



South Australia's  
**GOLDEN  
TICKET**

For a new Green Iron industry  
(expires ...)

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## ADDITIONAL INFORMATION

This presentation should be read in conjunction with MGT's Annual Report at 30 June 2023 together with any announcements made by MGT in accordance with its continuous disclosure obligations arising under the Corporations Act 2001 (Cth). Any references to resources estimations should be read in conjunction with MGT's Mineral Resources statement for its magnetite projects at 9 June 2023 and subsequent releases to the Australian Securities Exchange as referenced.

MGT confirms that it is not aware of any new information or data that materially affects the information included in its ASX announcement made on 9 June 2023 and, in the case of estimates of mineral resources and ore reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. All amounts within this presentation are stated in Australian Dollars consistent with the functional currency of MGT, unless otherwise stated. Tables contained within this presentation may contain immaterial rounding differences.

All references used in this presentation are included on Slide 16.

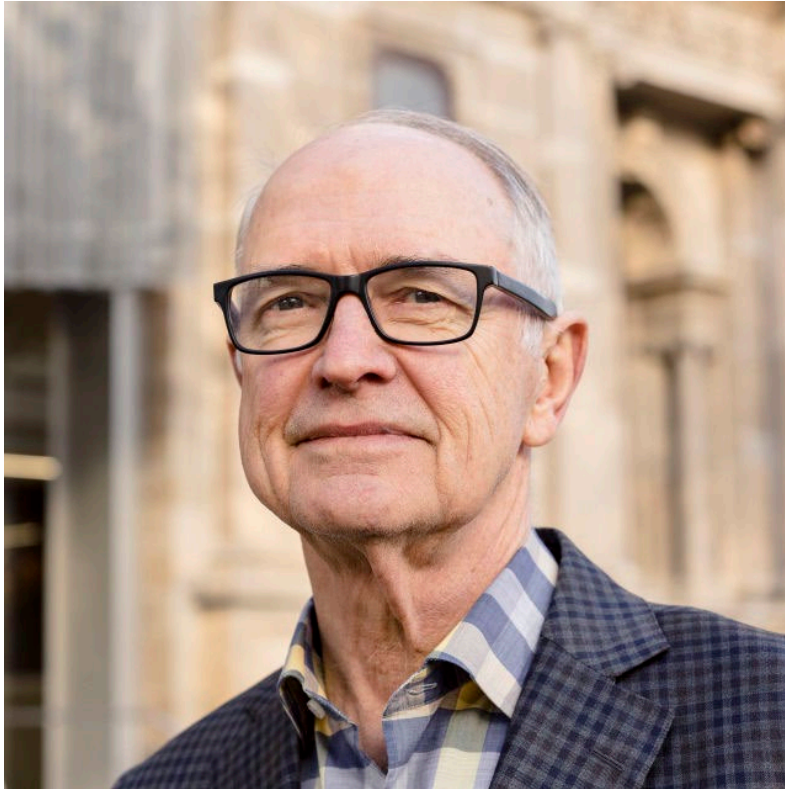
## ACKNOWLEDGEMENT OF COUNTRY

Magnetite Mines, our shareholders and our stakeholders acknowledge the Ngadjuri People as the Traditional Owners of the lands on which the Razorback Iron Ore Project is located. We respect their continuing custodianship of this Country, and their spiritual and cultural beliefs and practices.



# How to make Australia an economic superpower

*Embodied Renewable Energy*



Professor Ross Garnaut AC, Director of the Superpower Institute, Director Zen Energy, Member of the Net Zero Economy Agency Advisory Board

*“Green hydrogen and ammonia will be important, but exports of goods embodying these are the main story.”*

*“The processing of minerals will be the most important, with iron a long way in front.”*

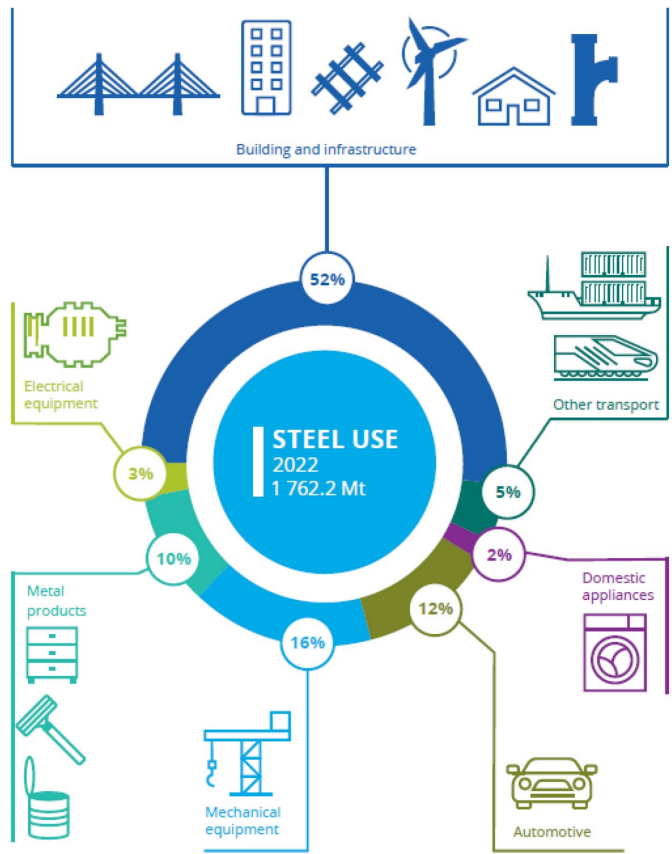
*“SA leads the way to where Australia is headed.”*

