

Yilgarn unlocked: port upgrade is the way forward

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Esperance Port is currently running a market sounding process and drawing up a reference design for half a dozen expansion options, priced up to almost \$1 billion. But learning from the Oakajee experience, the Yilgarn Iron Producers Association's advice is to 'keep it cheap', with a modest \$225-million 10–15 million-tonne-per-annum (Mtpa) proposal.

The Esperance Port Sea and Land (EPSL) Market Sounding is designed to prove the business case for the private sector to finance, build and operate a new multi-user iron ore facility (MUIOF).

The next phase will be a procurement exercise to identify the successful proponent by the third quarter of 2013. Hopefully, the design, construction and operational phases can then occur without delay.

Key infrastructure providers have been in close discussions with the Yilgarn Iron Producers Association (YIPA) and its members, who are keen to boost capacity from 11 Mtpa to about 31 Mtpa to provide an export outlet for their substantial ore reserves in the Yilgarn Iron Province.

EPSL has been responsive and appears to be aiming for a modest upgrade in line with YIPA's view.

YIPA members Radar Iron, Mindax, Golden West Resources, Legacy Iron and Cazaly Resources are keen to begin production and join existing producers Mineral Resources and Cliffs Natural Resources.

The above members commissioned a breakthrough supply chain study (SCS), the content of which has been shared with EPSL and infrastructure providers. The study supports a low capital cost approach (\$225 million) and incremental upgrading of infrastructure that can be used to cater for the stage one export of direct shipping ore (DSO) material through the Esperance Port.

Chairman of YIPA Jonathan Lea, who heads up Radar Iron, comments that: 'Learning the lessons of Oakajee, a modestly priced Esperance Port upgrade (stage one) of an additional 10–15 Mtpa capacity is the way forward, along with incremental rail upgrades.'

A later, stage two upgrade would cater for the magnetite production phase in the Yilgarn Iron Province.

Stage two would require seabed reclamation, the construction of a second berth, more storage and a new loader and could boost the total port potential to about 50 Mtpa. This throughput could be reached over time through a number of environmentally sound sequential expansions.

These conclusions were drawn from the SCS, which was jointly funded by the seven Yilgarn iron ore miners and explorers and carried out by reputable engineering firm Aecom.



Mindax CEO MD Dr Steve Ward examining iron ore from Mt Forrest.

The study is a first in Western Australia to see miners lining up to pitch in financially, share data and cooperate closely with each other to facilitate a significant infrastructure project.

The study undertook high-level modelling of infrastructure from loading points in the Yilgarn region, along rail from Leonora (in the north) and Koolyanobbing (in the east), to Esperance, and through rotary car dumpers and loaders onto ships at Esperance Port.

YIPA members are individually involved in EPSL's current market sounding process for the new multi-user iron ore facility and believe that the study findings will provide a valuable contribution by focusing the exercise on low capital-cost options.

Discussions with infrastructure providers who are on the same page are continuing, and further modelling and detailed analysis is expected to be undertaken.

Mr Lea says the production of such a valuable report was great to see, as was the cooperation between the mining and exploration companies involved under the umbrella of YIPA. 'This is indicative of the high level of industry support for the plans to expand the port,' he says.

New Mindax MD Dr Steve Ward says it is important to get a modestly priced port upgrade, as more expensive options may not have a tariff structure that is affordable to miners.

'The YIPA study is indicating the potential for a commercially viable, low capital-cost solution to enable additional capacity to be exported through Esperance,' Dr Ward says.

YIPA is working on a financial modelling study to prove the business case for the modest upgrade option.

Modest Esperance Port upgrade DSO Stage one – additional 10–15 Mtpa = total 26 Mtpa

- Learning the lessons of Oakajee – no gold plating
- Cap cost approximately \$225 million – tariff structure economically viable for miners
- No seabed reclamation (no two- to three-year additional environmental approval process required)
- Two-year construction horizon possible once proponent selected to upgrade stage one infrastructure
- New twin-cell RCD (rail car dumper)
- Negative pressure sheds (750,000 tonnes)
- New rail and conveyer systems
- Upgrade ship loader from 2400 to ~5500 tph (tonne per hour).

The SCS report itself provides significant further information on how the iron ore exporters can maximise the use of the rail network for the benefit of all involved, as well as an indication of the track improvements required to achieve the likely expected capacity increase in the near future.

Once again, the message is clear: only a modest capital spending option on rail will be successful.

Modest rail improvements

- Dual track – Kalgoorlie to west Kalgoorlie
- Increased number (approximately three) of passing loops (Kalgoorlie to Esperance)
- New CTC signalling system (Kalgoorlie to Esperance).

