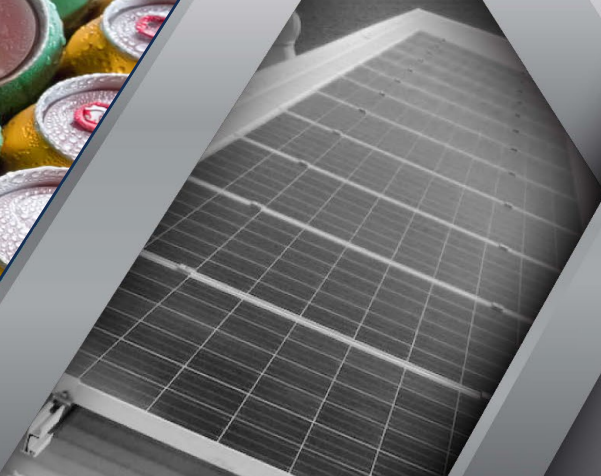




ASX: MMI  
Aluminium Can!



12 September 2024



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The purpose of this presentation is to provide general information about Metro Mining Limited (Metro or the Company) and its subsidiaries and business.

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## **COMPETENT PERSONS' STATEMENT**

The information in this presentation that references Metro's resources and reserves was taken from the Bauxite Hills Mine Ore Reserve and Resource Update which was released to the market on 13 May 2024 (<https://wcsecure.weblink.com.au/pdf/MMI/02806227.pdf>). Metro confirms that it is not aware of any new information or data that materially affects the information included in that report and, in the case of estimates of mineral resources or ore reserves, that all new material assumptions and technical parameters underpinning the estimates in that report continue to apply and have not materially changed.

## **KEY RISK FACTORS**

Whilst some changes to operating plans have been outlined in this Presentation Metro directs the reader to the comprehensive description of Key Risk Factors outlined in the Notes to the financial statements for CY 2023 published on 29 February 2024.

# Bauxite to Aluminium- Market Drivers & Evolution

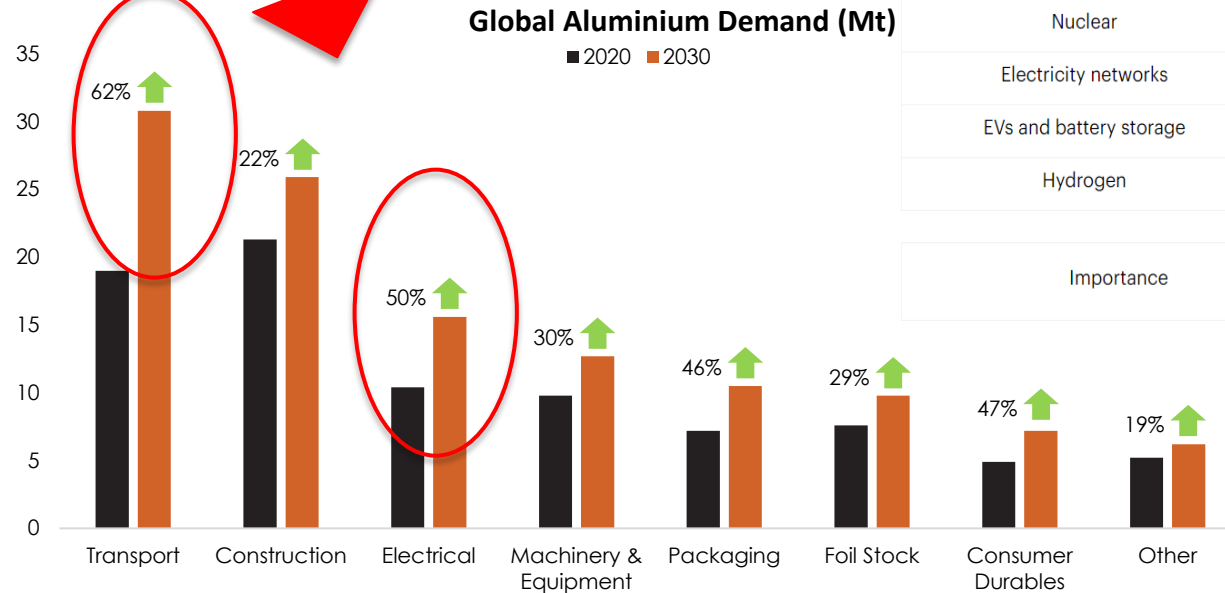
Why bauxite is the one upstream critical/battery mineral on which you need to go long..... now!

