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Electricity and Energy Sector Plan Taskforce
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To whom it concerns,

SUBMISSION – ELECTRICITY AND ENERGY SECTOR PLAN

The Chamber of Minerals and Energy of Western Australia (CME) is the peak representative body for the resources sector in Western Australia. CME is funded by member companies responsible for 20 per cent of Australia's corporate income tax receipts in 2022-23.¹ Our members comprise energy producers, energy infrastructure owners and operators (transmission, distribution and gas-fired electricity generators), and end-use consumers across a range of uses such as fertiliser and explosives manufacturers and heavy industry such as alumina production, lithium chemicals and silicon.

In 2022-23, the WA resources sector accounted for 65 per cent of Australia's resources exports,² half of Australia's resources capital expenditure³ and 53 per cent of Australian resources employment.⁴

CME and its members support the Paris Agreement goals of limiting global warming to well below 2 degrees Celsius, and preferably to 1.5 degrees Celsius, by reducing greenhouse gas (GHG) emissions to net zero as soon as possible and no later than 2050.⁵ Recognising the important role of low emissions energy in cross-sectoral decarbonisation, CME welcomes the opportunity to provide a written submission in response to the consultation conducted by the Department of Climate Change, Energy, Environment and Water (DCCEEW) on the Electricity and Energy Sector Plan (the Plan), one of six sectoral decarbonisation plans within Australia's Net Zero Plan.

In responding to this consultation, this submission makes a series of recommendations, at times reiterating climate and energy recommendations from earlier consultations.⁶ CME argues that the Plan should maintain Australia's international cost-competitiveness and support a flexible pathway to least-cost abatement. We support a fair, equitable, and orderly energy transition, particularly for maintaining system reliability and keeping long-term supply costs in the WA Wholesale Electricity Market low.⁷ CME's overarching recommendations to this consultation are highlighted below.

- Regulatory uncertainty caused by duplicated, inconsistent, or unclear regulations is one of the major barriers to industry development. This impacts a wide range of projects that are important for the energy transition, from extraction and processing of critical minerals, connection of large-scale renewable energy to the grid and commercial production of green hydrogen. CME recommends working with State and local governments on improving regulatory frameworks and ensuring clear and timely assessment processes be considered as high priority to government.
- Energy supply, demand, and mix will continue to evolve as we progress towards 2050. Reliable and affordable access to low-carbon energy is critical for both the longevity of domestic industries, and

¹ Includes company tax, fringe benefits tax, petroleum resource rent tax and excise duty. Commonwealth of Australia, [Final Budget Outcome 2022-23](#), The Treasury, 22 September 2023, Note 3: Taxation revenue by type, p 39.

² Government of Western Australia, [2022-23 Economic Indicators Resource Data File](#), Department of Energy, Mines, Industry Regulation and Safety (DEMIRS), 9 January 2024. Australian Bureau of Statistics (ABS), [5368 International Trade in Goods](#), Table 32a.

³ Investment refers to capital expenditure as measured by gross fixed capital formation, current prices. ABS, [5220 Australian National Accounts: State Accounts](#), Table 25. ABS, [5206 Australian National Accounts: National Income, Expenditure and Product](#), Table 34.

⁴ ABS, [6291 Labour Force, Australia, Detailed](#), Table 5.

⁵ CME, [Climate change](#), policy areas, published 24 September 2021.

⁶ CME, [Future Fuels Strategy: Discussion paper](#), submission to DISR, April 2021, [Energy policy](#), published 28 September 2021; [Climate Policy](#), published 5 October 2021, [Towards competitive clean hydrogen](#), position paper, November 2021; [Renewable hydrogen target for electricity generation in the South West Interconnected System](#), submission to WA Department of Energy, Mines, Industry Regulation and Safety, 25 November 2022; [National Hydrogen Strategy Review: Consultation paper](#), submission to DCCEEW, 22 August 2023; [WA Renewable Hydrogen Strategy Refresh](#), submission to the WA Department of Jobs, Tourism, Science and Innovation, October 2023; [Future Gas Strategy](#), submission to DISR, 13 November 2023.