**Ross Garnaut**  
**National Press Club**  
**14 February 2024**

# Increasing global steel demand is a certainty

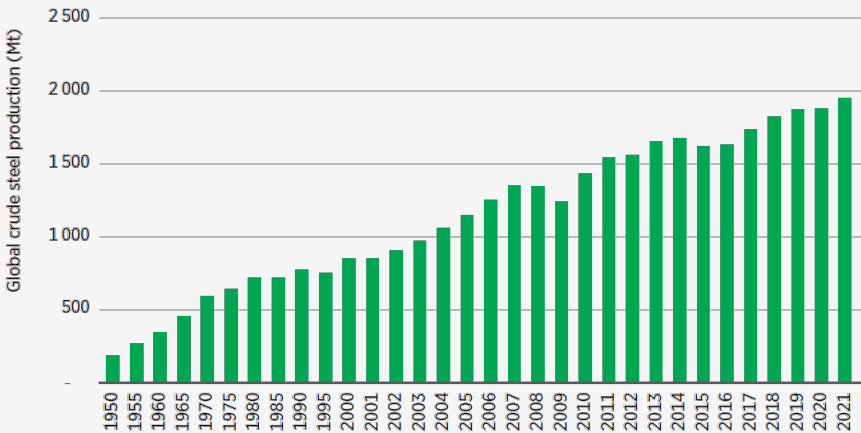
*Steel is also critical to tackling climate change*

## Steel is used in all aspects of the built environment



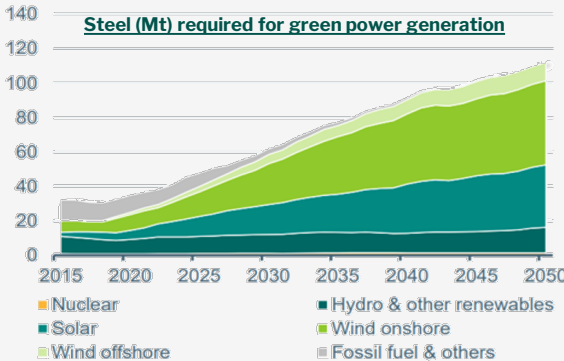
Source: World Steel Association

## Production has doubled every 20 years since 1950 ...



Source: World Steel Association

## ... and more steel is necessary for energy transition



Source: Ben Ellis et al, 2022 Pathways to decarbonisation episode two: steelmaking technology

# How big is the iron & steel industry?

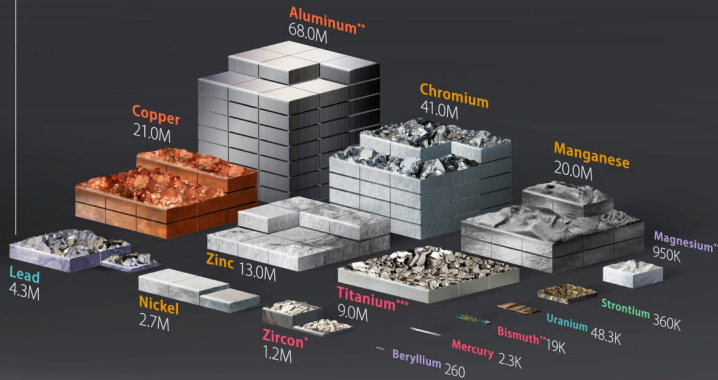
Answer: GIANT – steel dwarfs all other metals



