

MINING

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ELB

COAL SUPPLEMENT

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ELB

IN THE COAL SECTOR

Leading total engineering solutions provider to the minerals and mining industry ELB Engineering Services (ELB) is active in the coal sector where it is involved with a number of projects.

In South Africa's coal sector, ELB has been appointed by an UK based company to develop a full coal production and export business. "This is a project that allows us to use our full suite of expertise through the value chain, all the way from mining to shipping," ELB CEO Dr Stephen Meijers says. "We are able to provide the client with a total solution."

This project was scheduled to start in September 2011, will run for about the next three years and includes coal mining, coal washing, transport and train loading facilities. It also includes a new greenfields export terminal up to the provision of shiploaders.

ELB was also awarded nearly R1 billion of work related to materials handling at the Medupi power station under construction in Limpopo. This will see it doing the on terrace coal feed conveyors to the boilers and ash handling on the terrace and involves the use of 2,600 tonnes of platework and structural steel. The ELB portion of the Medupi materials handling project includes the provision and establishment of some 54 conveyors extending over approximately 11.5 km. It also entails the supply of a non-luffing stacker and a chain scraper type reclaimer. "We are doing the boiler ash handling to the emergency ash dump. Our technology partner FAM is providing the stacker and reclaimer for this emergency ash dump, and we will be engaged with the Medupi project until 2014."

In Zambia EPE, a joint venture company between ELB and PBA, has been employed by a group known as Nava Bharat which won the rights to the government backed Maamba colliery that has been out of operation for a decade. "The



Newly commissioned combination bucket wheel stacker reclaimer at the Grindrod Matola coal terminal, Mozambique.



Shiploader loading a vessel at the Grindrod Matola coal terminal, Mozambique.

plan is to rehabilitate the coal mine and build a completely new coal handling and processing plant. This coal will supply a planned power station as well as other markets," Meijers says.

The coal will supply the local market and a power station product. EPE is involved in the logistics management from the tip onwards. This will see the coal fed into a 200 tonne an hour washing plant. ELB is able to provide solutions through its middle size modular coal washing plant options due to its M-Range offering.

The M-range off-the-shelf modular solution, which ELB launched earlier this year as part of its EPE partnership, provides a complete product line required for a modular processing operation. This has already been proven in projects across Africa.

The project in Zambia started in October 2010 and the first coal was due to be supplied in September 2011. "The reason the project is able to come on-line in less than 12 months is due to the modular nature of plant." The project will supply a yet to be constructed potential 500 MW power station comprising two 250 MW units to supply power for local consumption.

Back in South Africa, ELB has done work for Coal of Africa, both originally on the Mooiplaats project planned to ramp up to 2.4 million tonnes a year by 2013 and more recently on the Vele project in Limpopo, the latter having had to overcome permitting issues which caused delays.

Based on the work it did for Mooiplaats, ELB's EPE joint venture partnership with PBA, through which it builds and supplies modular process plants in the coal and other mineral commodity sectors, was awarded the Vele contract. There it undertook the full EPCM contract in addition to supplying the modular process plant. The follow up business was obtained based on ELB's ability to provide cost effective solutions in an exceedingly short time.

"The work, which was delayed due to the much publicised permitting issues, will now see the completion of the project and commissioning which will take place over the next three months," Meijers says.

The company was also involved in the upgrade of Grindrod's Matola terminal in Mozambique from four to six million tonnes a year to handle coal and magnetite. That project, which was completed in the first quarter of 2011, entailed the combination of the retrofit of existing conveyors, a new bucket wheel stacker reclaimer, a new shiploader and electrical reticulation.

Prior to that ELB had undertaken work on a previous phase at the terminal, which encompassed the refurbishment of two tipplers, replacement of one indexer and the rebuild of a bucket wheel reclaimer. The condition of that reclaimer had been such that some engineers thought that refurbishment was impossible. However, it was done successfully by ELB.

In Mozambique ELB is involved with the shiploaders at Beira which are required to achieve 6.0 million tonnes per annum of export capacity to serve Vale's Moatize project in the Zambezi basin coalfield. "ELB will provide two



Progress on site for a modular coal handling process plant, with ROM feed of 2.4 mtpa and washing plant process capacity of 200 tph, for Maamba Collieries Ltd in Zambia.

shiploaders, and we anticipate the commissioning date will be by December 2011," Meijers says. This project was essentially an equipment provision tender.

ELB has grown its portfolio of projects rapidly over the past couple of years, not only in the coal sector, and this has been achieved because it provides new solutions to old problems resulting in cost effective and high performance equipment giving customers the competitive edge. It also is a flexible and fast moving operation. ■



Incline conveyor drive house foundations and steel awaiting erection at Medupi.