⁷ Economic Regulation Authority, [Triennial review of the effectiveness of the Wholesale Electricity Market 2022](#), report to the Minister for Energy, tabled 30 November 2022.

decarbonisation towards net zero emissions. The energy transition can be achieved through a diverse energy mix, and CME supports a technology-agnostic approach to developing policy. All energy sources should be carefully assessed for a potential role in the transition. Due to technology maturity and demonstrated commerciality, access to renewable electricity, both grid-connected and non-grid connected, is essential for near-term decarbonisation. CME recommends that increasing renewable generation capacity in Australia should be prioritised.

- It is the view of CME that a key indicator for success of strategic plans and policies is meaningful and deep engagement with industry stakeholders. CME members value the opportunity to collaborate with government on significant policies. To achieve the best possible policy outcomes of the Net Zero Plan for both government and industry, CME recommends ongoing and frequent engagement with industry stakeholders to understand the operational environment of the sector and its developing energy requirements.

The remainder of this submission should be considered within the context of these broad recommendations.

Context

Access to low-emissions energy is an essential element behind almost all decarbonisation technologies currently available, or in development, for application to the mining and resources sector. Renewable electricity is required to increase uptake of battery electric vehicles, produce green hydrogen, and switch from liquid or gaseous fuels to electricity. In the near to medium term, electrification presents the best available strategy for many industrial facilities to reduce GHG emissions, particularly for facilities connected to or proximal to the grid. Many CME members have included electrification technologies within their decarbonisation strategies as a commercially mature and demonstrated approach.

The 2023 Wholesale Electricity Market Electricity Statement of Opportunities (2023 WEM ESOO) provides a very clear view of the shortfalls that are facing the WEM in the near to medium term. In short, urgent investment in generation and transmission capacity is essential to meet growing demand for electricity in the South West Interconnected System (SWIS). Demand is driven by increased industrial loads, electrification, and electric vehicle uptake, while capacity will be constrained as coal-fired power stations retire by 2030. Peak demand is forecast to increase by 150% by 2033, and triple by 2042.⁸ According to the 2023 SWIS Demand Assessment, this would require “almost 10 times the current amount of generation and storage capacity, and over 4,000 km of new transmission lines.”

In addition to the energy demands of industry, the Australia government has targets to reduce GHG emissions by 43 per cent by 2030 and deliver 82 per cent renewable electricity in the same period.

Considering the above, it is evident that additional renewable capacity will be required to deliver significant industrial decarbonisation required to meet Australia’s emissions reduction target of 43% fewer GHG emissions by 2030, and target of 82% renewable energy in the same period.⁹ Described simply, industrial demand for low emissions energy is outstripping supply.

Key consideration 1: Mobilising investment to transform energy

1. What actions are needed to attract the required large scale private capital and household investment in the energy transformation, with or without government intervention?

Australia is facing a once-in-a-generation, whole-of-system energy transition, which carries a high cost. The high cost of new energy projects, including renewable generation, capacity, and essential new or upgraded transmission lines presents a major barrier to the essential pace of change required to meet emissions reduction targets. The OECD estimates Australia will need to invest around 1 per cent of GDP per annum in low-carbon electrical capacity over the second half of this decade under an energy transition scenario, and carbon mitigation costs could amount to 5 per cent of potential GDP by 2050.¹⁰

Australia’s industrial regions, including the Pilbara region in the North West of WA, are significant in both economic contribution and energy demands, and face unique energy transition barriers. The North West Interconnected System (NWIS) which serves the Pilbara region is fragmented with standalone networks; some remote locations are entirely disconnected from the wider system. Given the scale of change required to decarbonise the NWIS, CME recommends strategic energy planning conducted by government will be

⁸ Government of WA, May 2023, [SWIS Demand Assessment](#), Energy Policy WA.

⁹ Department of Climate Change, Energy, Environment and Water, May 2024, [Powering Australia](#)

¹⁰ OECD, [Long Term Scenarios: Incorporating the Energy Transition](#), Economic Policy Paper No. 33, December 2023.

essential to accelerate the pace of change. Strategic planning may take the form of facilitating the location of shared-user energy hubs and accelerating approvals processes for such areas.