## Global metals mined in 2021

### INDUSTRIAL METALS

181,579,892 tonnes



### TECHNOLOGY AND PRECIOUS METALS

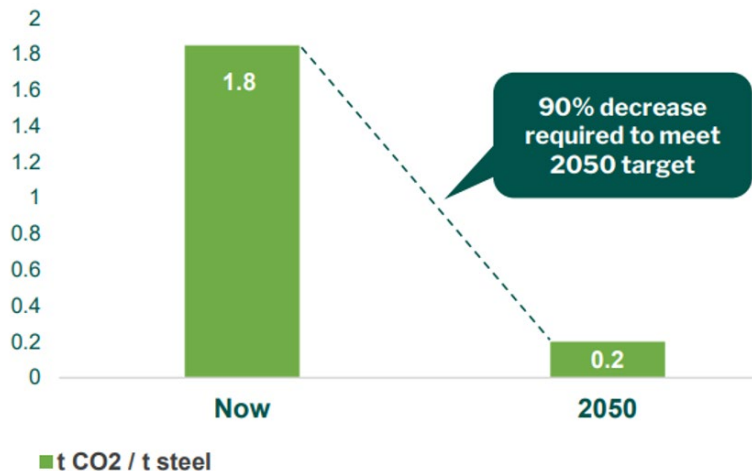
1,474,889 tonnes



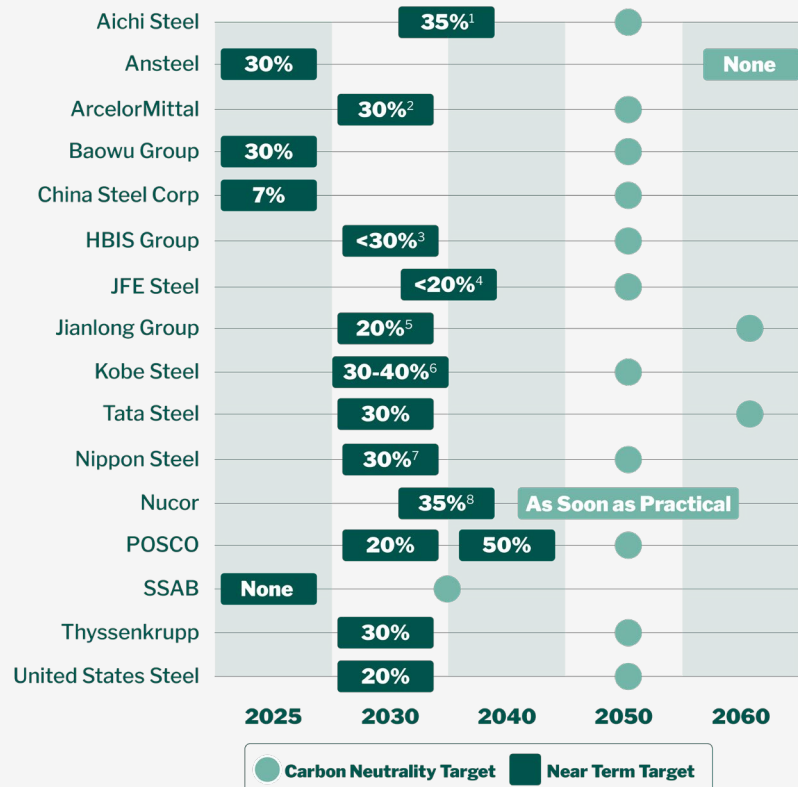
# Challenging steel decarbonisation targets have been set

