GAR Global Arbitration Review

The Asia-Pacific Arbitration Review

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From boom to backfire: Unravelling the complexity of the critical minerals market and ‘teething’ issues in energy transition

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Summary

IN SUMMARY

This article discusses the miners and refiners of 'critical minerals', new entrants into the energy industry, who are set to become increasingly important in the future.

DISCUSSION POINTS

- Critical minerals in the Asia-Pacific region
- Strategic classification of critical minerals
- Investments in critical minerals in the APAC region
- Trade disputes, mothballing mines and write-downs
- Environmental, social and governance factors
- Disputes and disruptions: the fallout of a changing landscape
- Optimism bias and inter-party disputes

REFERENCED IN THIS ARTICLE

- General Agreement on Tariffs Trade 1994
- Subsidies and Countervailing Measures Agreement

Countries across the world are developing lower carbon-emitting forms of energy and in doing so the boundaries of the energy industry are becoming blurred. A new energy project is just as likely to refer to a rare earth minerals refinery or a technology project than to a new coal mine or new offshore oil production platform.

Among the new entrants into the energy industry are the miners and refiners of 'critical minerals'. The actions of these miners and refiners are necessary to reduce the reliance of all economies on hydrocarbons, and critical minerals are an increasingly important component of the energy industry.

In concert with the efforts of energy suppliers to decarbonise, energy-intensive industries, such as manufacturers of traditional steel and metals, are also investing heavily in low-carbon and carbon-neutral processes, to substantially decrease the carbon footprint of existing and future product lines.

CRITICAL MINERALS IN THE ASIA-PACIFIC

The Asia-Pacific region (APAC) is rich in critical minerals and has emerged as a focal point for investment and development. These minerals, such as lithium, cobalt and rare earth elements, are essential components in the production of clean energy technologies, including electric vehicles, wind turbines and solar panels. As plans are made to transition to a world with fewer hydrocarbons, the demand for these minerals is expected to surge over the long term, positioning the APAC region as a key player in the global market.

Governments in the APAC region have enacted policies aimed at maximising the supply of critical minerals generated in their countries. These policies include incentivising exploration and mining activities, streamlining regulatory processes and offering financial support to

companies operating in the sector. Additionally, governments have sought to ensure there is sufficient demand for critical minerals in their own jurisdictions through the adoption of 'green' policies or formal net zero commitments. By stimulating domestic demand, these policies are aimed at creating a stable market for locally sourced critical minerals and encourage further investment in the industry.

At first glance, the narrative surrounding the critical minerals sector may appear straightforward – a rapid increase in demand driven by the global transition towards clean energy, which is actively supported by governments across the APAC region, leads to a sustained boom in the industry. However, upon closer examination, complexities are emerging that challenge this simplistic narrative. The interplay of government intervention, competition between countries, and the intricacies of the global critical minerals market has created a landscape that defies easy explanations.

This discussion considers the dynamics at play in the critical minerals sector, examining the actions taken by governments in the APAC region to capitalise on their mineral resources and the issues that are emerging as a result.

We first look at how countries across the APAC region have sought to classify critical minerals and leverage opportunities from them. We then consider the scale of investments made in the industry, and finally we look at an unravelling that is occurring at various points in the industry.

STRATEGIC CLASSIFICATION OF CRITICAL MINERALS

The term 'critical minerals' refers to a group of resources, including lithium, cobalt, copper, nickel and others, that are essential for modern technologies and play a crucial role in achieving net zero targets. These minerals are vital components in the production of clean energy technologies, such as electric vehicles, wind turbines and solar panels, as well as in the manufacturing of electronic devices and defence equipment.

However, there is no universally accepted definition of 'critical minerals', as countries around the world have created their own lists based on their specific needs, strategic interests and economic priorities. These lists are not static and have been subject to updates in response to lobbying efforts, market demands and geopolitical considerations. For example, in February 2024, Australia added nickel to its list of critical minerals,[1] recognising its growing importance in the production of electric vehicle batteries and, more relevantly, in recognition of the challenges now faced by the Australian nickel industry. Similarly, in July 2023, the United States added copper to its list,[2] acknowledging its essential role in clean energy technologies and the need to secure a stable supply.

The classification of a mineral as critical can bring significant benefits to the countries that produce them, as well as to the companies involved in their extraction, processing and trade. These benefits may include increased government support, such as subsidies, tax incentives and streamlined permitting processes, as well as greater access to funding and investment. Additionally, the strategic importance of critical minerals can provide a competitive advantage in international trade negotiations and geopolitical manoeuvring.

