NATIONAL MANUFACTURING PRIORITY

Of the six National Manufacturing Priorities outlined in the Modern Manufacturing Strategy, which would you like to comment on? You will have to opportunity to comment on more than one area.

1. Resources Technology and Critical Minerals Processing
2. Food and Beverage
3. Medical Products
4. Recycling and Clean Energy
5. Defence
6. Space

VISION

1. Which areas of pre-production, production and post-production do you think should be included in this National Manufacturing Priority?

Nil.

2. Why are these areas important to this priority?

Resources Technology and Critical Minerals Processing

In preparing this survey response, the Chamber of Minerals and Energy of Western Australia (CME) will comment on the strategic opportunities and policy, regulatory and taxation challenges relevant to most of the Western Australian (WA) resources sector (the sector). It is not within CME's remit to comment on the technical or commercial aspects of manufacturing as this depends on the competitive strengths of individual member companies.

CME members are responsible for more than 86 per cent of the sector's employment in WA. Combining employment both direct and indirect (i.e. supply chain purchases), the sector supported one in five full-time jobs across the WA economy in 2018-19. Nationally, the sector accounted for 54 per cent of mining new capital expenditure in 2019-20.

CME has also taken this opportunity to liaise with the Association of Mining and Exploration Companies (AMEC) on some of the views expressed in this survey response.

OPPORTUNITIES

3. What are the opportunities for scaling Australian manufacturing in this priority area?

Resources Technology and Critical Minerals Processing

There is considerable opportunity in establishing larger-scale downstream value-adding minerals processing sectors in WA (whether it be industrial ecosystem clusters, research-to-industry commercialisation hubs or precincts). As evidenced by the recent release of the Federal Governments' Australian Critical Minerals Prospectus 2020 and AMEC's Investment Opportunities 2020, WA is well-positioned to become a global destination for attracting investment in resources technology and critical minerals processing.

If key challenges can be addressed, downstream processing and value-add manufacturing present opportunities to diversify WA's and Australia's economic potential. This will need to involve reducing the barriers to entry, including investment and regulatory approvals, and improving the competitiveness of doing business domestically for access to ready and affordable skills, energy, land and infrastructure. In this context, Australia is competing with other international jurisdictions for the same projects, and therefore needs to play to strengths. For example, potential opportunities exist to extend production to commodities further along the supply chain such as cathode precursors, rare earth intermediaries, downstream magnetite production, fertilisers and other petrochemicals.

The level of capital-intensive downstream processing investment needed to scale these opportunities is significant; however, there is ample precedent of the benefits to be gained in pursuing WA resources sector projects. Most of WA's prospects are in regional or remote areas (onshore or offshore) and if successfully

established as projects would bring employment opportunities and stimulate regional economic development. Direct benefits include job creation, local content spend and generating significant government revenue through corporate taxes, royalties, levies and duties across the life of the project. Indirect benefits include supply chains, household consumption (induced) behaviour of employment, leveraging of private or shared infrastructure to better improve roads and connective infrastructure for other users (i.e. tourism, agriculture and access to Indigenous communities). For example, our recent survey of a sub-set of 53 CME member companies found they supported over 20,000 businesses across Australia – our 2018-19 economic contribution factsheets can be downloaded here.

CHALLENGES

4. What are the challenges to seizing these opportunities, and what are your proposed solutions?

Resources Technology and Critical Minerals Processing

CME contends the proposed reforms to the Foreign Investment Review Framework to treat battery and critical minerals as 'sensitive national security business' will present a challenge to seizing opportunities. Our recommendation, as outlined in our recent submission, is to provide greater upfront transparency on what is deemed 'sensitive' and provide a clear consultation pathway for projects falling into this category. Greater clarity on what constitutes control (passive investment) may also help in streamlining applications. This guidance will provide small and mid-tier sized companies more legal and commercial certainty in seeking upfront debt or equity financing.

In the absence of raising sufficient funding upfront, companies will be unable to apply for co-investment under the Modern Manufacturing Strategy to scale up, compete and gain access to these complex and often opaque global supply chains. The dominance of China in both raw earth materials and final product manufacturing, there is limited liquidity and transparency in these particular markets. Furthermore, the opportunity to hedge via traditional lending (i.e. commercial banks) is limited and alternatives – including common user infrastructure – warrants ongoing consideration. Whilst CME appreciates expanded eligibility of the Northern Australia Infrastructure Facility, significant upfront financing – which predominately comes from foreign sources – Is still needed for these 'sensitive' projects. Please refer to CME's response to Tranche 2 regulations. In supporting the competitiveness of critical minerals processing, as described further below, all levels of government will need to consider a role beyond project facilitation.

