

Shumba plans to fast-track Mabesekwa into production

Botswana has massive coal resources but none of the current generation of coal explorers in the country has yet managed to get into production, in part because of the logistical challenges of getting coal to market from the land-locked country. Shumba Energy, which has a portfolio of advanced projects in Botswana with a total coal inventory of 4,5 billion tonnes, is intending to break the pattern with its fully permitted Mabesekwa project, as its Chairman, Alan Clegg, recently explained to **Modern Mining** in an interview on the sidelines of the Botswana Resource Sector Conference in Gaborone.

According to Clegg, Shumba will fast-track Mabesekwa into operation with the target for first coal production being the second half of next year. “The project is ‘shovel ready’ and we’re very confident that we can supply the coal it produces into the Southern African market,” he says. “We’re also planning to establish an In-

Alan Clegg pictured on the Shumba Energy stand at the Botswana Resource Sector Conference.



Coal specimen from the Sechaba project. The estimated SAMREC-compliant resource is 571 Mt GTIS (gross tons in situ).

dependent Power Producer (IPP) operation further down the line, which would see an initial 300 MW power plant using circulating fluidised bed technology being built between 5 and 6 km from the coal mine mouth.

“The idea is that this would supply power into the South African market and we have, in fact, formally registered our intent to put in a bid to the Southern African Power Pool and related authorities in terms of the Coal Border Power Procurement Programme which is designed to secure up to 3 750 MW of power from IPPs. The results of this are still pending. In addition, the project has been short-listed in the Botswana government’s Greenfield Coal Baseload IPP Programme.” He adds that development of Mabesekwa has not been premised on the conclusion of IPP agreements and that its development as a standalone mining operation is perfectly feasible.

Located 60 km south-west of Francistown (and close to the Sese project of African Energy Resources) in an area originally drilled by Shell decades ago, Mabesekwa was acquired

by Shumba three years ago from a junior company which had basically run out of money. “Mabesekwa is a very large project with a total resource estimated at 2,4 billion tonnes and a JORC-compliant resource of 844 Mt,” notes Clegg. “The coal is at an average depth of 50 to 60 m and occurs in a single seam with an average thickness of 18 m, so it is all open-pittable. We are proposing to use an outsourced model for mine operation with a contractor handling the mining and the plant being provided on a build-own-operate-maintain basis so the capital costs of developing the mine are relatively modest.”

Mabesekwa has a water supply allocation from the Shashe Dam in place while a backup supply is available from a nearby wellfield.

If Shumba does mine at Mabesekwa, the mining contractor would in all likelihood be Basil Read Mining as the two companies recently signed a Memorandum of Understanding (MoU) which Clegg describes as “the first building block of what we hope will be a long-term relationship”. The MoU envisages that Basil Read Mining, which has considerable experience in Botswana, will provide contract mining solutions – including giving inputs to mine design, scheduling and mine planning – for Shumba’s coal projects.

While Mabesekwa is Shumba’s most advanced project, not too far behind in terms of development are its Sechaba and Morupule South projects. Sechaba, located north of the Morupule Power Station complex, was the first major project to be acquired by Shumba while Morupule South, which – as its name indicates – is located immediately to the south of the Morupule Colliery, Botswana’s sole current coal producer, has only entered the company’s stable recently, with Shumba announcing earlier this year that it had signed an option to acquire a 75 % stake from Australian junior Hodges Resources.

Like Mabesekwa, Sechaba is well advanced in terms of permitting and also has two components – coal supply (at an initial level of 1,5 Mt/a) to the local spot market and the Botswana Power Corporation (BPC) plus the export of power via an IPP arrangement (Sechaba Energy), with the prime target being Namibia. It is envisaged that the power plant would start with a 300 MW capacity (2 x 150 MW modules) and that it would be connected into BPC’s 400 kV substation, located approximately 27 km to the south of the proposed power station site.

Although there is an open-pit opportunity for start-up in the early years, Sechaba would



Shumba’s MD, Mashale Phumaphi (left), on site at Sechaba with a drilling team.

primarily be an underground mine. The estimated SAMREC-compliant resource is 571 Mt GTIS (gross tons in situ) with the coal being hosted by three identified coal seams separated by mudstone, coal shales and sandstones. The two main seams are the deeper export quality Taukome Bright Seam (TBS), which has an average thickness of 2,6 m, and the Morupule Main Seam (MMS), with an average thickness of 3,7 m, with the coal being found at average depths of 30 to 100 m.

