

**Submission
No 4**

TECHNOLOGY AND THE AGRICULTURE AND MINING SECTORS

Organisation: Association of Mining and Exploration Companies (AMEC)

Date Received: 14 February 2022

To: **LEGISLATIVE ASSEMBLY COMMITTEE ON INVESTMENT,
INDUSTRY AND REGIONAL DEVELOPMENT**

Re: **INQUIRY INTO TECHNOLOGY AND THE AGRICULTURE
AND MINING SECTORS**

14 February 2022

Introduction

The Association of Mining and Exploration Companies (AMEC) welcomes the opportunity to provide a submission to the NSW Parliament Legislative Assembly Committee on Investment, Industry and Regional Development for the *Inquiry into Technology and the Agriculture and Mining Sectors* (Inquiry).

About AMEC

AMEC is a leading national minerals industry association representing over 450 member companies across Australia. Our members are explorers, emerging miners, producers, and a wide range of businesses and services working in and for the minerals industry.

The minerals industry is a pillar of regional NSW

Mining is a pillar of the New South Wales economy and a core regional industry. As clearly stated in the *Future of Minerals in NSW Report*¹:

“The NSW Government strongly supports our minerals sector and the responsible development of our mineral resources. Our goal is to make NSW the number one state for new exploration and resources investment across the nation.”

Following the significant impact of the COVID-19 pandemic, as well as the lasting impacts of drought, bushfires and floods in recent years, the mining industry has helped drive the recovery of NSW, particularly in regional NSW.

Royalties of over \$8.4 billion over the four years to 2024-25 were noted in the 2021-2022 Half-Yearly Review², an increase of \$1.2 billion from the 2021-2022 Budget³, to support important State spending and help return the state to surplus by 2024-25. In the 2021 calendar year alone, mining projects in NSW delivered over \$2 billion in royalties, the largest royalty contribution from the resources sector

¹ https://www.regional.nsw.gov.au/_data/assets/pdf_file/0012/1202007/Future-of-Minerals-in-NSW-Report-2019.pdf

² <https://www.budget.nsw.gov.au/2021-22/half-yearly-review>

³ <https://www.budget.nsw.gov.au/>

since 2018; the only other time in history that NSW has received \$2 billion or more in royalties in a calendar year.

The minerals industry is a regional industry. We work in regional locations, purchase goods and services locally, stay in local hotels, eat and drink locally, and routinely hire regional contractors and staff. New technologies and innovations that can be adopted by the minerals industry stand to directly benefit regional NSW and the people living here through increased jobs and investment in the region.

AMEC provides the following comments and recommendations for the Inquiry, aligning with each point in the Terms of Reference:

Opportunities for regional NSW presented by agricultural and mining technologies and innovations

The development of new technologies and innovations in the mining and exploration sectors will not only create huge benefits for regional NSW but are necessary to secure the future of the minerals industry. The ore bodies that were easily identifiable with past and current technologies have largely been found and developed. Emerging technologies and innovations are required for ongoing exploration success and the identification of new mineral deposits. New technologies in mining will also be required progress these discoveries, and other deep or otherwise difficult to mine ore bodies, into productive operating mines which create jobs, investment and Government revenue.

As new technologies and innovations become available, the evolving industry will also help attract skilled workers and their families to the regions to help implement the new methods as they are adopted by the minerals industry. This will help boost regional economies as the wages being made regionally will go back into the local business and Government.

Emerging technologies and innovations in mining and exploration will not only provide a much-needed boost to regional NSW but are essential to ensure the industries that have supported the regions, and NSW, continue to be able to do so.

Barriers to the take up and use of agricultural and mining technologies and innovations

New technologies and innovations in this sector are generally more expensive than traditional mining and exploration techniques.

The industry is currently enjoying an increase in investment from previous years, however access to capital remains one of the most important issues for the mineral sector, particularly for explorers. These issues are due in part to a multiplicity of fees, charges and levies faced by explorers and operators based on cost recovery, such as administration levies and rental fees. Significant funds are also tied up in security bonds, which are held in addition to the funds that are required to carry out the rehabilitation. Any capital raised that is not directly related to exploration is seen as a disincentive to investors.

It would benefit both industry and Government to make the system more cost efficient. Every dollar paid in levies or fees is a dollar lost on work on the ground to use innovative techniques to explore for

mineral reserves. For an industry which already faces major issues with access to capital, in particular for explorers, using new technologies is often cost prohibitive.

