1 May 2023

Keynote Presentation
Standards Australia Critical Minerals Forum

Dear Shareholders

I am delighted to provide a copy of the opening Keynote Presentation I gave at the recent Standards Australia Critical Minerals Forum entitled *"How standards can build trust for the Critical Materials Industry"*.

My key messages to the forum:

- In our commitment to high environmental standards and respect for human rights Australia, along with our fellow members of the ICMM, are leading the way in setting the global standards for supply chains. This commitment which extends from the mine through to the showroom gives the trust consumers and manufacturers are seeking in the supply of critical materials.

- Currently, supply chains are dominated by sources that do not generate this trust, and too often there is confusion on whether environmental standards are applied fully 'from mine to showroom'.

- Just as the 'heart tick' or 'dolphin safe' labels communicate instant supply chain trust; Australia has a responsibility to communicate this commitment beyond the mining fraternity to all sectors of the critical materials supply chains.

Australia is playing a leading role in the development of rare earth standards by the ISO, in which I have participated since the founding of ISO/TC 298 in 2016. Through this activity Australian Rare Earths is working alongside many of the world's leading rare earths scientists and engineers. This is a strategic opportunity that we will continue to pursue as a vital part of our commitment to environmental integrity at Koppamurra.

The announcement has been authorised for release the by the Board of AR3 Limited.

Yours faithfully

Dudley Kingsnorth
Chairman Australian Rare Earths Limited

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About Australian Rare Earths Limited

Australian Rare Earths is committed to the timely exploration and development of its 100% owned, flagship Koppamurra Project, located in South Australia and Victoria. Koppamurra is a prospective ionic clay hosted rare earth deposit, uniquely rich in all the elements required in the manufacture of rare earth permanent magnets which are essential components in electric vehicles, wind turbines and domestic appliances. The Company is focused on executing a growth strategy that will ensure AR3 is positioned to become an independent and sustainable source of rare earths, playing a pivotal role in the global transition to a green economy.