CME recognises existing measures that have been introduced to address the cost of transition. Measures such as the Australian Government's provision of up to \$3 billion in concessional loans and equity investments for WA transmission projects under the Rewiring the Nation program,¹¹ and the expansion of the Capacity Investment Scheme (CIS) and National Energy Transformation Partnership (NETP) to deliver 32 GW of renewable generation and dispatchable capacity,¹² are positive steps. It is important that the entry of the Australian Government as a sizeable buyer in the power purchase agreement (PPA) market does not result in insufficient supply of renewable electricity for private industrial customers' decarbonisation projects. Any changes to Australia's energy mix will need broad industry support and be market-driven to minimise adverse impacts.

Government actions aimed at reducing commercial risk are expected to be the most effective action for stimulating the energy sector. These actions could include co-investing in partnerships, seed funding, hubs and shared infrastructure (e.g. transmission, ports and water) to lower costs and provide greater certainty over access and inputs across a project's proposed life. CME acknowledges the introduction of the Capacity Investment Scheme as a financial mechanism to support the entry of new generation capacity, exemplifying the role of government in early incentives for increased grid capacity. CME recommends that the Australian Government consider expanding or extending the scheme to address forecasted gaps in renewable capacity in the WEM.

CME recommends that the design of federal funding programs and the allocation of these funds to WA reflects the state's unique opportunities and importance in achieving national and global ambitions regarding decarbonisation and developing strategic industries. This is particularly relevant for the expansion of WA's renewable electricity generation and transmission networks, and strategic production hubs for hydrogen and battery and critical minerals.

Key consideration 2: Enabling electrification for a smooth transition

2. What actions are required to ensure Australia's energy systems can enable increased electrification, while maintaining equity, reliability and security?

Renewable electricity, powered by wind and solar, is a demonstrated low-emissions technology with increasing uptake in the mining and resources sector across WA. Renewable electricity underpins electrification, which is the key strategy currently available to industry to progress decarbonisation ambitions. Electrification refers to switching the source of energy from fossil energy to electricity for a range of industrial processes and applications, such as off-road transport (rail, trucks, and other mobile equipment) and process heat.

The pace and scale of electrification in industry is restricted by the following barriers:

- Uncertainty in both volume and reliability of future supply of low-emissions electricity.
- Insufficient transmission infrastructure to support fuel-switching.
- Retrofit of existing infrastructure is cost prohibitive.
- Potential technologies have not been demonstrated.

CME believes that the government has a key role in addressing industry concerns relating to the future supply of low-emission electricity that is essential to electrification. Policy settings that prioritise increased renewable generation, sufficient firming capacity for reliable supply, and enhanced transmission lines will help to foster certainty in future electricity supply amongst industrial stakeholders, reducing the risk in proceeding with electrification projects.

Specifically, **CME recommends that clear assessment guidelines and timely statutory assessment periods for renewable generation, storage, and transmission projects are introduced as a priority. Additionally, CME recommends that projects are progressed in partnership between government and private enterprise as a means to reduce commercial risks. For example, government can play an important role in community consultation and education programs to foster social license within declared renewable energy zones, as**

¹¹ Prime Minister of Australia, [\\$3 billion Rewiring the Nation deal to power WA jobs and growth](#), 29 August 2023.

¹² Australian Government, [Delivering more reliable energy for all Australians](#), media release by the Minister for Climate Change and Energy, 23 November 2023.

well as conduct early-stage environmental impact assessments of the zones to improve project certainty. This engagement will encourage private investment in the development of essential projects that underpin industrial electrification.

Funding incentives can support the research, development, demonstration, and roll-out of electrification technologies. Incentives may include matched funding for research programs, low-cost finance for high-capital retrofit projects, grants for households and small to medium enterprises (SMEs), and/or tax incentives for energy efficiency projects. Overall CME contends that government financial support is required to bring new or emerging technologies to commercial viability for widespread adoption by businesses and industry. This is exemplified by renewable electricity, which has become the most commercial decarbonisation technology, overcoming initial financial barriers thanks to funding support.

