MINERALS COUNCIL OF AUSTRALIA

SUBMISSION TO SENATE ECONOMICS REFERENCES COMMITTEE ON THE AUSTRALIAN MANUFACTURING INDUSTRY

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1. EXECUTIVE SUMMARY

The persistence of the COVID-19 pandemic underscores the urgency of a comprehensive and consistent policy agenda to encourage investment, innovation and productivity across all industries. Growth and efficiency gains realised in one sector will flow on to its customers and suppliers. In particular, a competitive and expanding mining industry is conducive to efficient and advanced manufacturing.

First, Australian mining produces commodities that are indispensable to modern life, such as iron ore and metallurgical coal for steel, aluminium for aeroplanes and vehicles, zinc for galvanising steel, copper for computer circuitry and electric cars, nickel for stainless steel and batteries, rare earth elements for permanent magnets and medical devices, lithium for lightweight batteries, thermal coal and uranium for electricity, gold for aerospace and advanced medicine, and silver for telecommunications and solar panels. Demand for these commodities is expected to accelerate.

Second, Australian mining has a strong record of processing minerals and metals. Established operations across Australia refine bauxite into alumina; smelt alumina into aluminium; assay, refine and mint gold and silver; and process, smelt and refine copper, zinc, nickel and other base metals.

A suite of minerals and metals, and the processes necessary to mine, concentrate, refine and process them into useable components, are increasingly important for the technologies needed for modern industry, including addressing the global challenges of climate change, energy, communications, defence, automation, transport and computing. Accordingly, recent projects have included the production of rare earth concentrates and the development of a lithium hydroxide processing plant.

Third, Australian mining is a world-leader in developing and adapting transformative technologies, including automated trucks, trains and drills, drones, remotely operated vehicles and robotic process automations to perform repetitive tasks. The application of technology continues to augment and reshape mining roles, delivering better health and safety outcomes as well as higher productivity.

Fourth, the resources industry's high-tech operations are directly providing 256,000 highly paid, highly skilled and secure jobs across Australia. They are also driving demand for skills and expertise from multiple fields, such as data analytics, robotics and artificial intelligence. The MCA's Mining Skills Organisation Pilot, which will evolve into an industry cluster model for skills and training, is demonstrating the benefits of industry-led skills development backed by government and learners.

Fifth, Australian mining supports a vibrant mining equipment, technology and services (METS) sector. According to Deloitte Access Economics, the mining and METS sector contributed approximately $242 billion to the national economy in 2019-20, or 12.4 per cent of gross domestic product. Further, the mining and METS sector directly employs 480,000 people, indirectly employs 650,000 through purchases from other sectors, and in total supports 1.1 million jobs, or 10.8 per cent of national employment.

The success of Australia's minerals processing and METS activities shows that manufacturing can and should be safe, responsible, efficient, commercially competitive and technologically advanced. Policies to promote a profitable and sustainable manufacturing sector should complement and enhance Australia's comparative advantage in minerals exports and competitive advantage in METS. Governments should be prudent when investing or supporting firms in markets.

Business success in the next decade will be more dependent than ever on the efficiency of the entire export supply chain, from research, exploration, mine or plant development, production, transport and final shipment. Policies that attract investment, improve cost competitiveness, encourage innovation and productivity and allow enterprises to adapt quickly to changing conditions are essential if Australia is to unlock its growth potential across all industries.

A more productive and dynamic economy benefits all Australians. The Centre for International Economics estimates that implementing a modest productivity reform agenda would make households $11,700 better off in 2030 and boost real wages by $130 a week per worker.

The MCA urges the Australian Parliament to implement the following reforms to support investment and jobs across all industries and secure the prosperity of all Australians.

Recommendations

The Australian Parliament should:

- Endorse a reform-focused manufacturing policy that builds on Australia's strengths in minerals processing and mining equipment, technology and services, and does not impose costs on other industries
- Support stable and internationally competitive tax settings that attract investment in innovative, lasting and large-scale projects
- Enable least-cost abatement of CO_2 emissions by promoting the development and deployment of all low and zero-emissions technologies, including advanced nuclear technologies, and maintaining the programs announced in Budget 2021-22 to advance:
    - Hydrogen hubs and a hydrogen certification scheme
    - Hubs and projects for carbon capture and storage/carbon capture, utilisation and storage
    - International technology partnerships
- Encourage investment in mines, processing plants and manufacturing facilities by establishing a 'single touch' environmental approvals process as agreed by National Cabinet
- Champion industry-led skills and training, including through ongoing funding for industry clusters established in Budget 2021-22
- Reduce industrial uncertainty for new projects by allowing greenfields agreements to extend beyond four years
- Foster more innovative, productive and adaptable enterprises by making incremental improvements to the enterprise bargaining system
- Expand trade and investment opportunities for all Australian businesses by pursuing rules-based trade agreements and refining regulatory settings for international investment
- Recognise and draw lessons from Australian mining's strong record of safe, sustainable and efficient projects.