- 1 Aluminium demand grows significantly under various scenarios
- 2 Transportation, EV's, batteries, renewable energy technology, grids: provide impetus for continued >GDP growth
- 3 Demand magnitude / sector diversity differentiates bauxite/aluminium from iron ore, copper, lithium, nickel
- 4 Bauxite demand from alumina is strong but supply side structure provides even more compelling dynamic
- 5 Australian HT Bauxite spot prices at record up 59% since start of 2022
- 6 Aluminium Can...Do more for Australia with supportive policies: critical mineral status, competitive energy, balanced approvals

# Aluminum: already essential in modern society, is “critical” to energy transition technologies

Critical mineral needs for clean energy technologies

	Copper	Cobalt	Nickel	Lithium	REEs	Chromium	Zinc	PGMs	Aluminium
Solar PV	●	●	●	●	●	●	●	●	●
Wind	●	●	●	●	●	●	●	●	●
Hydro	●	●	●	●	●	●	●	●	●
CSP	●	●	●	●	●	●	●	●	●
Bioenergy	●	●	●	●	●	●	●	●	●
Geothermal	●	●	●	●	●	●	●	●	●
Nuclear	●	●	●	●	●	●	●	●	●
Electricity networks	●	●	●	●	●	●	●	●	●
EVs and battery storage	●	●	●	●	●	●	●	●	●
Hydrogen	●	●	●	●	●	●	●	●	●
Importance	High	High	High	High	High	Moderate	Moderate	Low	Low



Source: IEA Mineral Requirements for clean energy transitions, International-aluminium.org

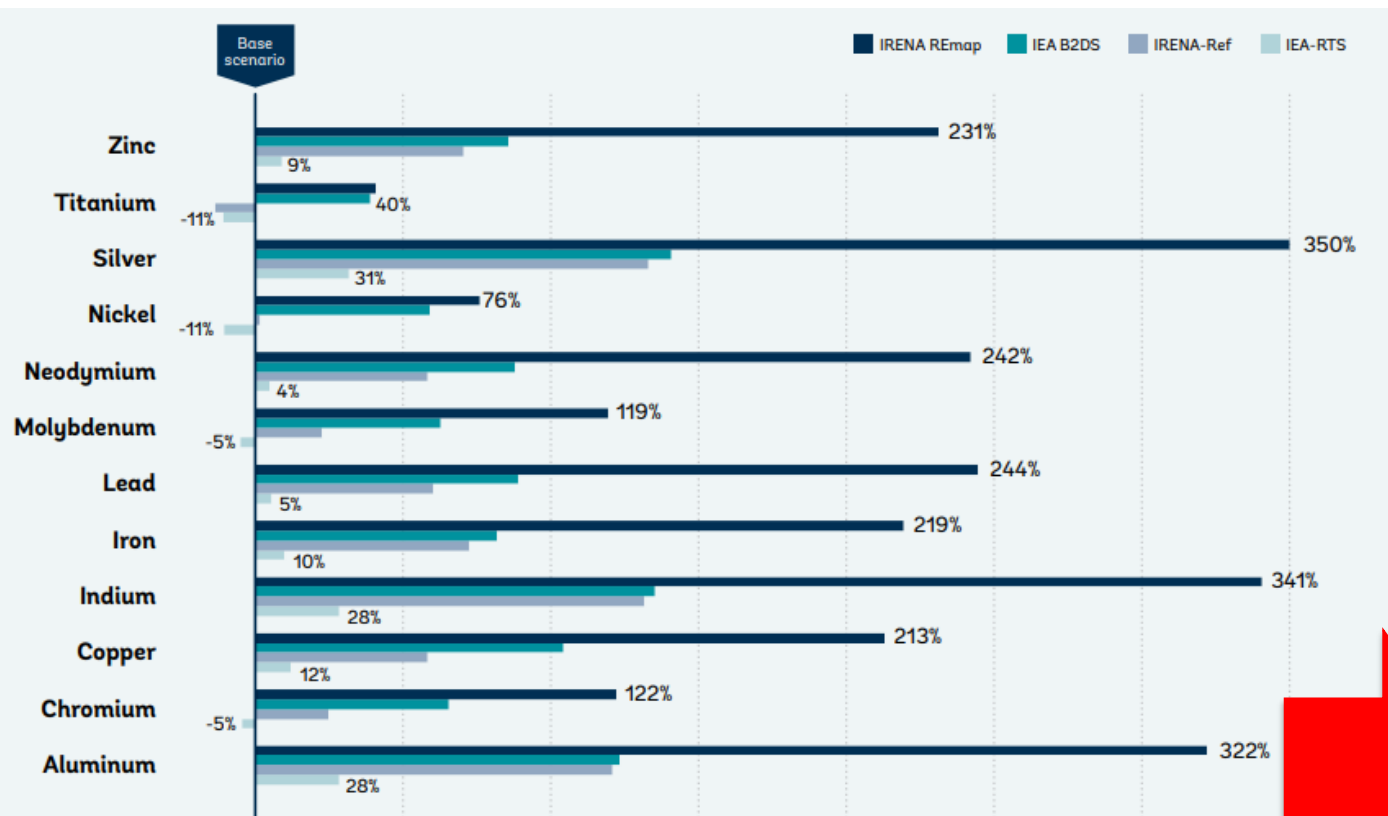
- Diverse requirements from aluminium for clean energy transition
- 40% growth in aluminium demand 2020 to 2030
- 3-4% pa. This is greater than likely GDP growth
- Construction sector is NOT the major driver for growth