CME recommends that funding schemes, such as those managed by the Australian Renewable Energy Agency (ARENA), are designed and adjusted based on regular reviews of emerging technologies, and frequent engagement with industry to understand evolving decarbonisation pathways and technology gaps. Funding is particularly important to incentivise investment in early stage research to ensure new and innovative technologies are developed. CME recommends that the Powering the Regions Fund: Industrial Transformation Scheme is expanded to cover more industrial decarbonisation scenarios, and thus more technologies, beyond the focus areas of the first round of funding. In particular, CME recommends that additional funding programs or tax concessions are made available for early stage research and pilot programs for new innovations.

3. What insights do you have on the pace, scale and location of electrification, and how to embed this in system planning?

Infrastructure planning and scenario development for electricity, heating, transport, gas pipelines, hydrogen and different industrial decarbonisation trajectories should be coordinated to align generation and transmission development opportunities, particularly to cater for multiple users. Key industrial zones in WA that host multiple energy users and have existing shared infrastructure should be priority areas for the rollout of industrial electrification. These zones include areas surrounding Port Hedland and the Burrup Peninsula in the Pilbara Region, and Kwinana and Kemerton Industrial Areas in the South-West Region. Prioritising efforts in shared industrial zones with existing infrastructure is likely to have the greatest impact.

CME recommends that near-term policies are focussed on supporting users within the South-West Interconnected System (SWIS) to connect to grid electricity and electrify industrial processes as a means to demonstrate technological applications. Demonstration of electrification technologies in the SWIS will better enable facilities in other regions to plan decarbonisation strategies that apply the same or similar technologies, coupled with renewable electricity projects. Acknowledging that electrification is a key decarbonisation across regional geographies, CME also recommends the introduction of policies and incentives that support projects in regional areas to advance electrification processes in anticipation of increasing renewable generation.

Additionally, to support wide-spread adoption of low-emissions technologies across industrial facilities, CME recommends that funding mechanisms for research and development of technological innovations incorporate knowledge sharing clauses.

Key consideration 3: Growing alternative low carbon fuels

5. What policy settings and certainty are required to support a fair, equitable and orderly transition for the decarbonisation of both natural gas and liquid fuels?

CME supports a technology-agnostic and least-cost approach to decarbonisation and electrification. Considering the scale of the decarbonisation task that faces Australia, CME argues that all available technologies and energy sources should be considered and assessed for their individual merits within a diversified energy system. Assessment criteria should include GHG emissions, Australian energy security, and reliability for consumers.

While renewable electricity is currently the most accessible decarbonisation strategy for many applications, CME acknowledges that technology gaps and/or prohibitive costs exist for many of our members to decarbonise (for example, high-temperature heat for bauxite-alumina, ammonia and other industrial processes). In these cases, alternative fuel sources will be required to decarbonise in the long-term.

Hydrogen

Hydrogen is a potentially significant contributor to Australia's net zero transition, and almost a quarter of Australia's planned and operating hydrogen projects are in WA.¹³ Hydrogen could create both economic diversification and decarbonisation opportunities through its potential use in the production of 'green' iron and steel.¹⁴ CME members believe hydrogen demand will naturally evolve as commercial hydrogen pathways are realised and developed. **While the hydrogen industry is still nascent, CME argues that considered and substantive support from the government will be necessary to develop a mature hydrogen industry.** CME supports continued research by the Minerals Research Institute of WA into potential pathways for producing green iron and steel, acknowledging domestic access to natural gas may be a crucial interim enabler.