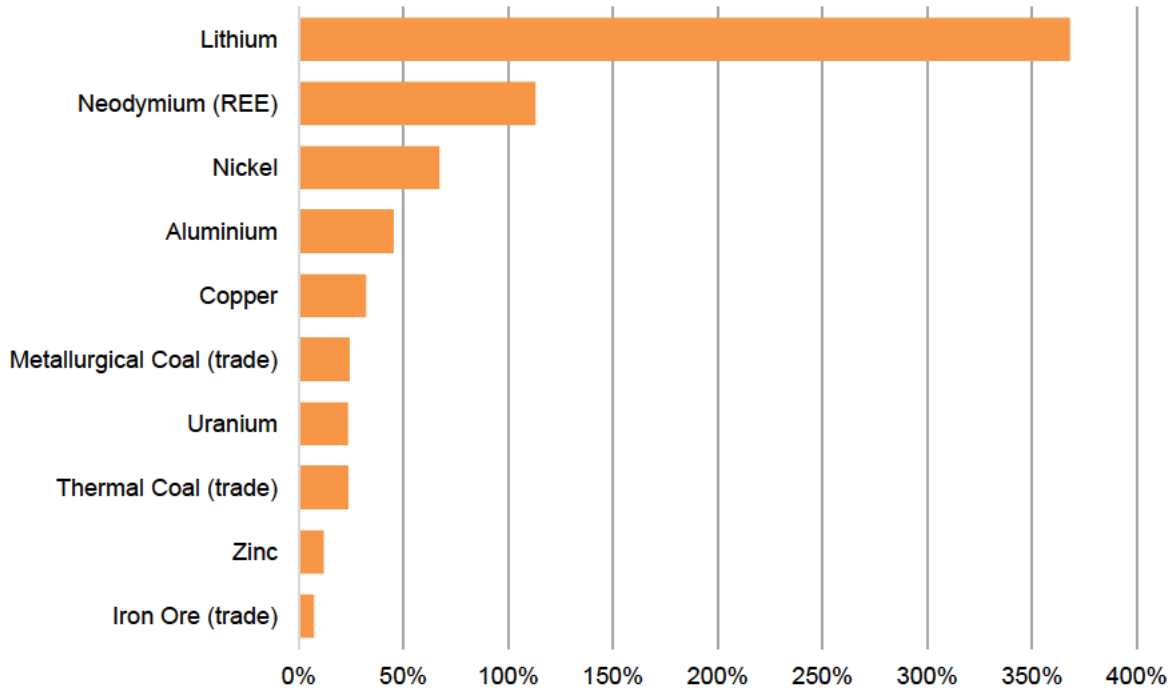
2. OPPORTUNITIES FOR MINING-RELATED MANUFACTURING

- Australia is well-placed to meet growing global demand for commodities to power growth, economic development and decarbonisation. Australian mining is also participating in pre-competitive research to develop future technologies and industries.
- Federal and state governments need to implement effective, comprehensive and complementary productivity policies to ensure that Australia does not lose mining and minerals processing opportunities to emerging economies, which offer lower construction and energy costs as well as lower taxes.
- Australia's successful METS sector should inform and be part of any national manufacturing policy.

Positive outlook for mining and minerals processing

As the world economy recovers from the impacts of the COVID-19 pandemic, the global trends that have driven growth in mineral and energy commodity demand through the last 20 years will not only continue, but accelerate, driving higher consumption of all mineral and energy commodities (chart 1).

Chart 1: Forecast world commodity demand growth, 2020 to 2030



Source: Minerals Council of Australia and Commodity Insights, *Commodity Demand Outlook 2030*, 2 June 2021.

Technology-led productivity growth, coupled with rising urbanisation rates, will increase demand for steel – made with iron ore and metallurgical coal – and zinc and copper for housing, factories, cities and transport infrastructure.

Rising incomes and demand for electricity and appliances will underpin demand for aluminium, while the continued proliferation of electronics and circuits will see increasing demand for rare earth metals and silver. And the technology to drive the accelerating transformation to zero emissions energy will need more uranium, lithium, copper and nickel.[1]

[1] See Minerals Council of Australia and Commodity Insights, *Commodity Demand Outlook 2030*, 2 June 2021.

For Australia, this not only creates the opportunity to supply raw materials to emerging markets, but also to increase its output of the processed metals and materials that are used further down the value chain.