In addition to defining the minerals that are considered critical, governments across the APAC region have developed their own national policies to address the strategic importance of these resources. The uneven distribution of critical mineral reserves, which are mostly

concentrated in a limited number of jurisdictions, has prompted countries without immediate access to these resources to take proactive steps to secure their supply chains.

One common approach has been to enter into multilateral alignments and partnerships with resource-rich nations to establish a foothold in the critical minerals market. These agreements often involve investment in exploration, mining, and processing activities, as well as long-term offtake contracts that guarantee a stable supply of critical minerals for the partnering countries.

An example of countries that have enacted policies and formed partnerships include the following:[3]

- Japan: Japan introduced its Critical Minerals Strategy, which focuses on securing a stable supply of critical minerals for essential industries,[4] and has entered a partnership with Australia to strengthen critical mineral supply chains between the two countries.[5]
- Australia: In June 2023, Australia announced its 2023–2030 Critical Minerals Strategy, and in November 2023, Australia entered a memorandum of understanding with Indonesia regarding cooperation on battery manufacturing and critical minerals processing. More recently in March 2024, Australia and Indonesia launched an A$200 million fund, the Australia–Indonesia Climate and Infrastructure Partnership/KINETIK,[6] aimed at bilateral cooperation in energy initiatives and battery technology.
- India: India's Mission on Critical Minerals aims to secure a stable supply of critical minerals for its growing economy and technological advancements,[7] and has entered a partnership with Australia to develop supply chains between the two countries.[8]

The development of national policies and intergovernmental alignments has transformed the market for critical minerals into a strategic geo-economic issue, with implications for global trade, technological innovation and geopolitical power dynamics.

As countries compete for control over these strategic resources, there is a growing chance of trade disputes, investment conflicts and political tensions.

INVESTMENTS IN CRITICAL MINERALS IN THE APAC REGION

In the first half of 2023, Chinese investment in Indonesia's critical minerals sector had reached US$3.6 billion, a figure that was double that of the previous year.[9] This investment primarily focused on building new smelters to domestically process nickel ore into nickel pig iron and ferronickel.

Following China are Japan, South Korea and other parts of Southeast Asia, which have also made significant investments in Indonesia's nickel and battery sector, aiming to secure refined products for their own industries. Additionally, electric vehicle manufacturers, such as Tesla in the United States and BYD in China, are believed to be entering into deals with Indonesia to invest in their battery sector.[10] To develop a battery sector, Indonesia requires a steady supply of lithium and Indonesia's Minister for Maritime Affairs and Investment has stated that the government plans on importing 60,000 tonnes of lithium from Australia, starting this year (2024).[11]

The growing investment in Indonesia's critical mineral sector is part of a broader trend across the APAC region, as countries seek to secure access to the raw materials needed for the energy transition and the development of high-tech industries.

In Australia, which holds some of the world's largest reserves of lithium, cobalt and rare earth elements, foreign investment in the mining sector has surged in recent years. In 2023, investment into mineral exploration increased by more than 10 per cent to A$4 billion.[12] This investment into exploration comes on the back of increasing volumes and price increases in 2022, during which the value of lithium exports from Australia increased by more than 600 per cent from A$1.7 billion in 2021 to A$12.1 billion in 2022.[13]

The rapid growth in foreign investment and surging exports of critical minerals from Australia have not been without challenges. The increasing global demand for these resources has put pressure on Australia's mining industry to expand rapidly, raising concerns about the environmental and social impacts of new mining projects. There have also been concerns about the lack of domestic processing capacity in Australia, with much of the raw materials being exported to China and other countries for value-added processing.

These challenges are an inherent part of a rapid expansion in mining activity and were arguably not unexpected. Less expected has been the 80 per cent drop in lithium from a peak in late 2022.[14]

The significant drop in lithium prices from their peak in late 2022 has had a material impact on the activities of miners and refiners, and the drop has been attributed to a combination of factors, including increased supply from new mining projects coming online, slower-than-expected growth in demand from the electric vehicle sector and the impact of covid-19 on global supply chains. This price volatility has created uncertainty for investors and mining companies, who are now reassessing their growth plans and investment strategies in light of the changing market conditions.

Nickel also saw a significant decline with a 40 per cent price drop. The principal cause of this drop has been a 10 per cent increase in production from 2022 levels,[15] with Indonesia driving much of the increase in production.