Steel industry now committed and making transition investment decisions

## Steel industry produces 8% of global carbon emissions



## Major steel producer carbon reduction targets

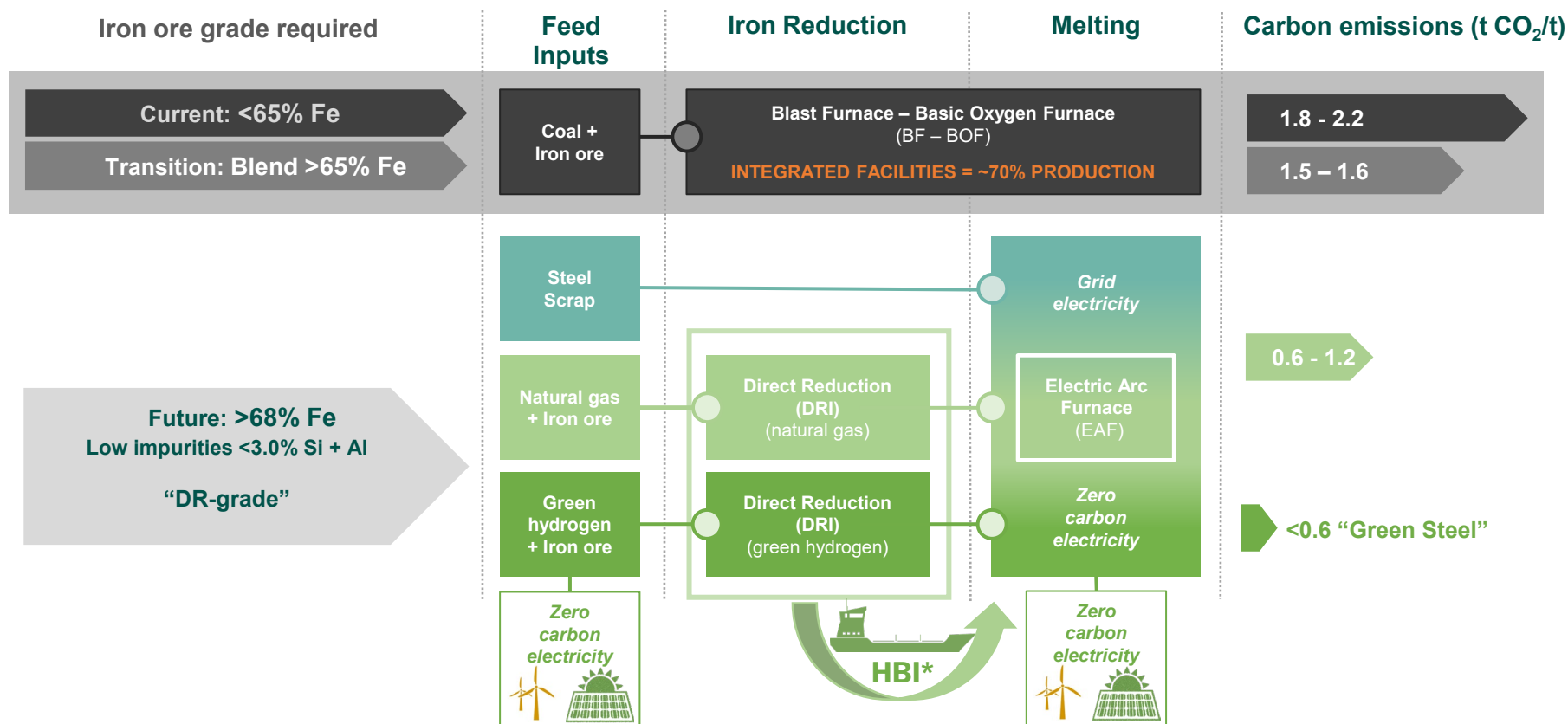


Source: Company filings 1. by 2030 compared to 2013 levels | 2. by 2030 over 2018 | 3. by FY2030 compared to 2022 | 4. by FY2030 compared to FY2013 | 5. lower by 2033 | 6. by 2030 from 2013 levels | 7. by 2030 compared to 2013 levels | 8. by 2030 using 2015 baseline

# The transition away from coal has commenced

High-grade, low-impurity iron ore needed for replacement technologies

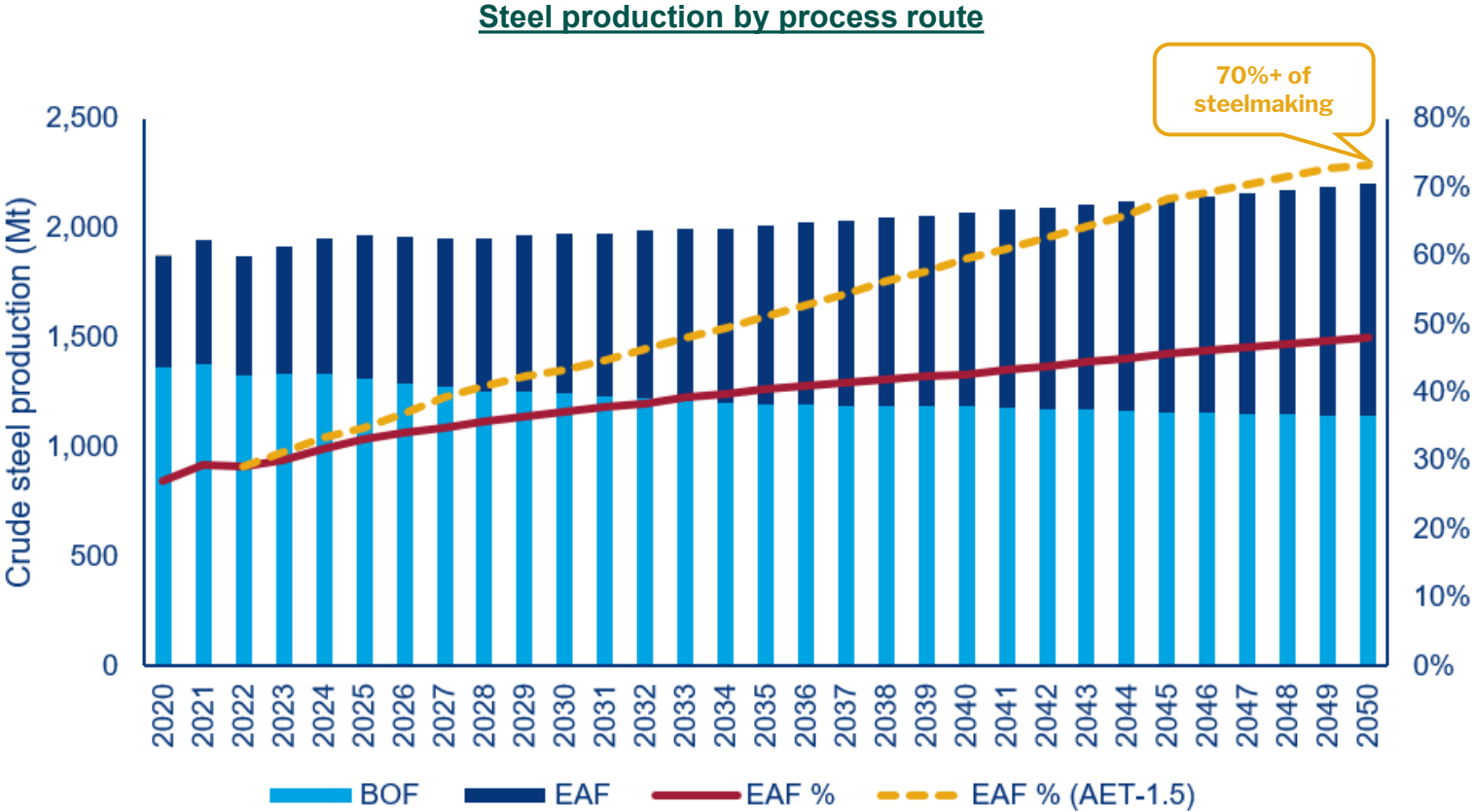
## Coal-using blast furnaces to be replaced over next 5 – 25 years