While Australia's efficiency and expertise in minerals extraction is widely acknowledged, its strength in processing minerals and metals is sometimes overlooked. For example, BHP's Olympic Dam mine in South Australia, which has significant deposits of copper, gold, silver and uranium, operates a fully integrated copper processing facility from ore to metal.[2]

Glencore also processes and smelts copper at its Mount Isa Mines complex (from ores mined at Mount Isa Mines and Ernest Henry Mining) and transports the copper anode to its Copper Refineries operation in Townsville. Mount Isa Mines operates a zinc-lead-silver processing stream as well.[3]

Production of refined copper is one of the largest opportunities for Australia's mining and manufacturing industries. World demand for copper will increase substantially in the medium and long-term to support rising production of electric vehicles (EVs), growing renewable energy generation and increased manufacturing of consumer electronics. Australia has the second largest resources of copper in the world and with the right mix of policies could increase its output of both mined and refined copper.[4]

Rising battery manufacturing for EVs and grid storage will also support higher consumption of nickel. Australia is already a leading nickel supplier with BHP's Nickel West operations that mine, smelt and refine nickel in Western Australia. BHP has also recently invested in the development of a new nickel sulphate plant to match the rising demand for nickel in EV batteries. This investment has positioned BHP as a world leader in nickel production and underpinned its recent supply agreement with Tesla Inc.[5]

Australia has traditionally been a world leader in the production of aluminium with several smelters across the country including Rio Tinto's Bell Bay (Tasmania), Tomago (New South Wales) and Boyne Island joint venture (Queensland) smelters, as well as Alcoa's Portland smelter in Victoria.[6]

Australia is the world's third largest gold miner with most of this production refined to pure gold at the world-leading ABC Refinery in Sydney and Perth Mint in Western Australia.[7] With Australia's gold mining industry poised for an investment boom following several years for record-breaking exploration investment, the nation's production of refined gold is set to rise rapidly.

World lithium consumption is forecast by many industry analysts to grow exponentially over the next decade and Australia is already well-positioned to be a leader in this emerging industry.[8] Australia is the world's largest miner of lithium and already moving downstream into the production of battery grade lithium hydroxide. Albemarle's Kemerton lithium hydroxide plant in Western Australia is scheduled to start production in 2021 and will be the largest lithium refinery in the world when it reaches its targeted full production of 100 kt per year. Several other mines and lithium hydroxide processing plants are scheduled to be built in Australia as world demand grows, including Covalent Lithium's Mt Holland project and the Tianqi-IGO Kwinana plant.[9]

Australia is one of the few countries already producing the strategically important rare earth elements. Lynas Rare Earths and Iluka Resources are already producing mineral concentrates in Western Australia and both are developing business plans to develop new processing plants that will move further downstream and produce higher value rare earth products. In addition, Arafura Resources is seeking to supply 5 to 10 per cent of the world's rare earth elements demand by developing its Nolans Project in the Northern Territory. Kalbar Operations proposes to extract 8 million tonnes of heavy

[2] BHP, *Olympic Dam*, viewed 3 September 2021.
[3] Glencore, *Mount Isa Mines*; *Ernest Henry Mining*; *Copper Refineries Pty Ltd*, viewed 3 September 2021.
[4] Geoscience Australia, *Australia's Identified Mineral Resources 2020*, released 12 March 2021.
[5] BHP, *Nickel West*, viewed 3 September 2021; *BHP enters into nickel supply agreement with Tesla Inc*, 22 July 2021.
[6] Rio Tinto, *Bell Bay Aluminium*; *Boyne Smelters Limited*; Tomago Aluminium, *Our Story*; Alcoa, *Fact Sheet Portland Aluminium Smelter*, viewed 3 September 2021.
[7] ABC Refinery, *Who we are*, viewed 3 September 2021.
[8] Minerals Council of Australia, *Commodity Demand Outlook 2030*, 2 June 2021.
[9] Albemarle, *Western Australia*; Covalent Lithium, *About Our Project*; Tianqi Lithium, *Tianqi Lithium in Australia*, viewed 9 September 2021.

mineral concentrate over 15 to 20 years from its Fingerboards Mineral Sands project in East Gippsland.[10] With world demand for rare earth elements, particularly those used in EVs and renewable energy technologies, expected to grow significantly in the long-term Australia has a strong opportunity to expand its mining and processing of these materials.

Some companies are realising prospects for battery manufacturing in Australia. Renascor Resources is developing a vertically integrated battery anode material manufacturing operation in South Australia through its Siviour Graphite project, while Energy Renaissance has announced that it will build Renaissance One, a lithium-ion battery manufacturing facility in Tomago, NSW.[11]

Australian mining is contributing to research to develop future technologies and industries

The Productivity Commission has observed that Australian mining is a global technology leader and one of the most productive industries in the world.[12] The Australian minerals industry contributes hundreds of millions of dollars annually through a range of innovative partnerships with research bodies. Collaboration – both within industry and between industry and researchers – helps to advance scientific knowledge, solve industry-wide problems, develop new industries and benefit the economy as a whole. Collaborative vehicles include:

- Future Battery Industries Cooperative Research Centre, which is focused on creating the tools, technologies and skills to grow the role of battery storage in Australia's electricity grids, and make Australia a larger player in global battery value chains[13]
- Minerals Exploration Cooperative Research Centre (MinEx CRC), which is the world's largest collaboration on minerals exploration[14]
- Low Emission Technology Australia, which invests in technologies that reduce and remove carbon emissions from energy and other heavy industries[15]
- Cooperative Research Centre for Greenhouse Gas Technologies (CO2CRC), which brings together the world's best scientists, engineers and industry leaders to deliver research, products and services to advance the implementation of carbon capture, utilisation and storage technologies.[16]

Conditions to retain and expand minerals processing need to be improved

While Australia has significant resource endowments, and an established comparative advantage in minerals and energy exports, these benefits cannot guarantee future economic success. There is significant competition from emerging mineral provinces in other countries for investment in exploration, mine development and downstream processing facilities.