# Scenario demand vs BASE (4°C) from energy generation: increase 120% to 322% to 2050

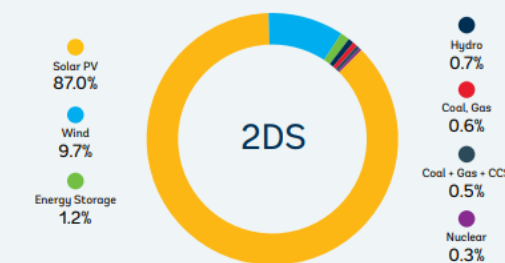


**Mid- case from Solar PV alone = 50 Mt of alu = ~ 300 Mt bauxite!**

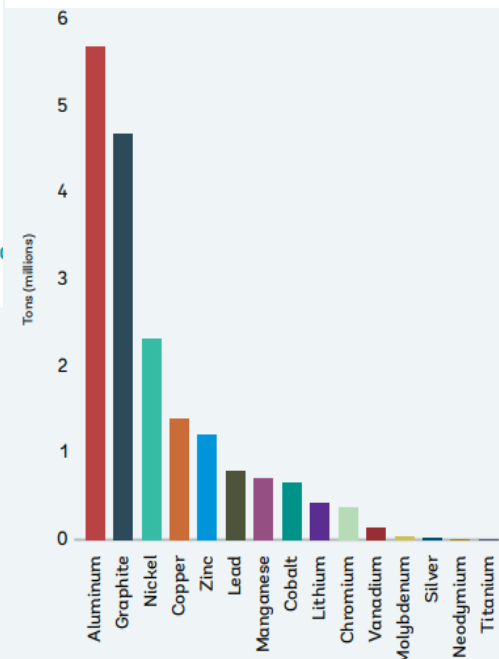
Relative change in demand for minerals from Energy Technology (without storage) through 2050 under: RTS, Ref, B2DS & Remap compared to Base Scenario (4°C)



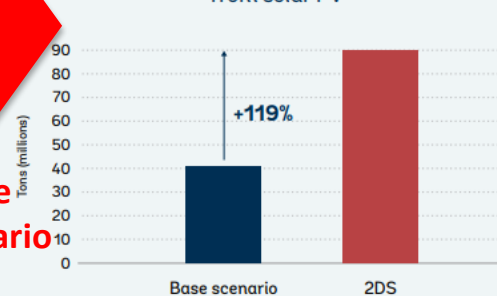
**Total Aluminium Demand by energy generation (2050 2DS)**



