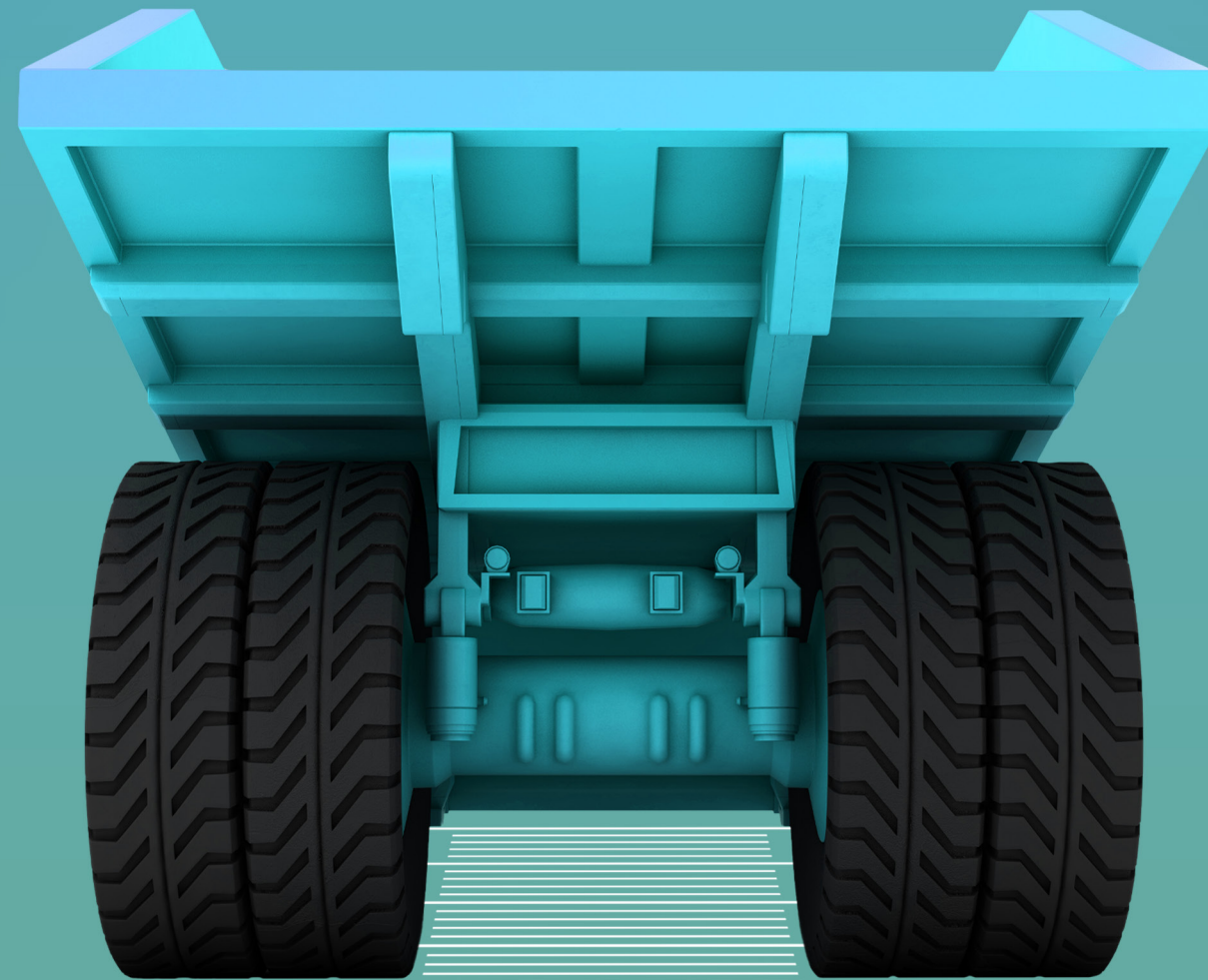
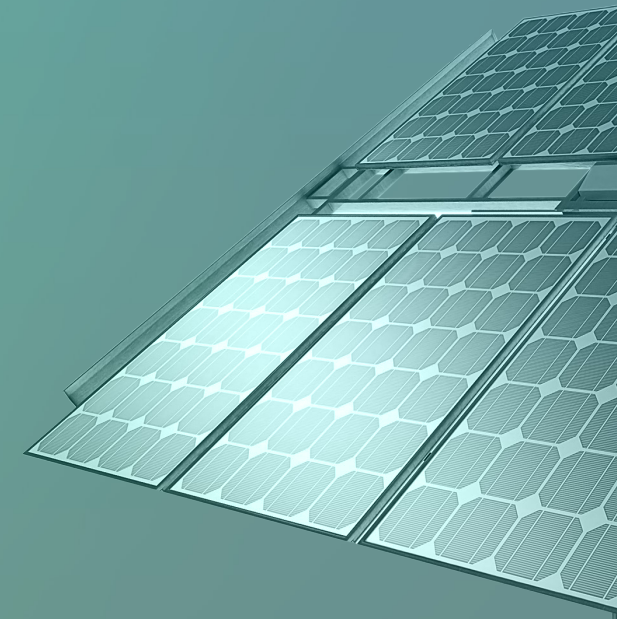