Many of these emerging mining regions are jurisdictions that offer lower construction and energy costs, as well as lower taxes that provide superior capital returns for investors. Australia has already missed many opportunities in the last decade as a result of our deteriorating competitiveness. Australia's share of global exploration expenditure has fallen, its output of some minerals has plateaued and in some cases decreased in recent years, and higher energy costs are contributing to the closure of existing downstream processing industries.

In the emerging markets for hi-tech minerals such as rare earth elements, graphite and high-purity alumina, companies are focused on investing in projects that extract ores in Australia but send untreated minerals to other countries where it is more cost effective to undertake downstream processing. Australia's uncompetitive corporate tax rate, relatively high costs of construction and

[10] Lynas Rare Earths, *Mt Weld, Western Australia*; Iluka, *Resource Development;* Arafura Resources, *Nolans Key Facts*; Ka bar Operations, *Fingerboards Project: About the Project*, viewed 9 September 2021.
[11] Renascor Resources, *Siviour Graphite Project*, viewed 9 September 2021; Energy Renaissance, *Australia's first battery factory to be in the Hunter*, 13 October 2020.
[12] Productivity Commission, *Shifting the Dial: 5 Year Productivity Review: Supporting Paper No. 1: Productivity and Income – The Australian Story*, Canberra, 3 August 2017, released on 24 October 2017, pp. 24, 26.
[13] Future Battery Industries Cooperative Research Centre, *Homepage*, viewed 6 September 2021.
[14] MinEx Cooperative Research Centre, *What is MinEx CRC?* viewed 6 September 2021.
[15] Low Emission Technology Australia, *Who is Low Emission Technology Australia?* viewed 6 September 2021.
[16] CO2CRC, *Who is CO2CRC? viewed* 6 September 2021.

operation (including energy) and complex and prescriptive regulatory regime can all combine to override the natural advantages of processing near the site of extraction.

For example, Australian company Altech Chemicals has decided to mine high-purity alumina in Western Australia but process it in Malaysia and Germany (Box 1 overleaf). Similarly, Hexagon Energy Materials are planning to develop a graphite mine in northern Australia, but are evaluating the benefits of processing the mined product in the US. The company's scoping study showed that while overall costs of production in the US may be higher, the lower US corporate tax rate results in a higher return on investment.[17]

The scope and contribution of mining equipment, technology and services

The METS sector is made up of many activities that supply to both mining and non-mining industries, such as basic chemical manufacturing, professional, scientific, computer and electronic equipment manufacturing, heavy and civil engineering construction, road transport, rail transport and telecommunication services. Portions of these industries' economic activity can be attributed to the METS sector based on their total supply to mining industries.

That said, the breadth of industries that are heavily focused on supplying inputs to mining is wide:

- Mining equipment includes manufactured items (plant, machinery, equipment) that contribute to the capital stock of the mining industry; parts for machinery and equipment; industry-specific supplies such as chemicals and explosives (i.e. excluding multi-purpose generic supplies such as food, fuel and furniture); and construction and civil engineering
- Mining technology includes engineering design; information and communications technology (such as data analytics, real-time monitoring and sensors); and scientific research into geoscience, mine engineering, mineral processing or other mining industries
- Mining services include applied sciences such as laboratory work, environmental sciences, geospatial data processing; equipment maintenance and repairs; specialised mining consulting; and transportation.[18]

The direct contribution of the mining and METS sector is represented by its total value added; that is, the value generated by the production of goods and services by capital and labour within the sector (measured as profits and wages) minus the cost of inputs provided by businesses outside the sector.

The indirect contribution of the mining and METS sector measures the demand for goods and services produced in other sectors as a result of demand generated by the direct economic activity of the mining and METS sector. That is, the indirect contribution of mining and METS sector represents its flow-on effects to other parts of the economy through its use of intermediate inputs.

According to Deloitte Access Economics, the mining and METS sector contributed approximately $242 billion to the national economy in 2019-20, or 12.4 per cent of gross domestic product. Further, the mining and METS sector directly employs approximately 480,000 people, indirectly employs 650,000 through purchases from other sectors, and in total supports 1.1 million jobs, or 10.8 per cent of national employment.[19]

[17] Hexagon Energy Materials, *Positive scoping study for advanced graphite processing*, ASX release, 17 May 2019.
[18] Deloitte Access Economics, *Economic contribution of the mining and METS sector: Australian estimates*, fact sheet prepared for the Minerals Council of Australia, 3 June 2021.
[19] ibid.

Box 1: Altech Chemicals – a missed opportunity for downstream processing in Australia

Altech Chemicals Limited (Altech) is one of a small number of ASX-listed companies with plans to mine, process and supply high-purity alumina (HPA). High-purity alumina is a high-value refined product with a range of technology applications, including in the production of light-emitting diodes (LEDs), synthetic sapphire glass, high-performing batteries and semiconductors.