Standards Australia: Critical Materials Week Forum

April 2023

AUSTRALIAN RARE EARTHS

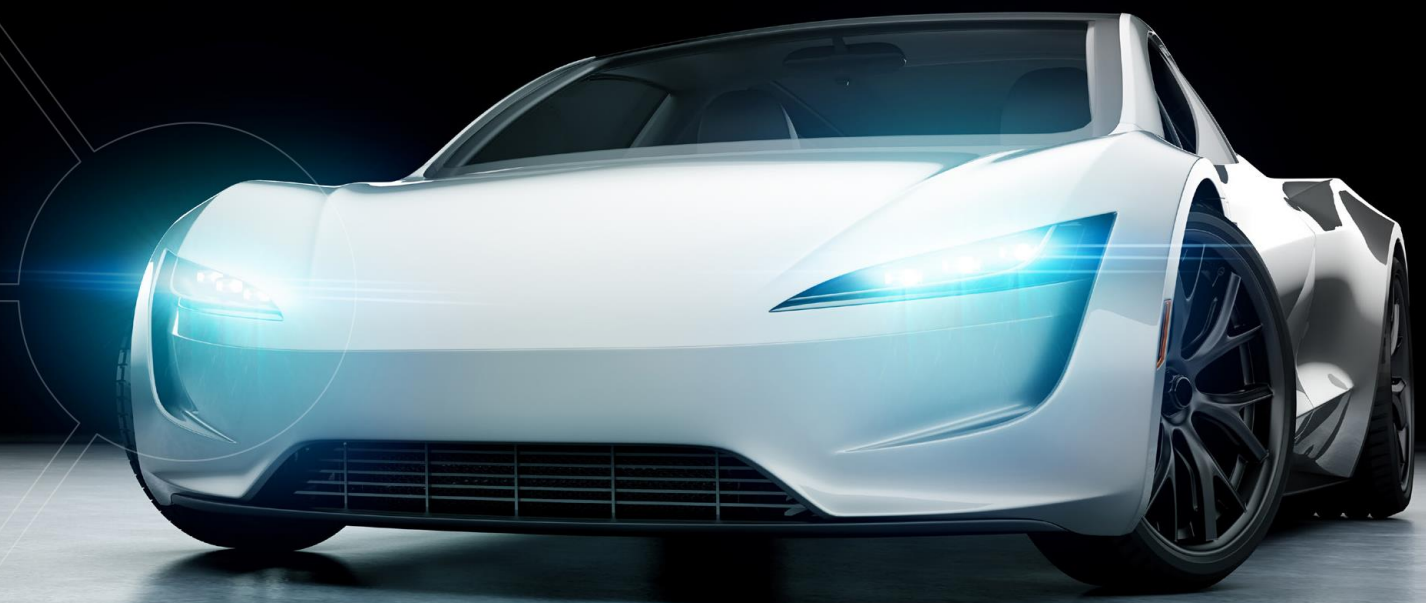
Metals for our future

Critical Minerals Week

Standards can Build Trust for the Critical Materials Industry

Prof Dudley Kingsnorth

Non-Executive Chairman



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Some of the statements contained in this presentation are forward-looking statements. Forward looking statements include but are not limited to, statements concerning estimates of expected costs, statements relating to the advancement of the Company's investments and other statements which are not historical facts. Although the Company believes that its expectations reflected in the forward-looking statements are reasonable, such statements involve risk and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements. Various factors could cause actual results to differ from these forward-looking statements include the potential that the Company's projects may experience technical, geological, metallurgical and mechanical problems, changes in product prices and other risks not anticipated by the Company or disclosed in the Company's published material.

COMPETENT PERSONS STATEMENT

The information in this report that relates to Exploration results is based on information compiled by Australian Rare Earths Limited and reviewed by Mr. Rick Pobjoy who is the Technical Director of the Company and a member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr. Pobjoy has sufficient experience that is relevant to the style of mineralisation, the type of deposit under consideration and to the activities undertaken to qualify as a Competent person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Pobjoy consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement (ASX announcement dated 4 July 2022) and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement (ASX announcement dated 4 July 2022) continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement (ASX announcement dated 4 July 2022).

The information in this report that relates to metallurgical results is based on information compiled by Australian Rare Earths Limited and reviewed by Mr. James Davidson who is the Technical Director of Wallbridge Gilbert Aztec and a member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr. Davidson has sufficient experience that is relevant to the metallurgical testing which was undertaken to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Davidson consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

SUMMARY OF PRESENTATION

THE PROBLEM

- Why is a Material Critical?
- Lack of diversity in rare earths supply.
- Supply is dominated by China.
- Lack of understanding that supply begins at a mine.

THE NEED FOR STANDARDS

- Environmental compliance from mine to showroom is essential.
- Overview of ISO Standards that give confidence in supply integrity.
- Australia's contribution

THE NEED FOR DIVERSITY OF SUPPLY

- Criteria for success in developing a rare earths project.
- The potential for ROW ionic clay rare earth projects to diversify supply.
- Koppamurra – meeting the criteria for success.

STEPS IN RARE EARTH PERMANENT MAGNET PRODUCTION

Identifying China's Dominant Role and the Potential Opportunities for Australia			
Steps	Process	Value/kg or unit	Comments
1	Mining	Typical monazite rich ore at 8% REO US$1-2/kg	Investment in Chinese mines is restricted to Chinese entities. China has ~40% of global rare earth resources which are being rapidly squandered through poor environmental practice. China produces 80-90% of global supply, with increasing reliance on Rest of World rare earth resources
2	Beneficiation	Monazite rich conc. at 50% REO US3-6/kg	Must be 100% Chinese owned in China. Not as efficient as ROW. Currently, 80-90% of global capacity is Chinese owned. CSIRO has excellent beneficiation technology; opportunity for Australia.
3	Extraction (REs extracted and impurities removed)	RE chemical cons. at 45% REO US$10-30/kg REO	Good technology globally for processing monazite, xenotime, bastnasite and (in China) ionic clays. ROW technology is held by few organisations, but ANSTO has a proven capability. Limited opportunities for foreign ownership in China. Currently, 80-90% of global capacity is Chinese owned – could fall to 75-80% with successful ROW projects.
4	Separation (usually by SX)	Neodymium Oxide US$80-120/kg REO	Excellent technology and expertise in China; where capacity is 150-200% of global demand. Good technology, but operational expertise lacking, in ROW. 80-90% of production is from China. ANSTO has a proven experience/capability and a large pilot plant capacity.
5	Oxide to Magnet Alloy	US$50-150/kg alloy	>90% undertaken in China due to excellent local technology, low costs and lax enforcement of environmental standards. Lack of expertise in ROW hampers increasing capacity in ROW, but governments are now investing in technology. Large price range due to large range of specifications.
6	Production of REPM	US$40-400/kg magnet	>90% undertaken in China due to good local technology and low costs. Japan and Europe have superior technology but lack adequate access to low cost rare earth metals and alloys due to subsidized vertical integration in China ("From Mine to Showroom"). Large price range due to large range of specifications.

