

GREEN TIDE SPARKS IRON ORE RETHINK



Once a pariah in the WA mining industry, stalled magnetite projects are being revisited across the State

STUART MCKINNON

Magnetite is enjoying a resurgence in the WA iron ore industry as changing economic, energy and environmental tides boost its credentials.

Several companies have flagged moves into magnetite in recent months while a range of juniors dust off long-shelved projects that aim to mine and process the ore.

Unlike the better-known hematite iron ore — famously dug, crushed and shipped out of the Pilbara by the majors to deliver billions in export revenue — magnetite has a lower grade of iron and requires energy-intensive processing to turn it into a commercial product.

But once in its concentrate form, it delivers a higher grade product than hematite and with fewer contaminants.

Magnetite has long been considered a pariah in WA, mainly because of the abundance of direct-shipping hematite ore and a couple of troubled Chinese investments.

CITIC Pacific Mining's Sino Iron project at Cape Preston in the Pilbara and Ansteel's Karara project in the Mid West went significantly over budget when they were built during the peak of the last mining boom a decade ago and have been plagued by production issues. And just last year, Fortescue Metals Group reported its Iron Bridge magnetite project near Port Hedland

would cost \$1.3 billion more than originally expected.

Despite the trials faced by magnetite projects in WA, the ore is gaining renewed interest for a variety of reasons.

The Chinese Government, by far the world's biggest consumer of iron ore, is ordering its steel mills to cut pollution, forcing a move to higher grade, lower impurity inputs in the steelmaking process. Beneficiated magnetite concentrate has a clear advantage in this push over its lower grade hematite rival.

The chairman of iron ore junior GWR Group, Gary Lyon, said magnetite was no longer a dirty word and WA companies were re-examining the viability of developing their long-dormant deposits as the export door to China began to open.

"This is partly in response to stricter pollution controls and greenhouse emissions policies but also the need to increase productivity in the context of supply-side reform in China," he said.

Mr Lyons is also chairman of the Midwest Yilgarn Infrastructure Group, which represents a collection of junior miners and other interested parties looking to develop the State's vast reserves of magnetite and open up transport and infrastructure options to help bring projects online.

Mr Lyons noted the Yilgarn Mid West region north-east of

Perth hosted 17Bt of proven magnetite reserves and potentially more. Most of that is held by juniors

such as Mindax, Juno Minerals, Macarthur Minerals and Legacy Iron while GWR is working to define a resource of its own.

Transport and port options have also opened up for juniors looking to develop their projects, with capacity available at the ports of Geraldton and Esperance.

Another factor driving a rethink of magnetite projects across the Yilgarn and Mid West is the upgrade of natural gas infrastructure and an increased availability of gas in recent times, which offers a lower cost energy solution for magnetite processing.

Juniors are also examining the use of

solar and wind, coupled with battery back-up as a cheap, renewable solution to their future energy needs.

Bigger players are also awakening to the future of magnetite.

In November it was revealed Gina Rinehart's Hancock Prospecting would invest \$9 million into a joint venture with juniors Legacy Iron Ore and Hawthorn Resources in the Mt Bevan magnetite project near Leonora.

Chris Ellison's Mineral Resources is the latest to float the idea of magnetite as part of

the company's existing Yilgarn direct shipping ore operations at Koolyanobbing.

Speaking at the company's annual meeting in November, Mr Ellison said MinRes was con-

sidering a \$400m plant producing 5.2Mt of magnetite concentrate per annum within four years. He said the compa-

ny's plan was an acknowledgement of the dwindling sources of high-grade hematite in the State along with customers' demands

for a higher grade product that used less energy and caused less emissions in the steelmaking process.

"For us to go out and get high-grade iron ore now — mission impossible," he said.

Magnetite Mines non-executive director and former Rio Tinto executive, Mal Randall, noted 68-69 per cent magnetite concentrate was preferred by steelmakers in a decarbonising world and delivered a healthy premium over the benchmark 62 per cent iron ore price.

"Magnetite could become the new hematite," he said.

"When I was selling DSO hematite for Hamersley Iron, lump was 64-66 per cent Fe and fines were 62 per cent — you don't get that anymore."



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