



Western Australia's Emerging Magnetite Iron Ore Industry

Impacts of Carbon Pricing

Presentation to the Select Committee on the Scrutiny of New Taxes

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Summary

- Magnetite has minimal value as raw ore – requires massive beneficiation before it is saleable to the steel industry;
- This processing is energy and emissions intensive in Australia
- Producing steel from magnetite has lower overall carbon emissions than using hematite.
- Capital intensive downstream processing provides jobs, regional development and infrastructure.
- The national interest is served by recognising that magnetite results in lower global emissions and more economic benefits.



WA Magnetite Projects

- Under construction
- Proposed

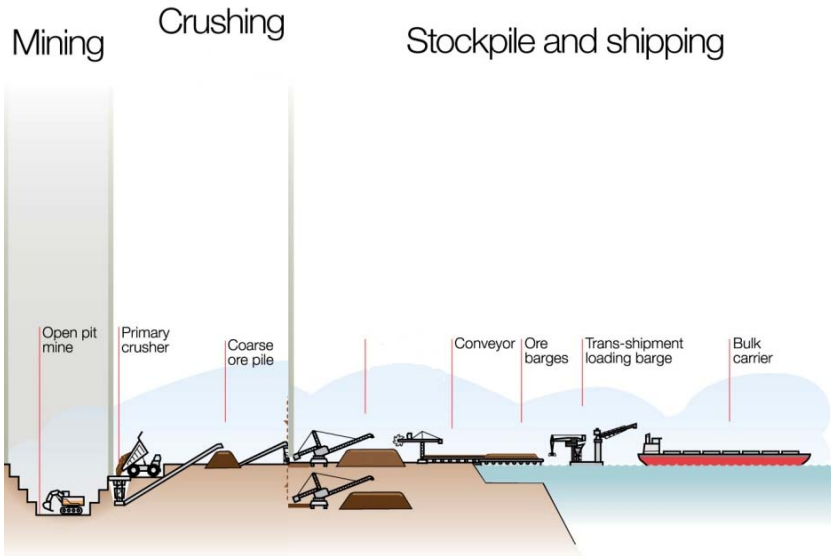