Notes: 1. The industry in China was highly fragmented, but today through government intervention/direction is highly vertically integrated. 2. China has a dominance that is still driving automotive companies to make heavy investments in developing substitutes for rare earths.

WHY IS A MATERIAL CRITICAL?

(Stuff we want but cannot get)

- Lack of availability due to monopoly supplier (REOs:China)
- New technology requires different materials (REPMs)
- Rapid change in demand (EVs, wind turbines, robots)
- Human rights abuse during mining & processing (Cobalt: DRC)
- Lack of enforcement of environmental legislation (REOs: Myanmar)

CHINA'S 50 YEAR JOURNEY TO RARE EARTHS MARKET DOMINANCE

CHINA'S SUCCESSFUL RARE EARTHS TRANSFORMATION

(Goal: to maximise the benefits of China's rich endowment of rare earths to the Chinese people through long term downstream job creation)

- **1970s:** Rare earth mineral concentrates
- **1980s:** Mixed rare earth chemical concentrates
- **Early 1990s:** Separated rare earth oxides and metals
- **Late 1990s:** Magnets, phosphors, polishing powders
- **This Century:** Electric motors, computers, batteries, LCDs, mobile phones, EVs, hybrid vehicles
- **The Goal:** *Made in China 2025* -
  Downstream process >50% of domestic rare earths through to final products (OEMs) by 2025

China's current objective is to find manufacturing jobs for the 200 million people moving from the country to the cities 2015 to 2025. **Are those manufacturing jobs still being lost to the Rest of the World (ROW)**

WHY CHINA IS THE DOMINANT CRITICAL MATERIALS SUPPLIER

- Vertically integrated supply chains
- Full collaboration at every step from Mine to Showroom
- Well-qualified and trained work force
- Lax enforcement of environmental legislation that extends to the chemical industry that supplies the rare earths industry
- Taxes and quotas that favour China's domestic industry
- Large domestic market driven by command, not demand