To scale up the critical minerals processing sector, there needs to be a viable alternative market to China. Alongside the Critical Minerals Facilitation Office (CMFO), Australian Trade Investment Commission and the WA Department of Jobs, Tourism, Science and Innovation will need to diversify its trading relationships and attract the requisite high levels of capital investment and technological expertise. Despite concerted efforts to spur rare earth mining and processing development in the United States, upfront investment in these endeavours is still considered institutionally risky by many.[1] [2] It is recommended the Australian and State Governments coordinate to promote an aligned proposition to secure interest and investment the critical minerals supply chain. In the face of many underlying challenges, project facilitation services can only do so much.

From a regulatory perspective, more needs to be done to consider both the State and Federal Government policy or legislation which may be present an unintended barrier to developing these new emerging industries. As an example, mineral sands and rare earth projects with naturally occurring radioactive material (NORM) are currently inadvertently captured by the nuclear trigger for referral under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) under sections 22(1)(e), (f) and (g). This capture means they require a whole-of-environment assessment in some instances. Projects involving NORM should not be required to be referred under the nuclear trigger as this is inconsistent with the intent of the nuclear trigger as described in the 1998 Explanatory Memorandum to the EPBC Act. The radiation safety aspects of these activities are also already heavily regulated under existing Federal and State-based radiation legislation, negating the need for further regulatory duplication. CME has therefore recommended to the Independent Review of the EPBC Act that section 22(1)(e), (f) and (g) be removed or otherwise amended to exclude projects involving NORM.

Also, the complexity and timeliness of obtaining approvals for the battery and critical minerals sector should be addressed to seize opportunities promptly. Compounding foreign investment uncertainty, are the various regulatory approvals required at federal, state and, in some instances, local level. Whilst Australian regulation

[1] Perth USAsia Centre, *Strategies for securing critical material value chains*, The University of Western Australia, April 2020.

[2] The United States Studies Centre, *Rare earths: Is there a case for government intervention?*, The University of Sydney, October 2019.

in areas such as environmental management are considered world-leading in many respects; there remain unnecessary duplication and inefficiencies, which hinder project advancement and the timeliness of final investment decisions. CME, therefore, welcomes the government's commitments arising from the Interim Report of the Independent Review of the EPBC Act to adopt 'single touch approvals' through the devolution of approval processes to the states.

CME further acknowledges and appreciates introduction of the CMFO and increased Budget allocation to the WA Department of Jobs, Tourism, Science and Innovation's (JTSI) project facilitation service. CME, however, recommends greater upfront awareness and benefits of these services to both project proponents and investors.

To assure proponents, longer-term underwriting of the investment may be needed. For example, what is being contemplated with the WA Renewable Hydrogen Strategy's Expression of Interest. Both the Federal and State Governments will need to consider the viability of putting favourable whole-of-project conditions or common user infrastructure on the table to support the longer-term scalability of any new or emerging industry. CME recommends that Governments should be prepared to consider:

- Different models of financing and offtake risk-sharing, in addition to traditional loan facilities. It is essential to acknowledge this will need to be market-based and non-discriminatory. For example, the National COVID-19 Coordination Commission (NCCC) is currently recommending the Federal Government underwrite offtake to guarantee extra capacity in existing pipeline infrastructure.
- A clearer integrated plan on support for both upstream and downstream battery and critical minerals.
- Target participation of companies in other countries to participate as customers, as well as finance capital investment, in exchange for firm rights to product offtake at either the mine gate or at downstream supply points.

Australian Venture Consultants, commissioned by CME and AMEC, recently completed a study on building resilience in the lithium sector. With current economic headwinds and lack of transparency in these complex, extended supply chains, any effort to promote downstream processing value-adding in the resources sector must also strengthen the upstream sector. Australian businesses seeking to scale up in battery mineral processing compete directly with international jurisdictions that have favourable industrial ecosystems (proximity to automotive manufacturing) and direct government support. The government will need to consider how to improve the sophistication of Australian businesses to integrate with these existing, long-standing global supply chains.