Like all resource projects, hydrogen will require comprehensive energy infrastructure planning and timely and certain approvals processes across all levels of the government. **CME recommends that government prioritise the development of approvals processes that generate certainty for proponents that are early movers in a developing hydrogen industry. A stable and certain regulatory environment is essential for Australia to meet ambitions of producing green hydrogen on a commercial scale.**

On the hydrogen supply side, CME believes government support can be successfully directed to developing supply at sufficient scale to be internationally competitive in the medium to long term, as the production cost of low or zero-carbon hydrogen is currently a key barrier to industry development. This will likely involve strategic investment to reduce project risk and costs in the hydrogen supply chain. This could include leveraging the CIS model to lower costs for domestic consumers and additional funding rounds under Hydrogen Headstart. CME strongly supports the hub model for industry as a way of improving the bankability of projects to increase innovation and information sharing while decreasing cost and waste.

It is important to note that while CME recommends government support to accelerate industry development for hydrogen, the industry should not be artificially stimulated. Realising the potential role of hydrogen in reducing emissions in the medium to long term will require government support, but this should exist within a balance of federal policies that support the energy transition. Appropriate government policy and regulation can also support the demand side.

Biofuels

CME acknowledges that development of alternative liquid fuels, such as renewable diesel, may be a suitable interim or permanent pathway to replace conventional diesel in vehicles that cannot be simply electrified or replaced. In many instances in the mining sector, mobile equipment and fleet are both difficult to electrify and expensive to replace. In these cases, a drop-in sustainable liquid fuel may become a valuable part of industrial decarbonisation. In some jurisdictions, government incentives and regulatory frameworks have contributed to sustainable supply of cost-effective, low carbon liquid fuels, and therefore enabled emissions reductions in applications where electrification is not viable (at least in the near term). **CME recommends that, by engaging directly with industry stakeholders, government assesses policy options to support the development of a domestic biofuels industry.** The principles of lifecycle assessment could be applied to the development of a framework to assess a range of sustainability impacts of low-carbon liquid fuels, such as water consumption, energy consumption, and social impacts. **CME would also support a certification scheme for low-emissions liquid fuels to support consumer uptake.** Such a model could draw inspiration from the Renewable Energy Target and Guarantee of Origin scheme, which certify renewable electricity and hydrogen respectively. An assessment of policy options should inform potential government funding opportunities for both enhanced biofuel productions and/or industrial uptake. For example, the government may consider how existing fuel tax schemes could be expanded for biofuels.

Natural gas

To meet net zero emissions by 2050, CME understands the need to transition to very low-or zero-carbon energy sources. However, we note artificial reductions in gas demand or supply may risk energy security, affordability and reliability during this challenging phase of the global energy transition in the near to medium term (to 2035). For example, the Australian Energy Market Operator (AEMO) forecasts total domestic gas demand in Western Australia will increase by 16 per cent to 2032. Part of this demand is a response to the anticipated closure of all of WA's coal-fired power stations. It is also anticipated that natural gas will be used to provide stability to the grid as renewable penetration increases, as well as continuing to be an important

¹³ 25 of 104 active projects, with an additional 10 projects archived. CSIRO, [Hydrogen projects spreadsheet](#), derived from the HyResource Projects – Active webpage, last updated 11 January 2024.

¹⁴ CME, [National Hydrogen Strategy Review](#), submission to DCCEEW, 22 August 2023. Minerals Research Institute of Western Australia, [Western Australia's Green Steel Opportunity](#), 19 June 2023.

feedstock and source of process heat in the extraction and downstream processing of minerals, including critical minerals that are required for the energy transition.¹⁵

Natural gas and liquefied natural gas have an established role in facilitating the global energy transition to net zero in this decade.¹⁶ Gas plays a significant role in providing critical energy security during electricity market turbulence and meeting incremental increases in baseload power supply in markets with declining shares of coal-fired generation.¹⁷ For some hard-to-abate sectors with high-temperature heat requirements, gas may also be an interim transition fuel for reducing emissions in the medium term.¹⁸

While technological innovations are under development, it is important that energy security is maintained. [CME recommends that government plans and strategies to reduce emissions in line with net zero emissions by 2050 clearly outline the role of gas as a firming fuel for reliable supply of electricity in the near-term.](#)

Key consideration 4: Building Australia's clean energy workforce

8. What actions are required to ensure workforce requirements for the energy transformation are met, while supporting equitable outcomes?