2020 to 2022 CHINESE RARE EARTH PRODUCTION QUOTAS*

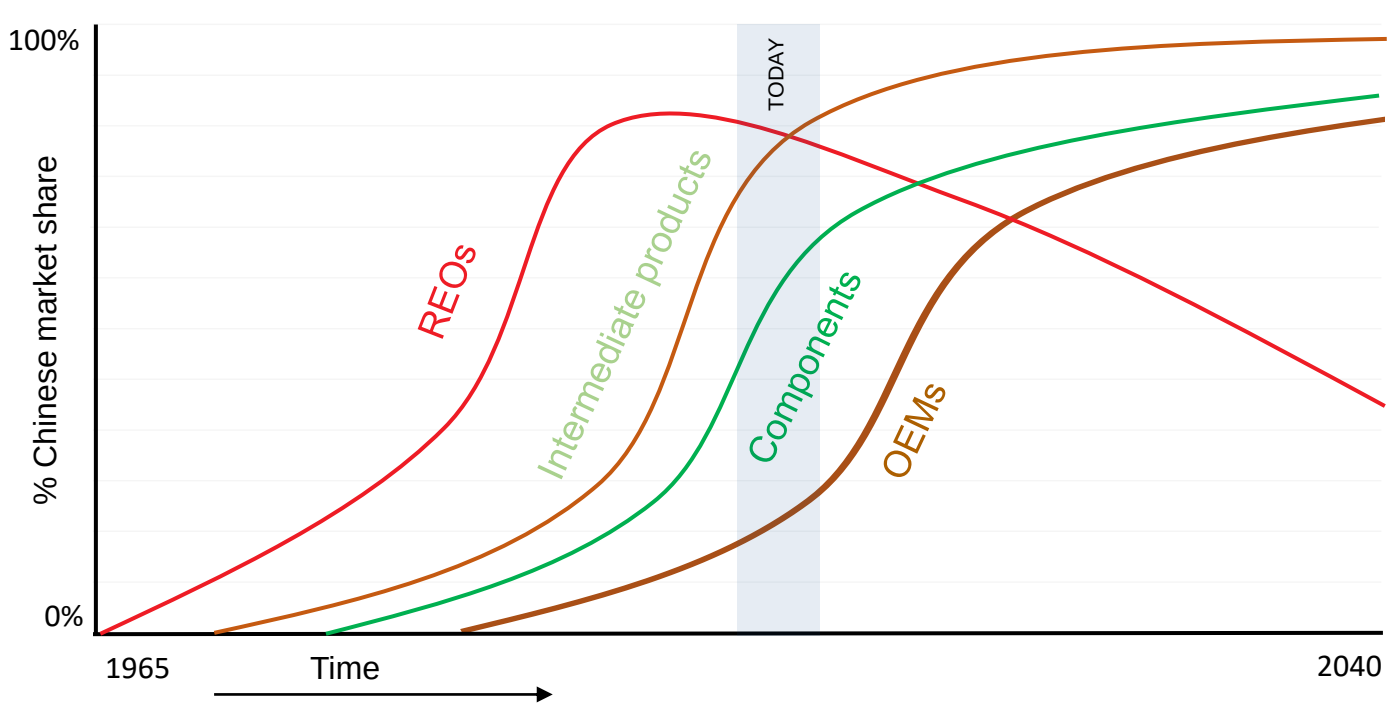
Group	2020 Total TPA REO		2021 Total TPA REO		2022 Total TPA REO	
	Mining	Separation & Smelting	Mining	Separation & Smelting	Mining	Separation & Smelting
Northern Rare Earth	70,750t	60,984t	88,250	76,550t	141,650t **(67%)**	128,934t
Southern Rare Earth**	16,850t	21,879t	20,450t	28,650t	62,210t **(30%)**	58,499t
Guangdong Rare Earth	2,700t	10,604t	3,250t	12,700t	2,700t	10,604t
Xiamen Tungsten	3,440t	3,963t	4,150t	4,750t	3,440t	3,963t
Jiangsu Rare Earth	36,250t	23,912t	49,500t	32,550t	Nil	Nil
China MinMetals	2,010t	5,658t	2,400t	6,800t	Nil	Nil
TOTALS	**132,000t**	**127,000t**	**168,000t**	**162,000t**	**210,000t**	**202,000t**

NOTES:

*The Quota is the volume of rare earth carbonate (RECO3), allowing for recoveries during primary processing the actual volumes mined are ~25% greater.

** 40-60% of the ionic clays processed in China are imported from Myanmar, where the impact on the environment and local communities is significant and of concern: https://www.globalwitness.org/en/campaigns/natural-resource-governance/myanmars-poisoned-mountains/

IMPACT OF CHINA'S VERTICAL INTEGRATION OF RARE EARTH SUPPLY CHAIN



~ US $40 Billion

~ US $400 Billion

~ US $4 Trillion

~ US $8 Billion

China is becoming more and more dependent upon Myanmar for heavy rare earth (HREE) concentrates

In essence just as France will sell you a bottle of wine but not the grapes;

China's goal is not to export unimproved rare earths but the OEMs containing rare earths.