**Annual demand by commodity (energy generation 2050 2DS)**



**b. Cumulative aluminum demand from solar PV**



**Mid- Case 2°C Scenario**

**Greater demand than for Cu, Ni, Li combined!**

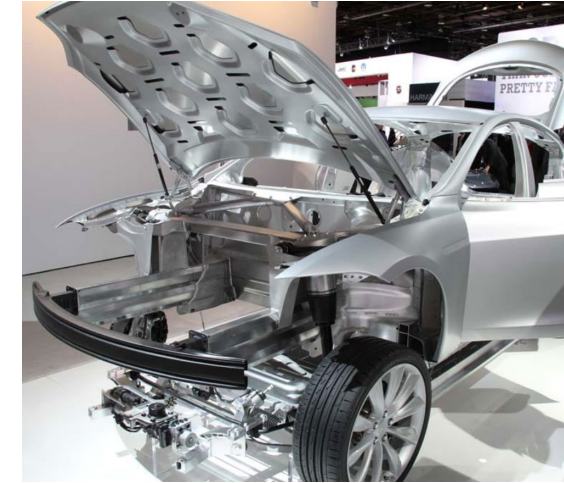
Note: Base scenario = 4-degree scenario, B2DS = beyond 2-degree scenario, IEA = International Energy Agency, IRENA = International Renewable Energy Agency, Ref = reference scenario, REmap = renewable energy roadmap scenario; RTS = reference technology scenario.

Sources: World Bank

# EV car industry to increase global aluminium consumption in transportation by 60% to 31.7Mt in 2030<sup>2</sup>

**Aluminium is lightweight, corrosion resistant, durable, high strength, low cost, electrically conductive**

- European cars (ICE and EV) to increase aluminium usage from 197 kg to 256 kg by 2030<sup>1</sup>
- 40 Million EVs by 2030 will transform vehicle sector and aluminium demand<sup>2</sup>
- EV's have greater aluminium intensity, approx. 30% more than ICE vehicles<sup>1</sup>
  - Eg Tesla full aluminium chassis (picture)
- The second most important metal by weight in an EV battery is aluminium: ~20%<sup>3</sup>
  - Enclosures, casing, cathode, current collectors
- EV charging infrastructure will rely heavily on aluminium for transmission cables, housing, heat sinks and screw ports