Increasing a company's access to capital through reductions in fees and charges and reforms to security bonds will allow more miners and explorers to invest in and utilise new technologies for their projects.

Measures to support the use of agricultural and mining technologies and innovations

The single most impactful thing that can be done to support the use of new technologies and innovations in mining and exploration is to increase the investment attractiveness of NSW and establish NSW as “a world leader for investment in sustainable mining.”⁴

The NSW Government has recently prioritised attracting minerals industry investment through a number of initiatives which have been welcomed by industry and include the release and implementation of the *NSW Minerals Strategy*, *Critical Minerals and High-Tech Metals Strategy*, and the release of world class geoscience information, as well as the *New Frontiers Cooperative Drilling Program*.

Yet still, NSW is underperforming as an exploration and mining destination. The internationally respected Fraser Institute *Annual Survey of Mining Companies 2020*⁵ found that NSW was ranked the lowest Australian jurisdiction, and 49th of 77 jurisdictions worldwide, for the ‘Policy Perception Index’ (termed the ‘report card for governments’ and assesses the attractiveness of policies) in 2020. NSW was also ranked fifth out of seven Australian jurisdictions for the ‘Investment Attractiveness Index’ demonstrating that investors still prefer to spend their money in states other than NSW.

Delivering on the actions stated in the *NSW Minerals Strategy* and *Critical Minerals and High-Tech Metals Strategy* and ensuring these are fully resourced are essential to support and secure the future economy of the state and increase the investment attractiveness of NSW. Extending the incredibly popular and oversubscribed New Frontiers Cooperative Drilling program, and ensuring it is run on a yearly basis, will also help attract investors to the state and in turn create more working capital for companies to use on emerging technologies and innovations in this sector.

Finally, encouraging new technologies and innovations from within the industry could also be achieved through crowd sourcing competitions. Crowd sourcing is a way of opening challenges to a broad audience as a competition to seek solutions and has recently been implemented in the minerals industry by OZ Minerals and their *Explorer Challenge* in December 2018⁶ and by the South Australian Government in November 2019. South Australia was the first government globally to host a \$250,000 crowdsourced open data competition to fast-track the discovery of mineral deposits⁷. NSW could pilot a similar opportunity as a novel way to attract global interest in NSW minerals and create new technologies from within the sector.

⁴ [Critical minerals and high-tech metals strategy \(nsw.gov.au\)](https://www.nsw.gov.au/critical-minerals-and-high-tech-metals-strategy)

⁵ <https://www.fraserinstitute.org/studies/annual-survey-of-mining-companies-2019>

⁶ <https://www.ozminerals.com/media/news/oz-minerals-partners-with-uneared-on-explorer-challenge/>

⁷ http://www.energymining.sa.gov.au/minerals/latest_updates/sa_to_host_first_crowd_sourced_mineral_exploration

The impact of technologies and innovations on the past, current and future agriculture and mining workforce

The objective of exploration is to find hidden mineral deposits. While some deposits occur at or near the Earth's surface, many occur below a deep layer of cover. The deposits that have been discovered in the past are a reflection of the technologies available at the time.

As the industry has evolved and new innovations have enabled the explorers of today to discover mineral deposits which were undetectable to the explorers of the past. In the same way, the discoveries of the future are dependent upon technology which has not yet been developed. Similarly, many discoveries have not been financially viable to develop until decades later when technologies came into existence to allow the profitable extraction of the minerals. Without new technologies and innovations, the minerals industry will not be able to support NSW in the way it currently does and has in the past.

Any other related matters

As the electric vehicle and battery storage revolution continues, NSW is at the precipice of a new frontier of critical minerals, with industry ready to support Australia and the world. NSW is home to world class deposits of critical minerals, the minerals which will be key for a range of global and domestic industries, including advanced manufacturing, renewable energy, defence, aerospace, battery storage, automation, and electric vehicles. In this way, the minerals industry in NSW will create significant opportunities for innovation and technology around Australia and the world.

NSW has a diverse range of untapped critical minerals, including some very rare deposits, as well as many deposits as of yet undiscovered. Emerging technologies within the minerals industry will be critical to ensure the growth of this sector and the successful discovery and development of these deposits.

AMEC looks forward to working further with Government on this important matter and if you have any queries regarding this submission, please do not hesitate to contact:

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