

Unlocking the Musina-Makhado Special Economic Zone through the Makhado Hard Coking Coal Project

INTRODUCTION

Coal of Africa Limited (CoAL), a South African publicly listed, emerging developer of hard coking and thermal coal resources, applied in 2015 for an investment from the Industrial Development Corporation (IDC) to fund certain pre-implementation processes for the Makhado Project. This resulted in a credit application for a R240 million investment. This transaction was not approved, and no clear reasons given, despite the enormous potential of the project to facilitate and enable delivery against the National Development Plan's Vision 2030.

BACKGROUND

Coal is one of the country's abundant and valuable resources, with South Africa ranking among the top ten major producers globally, producing 3.7% of the global output. The country is endowed with more than 30 billion tonnes of coal, equivalent to more than one hundred years' supply, at current production and consumption rates. This resource has been a catalyst in the development of the mining sector and has also catalyzed the country's industrialization by helping to meet its energy needs.

Within the current South African environment, there are limited alternative solutions for reasonably priced power other than coal (especially base load power generation). There is also a recognition that the country needs to reduce its reliance on coal by adopting more sustainable energy sources in the near future. However, coal can and must remain part of our energy mix, as is recognized in the IRP 2010, and which we believe will also be acknowledged in IRP 2016, due for imminent release. It is therefore possible to retain coal in South Africa's energy mix, with mining companies benchmarking against adopting clean coal solutions.

In terms of indirect and induced benefits, the coal industry's impact on the economy includes expenditures on investment and employment in sectors such as electricity, manufacturing, construction, and finance.

Coal of Africa Limited (CoAL) is a proudly South African emerging developer of high-quality coking and thermal coal, with its assets located primarily in the Limpopo province company. The presence of hard coking coal and the size of CoAL's resources, 2.4 billion mineable tonnes in situ, is a differentiating factor from other coal junior mining companies.

Hard coking coal of the quality and quantity available to CoAL's Makhado Project can help reduce South Africa's dependency on importing its current requirements. This product can therefore reduce the cost of steel production locally and simultaneously improve South Africa's balance of payments through exports.

Like other mining companies, CoAL has experienced some significant challenges to deliver on its vision to sustainably produce in excess of 6 million tonnes per annum. Some of these challenges, experienced by South African coal mining companies, have been highlighted via the Chamber of Mines, which include amongst others:

- i) **Land access.** Mining in general competes with other sectors such as agriculture and manufacturing for land use. In some areas, agriculture is prioritised, and if mining activity is authorised, there is vocal and vociferous objections to mining. Internationally, evidence suggests

that these sectors can and do co-exist providing back-and-forth catalysts for the development and sustainability of communities.

- ii) **Policy and regulatory.**
 - a. Environmental policies and regulations aimed at ensuring environmental best practice is sometimes at odds with a developmental agenda.
 - b. The policies and regulations aimed at reducing the country's carbon emissions are welcome but must take into account South Africa's developmental constraints.
- iii) **Access to capital (markets).** As international finance institutions adopt strict environmental codes the consequence has been reduced credit extended to coal mining and firms that use coal technology to generate electricity.

THE MAKHADO PROJECT – CoAL's FIRST FLAGSHIP PROJECT IN THE SOUTPANSBERG

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The fast dwindling Mpumalanga thermal coal reserves has led to the development of the Limpopo coalfields to meet the country's demand for coal for its electricity requirements.

CoAL's Makhado Project, located in the Soutpansberg Coalfields in the Makhado Municipality, has the potential to deliver significant value to all its stakeholders, including its shareholders (20% being the community), enabling the company to become a significant global coking coal producer.

In June 2013, the company released an independently verified Class II Definitive Feasibility Study, demonstrating the project's ability to produce an annual 2.3Mt of hard coking coal, and 3.2Mt of thermal coal annually over its 16 years life of mine.

All the regulatory authorisations have been granted for the Makhado, which include:

- New Order Mining Right, granted May 2015
- Environmental Authorisation, granted in August 2013, amended and extended in July 2016
- Integrated Water Use Licence, granted January 2016, appealed and therefore suspended.

OWNERSHIP

The Makhado Project has a 30% BEE shareholder with the beneficiary communities owning 20%.



This project is located in a very rural area within the Makhado Municipality and the Magisterial District of Vhembe, with 7 beneficiary communities. A recent socio economic assessment conducted by CoAL revealed that more than 30% of these communities do not have access to a stand pipe water connection, and more than 20% have no schooling at all.

CoAL has designed a community centred Sustainable Value Model (SVM) to ensure that the benefits of the Makhado Project are maximised for communities. These benefits are, amongst others:

1. Ownership – communities own 20% of a project which has a Net Present Value of \$550 million.
2. Procurement – Makhado's Enterprise Development Programme was launched in September 2016 which will identify, mentor and develop 60 entrepreneurs to access procurement opportunities. In addition, procurement opportunities have been ring- fenced for communities, some of which include fuel, construction, transport, logistics etc
3. Employment – during construction, 2 500 jobs will be created, 60% of which will be drawn from the communities. During mining operations, 1 200 jobs will be created.
4. Training and Development – the Makhado Centre of Learning, accredited by merSETA, was launched in September 2016 to provide workplace skills, digital training, artisan and technical training and entrepreneurship training.
5. Investment in Infrastructure – more than R50 million will be spent to upgrade the community water supply, and further R15 million has been budgeted to upgrade a road utilized by most community members.