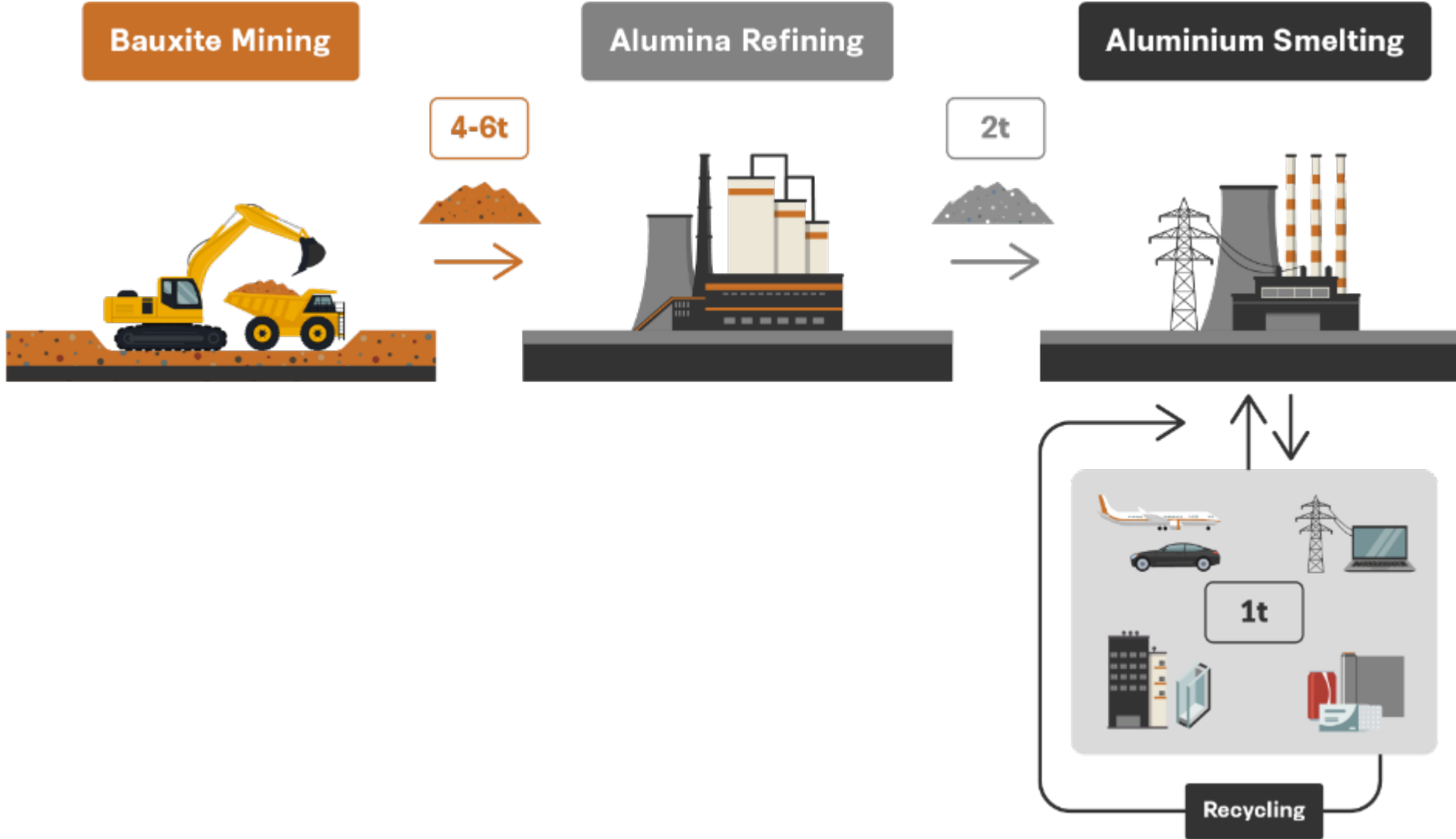


**Tesla Model S all Aluminium chassis**



Sources: (1) European aluminium/Ducker Carlisle , (2) CRU (2021), Opportunities for Aluminium in a Post-Covid Economy  
(3) Ministry of Transport, India