AUSTRALIAN RARE EARTHS
Metals for our future

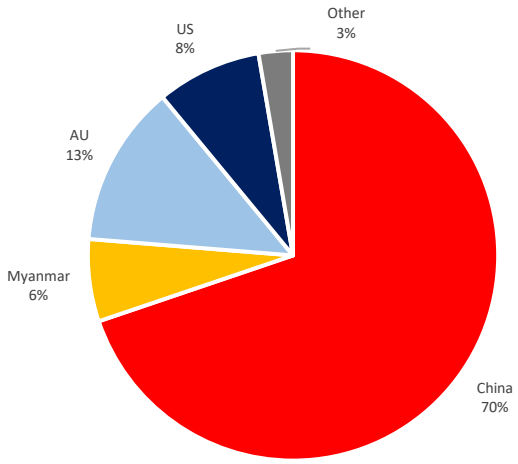
MEETING THE CHALLENGE TO DEVELOPING DIVERSIFIED GLOBAL RARE EARTHS SUPPLY

THE RARE EARTH SUPPLY CHAIN

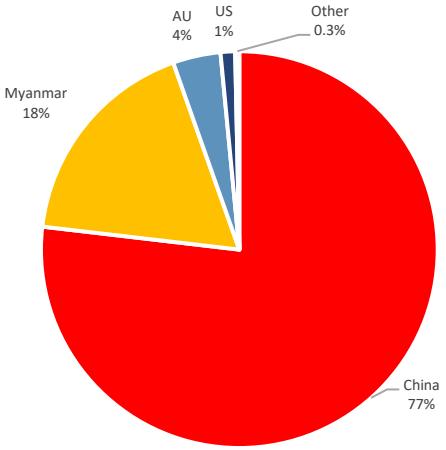
China and Myanmar dominate the supply chain, including majority of heavy rare earth production and end uses

Historical rare earth mine production by country[2]

Neodymium & Praseodymium

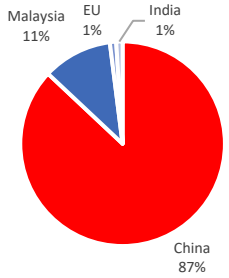


Dysprosium & Terbium

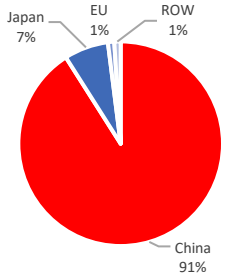


Downstream supply chain also dominated by China[2]

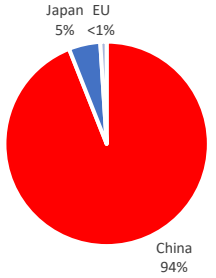
Separation (REO)



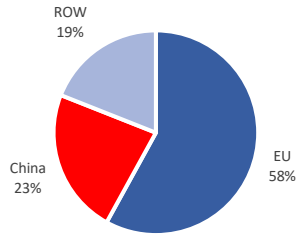
RE metals



RE permanent magnets



Example: wind turbines



China currently produces 94% of permanent rare earth magnets, highlighting the urgent need for new independent supply sources.

(2) Adamas Intelligence, April 2022

WHERE DOES THE SUPPLY CHAIN BEGIN AND END

Every OEM Supply Chain begins in a Mine

For too long many original equipment manufacturers have conveniently talked about their supply chain beginning with a metal. The fact is that every supply chain begins at mine the operators of which have a responsibility to convince all stakeholders that the environmental impacts are manageable.

Outside Australia few countries meet fully verified international environmental mining standards.

The Australian mining industry operates collaboratively with the Aboriginal people and the agricultural sector.

IMPORTANT ISO RE STANDARDS IN PLACE TODAY

- **ISO 23664: Traceability** – A Traceability standard has been developed from mine to separated product, and work is being undertaken on a standard from separated product to magnets. Discussions on sustainability standards are being undertaken by working groups in ISO/TC 298 Rare Earth and ISO/TC 333 Lithium.

- **ISO 22927: Packaging and Labelling** – In association with the above standard ensures that information on the packaging ensures products comply with international OHS requirements.