THE MAKHADO PROJECT – CATALYST FOR THE MUSINA- MAKHADO SPECIAL ECONOMIC ZONE

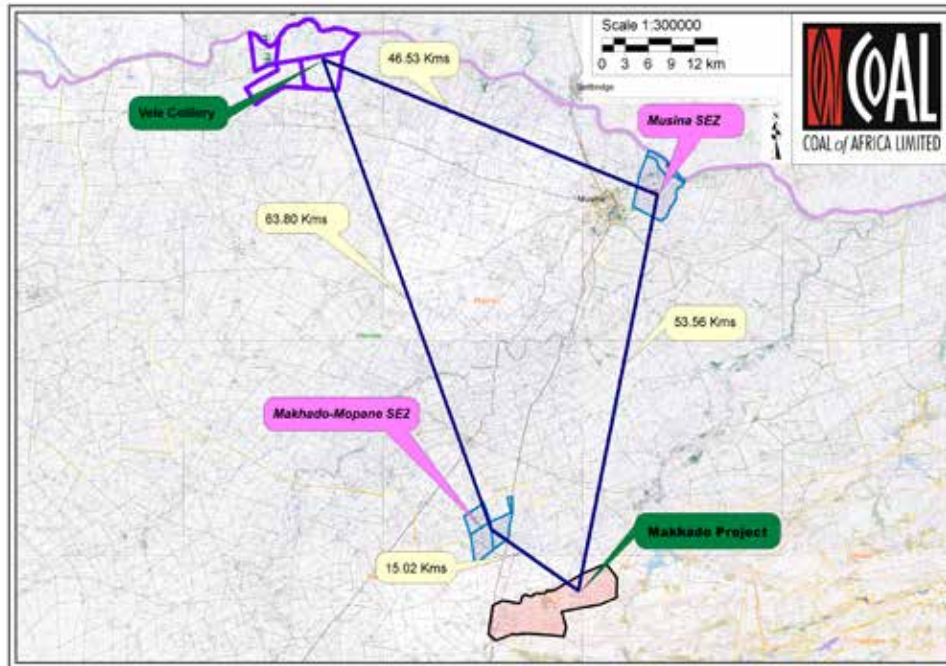
In July 2016, the South Africa Cabinet announced the designation of the Musina-Makhado Special Economic Zone (SEZ) by the Minister of Trade and Industry, Dr Rob Davies. This SEZ, a strategic intervention of the Industrial Policy Action Plan (PAP) to accelerate economic development through greater investment, export volumes and job creation.

The Musina-Makhado SEZ is intended to drive economic growth and create employment in the Vhembe region, expand the manufacturing sector and mineral beneficiation

The SEZ lies within the Trans-Limpopo Spatial Development Initiative and is well positioned for regional integration and linkages with Mozambique, Zimbabwe and Botswana.

Both of CoAL Project's; Vele and Makhado , are located within the Vhembe District.

PROXIMITY OF MAKHADO AND VELE TO THE MUSINA-MAKHADO SEZ



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- Proximity of the Makhado Project to the Makhado SEZ
- Role of the Makhado Project in unlocking the Special Economic Zone in both Makhado and Musina:
 - o Hard coking coal supply for establishment of stainless steel plant
 - o Thermal coal for electricity supply through Independent Power Process and/or Eskom
 - o Mining as a key drive for industrialisation
- Ability of Makhado to deliver on the transformative objectives of the SEZ:
 - o Job creation – commitment to employ at least 60% from communities (2 500 during construction – 26-30 months, 1 100 during mining operations – 16 year life of mine)
 - o Enterprise Development
- Establishment of CoAL Enterprise Development Programme (R5 million) to identify, incubate and inter-connect communities SME's with procurement opportunities during construction and mining activities
- Ring fenced opportunities for community based enterprises Meaningful and direct socio economic transformation
 - o Training and Development – a minimum of 1 000 people to be trained at the Makhado Centre of Learning, accredited by Musina in the following fields:
 - Workplace Readiness Programmes
 - Digital Training
 - Entrepreneurship Training
 - Technical Training – Artisan Aide programmes
 - The Makhado Artisan Programme to be launched in January 2018
 - Fostering of social cohesion within communities, and the development of sustainable communities
 - Beneficiation strategy
 - Reduction of imports, and improvement in balance of payments

RISK	MITIGATION MEASURES
Security	Security package including the following assets: <ul style="list-style-type: none"> • Brownfields operations – Vele and Mooiplaats Collieries • Makhado Project • Right to convert into equity if desired
Off-take Agreement	<ul style="list-style-type: none"> • Arcelor Mittal – letter of intent • Special Economic Zone • Export quality thermal coal • Hard coking coal of premium quality
Risk Commodity Environment	<ul style="list-style-type: none"> • Security as above but prices have increased for hard coking coal by over 160% this year

CONTRIBUTION OF THE COAL INDUSTRY IN 2015

- EMPLOYMENT: 77,709 people, 17% of the total employment in the mining sector.
- SALES – Total sales of R103 billion
- EXPORTS – Averaging 50% of sales since 1993, 12% of total merchandise exports

South Africa derives over 70% of its energy requirements from coal; 90% of the economy's electricity requirements; and over 30% of liquid fuel demand (coal-to-liquids technology).