Australia needs to be proactive in attracting and retaining the workforce required for the energy transition, given intense global competition for talent. The Australian Government should ensure migration settings are competitive and attractive, domestic training programs are industry-led and well-funded, and sufficient infrastructure (including housing) is developed to support workforce needs, including in regional areas.

The energy transition will have skilling and training implications for the 50,000+ individuals employed as traditional automotive mechanics, electricians, fitters and machinists across WA.¹⁹ The tooling requirements and spare parts for servicing battery, hybrid, plug-in or hydrogen fuel cell EVs are significantly less but will instead require dual or hybrid trades in electro-technology specialisations.²⁰ Work-integrated learning projects, which provides exposure to these changing technologies, can support skills development between industry and education providers. [Both the Australian and WA Government should work with existing industry-led Jobs and Skills Councils and the proposed TAFE Centres of Excellence to shape the education and migration policy settings needed for our future workforce.](#)²¹

[CME supports recommendations²² for greater consideration of overlapping skills and training requirements between sectors such as low-emissions energy, transmission, mining, manufacturing and infrastructure is needed to build capacity in the future workforce.](#) There is an opportunity in the servicing supply chain to redeploy similar skills between different projects with different durations and locations. Any emphasis in the VET, university and skilled migration systems to build capacity should take a whole-of-economy approach.

Key consideration 5: Maximising outcomes for people and businesses

9. What actions are required to ensure better energy outcomes for people and businesses, and maximise their benefit from the energy transformation?

Forecast increases in energy demand across WA present a significant challenge for mining and resources as well as other sectors of the economy. While a part of addressing supply gaps and meeting growing demand is achieved by increased generation and storage capacity, CME also highlights that reducing energy demand is an important part of the solution. Improving energy efficiency is a valuable tool to reduce energy demand across all sectors of the economy, freeing up more energy for growing businesses. Since energy is

¹⁵ Gas demand for electricity generation is expected to double between 2023 and 2032 to ensure the reliability of a grid with a much higher share of renewables generation, while gas demand for mineral processing (including for lithium) is expected to increase by 18 per cent. Australian Energy Market Operator (AEMO), [2022 WA Gas Statement of Opportunities](#), December 2022.

¹⁶ Peak demand for coal, oil and natural gas is expected before 2030. International Energy Agency (IEA), [World Energy Outlook 2023](#), 10 October 2023.

¹⁷ IEA, [Electricity Market Report 2023](#), 1 February 2023, pp 72 and 98. IEA, [Australia 2023: Energy Policy Review](#), 19 April 2023, p 151. AEMO, [Quarterly Energy Dynamics Q1 2023](#), 28 April 2023. ABC News, [Alinta calls for new gas, green energy capacity as coal exodus threatens supply crunch in WA](#), 22 February 2023.

¹⁸ Australian Industry Energy Transitions Initiative, [Pathways to industrial decarbonisation: Positioning Australian industry to prosper in a net zero global economy](#), phase 3 report, February 2023.

¹⁹ Australian Bureau of Statistics, [Labour force, Australia, detailed](#), '6291.0.55.001 EQ08 Employed persons by occupation unit group of main job', August 2023 reference period, 21 September 2023 release.

²⁰ Commonwealth of Australia, [The clean energy generation: Workforce needs for a net zero economy](#), Jobs and Skills Australia, capacity study report, 3 October 2023.

²¹ Commonwealth of Australia, [Working Future: The Australian Government's White Paper on Jobs and Opportunities](#), The Treasury, 25 September 2023, p 98-130.

²² University of Technology Sydney and SGS Economics and Planning, [Employment, skills and supply chains: Renewable energy in NSW](#), final report prepared for the State of New South Wales, January 2022.

a significant cost for industry, energy efficiency is a key focus area to minimise costs and maintain international competitiveness.

CME recommends that government implement strong policies to support other sectors including households to become more energy efficient. Policies may include grants and/or tax incentives for retrofits and upgrades that reduce energy consumption, such as improved insulation, rooftop solar and battery installation, smart metering, and heat pump technologies. Reducing household energy demand through energy efficiency initiatives also have the potential to reduce cost-of-living pressures across communities.