# 4-6 tonnes of Bauxite Produces 1 Tonne of Aluminium



Recycling aluminium saves

**95%**

of energy compared with primary aluminium

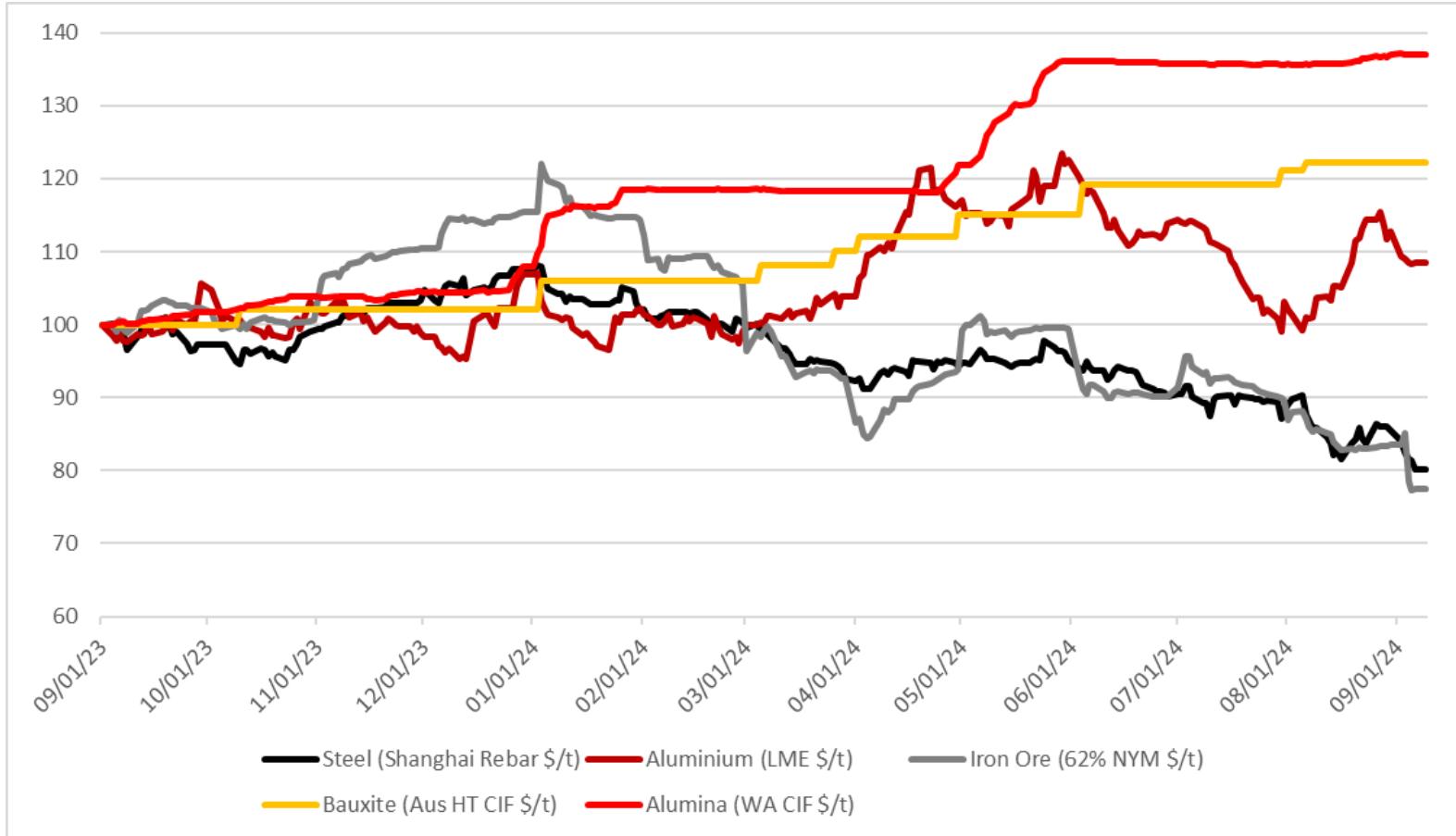
About 75% of the aluminium ever produced is still in use

Source: AAC



# Steel & iron ore negativity is not warranted for the aluminium value chain

Relative Commodity Price movements over the last 12 months (Index)<sup>1</sup>



## Steel & iron ore: early cycle commodities

- Down more than 20% in last 12 months
- Weakness in construction industry likely to persist for a while

