

Aluminium is a key ingredient in green energy technologies, including wind turbines – pictured operating near Alcoa's Portland Aluminium Smelter in Victoria

Sourcing minerals and metals essential for rapidly advancing technologies – like green energy, telecommunications, health and defence – is a growing challenge for countries around the world.

Advanced economies, including Australia, are moving to safeguard supplies through a range of measures, including critical and strategic materials lists, policies and reserves. Arguably, an even greater challenge is securing these materials from responsible producers which care for the environment and people.

Alcoa Australia believes a long track record of responsible production and a focus on continuous improvement make it well placed to help meet demand for one of those future-facing metals – aluminium.

Alcoa has been a major player in the aluminium industry in Australia for more than 60 years. The company mines the key ingredient for aluminium – bauxite – in Western Australia's Peel and Upper South West regions. It then value-adds to this ore by turning it into alumina at its nearby WA refineries. The alumina is then shipped around the world, including to Alcoa's Portland Aluminium Smelter in Victoria, to be turned into aluminium.

Aluminium is already the second most used metal in the world, and the



Dr Justine Barker conducts fauna research in Alcoa's rehabilitated areas.

ALCOA FACTS

- Does not mine in high-conservation areas including old-growth forest.
- Cleared less than 2% of the jarrah forest.
- 75% of mined areas are under rehabilitation.
- Accelerating annual mine site rehabilitation to 1000 hectares by 2027.
- First miner to achieve 100% plant species richness in rehabilitation.
- 100% of mammal and 90% of bird and reptile species return to rehabilitated areas within 15-20 years.
- No negative impacts on drinking water supply in more than 60 years.
- Established no-mining zones around Jarrahdale and Dwellingup.
- Directly employs more than 4000 people in WA.
- Spent \$2 billion with 1000 WA businesses in 2024.

International Aluminium Institute is forecasting demand to rise a further 40 per cent globally by 2030. The World Bank has identified aluminium as a high-impact metal in existing and potential green energy technologies. It is also a key ingredient in electric vehicles and other modes of transport, medical equipment, communications technology and countless other items we use every day.

Alcoa Australia President Elsabe Muller said responsible production of important future-facing minerals and metals, like aluminium, required careful balancing of environmental, social and economic considerations.

"In the six decades Alcoa has been operating in Australia, we have been focused on responsible environmental management and supporting our communities," she said. "This ranges from not mining in high-conservation areas, including old-growth forests to being praised by the United Nations for our successful mine site rehabilitation.

"Our strict water management has ensured our mining operations have never negatively impacted WA's drinking water supply, while our alumina operations are among the world's lowest carbon dioxide-emitting producers.

"We are a big part of WA, Peel and the Upper South West where we directly employ more than 4000 people, and last year invested about \$2 billion with around 1000 local businesses and \$5.3 million in community programs and initiatives.

"We work with stakeholders and communities to earn our licence to operate, taking their feedback on-board as we shape our operations. This includes establishing no-mining zones around Jarrahdale and Dwellingup, as well as minimising impacts to forest recreation.

"And we continue to work with government and other stakeholders to improve the way we operate, lessening impact while maximising value to stakeholders and communities."

Part of that continuous improvement is the modernisation of Alcoa's approvals framework with the company's current and future WA bauxite mining proposals under assessment by the Environmental Protection Authority. The public has until Thursday August 21 to review and comment on what Alcoa has put forward.

Ms Muller said the Environmental Review Documents submitted by Alcoa showed the company was not only committed to maintaining its current responsible production practices but also to introducing a raft of new measures.

When it came to water, Ms Muller explained that Alcoa had studied ground and surface water in the Northern Jarrah Forest for more than five decades, using the information and ongoing data from more than

1000 groundwater bores and dozens of monitoring stations to inform its operations. Additional water safety measures Alcoa had committed to as part of its mine proposals included not mining within 1km of drinking water reservoirs, deferring plans to mine in reservoir protection zones and prioritising rehabilitation within key areas of the water catchment.

When it came to rehabilitating WA's Northern Jarrah Forest after mining, Ms Muller said Alcoa was succeeding. It was the first miner to achieve 100 per cent plant species richness in rehabilitated areas while peer-reviewed research showed 100 per cent of mammals and about 90 per cent of birds and reptiles returned within 15-20 years.

"In more than 60 years of operation, we have cleared less than two per cent of the Northern Jarrah Forest, and 75 per cent of that area is under rehabilitation," she said.

Ms Muller said Alcoa was accelerating its annual mine site rehabilitation, aiming to reach 1000 hectares by 2027. Should the company's future mining proposal be approved, clearing and rehabilitation rates would be matched on a rolling three-year basis, rehabilitation prioritised near environmentally significant areas, and additional buffer zones established to protect important plants and animals.



Georgia Haines inspects seedlings to be planted in Alcoa's rehabilitation.