\*Hot Briquetted Iron (HBI) is a transportable form of direct reduced iron

# EAFs are increasingly set to replace blast furnaces

High-quality scrap and DRI is needed to feed them



Source: Wood Mackenzie

Note: the AET-1.5 scenario is Wood Mackenzie's view of the pathway to limiting warming to 1.5 degrees

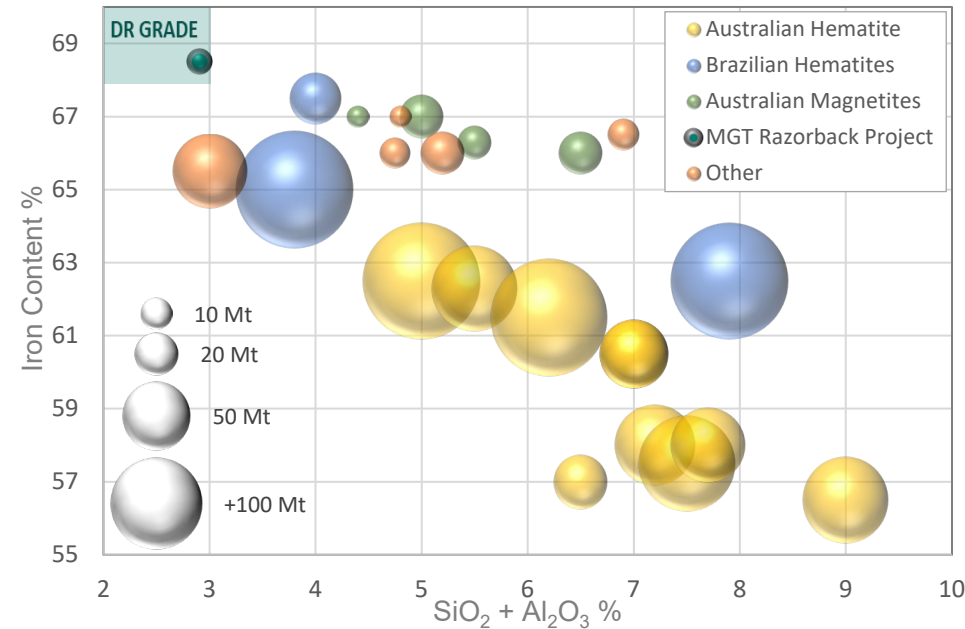


# Currently only ~6% of iron ore produced is “DR-grade”

*New premium-grade iron ore supply is critical to the transition*

## MGT's Razorback Project in South Australia can produce DR-grade concentrates\*

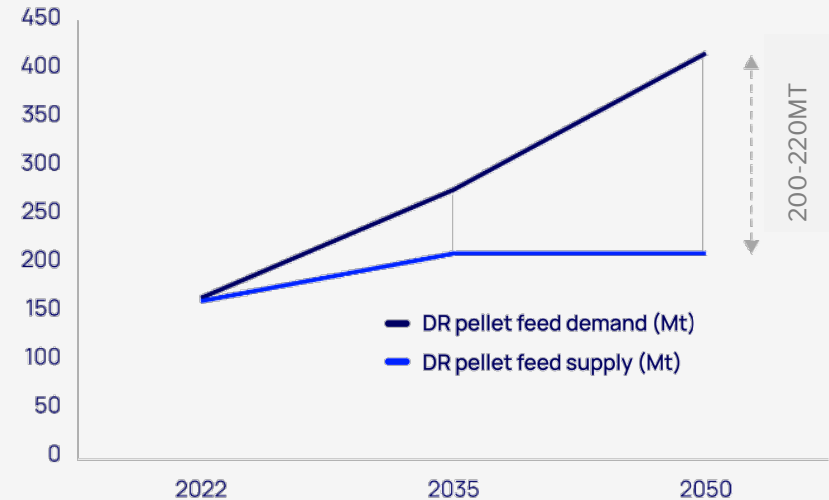
### Exported Iron Ore – Fe Grade Comparison



Source: Dazmin Consulting

\* Razorback Project production concentrate specification subject to further testwork