## Aluminium: diverse use through the cycle

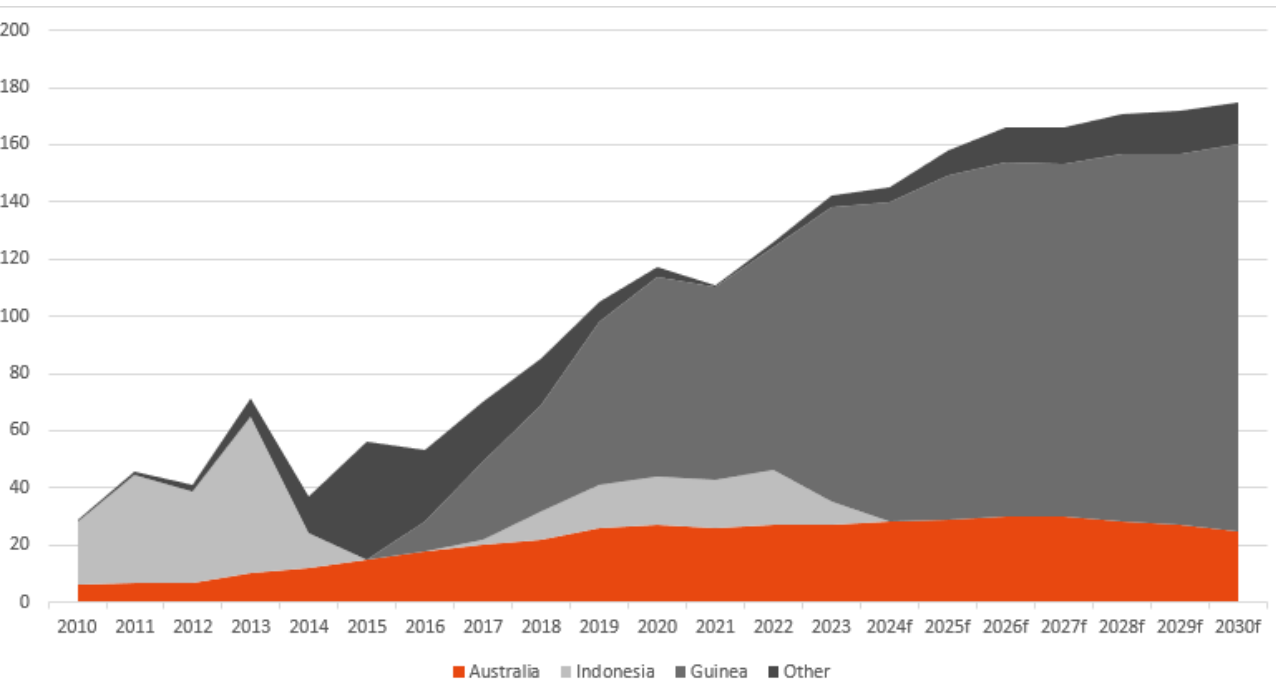
- Construction ~25% of aluminium demand in 2020 and declining
- Aluminium replacing steel in many applications
- Aluminium replacing copper in many applications
  - eg more intensive use in electrical grid infrastructure
- China Alumina price up almost 40% over 12 months

(1) Bloomberg, CM Group, series 10 Sept '23 to 10 Sept '24



# Record bauxite trade and strong supply side dynamics

China bauxite imports 2010 to 2030f<sup>1</sup>



## Very Strong Supply Demand Dynamics

- China bauxite imports a good proxy for APAC traded market: Record in 2023 up 13% y-o-y and tracking at 8% growth y-o-y in 2024
- Alumina capacity and utilization rates improving to capture rebounding alumina prices
- Longer term aluminium dynamics in APAC continue

Sources: (1) CM Group (2) Aladdiny analysis

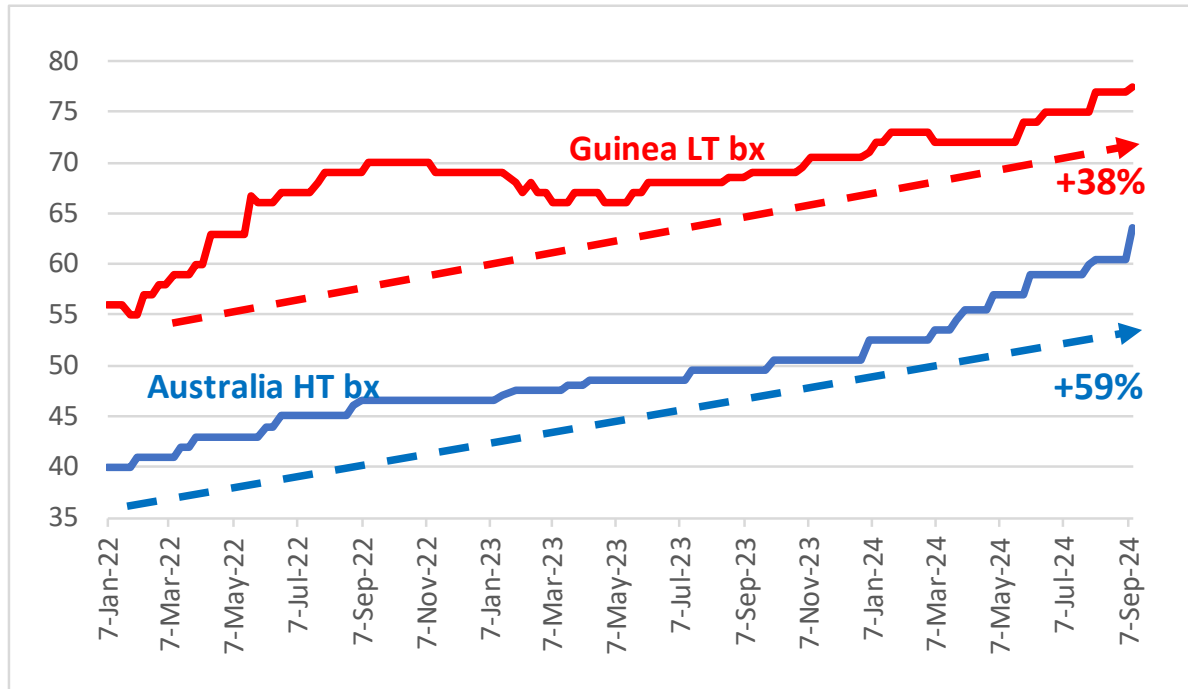
## Supply Side- shorter and longer term positive dynamic