13 Al Aluminium	 Solar cells	51 Sb Antimony	6 C Carbon
27 Co Cobalt	29 Cu Copper	79 Au Gold	 Batteries
 Hydrogen	26 Fe Iron	3 Li Lithium	25 Mn Manganese
12 Mg Magnesium	 CCUS	28 Ni Nickel	41 Nb Niobium
50 Sn Tin	92 U Uranium	30 Zn Zinc	 EV & hybrids
 Nuclear energy	 Mineral sands	 Wind energy	 Rare earth elements



CLIMATE ACTION PLAN



CLIMATE ACTION PLAN



- Showcase industry progress addressing climate change
- Develop partnerships with tech investors and developers
- Collaborate with universities & NGOs on technology pathways
- Support member companies to reduce mine site emissions
- Increase transparency around climate-related reporting
- Boost tech & battery minerals such as cobalt, nickel and lithium
- Accelerate development of rare earth minerals projects
- Increase R&D in low carbon emissions technologies
- Achieve an ambition of net zero emissions in Australia

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There's more to Australian Mining

Supporting ongoing climate action by Australia's minerals industry

The MCA and all of its members are taking serious action on climate change and are committed to the Paris Agreement and its goal of net zero emissions.

Sustained climate action across all nations is required to reduce the risks of human-induced climate change and to support world-wide decarbonisation as we transform to a lower emissions future.

Our sector improves the lives of millions of people in Australia and overseas through the responsible mining of minerals that are essential for everyday life.

This is a global undertaking of major technological, economic and social challenge in which Australia and the minerals sector must play their part.

To achieve an ambition of net zero emissions in Australia, and reflecting the importance of rapid action, requires a stable national policy framework that includes:

1. Substantially increased research, development and investment in technologies and processes to reduce mine site emissions
2. Widespread deployment of low and zero emission technologies including consideration of all technologies
3. Credible, verified low cost abatement options, including domestic and international offsets

4. Accelerated development of the minerals required for a low emissions future including aluminium, copper, nickel, zinc, iron, uranium, base metals, lithium, minerals sands, and rare earths

5. Global and domestic partnerships with governments, regulators, customers, technology developers, universities, NGOs and other relevant groups to drive new technologies that cost-effectively reduce emissions

6. Policies that foster continued economic growth and investor confidence in Australia.

The scale of the technology-led transformation required cannot occur without the minerals and raw materials provided by the Australian mining sector.

Our sector is already making major investments to significantly reduce emissions such as renewable energy investments at mine sites and collaborations with partners on low emissions technologies and processes.