## High-grade iron ore demand-supply gap to increase

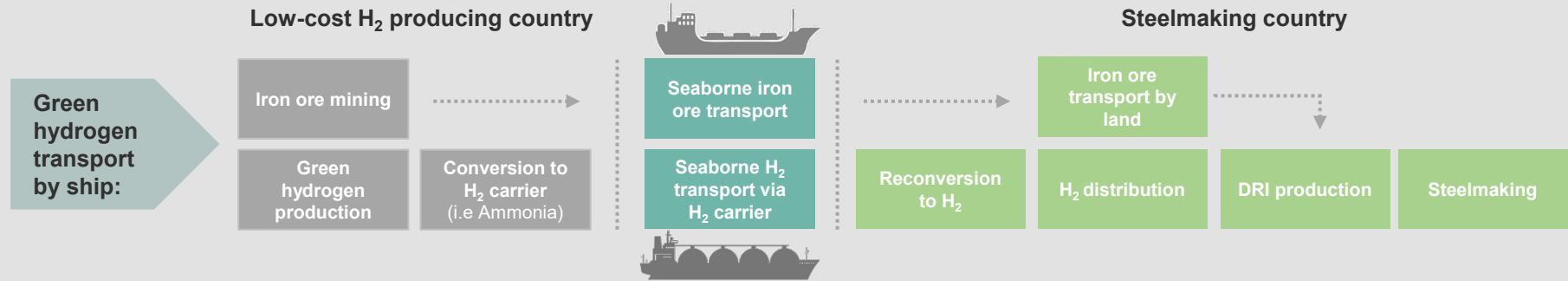


Source: Wood Mackenzie, “Metalmorphosis”: How decarbonisation is transforming the iron and steel industry (Oct 23)

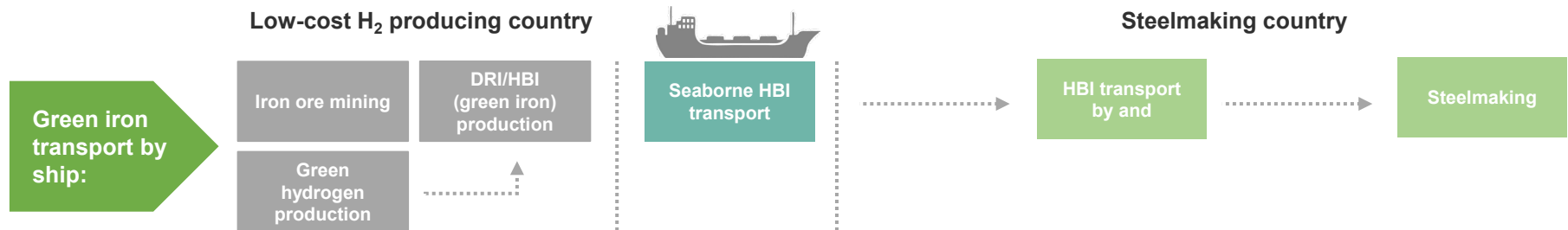
# Green hydrogen export & storage is inefficient and costly

*Alternative: Green Iron export is an efficient proxy for hydrogen export*

## Transporting hydrogen is expensive, hazardous, inefficient and technically challenging



## Using hydrogen where it is produced is far better solution, creating value-add opportunities in source countries



Source: Magnetite Mines; Agora Energiewend

**Steel has the highest CO<sub>2</sub> mitigation potential of hydrogen applications**

# The South Australia advantage

*SA can lead Australia to a future green iron economy*

## Attracting international investment



## Magnetite + Renewable Energy + Green Hydrogen

- ✓ **Tier 1, geopolitically stable location**
- ✓ **Abundant magnetite resources**
- ✓ **100% renewable energy on grid by 2030**
- ✓ **Government commitment to green hydrogen**

## Value adding

Australia's opportunity can be realised through collaboration and investment in green iron hubs