- **ISO 22450: Recycling** – Protection of IP associated with many magnets being recycled creates difficulties.
  The solution is to design equipment so that the magnets can be readily recovered and 'returned' to the original producer for recycling.

- **ISO 22444: Vocabulary** – A reference document to unify the technical terms used along the supply chain.

OTHER ISO STANDARDS RELEVANT TO RE SUPPLY CHAINS

Issues relating to Supply Chain Compliance and related Environmental matters are covered in a range of Technical Committees. Supply chain and environmental issues tend to be cross cutting and material agnostic, and as a result there is no single focused Technical Committee. There are no specific rare earth environmental standards as the industry participates in other industries which have standards specific to those industries.

Examples of Technical Committees developing relevant standards include:-

- **ISO TC 82/SC7 Mining - Mine closure and reclamation management**
- **ISO TC 47 Chemistry**
- **ISO TC 207 Environmental Management**
- **ISO TC 282 Water reuse**
- **ISO TC 308 Chain of Custody**
- **ISO TC 323 Circular economy**

ACTION BY AUSTRALIA TO LEAD CRITICAL MATERIALS SUPPLY CHAINS

- Liaise with potential downstream partners – domestically and internationally
- Promote Australia's mining and processing environmental record.
- Universities and TAFEs collaborate in training engineers and operators to be "job ready'. Require commitment to 3-4 year programs, with access to pilot plants.
- Identify synergies with similar industries to develop "Critical Material Hubs".
- Assess the needs of high-tech industries that could be future customers for rare earths and work with them to meet their emerging needs.

AUSTRALIAN GOVERNMENT FUNDING FOR CRITICAL MATERIALS PROJECTS

- Critical Minerals Development Grants Program
- Australian Renewable Energy Agency Grants
- Clean Energy Finance Corporation loans
- Export Finance Australia (EFA) loans on the Commercial Account of EFA
- Defence Exports Facility on the National Interest Account of EFA
- Critical Minerals Facility on the National Interest Account of EFA
- (Australia) National Reconstruction Fund

Note: In accordance with the Australia-USA FTA the US IRA will indirectly assist in subsidising Australian production of critical materials

SEPARATED RARE EARTHS DEMAND AND SUPPLY

Rare Earth demand

- 2022 Total Demand: 260-280 ktpa REO, growing at 6-8% p.a
- 2022 Magnet Rare Earths Demand: 70-80 ktpa, growing at 8-10% p.a.
- 2025/26 Total Demand: 320-350 ktpa REO
- 2025/26 Magnet Rare Earths Demand: 110-130 ktpa REO

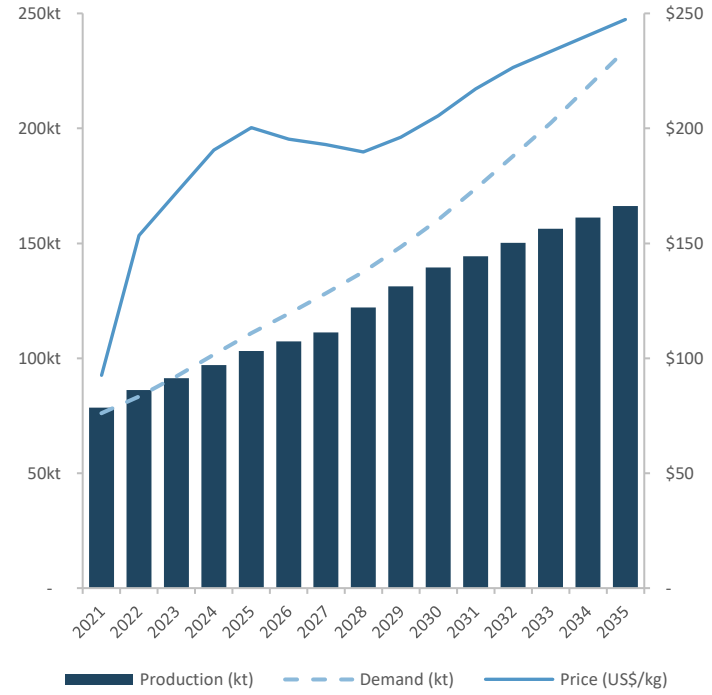
Rare Earth supply

- 2022: Surplus of light rare earths (La, Ce), magnet rare earths OK
- 2023 onwards magnet rare earths in growing deficit
- 2022 ROW Supply: 25-35 ktpa REO, 8-12 ktpa REO magnet rare earths
- 2025/26: If ROW can increase supply by 60% of the growth this equates to total 60-70 ktpa REO, including total magnet rare earths of 20-25 tpa REO

