

POWER PLAY

Suitors knocking on Opal's door

By Tshepo Monyamane and Nelendhre Moodley

Semi-finalist in the Investing in African Mining Indaba investment battlefield competition Opal Mining is looking to take its flagship project Manotshe, located in Brits, North West, to bankable feasibility study stage, chairman Paul Ranamane tells *SA Mining* in an exclusive interview.

So attractive is the outlook for energy storage minerals that following the competition, "Opal has been pursued by a number of companies looking to conclude off-take agreements. The suitors include CATL (China), Green Resources Worldwide (UK) and Yildirim Group (Turkey). This is even before the company has firmed up its vanadium resource," Ranamane says.

"Consideration is being given to leverage the off-take agreements on the current vanadium price."

The emerging miner, whose energy and battery minerals interest extends to lithium, copper-cobalt, coal and PGMs, is looking to play a significant role as an independent power producer and has to date secured prospecting rights in coal and vanadium.

"Apart from the intention to generate power within the available framework in South Africa and to supply local power producer Eskom, the idea is also to build capacity to provide energy storage cells that optimise the energy grid. To this end a power producer and energy storage entity, Opal Energy, has been established to supplement Opal Mining's ventures," says Ranamane.

Vanadium, however, is currently Opal Mining's flagship mineral with its vanadium project extending to its greenfields assets located in portions 1 and 3 of Syferfontein, the brownfields projects located in portion 2 of Syferfontein, and Syferfontein itself which is situated near Brits, in the western limb of the Bushveld Complex.



The company has aspirations to acquire a cash-generating asset and is in discussions with potential sellers, says Ranamane.

Meanwhile, the 100% black-owned emerging miner is progressing its vanadium asset up the value curve and completed a scoping study on its Manotshe project at the end of April. Results from the study have indicated an economically viable asset consisting of vanadium and associated minerals (iron and titanium), says Ranamane.

"A decision has subsequently been taken to take the project to bankable feasibility study stage and we have secured seed funding for the completion of the pre-feasibility study," he says.

Apart from pre-feasibility funding of R25-million acquired from a development funding institution, the company is in the process of applying for equity and debt funding from the Industrial Development Corporation and Public Investment Corporation respectively.

Expectations are that Opal Mining will require around R480m to bring the opencast

Manotshe project into production in about 18 months.

"The Manotshe project, a low-capital-cost project with a strong resource statement and life of mine, will add to the existing market for many years to come, enabling South Africa to become a leading producer of vanadium in the world," says Ranamane, adding that South Africa is among the top three producers of vanadium globally together with China and Russia.

According to the emerging miner, bringing the Manotshe project into production is the first step in the emerging mine's strategy of becoming a fully fledged mining company that encompasses the full value chain of vanadium mining, processing, beneficiation as well as being established as a battery manufacturer and battery storage facility operator.

Opal Mining expects to establish a mine processing facility in the next three to five years, a beneficiation facility in five years and a battery manufacturing facility a decade from now.

"Within the next five years, we plan to commence operations on our beneficiation facility and in the next 10, we plan to start establishing a battery manufacturing facility," Ranamane tells *SA Mining*.

"Vanadium battery production is at its infancy; however, Beijing-based Chinese flow battery developer Rongke Power has built a large storage facility of 800MW in Dalian Province in China and is assisting the American government to build a similar facility in the US."

"Opal has been pursued by suitors looking to conclude off-take agreements."

– Ranamane

VANADIUM OUTLOOK

Vanadium is used primarily in the production of high-strength steel but future demand excitement stems from its role in vanadium redox flow batteries (VRFBs). The attraction for VRFBs is their extensive energy-storage potential and, according to market research firm Orbis Research, the ability to instantly store up hundreds of megawatts of energy for use during peak hours.

This capability endears VRFBs to industrial and utility applications.

Orbis Research, meanwhile, expects the global vanadium redox battery market, which was pegged at \$142.1m in 2017, to increase at a compound annual growth rate of 59.7% from 2018 to 2022.

According to market analysis provider *Metal Bulletin*, China – currently the top vanadium producer – continues to influence the minerals trends and subsequently ferrovandium (FeV) prices, which averaged \$25/kg in Q1 of 2017 increasing to \$27 in Q2. In essence, "FeV prices reached a four-year high in May owing to supply-side changes within China," the report stated.

Ranamane agrees that vanadium is a good

mineral to be investing in and says its price has skyrocketed from late 2016 to early 2018 – almost doubling to around \$30/kg.

"Demand currently surpasses production and is forecast to continue rising in the wake of the green energy era and subsequent demand for battery storage as well as advances in technology including cellphones and industrial equipment, among others. Moreover, on the back of planned large infrastructure developments, especially in Africa and Asia, demand from the steel industry for vanadium is expected to continue to soar."

With regard to vanadium production, Ranamane says the total global production in 2016 amounted to an estimated 76 000 tonnes, of which South Africa produced 15.8% (12 000t) from Glencore's Rhovan mine and Bushveld Minerals operations.

"South Africa has the potential to become the largest vanadium producer given its vast unquantified resources held within the Bushveld Igneous Complex," says Ranamane.

Current vanadium producers on the continent include Glencore and Bushveld Minerals, however the leading global producers are the US and China. ■

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