Demand for high-purity alumina is forecast to grow significantly over the next five to 10 years, driven by continuing growth in the LED lighting market and, increasingly, growing demand for HPA coated separators for the lithium-ion battery markets. The growth is centred in the Asia Pacific region, with countries in the Asia-Pacific Economic Cooperation forum accounting for approximately 70 per cent of global demand for the product.[20]

Altech was granted a mining lease on 19 May 2016 near the Western Australian town of Meckering, approximately 140km east of Perth. The Meckering kaolin deposit will provide the feedstock for processing using the company's patented acid-leach process.

The company considered a range of locations for its processing plant, including Australia, but has opted to set up the plant within the Tanjung Langsat industrial complex, near Johor Bahru in southern Malaysia. Construction on the plant commenced in August 2018 but has been delayed owing to COVID-19.[21] Kaolin will be mined from the company's Meckering deposit and then shipped to Malaysia for processing.

Production is planned to increase over the next three years to reach 4,500 tonnes of high-purity alumina a year at full scale production; and an offtake agreement is in place with Mitsubishi Corporation for 100 per cent of the first ten years of production.

An investment research report prepared for the company in May 2019 sheds light on the factors driving the company's decision to build its processing plant in Malaysia.[22] The report compared Australia and Malaysia as investment destinations, concluding that:

> Malaysia as an operational jurisdiction include low operating costs when compared to Australia – for the HPA plant these are expected to be 60 per cent lower than those for an equivalent plant in Australia, with key contributors being power and acid.

The report also noted Malaysia's favourable corporate tax regime, with Malaysia's corporate tax rate of 24 per cent and the potential for a five-to-ten year tax holiday, weighing in its favour.

Altech announced on 14 July 2020 that it had executed an option to purchase agreement for an approximately 10 hectare industrial site in the Schwarze Pumpe industrial park in Saxony, Germany, for the construction of a second high-purity alumina plant. Both the German federal government and Saxony offered financial incentives, a low land cost and suitable infrastructure and research facilities.[23] While Altech has invested in Australia in the extraction of a resource, this investment was made as part of a business plan in which the downstream processing that adds the most value to the final product – generating tax revenues and creating high skilled jobs in the process – will occur outside Australia.

[20] Iggy Tan, Managing Director, Altech Chemicals Limited, *Presentation to 5th Asian Bauxite & Alumina Conference*, October 2015.
[21] Altech Chemicals Limited, *Annual financial report for the year ended 30 June 2020*, 30 June 2020.
[22] Independent Investment Research, *Altech Chemicals Limited (ASX: ATC, FRA: A3Y*, May 2019.
[23] Altech Chemicals Limited, *Quarterly Report*, June 2020; *Option agreement to acquire industrial site in Saxony, Germany*, ASX announcement and media release, 14 July 2020.

3. POLICY PRIORITIES

- Achieving productivity growth is key to improving business performance and increasing the standard of living of all Australians.
- Sustained private investment in capital and technology is essential to boosting productivity, jobs and wages in all industries.
- The Australian Parliament should encourage additional private investment and higher workplace productivity through stable and competitive tax settings, affordable and reliable energy with low and zero emissions, timely environmental approvals, a skilled and resilient workforce, more practical and beneficial workplace relations rules, and expanding trade and investment opportunities.

Productivity reforms benefit all Australian industries and workers

Over the long term, productivity growth is the main driver of rising living standards. While the performance and profitability of enterprises are ultimately the responsibility of managers, their decisions are constrained by policies and regulations. Over the past five years, market-sector labour productivity growth in Australia has averaged only 0.63 per cent a year, compared to 1.99 per cent over the past 25 years and 2.87 per cent during the era of microeconomic reform.[24]

Analysis by the Centre for International Economics (CIE) shows that the expansion of mining made Australian households $14,800 better off in 2020. Real wages would have been 8 per cent lower in 2020, or $120 a week lower per worker. Put another way, Australia's economic growth would have been 13 per cent lower in 2020 – the first year of the COVID-19 pandemic – had there not been a permanent increase in the size of the mining industry from 2005 onwards.[25]

However, the economic and social benefits that the mining industry delivers for all Australians are not guaranteed. The Australian minerals industry is a price taker in highly competitive global markets characterised by strong competing sources of supply. Further, the industry requires a constant flow of investment, both to sustain existing operations and to finance exploration and the development of new mines. Mining companies are competing for a limited pool of global capital to develop new projects in Australia.

A highly skilled workforce, productive workplace relations, competitive tax settings, timely environmental approvals, open trade and investment policies, and support for exploration are all essential to encouraging investment in large and long-life mining projects and securing the benefits they bring to workers, communities, related industries and governments.