ADAMAS INTELLIGENCE FORECASTS

Supply deficits across all magnet REO's is expected to support price accretion for the remainder of this decade

NdPr demand-supply balance (LHS) vs price (RHS)



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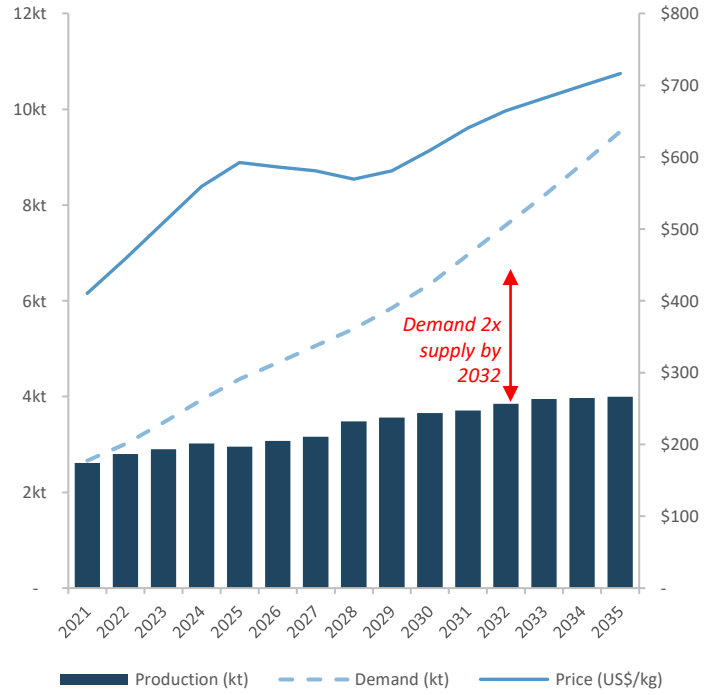
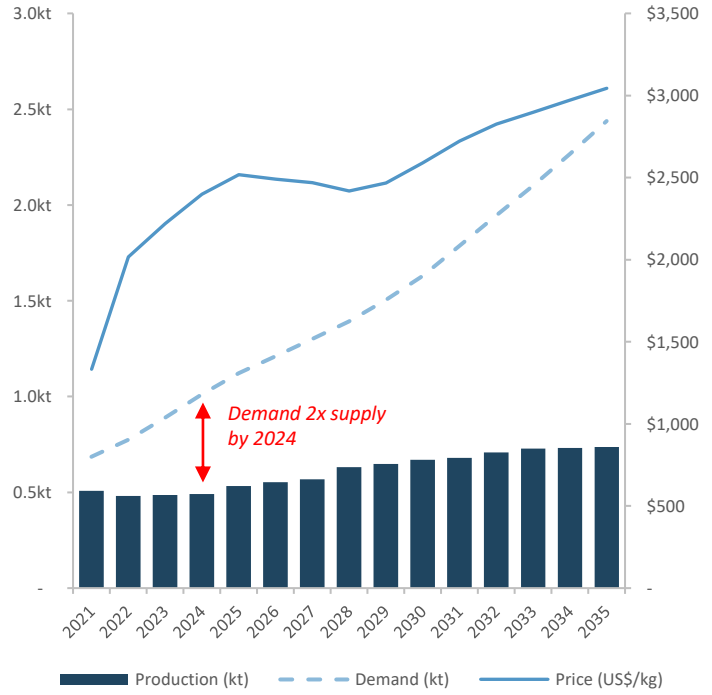


Tb demand-supply balance (LHS) vs price (RHS)



