minerals Limited	587.31	55.93	0.54	0.55	0.16
48	35	SWM	Seven West Media Limited	582.79	651.95	0.37	0.54	0.31
49	47	PPC	Peet Limited	582.11	449.64	1.19	1.27	0.86
50	89	DYL	Deep Yellow Limited	572.10	230.49	0.59	1.26	0.48
51	44	AGY	Argosy Minerals Limited	547.72	488.18	0.48	0.81	0.26
52	68	TLG	Talga Group Limited	535.54	311.07	1.24	2.00	1.00
53	33	MGX	Mount Gibson Iron Limited	528.27	653.71	0.38	0.73	0.37
54	72	TIE	Tietto Minerals Limited	505.70	297.45	0.50	0.87	0.31
55	52	AFG	AUSTRALIAN FINANCE GROUP LTD	483.76	406.38	1.70	2.06	1.35
56	130	DLI	Delta Lithium Limited	445.09	-	0.65	0.77	0.29
57	56	ALK	Alkane Resources Limited	424.11	369.26	0.74	1.12	0.53
58	96	MRM	MMA Offshore Limited	423.33	201.22	1.10	1.27	0.45
59	91	LYL	Lycopodium Ltd.	422.58	225.38	9.80	11.42	5.05
60	66	CVL	Civmec Limited	417.79	314.51	0.80	0.85	0.53
61	70	CWP	Cedar Woods Properties Ltd.	413.52	302.23	4.81	5.20	3.42
62	88	GL1	Global Lithium Resources Limited	404.12	232.31	1.46	2.94	1.01
63	77	SRG	SRG Global Limited	389.60	271.94	0.68	0.83	0.55
64	415	MEI	Meteoric Resources NL	389.53	16.79	0.21	0.23	0.01
65	55	JMS	Jupiter Mines Ltd	382.00	382.00	0.21	0.26	0.18
66	54	CTM	Centaurus Metals Limited	381.47	395.07	0.73	1.25	0.67
67	147	LIN	Lindian Resources Limited	369.87	99.51	0.36	0.47	0.05
68	67	GNG	GR Engineering Services Limited	345.75	312.79	1.95	2.48	1.67
69	51	STA	Strandline Resources Limited	344.54	409.26	0.31	0.56	0.28
70	65	PDI	Predictive Discovery Limited	341.10	316.41	0.16	0.25	0.15

This Year	Last Year	ASX	Long Comp Name	Market Cap 30/06/2023	Market Cap 30/06/2022	Last Price (mth)	High Price (yr)	Low Price (yr)
71	71	PNR	Pantoro Limited	338.69	299.26	0.07	0.31	0.05
72	59	EHL	Emeco Holdings Limited	335.12	338.74	0.65	0.94	0.63
73	117	NXD	Nexted Group Limited	330.81	-	1.56	1.86	0.25
74	78	DDH	DDH1 Limited	326.23	265.32	0.80	1.04	0.61
75	75	MAH	MacMahon Holdings Ltd.	325.77	283.66	0.13	0.19	0.12
76	607	WA1	WA1 Resources Limited	311.67	5.82	5.19	5.83	0.12
77	241	GRX	GreenX Metals Limited	299.80	46.92	0.77	0.89	0.18
78	60	GLN	Galan Lithium Limited	293.12	331.80	0.98	1.78	0.90
79	63	BCI	BCI Minerals Limited	290.76	319.64	0.22	0.39	0.21
80	94	RHI	Red Hill Minerals Limited	284.04	204.25	4.22	4.99	2.95
81	42	NMT	Neometals Limited	273.61	496.28	0.48	1.64	0.48
82	45	BCK	Brockman Mining Limited	270.46	463.43	0.03	0.04	0.02
83	N/A	CRD	Conrad Asia Energy Ltd	269.38	-	1.68	1.79	1.22
84	69	MLX	Metals X Limited	258.57	303.93	0.27	0.51	0.24
85	N/A	QOR	Qoria Limited	258.17	-	0.18	0.42	0.15
86	79	LOT	Lotus Resources Limited	248.64	259.22	0.17	0.30	0.15
87	80	BMN	Bannerman Energy Ltd	248.34	252.91	1.19	2.49	0.18
88	86	FFX	Firefinch Limited	236.57	236.25	0.20	1.09	0.19
89	57	CVN	Carnarvon Energy Limited	234.02	351.04	0.12	0.24	0.12
90	84	SFC	Schaffer Corp. Ltd.	226.94	241.32	17.26	19.79	16.00
91	74	NWF	Newfield Resources Limited	222.97	290.79	0.27	0.45	0.25
92	92	SVM	Sovereign Metals Limited	221.31	218.89	0.41	0.57	0.34
93	111	PEN	Peninsula Energy Limited	213.70	154.58	0.15	0.22	0.12
94	129	FWD	Fleetwood Ltd.	212.14	121.99	1.79	1.84	1.13
95	120	DSE	Dropsuite Limited	210.42	132.96	0.32	0.33	0.15
96	107	GT1	Green Technology Metals Limited	201.59	159.96	0.70	1.18	0.49
97	61	BSE	Base Resources Limited	197.28	327.70	0.18	0.35	0.16
98	93	PYC	PYC Therapeutics Limited	191.32	206.76	0.06	0.10	0.05
99	50	PAN	Panoramic Resources Limited	188.68	410.18	0.11	0.29	0.10
100	103	SFX	Sheffield Resources Limited	186.50	166.36	0.48	0.67	0.40

Source: Capital IQ, ASX, Deloitte



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About the WA Index

The monthly Deloitte WA Index is compiled from publicly available information provided by the ASX and Capital IQ on the market capitalisation of each Western Australian listed company.

A company is included as a Western Australian company where its registered office is listed in Western Australia, regardless of whether the company is dual listed. The information on Western Australian listed companies is extracted and then summarised to provide a cumulative market capitalisation figure for all Western Australian listed companies.

The base period of the Deloitte WA Index is May 2000 and for the purposes of the Index the month of May 2000 is given a national value of one. All subsequent monthly cumulative market capitalisation totals are divided by the May 2000 total to then obtain a relative movement. Please note that if a company has been suspended or delisted during a particular period no data will be included for that month and all subsequent months until the company is re-listed or the suspension lifted. Historical information regarding the company's market capitalisation will continue to be included in the calculation of the Index.

Earnings per share (EPS) is a basic calculation i.e. net profit divided by weighted average number of shares.

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