Iron Ore Export



Exporting  
DR-Grade  
Concentrates

01

Pellet Plant



Exporting  
DR-Grade  
Pellets

02

HBI Plant + H<sub>2</sub>

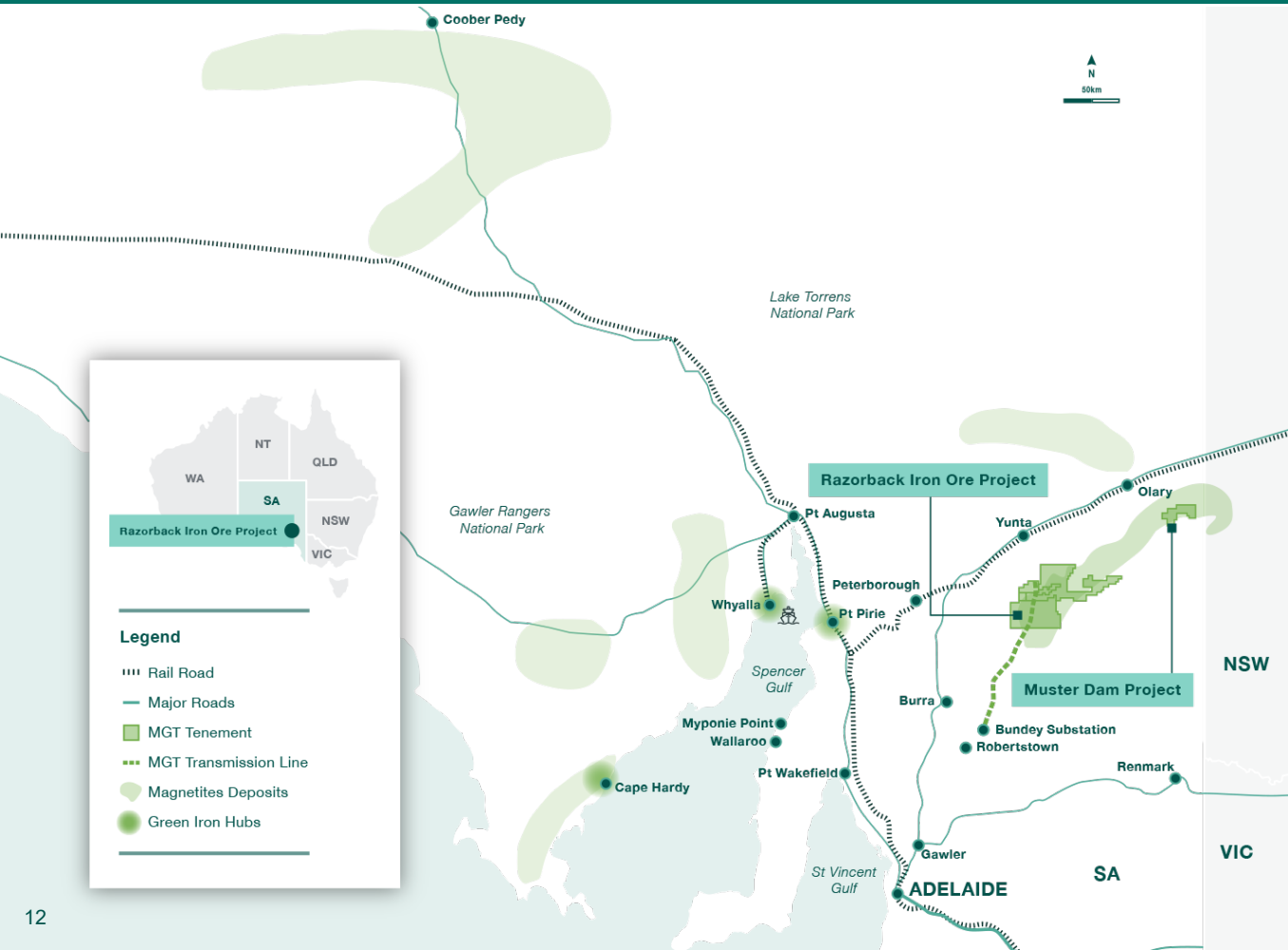


Exporting  
HBI  
'Green Iron'

03

# South Australia could host 3 green iron hubs

Port Pirie ideally placed to service the massive Braemar iron province



An economic game-changer for the regions, state and country



## Razorback Project

Logical first mover in Braemar  
Significant economic benefits



Construction

**\$1.2B**  
SA GSP

**\$2.3B**  
Australia GDP



Operations

**\$30.3B**  
SA GSP

**\$34.4B**  
Australia GDP



Govt revenues

**\$1.6B**  
SA Govt

**\$3.8B**  
Federal Govt



FTE Jobs

**448**  
Direct

**3311**  
Total

BDO: Economic benefits for 5Mtpa project over 30 years



# Developing new magnetite production is key

MGT's Razorback Project is located in SA's undeveloped Braemar Iron Formation



\*BIF: Banded Iron Formation, common host geology for West Australian magnetite deposits

## The Braemar advantage

- **Outcropping** ore: very low strip ratio
- Siltstone-hosted iron ore, not BIF\*
- **Soft** relative to WA magnetite ores
- Concentrates to premium grade iron ore
- **Undeveloped**, low intensity pastoral country

## 6 Billion Tonnes in Resources

- **2,000km<sup>2</sup>** total iron ore tenements
- **110km** strike length
- **4.5Bt** Razorback Resource<sup>1,2</sup> (JORC 2012 Indicated & Inferred)
- **1.5Bt** Muster Dam Resource<sup>3</sup> (JORC 2012 Inferred)

## 2 Billion Tonnes in Reserves

- **2.0Bt** Razorback Ore Reserves<sup>2</sup> (JORC 2012 Probable)

