

# Iron Bridge Magnetite Project



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## Iron Bridge technical and commercial assessment completed Project to deliver 22mtpa of high grade 67% Fe magnetite concentrate product, with first production by December 2022

### Highlights

- Iron Bridge Magnetite project (Iron Bridge) to deliver 22 million tonnes per annum (mtpa) of high grade 67% Fe magnetite concentrate product, with first production by December 2022
- Strategic investment enabling Fortescue to provide an enhanced product range and increase production and shipping capacity to meet strong customer demand
- Capital estimate revised to US\$3.3 - US\$3.5 billion, subject to Iron Bridge Joint Venture approval, with FMG Iron Bridge Ltd's share US\$2.5 - US\$2.7 billion
- The Joint Venture has incurred capital expenditure of US\$1.5 billion as at 30 April 2021, and FMG Iron Bridge Ltd's investment is US\$1.3 billion
- The 67% Fe content low impurity concentrate product is anticipated to receive a premium to the Platts 65% Fe CFR Index
- Competitive cost structure with life of mine C1 cost estimate of US\$33-38/wet metric tonne (wmt) and sustaining capital expenditure of US\$5-7/wmt
- Validation of the design and construction of a 135km concentrate slurry pipeline from Iron Bridge to Port Hedland and return water pipeline
- Construction commenced of a module offload facility at Lumsden Point in Port Hedland to address logistics constraints and underpin the project schedule
- Innovative magnetite processing flowsheet remains unchanged, having been validated through the operation of a large scale pilot plant and full scale demonstration plant from 2015
- Long mine life supported by a Mineral Resource of 5.4 billion tonnes and Ore Reserve of 716 million tonnes.

Fortescue's Chief Executive Officer, Elizabeth Gaines said, "Iron Bridge represents a strategic investment with compelling returns for Fortescue and the Joint Venture. It further enhances our range of products through our integrated operations and marketing strategy and increases our overall production and shipping capacity to meet strong demand from customers.

"The iron ore market fundamentals support the investment in the Iron Bridge project, and we anticipate strong demand for this high value-in-use product, which will attract a premium to the Platts 65% Fe CFR Index.

“Led by our highly experienced project team, completion of the technical and commercial assessment of the Iron Bridge project has confirmed the optimal transportation solution, while also addressing contractor and logistical constraints, managing capital costs and confirming first production by December 2022.

“Underpinned by Fortescue’s unparalleled track record and capability in safely developing and operating major iron ore projects, Iron Bridge is well positioned to meet market demand and deliver strong returns for the Joint Venture and our stakeholders.”

### **Technical and commercial assessment**

The 12-week technical and commercial assessment commenced in February 2021 with the following objectives:

- Validation of the capital cost and schedule
- Resetting the contractor strategy
- Validation of the concentrate transportation solution
- Commercial optimisation of capital and operating costs
- De-risking the project execution and logistics.

Outcomes of the assessment include:

- Additional geotechnical investigation of the pipeline corridor further validating the original design. This comprises installation of a 135km concentrate slurry pipeline from Iron Bridge to Port Hedland together with a return water pipeline
- Resolving the logistics bottleneck for the delivery of modules, with construction of a module offload facility underway at Lumsden Point at Port Hedland
- First production by December 2022 and ramp up to full production run rate in 12 - 18 months
- Critical path items continued during the assessment period, including engineering, off site fabrication, procurement activities and site based civil works.

An alternative concentrate transportation option utilising Fortescue’s existing rail and inload port infrastructure was also considered, with modelling indicating a higher relative cost of production and higher total capital cost when considering the modifications required to Fortescue’s existing infrastructure.

### **Capital cost**

Reflecting the outcome of the assessment, the Iron Bridge capital estimate is revised to US\$3.3 - US\$3.5 billion, including FMG Iron Bridge Ltd’s share of US\$2.5 - US\$2.7 billion. The revised estimate is subject to Iron Bridge Joint Venture approval.

The project includes:

- 22mtpa Ore Processing Facility (OPF)
- 195km Canning Basin water pipeline
- 135km concentrate pipeline to Port Hedland and return water pipeline
- Concentrate handling facility at Port Hedland
- Initial mining fleet
- Non-processing infrastructure.

The increase in capital expenditure compared to the investment decision in early 2019 reflects project-specific and market factors impacting materials and installation costs, including inflation, foreign currency exchange rates and labour constraints.

Included in the life of mine sustaining capital cost estimate of US\$5-7/wmt are operational readiness and mining fleet purchases aligned with the production ramp up profile.

### **Operating cost**

The assessment reviewed Iron Bridge's operating cost structure to ensure alignment with market conditions, confirming life of mine C1 cost of US\$33-38/wmt (2021 real), inclusive of fees to Fortescue for port and power services.

The nature of the Iron Bridge ore bodies and Fortescue's innovative use of a dry crushing and grinding circuit together contribute to the project's operational efficiency across energy, water use and cost. Low cost power will be delivered to Iron Bridge through Fortescue's investment in the Pilbara Energy Connect program, including hybrid solar gas generation and battery storage. This will be delivered through an integrated transmission infrastructure which supports the incorporation of additional large scale renewable energy.

### **Marketing**

Iron Bridge will produce a 67% Fe content, low impurity magnetite concentrate which will extend Fortescue's product range to the high grade market segment. It is expected to achieve a premium to the Platts 65% Fe CFR Index, and Fortescue has full marketing rights for the product.

As a standalone product, Iron Bridge concentrate offers both superior pelletising and sintering characteristics, with the added benefit of fuel and energy savings associated with exothermic oxidation. Importantly, the magnetite concentrate can be blended with Fortescue's existing hematite products, providing optionality to respond to market conditions and optimise value across the product portfolio.

### **Background**

The Iron Bridge Magnetite project is an Unincorporated Joint Venture between FMG Magnetite Pty Ltd (69 per cent), and Formosa Steel IB Pty Ltd (31 per cent). The Joint Venture partners are each responsible for their equity share of the total capital expenditure.

FMG Magnetite Pty Ltd is a subsidiary of FMG Iron Bridge Ltd, which is owned by Fortescue (88 per cent) and Baosteel Resources International Company Limited (12 per cent).

The Iron Bridge project is designed to deliver production capacity of 22mtpa of a 67% Fe content, low impurity concentrate suitable for pellet feed or blending with sinter fines. Fortescue was granted approval in September 2020 to increase the material handling capacity of its Herb Elliott Port facility at Port Hedland from 175mtpa to 210mtpa.

As at 30 April 2021, the Joint Venture has incurred capital expenditure of US\$1.5 billion since the investment decision in April 2019. FMG Iron Bridge Ltd's investment of US\$1.3 billion is inclusive of a US\$274 million deferred Joint Venture contribution relating to the first stage of the project and has been fully funded by Fortescue.

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