In an increasingly tightening labour market, access to skilled and experienced workers will continue to be a challenge for the sector. CME recommends greater coordination with the Mining Skills Organisation Pilot to ensure the training system can cope with the technological change needed to accelerate the global competitiveness of this sector. As identified in the World Economic Forum's 'The Future of Jobs Report 2020' Australian country profile, there is an emerging demand for jobs such as process automation and digital transformation specialists, accompanied by higher demand for skills such as analytical thinking and technology use.

To modernise manufacturing, there needs to be an increase in the supply of these higher demand skills and complementary plans to continue to transition traditional trades into technologically advanced job roles. This transition is not unique to Australia and is occurring worldwide across all industries. For example, 73.3% of global mining and metal companies surveyed indicted 'skills gaps in the local labour market' as a barrier to adopting new technologies and 24.7% indicated over one year of reskilling is needed.

Recycling and Clean Energy

Further to CME's recent submissions to the WA Government's consultations on the waste levy and circular economy reforms, there remains an opportunity to develop sustainable, competitive markets in Australia for the recycling of waste. As global demand for commodities increases alongside population growth and per capita use, the value of recycling will become increasingly economically viable. CME recommended the State and Federal Governments collaborate closely to undertake a detailed whole-of-economy review of opportunities and challenges under the hierarchy of waste avoidance, reduce, reuse, recycle and recover. Such a review needs to be proactive, coordinated and strategic, to enable the development of effective policy and legislation to incentivise correct market behaviours.

CME has highlighted that approval conditions on waste-to-energy facilities in WA prohibit the use of non-residual waste for energy recovery. Application of the legislation in its current form does not promote a circular

economy. The barriers to increasing recycling across various sectors in WA are well documented.[3] Where there is a low demand for recycled products, states and territories should consider working together to aggregate markets. There is also a lack of clarity and confidence in the current legislative definition of 'waste' in WA.

In any industry or scenario, greater alignment between the State and Federal Government on a national market-based framework for emissions and electricity transformation is needed. Please see CME's submission to the WA Government's consultation on climate change.

ROLE OF INDUSTRY

5. What do you think are the measures of success for Australian manufacturing in this priority area?

Resources Technology and Critical Minerals Processing

As evidenced by the resilience of global supply chains in response to COVID-19, and particularly those relevant to the WA resources sector, the ability to respond quickly (agility to flex) in scaling both up and down in response to external pressures has been proved to be a key measure of success. In doing so, they need a broad, stable customer base. Unless it is a specialist technical or technological service, it is not viable to rely on a narrow customer base or market.

OTHER COMMENTS

6. Do you have anything else you'd like to share with us in relation to the national priority areas or the manufacturing strategy?

Nil.

OTHER ACTION PLANS

7. Are there any action plans, strategies or related documents which should be considered in the development of the road maps?

Resources Technology and Critical Minerals Processing

CME is aware the CSIRO is developing a critical metals roadmap and provided input into this process on 14 September 2020. CME also contributes to the following related groups:

- WA Future Battery and Critical Minerals Industries working groups
- WA Iron Ore Railcar Wagons Manufacturing, Refurbishment and Maintenance Action Group
- Future Batteries Industries Cooperative Research Centre
- Infrastructure WA's External Stakeholder Reference Group.

Member companies of CME are also engaged on related matters via the WA Renewable Hydrogen Strategy, the WA LNG Jobs Taskforce, the latest iteration of the WA Whole of System Plan, NERA's Sector Competitiveness Plan, ARENA's delivery of the National Hydrogen, CMFO and NCCC.

Wherever possible, CME recommends existing forums are leveraged for obtaining input and driving coordination of development of the road maps. It is not clear if synergies between sectors will be realised if there is a siloed or duplicative approach – particularly as the affordability, security and reliability of energy will need to underpin the success of any manufacturing opportunity across the six priorities in the longer term.

To date, the focus has been limited to the National Electricity Market (the focus of the NCCC's interim report by the Manufacturing Taskforce) with the South West Interconnected System only being added to Infrastructure Australia's Infrastructure Priority List earlier this year.

[3] ASK Waste Management, *Recycling activity in Western Australia 2017-18,* prepared for the Waste Authority, August 2019.