Australia's ability to successfully adapt to climate change will rely on a strong economy including a strong and internationally competitive Australian mining industry. Our sector will continue to deliver the raw materials and contribute to the new technologies which will underpin necessary resilient infrastructure and act on new opportunities that will drive lower emissions for the minerals industry.

This 2020-2023 plan furthers the minerals sector's public commitment to addressing climate change on an ongoing basis consistent with the MCA's climate statement. It outlines a series of actions focused on three key themes:

1. Support developing technology pathways to achieve significant reductions in Australia's greenhouse emissions
2. Increased transparency on climate change related reporting and informed advocacy
3. Knowledge sharing of the sector's responses to addressing climate change.

This plan will be reviewed annually to ensure it remains consistent with Australia's climate policy ambitions in support of the Paris Agreement.

With this plan, the sector acknowledges the critical importance of technology in reducing emissions. It lays the groundwork for the Australian minerals sector to share its knowledge and support emission reductions within the sector.

The minerals industry has already taken a strong proactive approach on research, development and deployment of technology applications across our businesses. Major opportunities exist in pursuing decarbonisation including through operational efficiencies, abatement, developing and deploying low emissions technologies including renewables, hydrogen, proven, safe and reliable Carbon Capture Utilisation and Storage (CCUS) and advanced nuclear solutions, as well as digitisation, automation, and electrification.

The sector will support the development of cleaner energy options through the development of critical minerals to enable their application as

CLIMATE ACTION PLAN



The technology-led transformation required cannot occur without the minerals and raw materials provided by the Australian minerals sector.



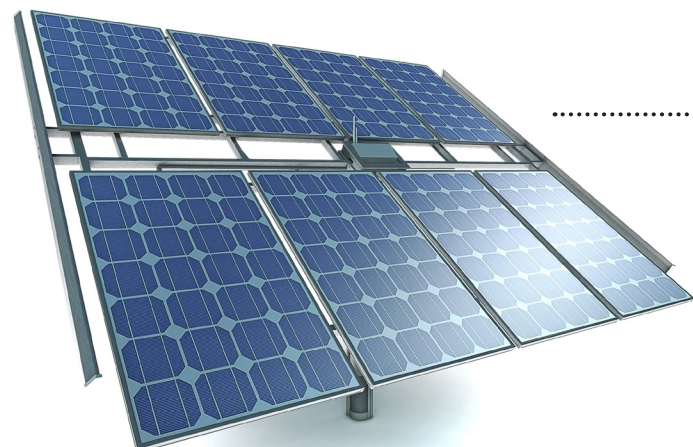
well as taking a lead on commodity stewardship looking at global procurement practices, circular economy, and traceability of commodities through their lifecycle.

Practical and cost-effective options are already being developed and put into action across the minerals value chain.

The sector will play its part so that Australia's minerals can be sustainably mined, refined and consumed to support more sustainable economic growth and social progress in alignment with the United Nations Sustainable Development Goals and the global climate goals of the Paris Agreement.

This Climate Action Plan is part of the ongoing commitment of Australian minerals companies to environmentally sustainable and responsible mining and processing.

Tania Constable
Chief Executive Officer
Minerals Council of Australia



MAKING THE SWITCH

Australian miners embrace renewable energy

Remote mine sites are increasingly powered by solar, wind and battery energy. In February 2020, Rio Tinto announced a 34MW solar farm will power its new Koodaideri iron ore mine in the Pilbara. The 100,000-panel photovoltaic plant, along with a lithium-ion battery at Tom Price, will help Rio Tinto reduce its annual carbon emissions by about 90,000 tonnes – the equivalent of taking around 28,000 cars off the road. Expected to be operational in 2021, the solar farm will join more than a dozen green energy projects at mining operations across the country.

There's more to
Australian Mining



The MCA is proud to release its Climate Action Plan while recognising the shadow cast by COVID-19. This has not and will not deter Australia's minerals sector from further implementation of this Plan. The minerals sector stands ready to help lead our nation's economic recovery post-COVID-19.