- China bauxite production continues to be under pressure: grade, regulation, cost
- Guinea growing but new producers higher cost and lower grade, at far right of the cost curve
  - Currently suffering significant monsoon interruptions
- Indonesia- bauxite ban implemented in 2023 to incentivise onshore alumina refinery construction. Rumours bauxite exports being reconsidered. Unlikely, however, if occurs will have little impact
  - Prior to ban, Indonesia exported ~20 Mt pa.
  - 3 Mt pa of new alumina refinery capacity commissioning/under construction will absorb ~10 Mt pa bauxite by 2026. A further 3 to 6 Mt pa refinery capacity is in planning phase<sup>2</sup>
  - Export relaxation risks multi-billion dollar refinery investment
  - APAC bauxite market now > 250 Mt pa, incl China domestic. Even if 10 Mt pa exports were to re-emerge, <5% of the total market

# Bauxite spot prices pushing higher to record levels

Australian bauxite spot price US\$63.5/DMT, up 59% since Jan '22<sup>1</sup>

Traded Bauxite Price (US\$/DMT, CIF Chinese Port)



- Bauxite in short supply – contract and spot
- \$3 /DMT spot price rise (Australian HT) in the last week
- MMI single cargo negotiation in August, before recent spot rise, resulted in a US\$53 /DMT CIF China outcome
- Spot prices will take one to two quarters to flow into long term contract prices depending on contract structures
- Q4 2024 negotiation for open contracts in the next 2 weeks in China

Market data from 7 January 2022 to 11 September 2024.

Sources: (1) CM Group

# The benefits of the Australia's vertically integrated aluminium industry



**\$15b**  
export revenue

**\$50b+**  
capital replacement

**\$5b**  
annual local spend



**>20,000 direct FT Jobs**



**>75,000 total FT Jobs\***



**Wages 160%**  
manufacturing average



# Aluminium Can.... Do More for Australia!

With the right support and policy settings, Australia's vertically integrated aluminium value chain can remain globally competitive and grow through value add & exports supporting domestic jobs in the regions

The role of Australian Federal & State Governments play an important role in prioritising the aluminium chain as a **green metal** combined with **critical minerals status**:



# ASX MMI: Tremendous Progress Made over the Last Year



Share Price <sup>1</sup>	Shares on Issue	Market Capitalisation
A\$0.035	5,955 million	A\$202 million
Performance Rights	Warrants <sup>2</sup>	Net Debt <sup>4</sup>
171.2 million	116.1 million	A\$57 million
Top Shareholders <sup>3</sup>		%
Greenstone Management		14.00
HSBC Nominees		9.58
Willims Group		8.29
Citicorp Nominees		7.34
Balanced Property		5.56

Recent Share Price Performance<sup>1</sup>



Sources: (1) ASX Market data as at close of trade on 11 September 2024; (2) The exercise price of the warrants is \$0.025 with a maturity 3 years from date of issue; (3) As at 11 September 2024; (4) 30 June 2024- refer MMI ASX dated 29 August 2024 Half Year Results Market & Operational Update





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