



# SOUTH AUSTRALIA'S GREEN IRON OPPORTUNITY

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**Green Iron SA is a consortium of like-minded industries committed to the establishment and acceleration of green iron production and export capability in South Australia. It comprises Magnetite Mines, Aurizon Holdings, Flinders Port Holdings, and GHD. Leveraging South Australia's vast magnetite resources, world leading renewable energy and infrastructure network, the State is a top tier jurisdiction in which to develop a new green iron and steel industry.**

To be built on the strong industrial foundations available in Port Pirie, the consortium is advocating for a phased approach to direct reduction iron in the form of hot briquetted iron. In partnership with the State Government and industry, the consortium proposes a pathway to green iron that begins with the development of the Razorback iron ore mine and extends to include pelletising and DRI capabilities in the established industrial city of Port Pirie.

This project has the potential to transform the region by creating long-term job opportunities and revitalise the local community. Recognising the steel industry's significant carbon emissions, our project addresses the urgent need for immediate changes to lower these emissions through sustainable steel production. By leveraging hydrogen and other green technologies, Green Iron SA aims to position South Australia as a global leader in green steel production, fostering State growth and establishing a new economy centred around sustainable practices.



## GREEN IRON SA'S PATHWAY

## STATE GOV. SUPPORT

### Demonstration

#### GREEN IRON CENTRE OF EXCELLENCE

- Currently no DRI capable DRI/HBI testwork facilities in Australia.
- Green Iron SA proposes a lab-scale DRI pilot plant to demonstrate DRI compatibility for Australian ores. Opportunity for SA based 'Green Iron Centre of Excellence'
- Joint venture between industry, government, and research institutions.

- Connection with industry/ universities
- Funding
- Advocacy

### Stage 1

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#### MINE AND DRI GRADE PROCESSING

- Magnetite Mines Limited's Razorback Iron Ore Project.
- Processing plant to produce DRFP grade concentrates.
- Requires supporting infrastructure: water pipelines and high voltage power supply.

- Support/fast tracking approvals
- Investment in supporting infrastructure development
- Infrastructure corridors
- Advocacy

### Stage 2

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MTPA

#### PELLETISING: DOWNSTREAM PROCESSING

- Production of DR-grade pellets for export or DRI/HBI production.
- Requires pelletisation of concentrates using H<sub>2</sub> or NG.
- Developed by miner or third party.

- Sustainable gas supply - cost competitive natural gas and H<sub>2</sub> surety
- Land release at Port Pirie
- Special industrial precincts
- Advocacy

### Stage 3

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#### DIRECT REDUCTION IRON MAKING

- Production of DRI/HBI in South Australia.
- Utilises Midrex shaft furnaces and renewables.
- Opportunity to export Green Iron.
- Developed by third party steelmaker.