TRADE DISPUTES, MOTHBALLING MINES AND WRITE-DOWNS

Indonesia is currently the world's largest producer of nickel in the world, producing 32.77 per cent of the global production of nickel in 2020.[16] In leveraging its strong position, the Indonesian government progressively implemented policies[17] that banned the export of raw nickel ore (and other critical minerals) and required that these minerals be processed domestically before exportation. This policy saw Indonesia obtain extensive foreign investment, which it used to create a strong domestic processing industry. These actions strained relationships with Indonesia's trading partners.

On 22 November 2019, the European Union requested consultations with Indonesia in relation to its claims that:

- restricting the exports of certain raw materials, including those requiring domestic processing requirements, domestic marketing obligations and export licensing requirements, appear to be inconsistent with the General Agreement on Tariffs Trade 1994 (GATT 1994);
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the prohibited subsidy scheme appears to be inconsistent with article 3.1(b) of the Subsidies and Countervailing Measures Agreement; and

- the failure to promptly publish the challenged measures appears to be inconsistent with the GATT 1994.

Consultations were held on 30 January 2020, but were unsuccessful, leading the European Union to request the Dispute Settlement Body (DSB) of the WTO to establish a panel to examine the issues in dispute.[18]The DSB has authority to, among other things, establish dispute settlement panels, refer matters to arbitration, maintain surveillance over the implementation of recommendations and rulings contained in such reports, and authorise suspension of concessions in the event of non-compliance with those recommendations and rulings.[19]

On 30 November 2022, the panel concluded that Indonesia's export ban and domestic processing requirements of minerals are inconsistent with Indonesia's obligations under the GATT 1994 and are not justified by any exceptions.[20] In December 2022, Indonesia filed an appeal and defended the ban by arguing that the restrictions are justified to develop its domestic industry. The appeal is currently on hold, with no timeline for a final resolution.Notwithstanding the referral to the WTO, and despite the DSB ruling, Indonesia's nickel production jumped from under 800,000 tonnes in 2020 to 2.03 million tonnes in 2023, when it accounted for 55 per cent of global output.[21]

Seeing the economic benefits accruing to Indonesia, Malaysia appears inclined to follow the example and the Malaysian government has stated it would develop a policy to ban exports of rare earth raw materials.[22] The impact of forcing Malaysia to develop domestic processing remains to be seen; however, Indonesia's efforts in the nickel industry have wrought havoc on foreign nickel miners.

Indonesia's increased production of nickel has meant that more costly Australian nickel producers have found it difficult to compete.[23] Nickel mines in Western Australian have been placed into care and maintenance and BHP recently wrote down the value of its nickel business by A$5.4 billion.[24] BHP has specified this is due to the increased supply of nickel from Indonesia which weakened the nickel prices.

This price pressure exerted by Indonesia has led some Australian miners to seek to establish two separate nickel contracts: one contract for 'clean' nickel, which would attract a premium, and another contract for all other types of nickel.[25] This suggestion has not yet gained traction and immediately gives rise to practical considerations regarding how parties might validate and prove the integrity of their supply chains. However, the fact that this suggestion has been made highlights:

- The growing importance of environmental, social and governance (ESG) considerations in the critical minerals sector, as investors and consumers increasingly demand assurances of responsible and sustainable sourcing practices.
- The complex and often contentious dynamics in the global nickel market, as countries and companies compete for market share and positioning in the rapidly evolving critical minerals landscape.
- That the establishment of separate nickel contracts based on environmental standards would set a precedent. If such a concept were implemented, the 'clean' nickel contract might form the basis for other 'clean' critical mineral contracts, such

as cobalt and lithium, where concerns over the social and environmental impacts of mining have also come to the fore in recent years.

- A need for transparency among stakeholders in the nickel value chain, to ensure that the benefits of the critical minerals (and the energy transition more broadly) are shared and that the costs are not borne disproportionately by local communities and ecosystems in producing countries.

ESG

Demand for critical minerals largely stems from environmental concerns relating to fossil fuels, but miners and refiners of critical minerals are undergoing increasing environmental scrutiny. The heightened focus on ESG matters mean that mining projects that were initially approved and started may face new environmental or social hurdles. These challenges can lead to project delays, increased costs or even cancellations, as companies struggle to adapt to changing expectations and regulations.

In such cases, investors may seek compensation for losses arising from ESG-related measures, arguing that they constitute non-commercial risks that the host state should bear. This argument could be based on the principle of 'fair and equitable treatment' under bilateral investment treaties or international investment agreements, suggesting that the state failed to provide a stable and predictable regulatory framework. Investors may also invoke the 'legitimate expectations' doctrine, claiming that they made investments based on the host state's assurances of a stable business environment, which were subsequently undermined by new ESG-related measures.