1 Developing technology pathways to achieve significant reductions in Australia's greenhouse gas emissions

Encouraging substantial investment across a broad range of low-emissions technologies.


2 Increased transparency on climate change reporting and informed advocacy

Providing timely, accurate and reliable information to enhance members' capacity to act.




ACTION 1

Enhance national and global discussions on low emissions technologies and report on the potential of innovative mitigation and adaptation technologies.




ACTION 2

Define a greater role for the minerals sector in the global and national transformation to lower emissions.




ACTION 3

Support the development of policies and technologies to achieve least-cost abatement in order to help meet the net zero emissions goal of the Paris Agreement and maintain the competitiveness of energy-intensive and trade-exposed sectors.




ACTION 4

Understand the opportunities and risks of net zero emissions for the Australian minerals sector having regard to the Australian Government's commitments under the Paris Agreement and the aspirations set by the states and territories.



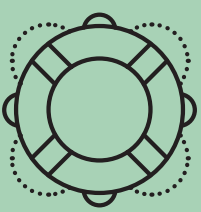
ACTION 5

Build the capacity of Australia's minerals sector relating to climate-related financial disclosures (including from the Taskforce on Climate-related Financial Disclosure).



ACTION 6

Share member company approaches to scenario analysis and how it is being strategically used within the sector to address climate-related opportunities and risks.



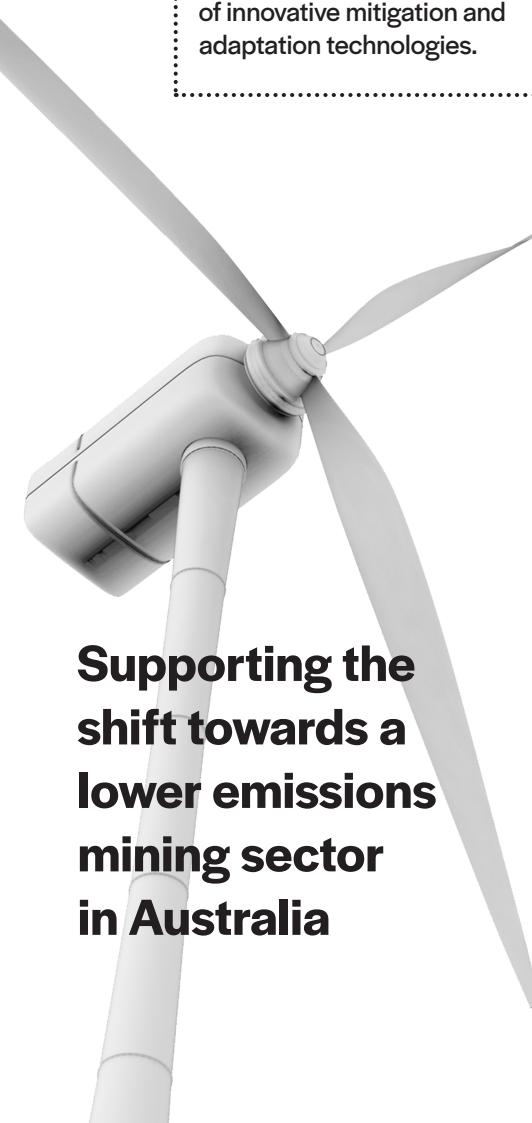
ACTION 7

Engage in the ongoing development of current policies including the Safeguard Mechanism.