All 50km from open-access rail



# There's nothing complex about magnetite production

*Low risk, well-proven mining practices and processing technologies*



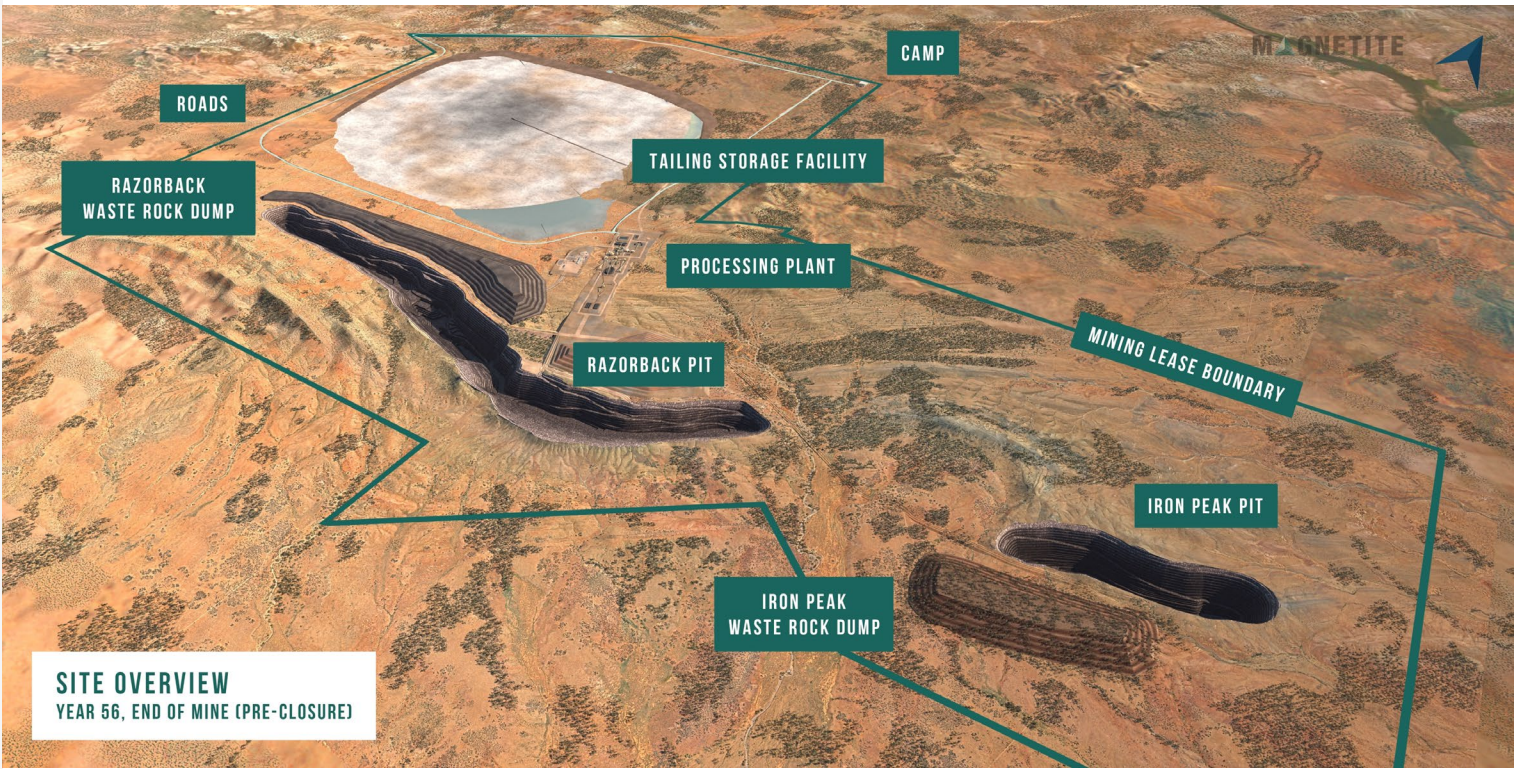
Open cut mining



Magnetic separation



Truck haulage to rail siding



SITE OVERVIEW  
YEAR 56, END OF MINE (PRE-CLOSURE)



# South Australia's Green Iron Opportunity

## Decarbonisation tailwind

- Green iron will be made in countries with low-cost renewables and high-grade iron ore (magnetite)
- And traded to countries that don't

## SA has the right ingredients ...

- Tier 1 mining location
- Abundant magnetite
- Abundant wind & solar
- SA Gov hydrogen agenda

## ... and competition

- Global capital is being deployed now
- Middle East, China and Europe already moving

## Razorback set to open the Braemar

- First step is to open up new magnetite production.
- MGT's Razorback will produce 5Mtpa (stage 1)
- Logical first mover in the Braemar

## An economic game-changer for SA

- **REVITALISATION:** Thriving new communities created in aged industrial precincts
- **JOBS:** Thousands of new jobs and economic flow-through: regions, state, country
- **LONGEVITY:** The potential for a century of industrial activity ahead

**ASX:MGT**

## References

1. ASX Announcement – 22/03/23 - Razorback Iron Project Ore Reserves Increase 340% - Update
2. ASX Announcement – 09/06/23 - Iron Peak Deposit Maiden Ore Reserve
3. ASX Announcement – 22/11/22 - Muster Dam Mineral Resource Estimate





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