Turning to the Morupule South project, Clegg says that – at this stage – it is intended to develop it purely as a mining operation supplying coal to domestic and regional markets. “Hodges Resources worked on the project for several years, taking it through to an advanced stage and defining a JORC-compliant resource of 2,45 billion tons of thermal coal, with 380 million tons in the measured and indicated categories,” he states. “Around 1,2 billion tons is exploitable by opencast strip mining at initial





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waste to coal strip ratios of under 2 to 1. The project is located just 5 km from an operating rail siding and, like its sister projects, can be brought into production in a short timeframe." He adds that the project has the capacity to produce export quality coal for overseas markets.

With exports in mind, Shumba has recently formed a partnership with HMS Bergbau Africa, a full subsidiary of German-listed HMS Bergbau AG, a leading independent global trading house. Bergbau will work closely with Shumba Coal Trading (SCT), a subsidiary of Shumba Energy which was established in 2015 to manage the trade of coal from Shumba's projects. Shumba believes that Bergbau's marketing and logistics expertise will be invaluable in supplementing SCT's established trade structure.

Although Shumba is a junior company, its project development pipeline from a mining standpoint is supported by credible and experienced technical partners, who include Ukwazi (mining engineering), ECMA Consulting (owner's engineer), GEMECS (geology and resources) and Ecosurv (environmental and social). The power supply component of its projects is similarly well supported, notably by GS E & C, a Korean-based EPC contractor which owns 2 597 MW of generating assets, and PB Power, which is undertaking power station design and selection.

An interesting point is whether Shumba's strategy of exporting power to regional markets is as viable now as it was several years ago, when Eskom's generating capacity shortfall resulted in widespread power cuts in South Africa. With the shortfall having now all but disappeared as the units at the massive Medupi Power Station progressively come on line, one could argue that the need for cross-border IPPs, at least from a South African viewpoint, has been greatly diminished.

Clegg sharply disagrees with this argument. "The fact of the matter is that every country in the SADC region is running a power supply deficit," he maintains. "In the case of South Africa, this has been temporarily masked by an economic downturn which has greatly reduced demand and which has resulted in many mines and smelters, which are major consumers of electricity, being closed. The reality is that there is an underlying 30 GW deficit in the SADC countries. So whoever has the power will have no difficulty in selling it."

Finally, one of the strengths of Shumba that Clegg points to is its identity as a fully Botswana-based company. "Most of our highly experienced executive team, including our MD, Mashale Phumaphi, are either citizens of



Establishing a core drill at the Sechaba project.

Botswana or closely acquainted with the country and our sole listing is on the Botswana Stock Exchange. Our entire focus since we started up in 2009 is on energy projects in Botswana and I believe that we can now claim to have the biggest and most significant portfolio of advanced energy projects in the country. We've spent around 200 million Pula on our projects to date and we're now on the brink of transitioning from being an explorer to a producer," he concludes. ■

A plus 40-year career in mining

Alan Clegg is a mining engineer who started his career with the National Coal Board in the UK in the early 1970s. In 1975 he moved his career base to South Africa and subsequently worked at Gold Fields, JCI Platinum and its successor Anglo American Platinum, and Impala's Gazelle Platinum (where he was closely involved with the establishment of the Karee mine). He has also worked globally since 1975 on mining projects in over 150 countries.

He has an in-depth knowledge of mining equipment and related technologies (having served as CEO of Tamrock Africa for a period) and also of mining consulting and EPCM contracting (having worked as a partner, co-founder and the senior executive for mining engineering at TWP Holdings from 2001 through to its listing in 2007). He was subsequently based in Turkey for several years from mid-2008 after executing an MBO of the TWP Eurasia division, running a mining consultancy, but returned to South Africa in 2014. He is now based on South Africa's Wild Coast.

Among other things, he is an independent non-executive director of resource companies and currently advises Samruk-Kasnya Invest, the Kazakhstan government's sovereign wealth fund, and is on the board of Syrymbet JSC, which is developing the world's largest undeveloped tin deposit. He is also on the board of Alexander Mining, an AIM-listed company engaged in developing and commercialising what he describes as "ground-breaking leaching technology" for the extraction of base metals from high acid consuming oxide ores, in particular cobalt, copper, and zinc. ■

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