CLIMATE ACTIVITIES


- ACTIVITY 1.1**
Pursue climate partnerships
Identify domestic and international partnerships relevant to the minerals sector to advance the climate goals of the Paris Agreement.
- ACTIVITY 1.2**
Climate Change Advisory Panel
Establish and convene an independent panel of experts to advise the MCA on sustainable pathways to decarbonisation.
- ACTIVITY 1.3**
Demonstrate technologies
Support the demonstration of technologies that can help reduce fugitive emissions by collaborating with relevant organisations.
- ACTIVITY 1.4**
Explore technology potential
Consider aspirational uptake rates and timeframes across a broad portfolio of low-emitting and high-abating technologies.
- ACTIVITY 1.5**
National technology roadmap
Inform and help implement the Government's Technology Investment Roadmap.
- ACTIVITY 1.6**
Develop minerals sector roadmap
Partner with relevant organisations to develop a minerals-specific technology roadmap.
- ACTIVITY 1.7**
Explore low carbon opportunities
Release a statement on the opportunities associated with transforming the minerals sector in support of a decarbonised future.
- ACTIVITY 1.8**
Work with finance community
Identify innovative business models that can support the uptake of nascent low-emissions technologies.
- ACTIVITY 2.1**
Support renewable energy
Encourage the uptake of renewable energy sources at the mine site.
- ACTIVITY 2.2**
Support zero emissions
Support innovative solutions for zero emissions energy production at mine sites.
- ACTIVITY 2.3**
Support electric vehicles
Support the uptake of electric vehicles at the mine site and promote the associated opportunities for the sector.
- ACTIVITY 3.1**
Support public data repository
Work with government officials to improve mineral sector datasets, including remote power options, centralised power system costs and low emissions technologies.
- ACTIVITY 3.2**
Advocate long-term policy
Longer-term policy advocacy consistent with the MCA's Climate Statement to enable the sector to decarbonise.
- ACTIVITY 3.3**
Advocate climate programs
Advocate for programmatic support to enable deployment of mining technologies to assist in the sector's decarbonisation.
- ACTIVITY 3.4**
Report on technology uptake
Release a biennial statement on progress towards achieving aspirational technology uptake rates suggested in Action 1.4.
- ACTIVITY 3.5**
Publicly support ARENA
Support ARENA to continue accelerating the uptake of clean energy.
- ACTIVITY 3.6**
Access international abatement
Advocate for private sector access to international low-cost abatement for voluntary and compliance purposes.
- ACTIVITY 3.7**
Review innovation systems
Periodically review the health of the national innovation system in regard to research, development and demonstration (RD&D) relevant to the minerals sector.

Supporting the shift towards a lower emissions mining sector in Australia




3 Knowledge sharing of the sector's responses to addressing climate change

Improving members' understanding of global climate change initiatives and partnerships.



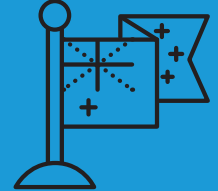
ACTION 8

Showcase commitments and practices in mining operations.



ACTION 9

Lead discussions on the opportunities of commodity stewardship.



ACTION 10

Positively engage in relevant climate agendas and public consultation processes including UNFCCC, Sustainable Development Goals (SDGs), Intergovernmental Panel on Climate Change (IPCC), as well as collaboration with relevant organisations.

Implementation of the Climate Action Plan

The MCA Board, assisted by its advisory committee, the Energy and Climate Change Committee, will oversee the implementation of the action plan.

The MCA will promote evidence-based knowledge-sharing to help members manage emissions. This will include sharing ways to identify and estimate future emissions pathways consistent with Australian Government policies and the climate goals of the Paris Agreement.

Environmental, social and governance (ESG) related topics will also be included in discussions such as waste and water management, deployment of innovative solutions, and opportunities for national and

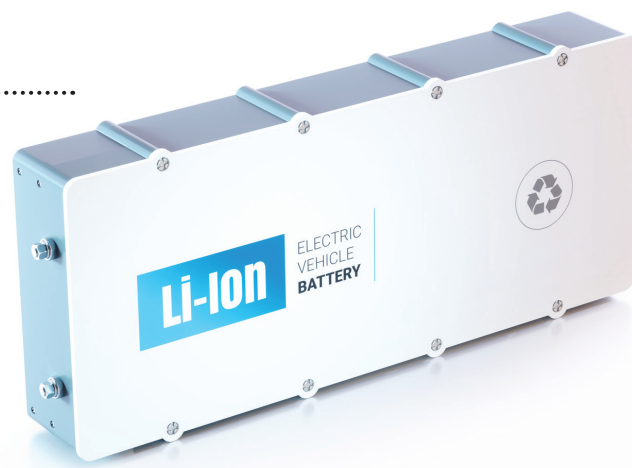
international cooperation to enhance sectoral understanding and build capacity to act.