Other key considerations

11. What are other gaps in Australia's energy sector decarbonisation policy and what actions are required to address them?

Carbon Capture, Utilisation and Storage

In line with CME's support of a technology agnostic approach to the energy transition, we are of the view that all technologies that could reduce GHG emissions should be considered and assessed for their individual merits when determining a pathway to net zero emissions by 2050. CME believes that carbon capture, utilisation, and storage (CCUS) projects have the potential to play a significant role for decarbonisation in Australia in line with findings from the Intergovernmental Panel on Climate Change (IPCC)²³. CCUS is an available technology for industrial emissions that are otherwise challenging to abate, such as cement, steel, and chemical industries.²⁴ Support and investment for CCUS is growing around the globe. CME supports recent developments in Australia that support the growth of domestic CCUS, such as the passage of the Petroleum Acts Amendment Bill in WA to enable development of CCUS projects. CME recommends that government work closely with industrial and energy sectors to remove regulatory barriers that may delay or prevent CCUS projects in Australia.

Critical Minerals

Australia's Critical Minerals Strategy 2023-2030²⁵ emphasises the importance of our critical minerals sector to meet our decarbonisation needs, secure domestic supply chains that are vital to our strategic interests and create jobs and national wealth. Australia is the world's largest producer of lithium, the third largest producer of cobalt and fourth largest producer of rare earths and produces significant amounts of energy transition metals such as aluminium, nickel and copper. Together with our critical minerals, these are essential inputs into the technologies that will drive the energy transformation.

Achieving the International Energy Agency's (IEA's) Net Zero Emissions by 2050 Scenario will require at least six times more critical mineral inputs in 2040 compared to 2020.²⁶ Adding to this demand pressure, the International Monetary Fund (IMF) notes that geopolitical trade tensions could drive an additional price increase of 300 percent for selected critical minerals and lead to 30 percent lower investment in solar panels, wind turbines and electric vehicles (EVs) needed for the energy transition.²⁷ Australia's opportunity to host a globally competitive, sustainable and value-adding battery and critical minerals industry is at risk due to rising costs, strong global competition and uncompetitive fiscal and government policy settings. There is a narrow window of opportunity to capitalise on this enormous economic opportunity and become a major participant in the global value chain.

CME recommends policy options that incentivise international investment in Australia's critical minerals industry as a priority, in order to boost both domestic and export supply of these essential materials. In particular, CME calls for clear assessment guidelines and timely approvals for new critical minerals projects. According to CME members, regulatory uncertainty is one of the key barriers to the development of this sector. CME also recommends that government explore a production tax credit as a possible financial incentive to attract investment opportunities.

Conclusion

In this submission CME makes recommendations that can expand the impact of available funding, as well as non-fiscal policy to accelerate the energy transition and deliver a low-emission, reliable and cost-competitive energy system in time to meet national emissions reduction targets. These include ensuring efficient, non-

²³ Intergovernmental Panel on Climate Change (IPCC), April 2022, IPCC Sixth Assessment Report. Working Group III: Mitigation of Climate Change.

²⁴ IEA, [Carbon Capture, Utilisation and Storage](#), 25 April 2024

²⁵ [Critical Minerals Strategy 2023-2030](#)

²⁶ IEA, [The Role of Critical Minerals in Clean Energy Transitions](#), May 2021, p 8.

²⁷ International Monetary Fund, [A critical matter](#), Finance and Development feature article, vol 60, iss 4, published 30 November 2023.

duplicative approvals frameworks for energy infrastructure projects, ensuring the training and access to skills required for the energy transition, and supporting early research and development for low-emissions technologies through grants and low-cost finance.

If you would like to discuss the matters raised in this submission, or require any further information, please contact Anita Logiudice on 0448 468 632 or via email at A.logiudice@cmewa.com.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Adrienne LaBombard', written in a cursive style.

Adrienne LaBombard
Director – Policy & Advocacy