Implementing a modest productivity reform agenda would deliver benefits to the whole economy similar and additional to the expansion of mining. The CIE modelled the effects of a 1 per cent a year increase in labour productivity growth resulting from a lower corporate tax rate for all businesses, better regulatory settings for project approvals and international investment, incremental improvements to workplace relations rules, and carrying out an industry-focused skills program.

The CIE's analysis indicates that if these policy priorities were pursued:

- Households would be $11,700 better off in 2030
- Real wages would be 9.4 per cent higher by 2030, or $130 a week higher per worker
- Real wages growth would double from 2021 to 2030 to 1.7 per cent a year
- The economy would be $290 billion larger in 2030

[24] Centre for International Economics, *Estimating the economic benefits of mining expansion and further productivity reforms*, report prepared for the Minerals Council of Australia, Canberra, 31 May 2021, p. 15.
[25] ibid., pp. 1f, 10fff.

- Real GDP per person would be $9,900 higher.[26]

Stable and internationally competitive tax settings

Australia's economic recovery depends on private sector investment. The accumulation of capital – and the technology it embodies – is essential to boosting productivity, jobs and wages. It is therefore vital that Australia's business tax system is internationally competitive and conducive to investment in all industries and productive activities.

Recent initiatives such as the temporary full expensing measure will induce the bringing forward of capital expenditure for an immediate economic benefit. However, it is equally important to encourage innovative, lasting and large-scale projects that will have multi-generational benefits; and this requires a globally competitive, well-structured business tax system that offers a reasonable after-tax rate of return and does not distort decisions.

The minerals industry paid record taxes and royalties to federal, state and territory governments in 2019-20, even as the COVID-19 pandemic started to push the economy into recession. Deloitte Access Economics estimates company tax payments and royalties from the sector at $39.3 billion in 2019-20. This consisted of $24.1 billion in company tax – approximately 30 per cent of total company tax receipts – and $15.2 billion in royalties.[27]

The minerals industry pays significant taxes and royalties every year to federal, state and territory governments, contributing a total of $238.8 billion between 2010-11 and 2019-20. The payment of consistently high company tax and royalty receipts throughout the business cycle demonstrates the reliability of the industry's contribution.

In addition to providing large and reliable tax and royalty payments, the Australian minerals industry is the global leader in transparency in its tax reporting. Through voluntary tax reporting and participation in the global Extractive Industries Transparency Initiative, the industry is further demonstrating that it can be trusted to pay a fair share of tax and royalties to governments.

Affordable and reliable energy towards zero emissions

Internationally competitive minerals processing and manufacturing requires affordable and reliable energy with low and zero emissions. Australia has substantial energy resources including coal, gas, renewables and uranium. All fuels and technologies can play a part in maximising opportunities for Australian mining and manufacturing by facilitating an efficient transition to a reliable, competitive, zero emissions energy system.

The Australian Parliament should encourage least-cost abatement of CO_2 emissions by promoting the development and deployment of all low and zero-emissions technologies, including carbon capture, utilisation and storage (CCUS), renewable energy technologies, advanced storage, hydrogen from various zero-emissions production sources, and advanced nuclear.

CCUS in particular is a crucial technology with substantial application beyond power generation. CCUS and reduce emissions in cement, iron and steel, and alumina and aluminium production, all of which require coal and are indispensable for the provision of essential infrastructure.

Accordingly, the following programs announced in Budget 2021-22 should be maintained:

- $275.5 million to accelerate the development of four additional clean hydrogen hubs in regional Australia and implement a clean hydrogen certification scheme

[26] ibid., pp. 16fff, 22. The CIE modelled the effects of a 1 per cent a year increase in labour productivity stemming from:
1. A lower corporate tax rate for all businesses (large businesses down to 27 per cent, others 25 per cent)
2. Implementing single-touch environmental approvals
3. Changes to international investment settings that boost foreign direct investment in mining by 5 per cent a year
4. Incremental improvements to workplace relations rules (faster approvals of enterprise agreements, allowing greenfields agreements of up to eight years and reducing time taken to terminate expired enterprise agreements)
5. Carrying out an industry-focused skills program, such that 10 per cent of the minerals industry workforce are trained or upskilled each year.

[27] Deloitte Access Economics, *Estimates of royalties and company tax paid by the minerals sector,* report prepared for the Minerals Council of Australia, Canberra, 17 May 2021.

- $263.7 million to support the development of carbon capture and storage/CCUS projects and hubs
- Government investments in new international technology partnerships to make zero emissions technologies cheaper and drive investment in Australia-based projects, including:
  - $565.8 million to build practical, project-based international partnerships to accelerate new energy technologies and drive down costs
  - Potential technologies include hydrogen and CCS, low carbon materials, R&D on new and emerging technologies (batteries, critical minerals, agriculture), and R&D on small modular reactor technologies with the UK and US.

As an energy-intensive industry, Australian mining has a material interest in driving down its emissions. The MCA's latest *Climate Action Plan Progress Report* – which surveyed member-company reporting to federal compliance schemes – identified emissions-reduction activities with aggregate annual abatement potential of more than 30 per cent of surveyed emissions.[28]

More efficient project approvals

Regulatory inefficiency, delays and uncertainty discourage investment, impede job creation and increase costs to business across the value chain. Efficient and effective regulation is crucial not only for the mining and processing of minerals, it is also important to the high-tech manufacturing and engineering that support the industry, as well as other advanced manufacturing activities.