Magnetite Concentrate vs DSO Production Process



DSO Production Process

Mine → Crush → Stockpile → Ship

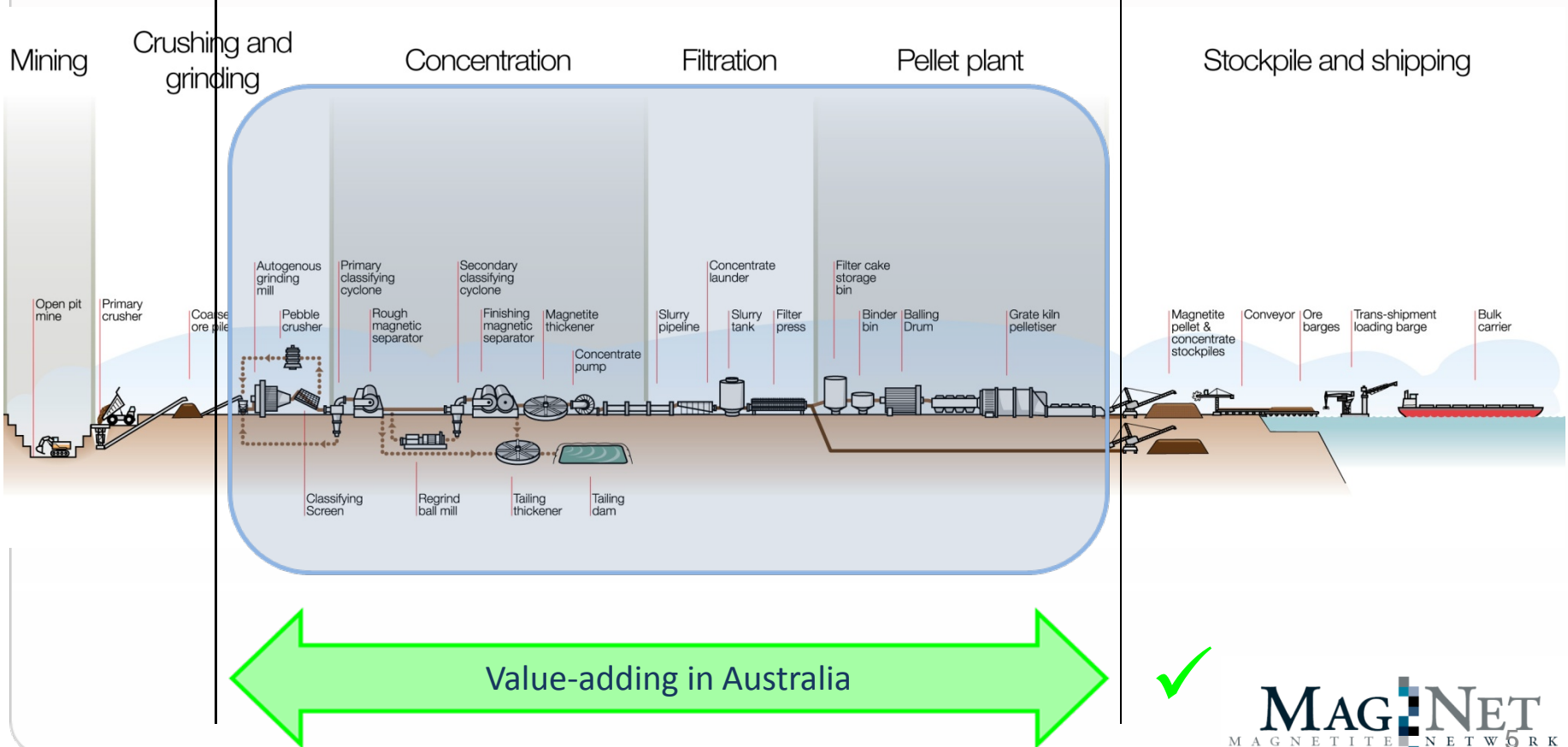


Magnetite Concentrate vs DSO Production Process



Magnetite Concentrate Production Process

Mine → Crush → Grind → Separate → Concentrate → Stockpile → Ship



Economic benefits of magnetite

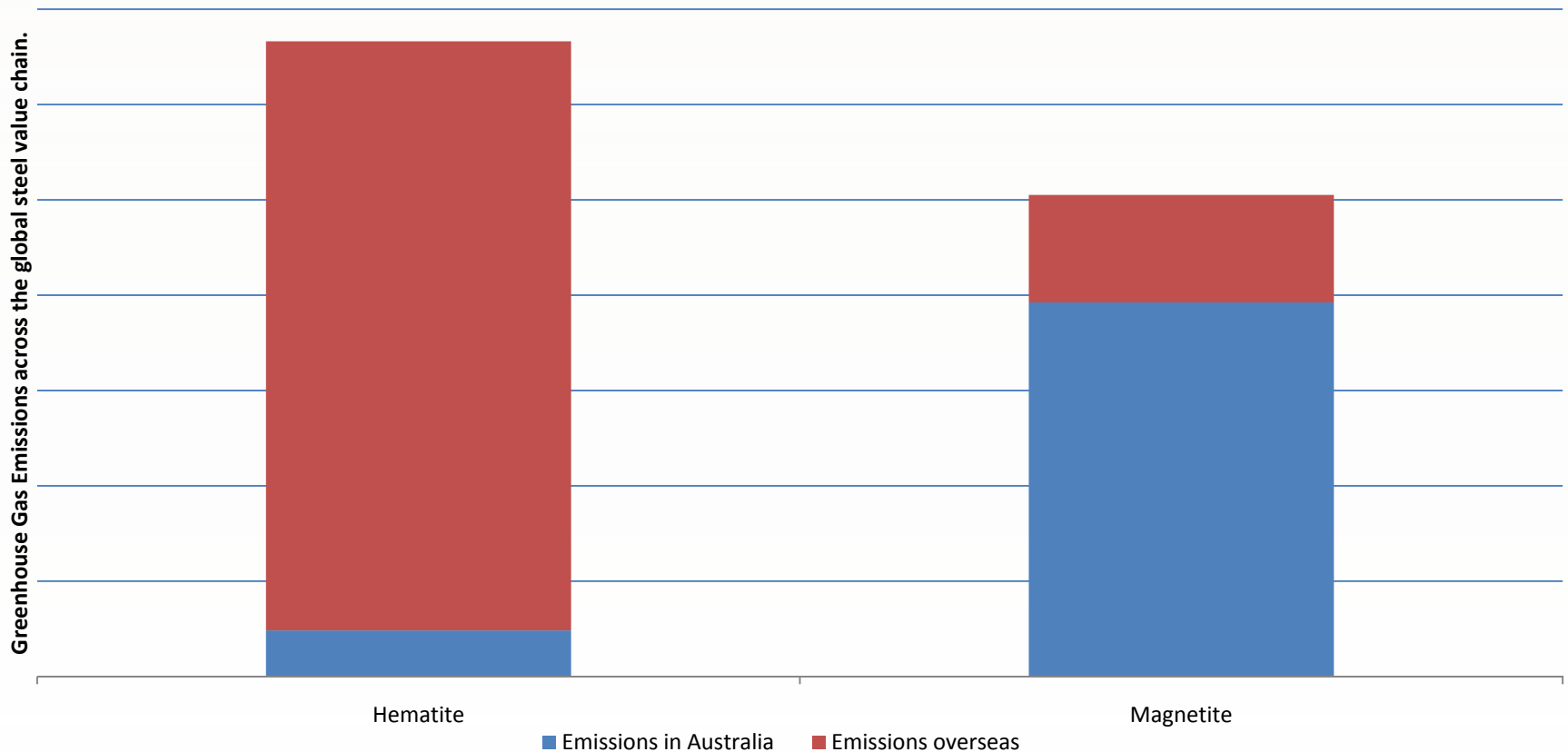


Company	Mine Life	CAPEX (\$A)	Employment (construction)	Employment (ongoing)	Royalties p.a. (A\$)	Annual Export Revenue (A\$)
CITIC Pacific Mining	+25 years	\$5.2b (USD)	4,000	+800	125m	3.0b
Atlas Iron Ridley project	+30 years	\$2.8b	1,100	+750	75m	1.25b
Balla Balla project	+26 years	\$1.9b Phase 1&2	1,650	+ 530	95m	1.1b
Extension Hill	+50 years	\$2.0b Phase 1	2,000	+500	50-150m	1.0b
TOTAL*		\$11.9b	8,750 jobs	2,580 jobs	+\$345m	\$6.3b

Global Emissions Savings



Hematite vs. Magnetite Emissions



NB. Illustrative chart only based on Lifecycle Analysis of the Sino Iron project prepared in 2008 based on modelled emissions.

CITIC Pacific Mining Sino Iron project



- Mine pit (25 years+):
 - 5.5km long and 3km wide
 - 600m below sea level
- Concentrator:
 - 6 AG mills (28MW each)
 - 6 ball mills (16MW each)
- Power station:
 - 450MW, low emission
 - Combined-cycle gas fired
- 25km slurry pipeline
- New port and trans-shipment facilities
- 51GL pa desalination plant
- 4,000 Construction jobs



The Future



With a collaborative approach , the Magnetite Network and its member companies have the potential to generate massive infrastructure, employment and regional development opportunities, while delivering a net global carbon reduction per tonne of steel produced