DISPUTES AND DISRUPTIONS: THE FALLOUT OF A CHANGING LANDSCAPE

Ambitious global energy transition targets have hastened the need for manufacturing and material processing companies to seek out investment opportunities to increase the contribution of green energy sources within their production process, as well as to create carbon offsets. This has resulted in a large number of well-established companies entering new industries, investing in new technologies and approaching new markets. It has also resulted in many joint venture 'pairings' between organisations that would not traditionally have merged capabilities.

At the same time, ongoing price volatility, regulatory uncertainty and shifting global market dynamics continue to contribute to disputes across the energy and resources sector. This includes disputes between foreign investors and host states in investor-state arbitrations.

Recent surveys have identified political causes and disagreements regarding financial compensation as the most frequently cited reasons for unsuccessful negotiations between governments and investors, leading to an escalation to arbitration. These disputes often arise from changes in government policies, such as the imposition of new taxes, royalties or environmental regulations, which can significantly impact the profitability and viability of mining projects.

More generally, in the area of energy transition projects, investor-state disputes are likely to proliferate. On the one hand, there are many industries that will be adversely affected by increasing government restrictions targeted at phasing out higher carbon-producing industries, while at the same time investors in the renewable energy sector will have a keen eye to regulatory interventions in the market that, although designed to protect grid security

and availability, may have the collateral effect of delaying projects and significantly impacting rates of investment return.

OPTIMISM BIAS AND INTER-PARTY DISPUTES

Energy transition targets have propelled a number of manufacturing and processing companies into the renewable energy market in pursuit of 'clean' and carbon offset projects. This has resulted in foreign investors looking at both greenfield and brownfield investment projects in countries that offer favourable geographic and climatic conditions, as well as market incentives offered by host countries pursuing their own goals to ramp up solar, onshore and offshore wind capacity and green hydrogen projects.[26]

This has been very much the case in Australia, where the federal government, through the Powering Australia plan, as well as the various states' renewable energy zones,[27] are looking to attract foreign investment in energy transformation projects.

At the very same time, the significant growth in renewable energy projects has resulted in regulatory strain as energy regulators and network service providers struggle to ensure grid compatibility and security.[28] One of the consequences has been changes to the National Energy Rules that govern the national energy market on the east coast of Australia.

As we move into large-scale hydrogen projects, the issue of regulatory strain will no doubt become even more pronounced, given the need to investigate and regulate the impact of large-scale integration of hydrogen electrolysers to the grid.

Hydrogen projects also involve some additional environmental issues, given the need to access clean water. And it is also a water producer. This presents risks and opportunities, each of which requires regulation to ensure public confidence and support for the emerging sector. It is an area where even developed countries will have a fair degree of regulatory immaturity and sovereign risk. It was a similar experience with the expansion of the coal-bed methane industry, where regulatory maturity 'evolved' and was often highly reactive to public and political perceptions, resulting in a less predictable regulatory framework.

Unfortunately, what this can mean for a foreign investor is that projects are often delayed, are not revenue-producing when they need to be, and this results in projects not meeting their commercial objectives.

This is very much the 'perfect storm' for disputes. The pressure points for disputes in this sector involve at least five factors:

- unusual or untested pairings between joint venture participants, often with at least one partner having little experience in the emerging sector;
- significant buy-in investment by foreign companies seeking to decarbonise and diversify into new energy markets and technologies;
- foreign investors actively investing in countries (such as Australia) where their experience is less mature, motivated by generous subsidies and a government-backed renewable energy programme;
- regulatory 'changeability'; and
- a commodity market that remains volatile and more susceptible to global disruption than we have seen for many decades.

These factors are causing not only supply chain disputes and disputes between owners or developers and contractors, but also significant joint venture disputes and post M&A disputes as a result of cost blowouts and unmet expectations.

CONCLUSION

The critical minerals sector in the APAC region and beyond is undergoing a profound transformation, driven by the need to decarbonise the global economy and the increasing demand for clean technologies. While this transformation presents significant opportunities, the competing aspirations of each country across the APAC region creates a shifting landscape that sees scope for disruption and disputes.

As the critical minerals industry continues to evolve, staying informed about developments and their geopolitical implications will be essential for navigating energy markets and understanding the challenges that underpin the global energy transition.

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Endontes

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