Successive reviews by the Productivity Commission have found that unnecessarily complex, uncertain or disproportionate regulations impose delays and cost inflation on minerals projects and other types of economic development, without delivering any environmental gains. The commission's 2020 study of resource sector regulation found considerable scope to improve processes to encourage resources investment without reducing protections.[29]

While regulatory inefficiency occurs at all levels of government, an outstanding item is the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The independent Samuel review found that the EPBC Act requires fundamental reform.[30]

The MCA supports National Cabinet's commitment to establish a 'single touch' approvals process.[31] Referring approvals to states and territories (subject to national environmental standards and the oversight of an independent environment assurance commissioner) will address regulatory duplication, reduce delays, and provide greater certainty for businesses to invest in mines, processing plants and advanced manufacturing facilities.

Industry-led skills and training

The success of Australian mining depends on a highly skilled, flexible and resilient workforce. An industry-led education and training system is vital to aligning needs with outcomes. Rapid changes in innovation and technology make this even more important to ensure training courses are focused on contemporary and future skills to produce job-ready graduates.

Supported by the Australian Government, the MCA-led Mining Skills Organisation Pilot is refocusing skills curricula to meet future needs, accelerate industry skills' priorities and improve vocational education and training pathways for existing and future talent. The pilot will run to 30 June 2023 and consists of four project hubs:

- Apprenticeships, which has initially focused on diesel mobile plant mechanics because it is a pressure point within the industry

[28] Minerals Council of Australia, *Climate Action Plan Progress Report 2021*, June 2021.
[29] See the Productivity Commission, *Major Project Development Assessment Processes: Research report*, Canberra, November 2013, released 10 December 2013, p. 2; *Shifting the Dial: 5 Year Productivity Review*, Canberra, released 24 October 2017, p. 236; *Resources sector regulation: Study report*, 30 November 2020.
[30] Professor Graeme Samuel AC, *Independent review of the EPBC Act: Final Report*, October 2020, p. viii.
[31] Prime Minister the Hon Scott Morrison MP, *Media Statement*, 24 July 2020.

- Digital transformation, which is working to allow accredited training products (related specifically to automation and the application of digital technologies) to be part of Australia's nationally recognised training product library
- Attraction and retention, which is developing, testing and implementing a framework for attracting and retaining the talent pipeline for the modern mining industry and METS
- Qualifications reform trials, which will deliver improved qualifications for the existing and future workforce and make the nation's training system more responsive to industry needs.[32]

Budget 2021-22 included a range of measures to support jobs and skills, including $149.2 million over four years to establish industry clusters. These will ensure a strong, strategic industry voice, drive collaboration across sectors, address workforce challenges, and improve the speed to market of qualifications to meet evolving industry needs. The MCA recommends that parliament should maintain funding for these measures.

More practical and beneficial workplace relations rules

High-wage jobs depend upon high-productivity workplaces. The minerals industry demonstrates that greater choice and flexibility in working arrangements allows firms to employ a diverse and adaptable workforce and link pay to performance. 99 per cent of mining workers earn above-award wages and conditions and average full-time adult total earnings in mining were $143,000 in 2020-21, compared to $93,000 across all industries.[33]

The mining industry directly employs 256,000 highly skilled, highly paid workers across Australia, more than triple the number employed in 2001 (79,000). 84 per cent of mining workers are permanently employed, whether by minerals producers or by service contractors who typically have enterprise agreements. Over the past decade, the share of casual workers in mining across Australia has averaged 13 per cent, compared to 24 per cent for all industries.[34]

The current regulatory framework for workplace relations is unduly complex and inflexible. Incremental improvements to the Fair Work Act could help attract additional investment in new projects, as well as foster more efficient, harmonious and competitive enterprises.

The MCA recommends that the Australian Parliament legislate to allow greenfields agreements to extend beyond four years, as this will encourage mining investment by reducing the risk of project disruption in the period between construction (when earthworks at the new site begins), execution (when infrastructure, systems and facilities are in place and equipment is tested) and completion (when the initial production target is reached).

Australia's mining competitors in the United States and Canada already have access to enterprise agreements covering the life of a project. Longer greenfields agreements would especially benefit projects that involve underground mining, minerals processing or more complex project plans, which may take more than four years to proceed from construction to execution to completion.

There are currently 112 minerals projects across Australia in the pre-feasibility or feasibility stage, 83 of which are greenfield projects. These 83 greenfield projects are worth $41 billion and entail approximately 27,000 construction jobs and 17,000 ongoing jobs.

The MCA supports amending the Fair Work Act to improve the process for approving enterprise agreements (including a more workable better-off-overall test) as this will facilitate pay increases linked to productivity gains and ensure more consistent approval times for similar agreements.