With the rail and port infrastructure pathways and requirements becoming clearer, miners have redoubled efforts to gain approvals, prove up their ore bodies and work toward infrastructure agreements.

Cliffs already export approximately 11 Mtpa through Esperance, and Mineral Resources is building up to four million tonnes per annum through Kwinana, with more proposed for Esperance.

Mindax

In a stunning turnaround, and under the new leadership of Dr Steve Ward, Mindax has tapped capital markets and repositioned itself to move its flagship Mt Forrest project forward and develop its significant copper, gold and uranium assets.

In the last months, Mindax has raised \$680,000, \$399,000 and \$2.5 million during the bottom of the iron ore price cycle.

'We are very pleased to have raised funds on three separate occasions over the last months because this has been done in quite a challenging investment environment,' Dr Ward says.

'We are moving forward and it's a real vote of confidence in the company.'

'Mindax has an impressive portfolio of four key commodities, including iron ore, through our flagship Mt Forrest project, plus uranium, gold and copper.'

With a new management team, Mindax is confident that it can get a better valuation for its newly upgraded 1.7-billion-tonne magnetite resource and get its 20 to 50 Mt of near-DSO material into trucks as soon as possible.

The Mt Forrest Iron Inventory is world-class and has potential to sustain steel feed over a more than 30-year timeframe, from both DSO and eventually high-grade beneficiated magnetite.

Radar Iron is busy proving up its hematite resources and is keen to begin a 1.5 Mtpa DSO export option within two years.

With Jon Lea at the helm, the company is well positioned, as Jon was integral to the development and preparation for export at Polaris Metals Carina mine (now owned by Mineral Resources).

'Radar intends to prove up resources and develop a hematite mining operation over the next two years to be ready for production by the time the Port has additional capacity, and hence intends to carry out a feasibility study aimed at assessing this potential,' Mr Lea says.

This will involve metallurgical, mining and processing studies, along with identifying the optimal infrastructure options.

Mineral Resources must be the most 'can-do' company in the Western Australian mining and infrastructure sectors.

Taking less than a year to get its Kwinana Bulk Terminal facility online, the company is now pushing up to its 4.4 Mtpa capacity.

But that has not distracted its focus on pushing another six million tonnes per annum toward Esperance.

Under new Head of Iron Ore Operations Andy Haslam, the company no doubt will find more success in the Yilgarn Iron Province.

Cazaly Resources is keen to export through Esperance, but has also cast its eye over an Albany option and could be digging ore within six months, given an appropriate port solution.

Cazaly Joint Managing Director Clive Jones says, 'Cazaly seeks the best possible combination of road, rail and port solutions to enable the Parker Range Iron Ore Project to be developed as soon as possible.'

Cazaly's Parker Range Iron Ore Project at Mount Caudan deposit has 35.1 Mt at 55.9 per cent iron and is ready to mine with approvals in place.

Cazaly's definitive feasibility study has indicated that the Project can produce up to 4.2 Mtpa of high-grade ore.

Golden West Resources is itching to access Esperance Port, having been granted formal approval in April 2012 to commence mining of its high-grade resources at Wiluna West by the Western Australian Department of Mines.

The release of the company's maiden JORC ore reserve

statement in 2011 points the way for its development at Wiluna West with 69.2 Mt at 60.3 per cent iron.

GWR, headed up by Executive General Manager Craig Ferrier, aims to push three million tonnes of DSA annually through Esperance Port.

'The development of a multi-user iron ore facility at Esperance is pivotal to our plans for delivering on our promise and completing the transition to miner.

'We remain actively engaged at a number of levels and are confident that an incremental development of the Esperance Port will deliver substantial benefits to miners, infrastructure owners and operators together with the regional communities and the state of Western Australia,' Mr Ferrier says.

Legacy Iron Ore Limited sees a strong future in its hematite and magnetite ambitions at its Mt Bevan Iron project. The company has solid backing in the form of \$4-billion Indian Government-owned NMDC having taken a 50 per cent slice of Legacy.

Cliffs Natural Resources is a key YIPA member already exporting almost 11 Mtpa through Esperance.

The fourth-largest iron ore exporter in Australia, Cliffs has significant tenements in the YIP and is surely poised for more growth.

Western Australia's next big thing, the Yilgarn Iron Province, is now a step closer; however, EPSL should fast-

track the appointment of a successful proponent and get on with construction.

Every year the upgrade is delayed is a major impediment to the miners and costs the Western Australian government \$50 million in lost royalties; it makes you wonder why they don't chip in by way of a guarantee. ^{LAN}

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Jonathan Lea
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