The MCA will also encourage peer learning by providing members with opportunities to attend relevant meetings, including international climate negotiations, along with hosting relevant workshops and enabling contributions by the industry to scientific and technological work in Australia and overseas.

MAKING THE SWITCH

The future of mining includes electric vehicles

Mining companies are increasingly making the switch to electric vehicles – from light passenger utilities to employee buses and even large haul trucks. Anglo American, in its effort to drive operations towards carbon neutrality, is developing a hybrid haul truck that uses both a lithium-ion battery and a hydrogen fuel cell module. It will be the world's largest hydrogen powered truck if testing later this year is successful. In Australia, electric vehicles are also appearing on mine sites. BHP is expanding its pilot program for electrified Land Cruisers to its Western Australian iron ore and nickel businesses after successful testing at Olympic Dam in South Australia.



MAKING THE SWITCH

Glencore looks to future with carbon capture in Surat Basin

Glencore is leading the research and development of low emission technology solutions with its Carbon Capture and Storage (CCS) demonstration project in the Surat Basin (Qld). CCS technology captures CO₂ from coal and gas-fired power stations and other industrial processes and stores it deep beneath the ground. The Surat Basin features suitable geological conditions to sequester large quantities of CO₂. The demonstration project will establish the technical viability and safe operation of the technology on behalf of industry and government.

- ACTIVITY 4.1 Economics of net zero emissions**
 Model the opportunities and costs of net zero emissions to the minerals sector consistent with national commitments under the Paris Agreement and the aspirations set by the states and territories.
- ACTIVITY 5.1 Host climate disclosure forum**
 Host bi-annually a climate-related financial disclosure forum to raise awareness and share knowledge.
- ACTIVITY 5.2 Align disclosure practices**
 Identify current disclosure practices amongst members to inform their alignment with TCFD recommendations.
- ACTIVITY 6.1 Assist climate planning**
 Explore reputable publicly released climate scenarios and their significance for the minerals sector, and survey members to compare commitments and use of scenarios and report on key findings.
- ACTIVITY 7.1 Climate policy barometer**
 Survey members to identify and understand the nature of climate-related policy issues and opportunities, and report on key findings to transparently set expectations on MCA advocacy priorities.
- ACTIVITY 8.1 Establish online registry**
 Establish an online registry including minerals sector climate-related collateral (initially targeting members but could allow future public access).
- ACTIVITY 8.2 Supporting adaptation**
 Understand the types of adaptation investments needed in the minerals sector, especially in regard to operations, employee health, supply chains, water use, energy resources and local communities, to help minimise the adverse impacts of a changing climate.
- ACTIVITY 8.3 Supporting resilience**
 Understand and share how mining operations are assessing and managing the physical impacts of climate change on site to build operational resilience.
- ACTIVITY 9.1 Report on circular economy**
 Report on the role of the minerals sector in helping transform to a circular economy.
- ACTIVITY 9.2 Report on blockchain technology**
 Report on the application of blockchain technology in the minerals sector.
- ACTIVITY 9.3 Support value-adding activities**
 Partner with organisations to showcase the importance of minerals extraction to their value-adding activities, including climate-smart minerals and metals.
- ACTIVITY 10.1 International climate agenda**
 Engage productively in the business of the United Nations Framework Convention on Climate Change including the implementation of the Paris Agreement and the work of the Intergovernmental Panel on Climate Change.



There's more to
Australian Mining