RARE EARTHS – COMMERCIAL CONCEPTS

- Outside China no single country has a Rare Earth Mine to Showroom Capability
- Rare earths are not commodities – customer specific
- ROW enterprises are generally single project companies, so debt has to be recourse project funded, with support from government and OEMs.
- Capital intensive (ionic clay projects are cheaper than monazite and bastnasite projects)
- Long start-up: limited expertise outside China
- Supply and demand for individual REOs is not in balance
- Used in small quantities:
  - REO price has negligible impact on final cost of end use items (EVs and wind turbines)
  - Security of supply is the real issue
  - Recent high prices have lead to recycling as an increasingly viable option

RARE EARTHS – DEVELOPMENT CONCEPTS

- Each orebody is different; so the process route is project specific
- Process and Mining Studies (for non-Chinese projects) essential to:
  - Demonstrate technical & economic viability
  - Generate samples for customer approval as basis for sales contracts
  - Provide data for bankable feasibility study
  - Generate data for environmental impact statement
- From Resource to BFS can take 5-12 years

CRITERIA FOR A SUCCESSFUL RARE EARTHS PROJECT

1. Grade and Composition of the Ore (Basket Price is indicative)
2. Mineralogy - Only 4 minerals have been commercially processed to date (bastnaesite, monazite, xenotime and the ionic clays in China)
3. Pilot Plant (Prove technical and commercial viability. Capex and Opex for DFS)
4. Comprehensive Environmental Program (Developed in consultation with local community)
5. Construction Start-up and Working Capital (Usually under-estimated)
6. Marketing (Supply Agreements in place. Realistic market share)
7. The real challenge is the development of a technically and economically viable process to match the technology in China

SUCCESSFUL TRIAL MINING & REHABILITATION PROGRAM

Koppamurra; a prime example of continuous land rehabilitation

- Innovative trial mining program successfully undertaken in April-June 2022
- Opportunity to confirm continuous land rehabilitation
- No long-term impact on the landscape – minimal disturbance with the land rapidly returned to its former use
- Provided insights into geological interpretation and mine design
- Collected a 500t mineralised clay sample for metallurgical testing
- Provided an opportunity for stakeholder engagement; “seeing is believing”

COMMUNITY AND LAND

AR3 is an active and responsible member of the community

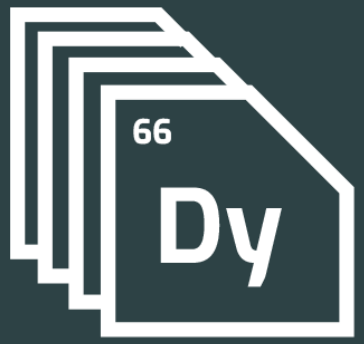
- Building an open and collaborative community relationship underpins AR3's approach to engagement
- AR3 has established an office and warehouse in Naracoorte managed by local personnel
- Groundwater, ecological and heritage studies have commenced
- Educational initiatives underway with local schools and Universities

AR3 Exhibit at Naracoorte Show

Year 11 students learning about Rare Earths

- ✓ *Naracoorte Office Opening*
- ✓ *Full-time local Personnel*
- ✓ *Sponsorships*
- ✓ *South-East Field Day exhibit*
- ✓ *Student Awareness*
- ✓ *60 Meetings, 7 Feature Articles*

The Koppamurra Project : Compliments the LREE Projects in WA and the NT



- Large resource with exceptional potential for multigenerational growth
- Substantial market opportunity driven by global decarbonization efforts
- Endowment of all four of the high value rare earth elements
  - Critical rare earths Nd-Pr and Dy-Tb are essential ingredients in permanent magnets for EV's, wind turbines, robots and domestic appliances
- Tier-1 location with strong community, landowner and government support
- Demonstrated production of a mixed rare earth carbonate (MREC) at scale
- Project support through Downstream JV MOUs
- Strong demand growth supported by sustainable independent supply chains

Australia has the full range of Rare Earth Projects required to Diversify Global Supply

AUSTRALIAN RARE EARTHS

Metals for our future

ASX: AR3

Bringing diversity to global rare earths supply