Additional opportunities for incremental improvements that will boost productivity include:

- Instituting a simpler procedure for terminating expired enterprise agreements

[32] Minerals Council of Australia, *Mining Skills Organisation Pilot*, viewed 2 September 2021.
[33] Australian Bureau of Statistics, *Employee Earnings and Hours, Australia, May 2018*, released 22 January 2019, data cube 7; *Average Weekly Earnings, Australia*, May 2021, released 19 August 2021, table 10H.
[34] Australian Bureau of Statistics, *Labour Force, Australia, Detailed, May 2021*, released 24 June 2021, table 6, table 3, *Characteristics of Employment, Australia*; *6359.0 - Forms of Employment, Australia* (discontinued).

- Focusing bargaining on matters directly relevant to employers and employees
- Allowing high-income earners to opt out of enterprise agreements and enter into individual agreements.

Enterprise bargaining – as introduced and modified by Labor – replaced centralised wage fixation and industry-wide bargaining and enabled differential pay rates (above award minima) to be linked to the productivity of workplaces and individuals. Parliament should oppose any legislation or regulation that would require employers to pay workers doing the same (or similar) jobs the same wages *above the award safety net,* as this would undermine the flexibility benefits and performance incentives of enterprise bargaining and hinder economic recovery.

Expanding trade and investment opportunities

Australia's openness to trade and investment drives job creation across Australia. One in five Australian jobs are trade-related and exporting firms generally employ more people, pay higher wages and have higher survival rates than firms that focus on domestic markets only.[35]

A stable, rules-based international trading environment, in which trade and investment occur free from political coercion, is vital to the ability of Australian companies – including in mining and METS – to meet the needs of customers overseas and maintain their global reputation as reliable, responsible suppliers.

Parliament should continue to support high-quality trade and technology cooperation agreements. Recent examples include the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Regional Comprehensive Economic Partnership (RCEP).

Australian manufacturers and exporters of mining equipment now benefit from duty-free access for their exports to CPTPP countries. The CPTPP eliminates tariffs of up to 15 per cent on Australian exports of mining equipment to Mexico, and binds tariffs at zero in countries where Australian exports already have tariff-free access.

The RCEP enshrines commitments from China, Indonesia, the Philippines, Thailand, Malaysia, Laos and Myanmar, which benefit Australian firms that provide business services – including METS – and eliminate tariffs on equipment such as mining drills and tamping or compacting machinery.

The MCA recognises the Australian Government's important responsibility to protect Australian citizens from threats to national security. The MCA also notes that the nation's foreign investment review and compliance process plays an important role in responding to such risks.

The foreign investment regime must also operate in the national interest, including Australia's interest in maintaining a strong economy with globally competitive industries. This is best achieved with a balanced, non-discriminatory foreign investment framework that is transparent, efficient and provides investment certainty.

Positive net investment is a prerequisite to the expansion of production and employment. The resources sector has undertaken unprecedented investments over the past two decades, increasing the sector's net capital stock fourfold between 2000-01 and 2019-20. Similarly, the number of Australians employed directly in the resources sector more than tripled from 79,000 in 2001 to 256,000 in 2021.[36]

However, the Australian Government's reforms to the foreign investment framework have raised obstacles to the approval of Australian projects and created a disincentive for international capital to flow to the Australian economy.

[35] See Commonwealth of Australia, *2017 Foreign Policy White Paper*, p. 14; Razib Tuhin and Jan A. Swanepoel, Department of Industry, Innovation and Science, *Export behaviour and business performance: Evidence from Australian microdata*, Research Paper 7/2016, 9 February 2017, pp. 8, 17; Commonwealth Treasury, *Analysis of wage growth*, working/technical paper, November 2017, released on 8 December 2017, p. 58f.
[36] Australian Bureau of Statistics, *Australian System of National Accounts*, 2019-20, released 30 October 2020, table 58; *Labour Force, Australia, Detailed, May 2021*, released 24 June 2021, table 6.

The Productivity Commission has observed that in 2020, the Australian mining industry experienced a decline in its share of international investment, with net outflows of nearly $7 billion. The commission identified the dampening effect of the COVID-19 pandemic on investment flows and changes to Australia's screening arrangements as possible explanations for the below average investment performance.[37]

The MCA recommends that Treasury investigate possibilities for updating guidance and recommending legislative and regulatory reforms that put clear limits on the use of the Treasurer's call-in power and pre-investment notification for national security purposes in relation to mining investment, including critical minerals.

The MCA considers that international investment in mining and mining exploration should only be subject to national security reviews and pre-screening requirements in very limited circumstances, such as where the mine or exploration is adjacent to (or overlaps) defence land, or the mine is the sole supplier of an input that is critical to a defence supply chain.

More targeted review criteria would ensure that the Foreign Investment Review Board is focused on sectors where risks are likely to arise, rather than wasting resources investigating and delaying transactions in non-sensitive sectors.

[37] Productivity Commission, *Trade and Assistance Review 2019-20,* Annual Report Series, Canberra, p. 73.