


Unlocking the Potential of Botswana's Coalfields

With a focus on Power and Export Markets

February 2014

Company Overview

① 6.2 Billion tonnes of thermal coal

② Low sovereign risk

③ Robust markets identified

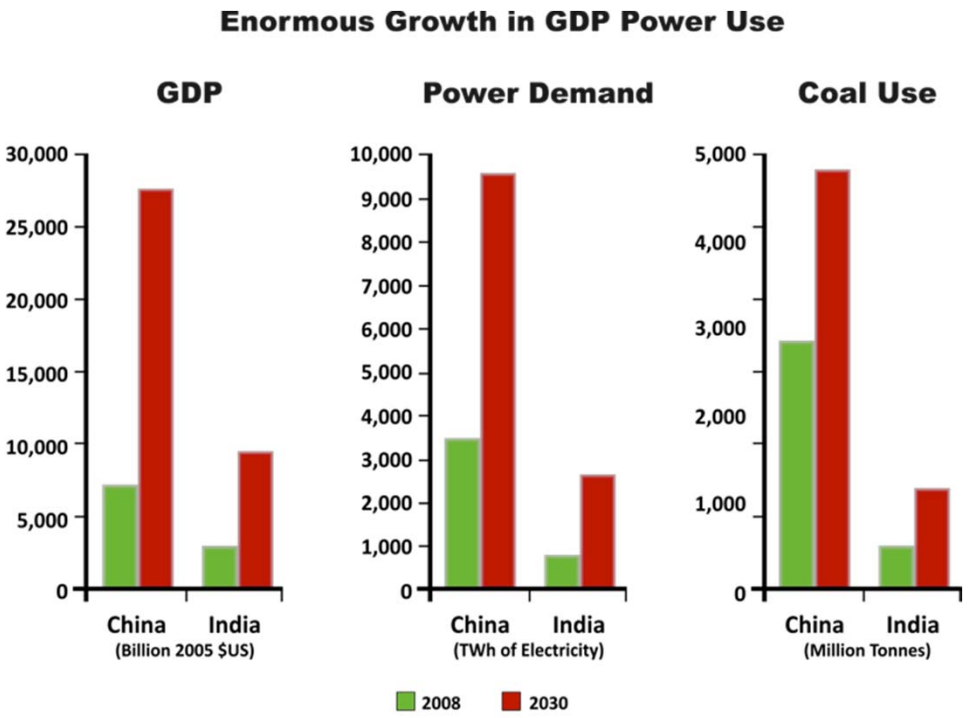
④ Project portfolio matched to markets

⑤ Infrastructure in place

⑥ Water resources secured

Markets for AFR's Botswana coal

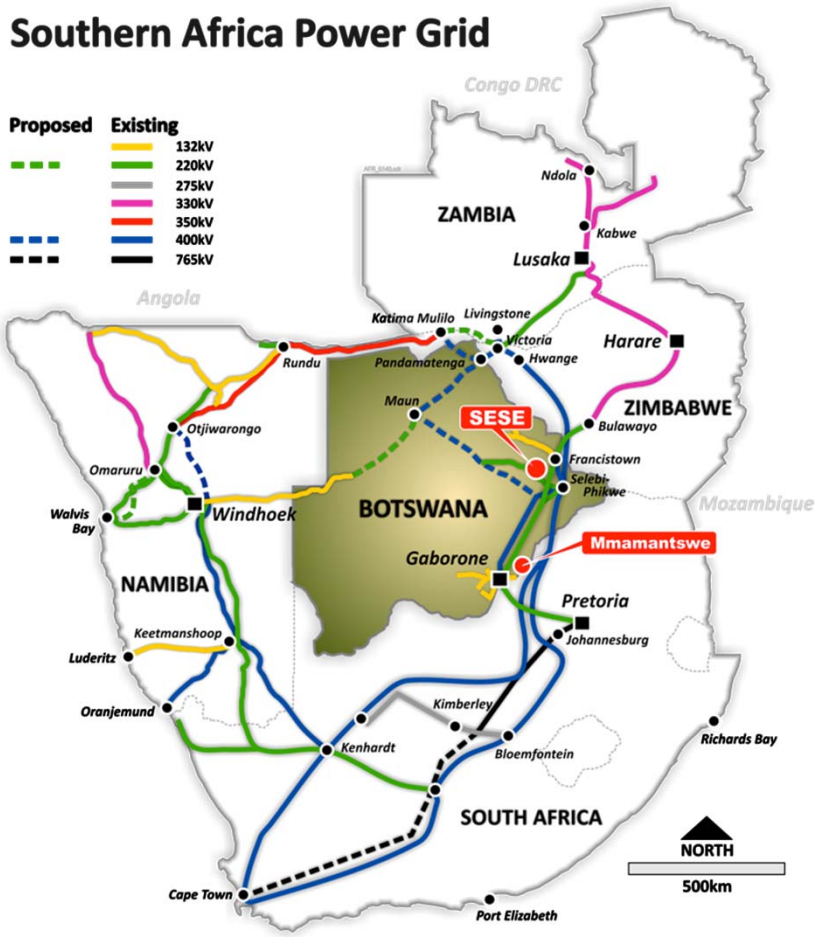
1. Domestic power generation
   - AFR in a very strong position due to location and low generation cost
   - 300MW "greenfield" tender underway
2. Power generation for export
   - Growing unsatisfied regional demand in South Africa and to a lesser extent in Zambia and Namibia
3. Regional coal exports
   - To meet expected shortfalls in domestic coal availability for power generation in South Africa
4. Seaborne global coal market to Asia
   - Export via existing rail and port networks to Asian markets



Source: U.S. Energy Information Administration, International Energy Outlook 2010 (GDP; power demand, coal use).

Business Plan 1: Power Generation

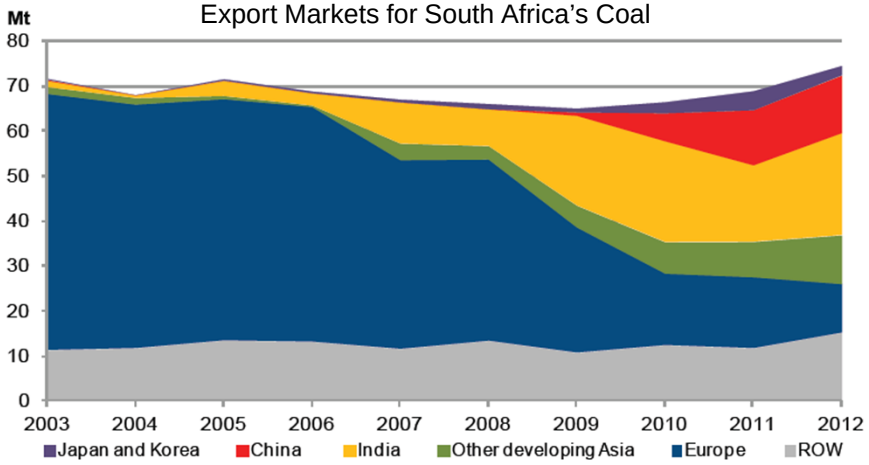
1. Sese coal can support multiple 300MW projects for regional power
   - Very low strip ratio and raw coal quality suited to low-cost power generation
   - Close to existing transmission grid and planned grid extensions
   - Matched to power markets in Botswana and neighboring countries
   - Joint Development Agreement with ACWA Power International
2. Mmamantswe project to focus on South African power market
   - Project is less than 20km from South African, the largest regional power market
   - Economies of scale for >1,000MW power project



Business Plan 2: Coal Exports

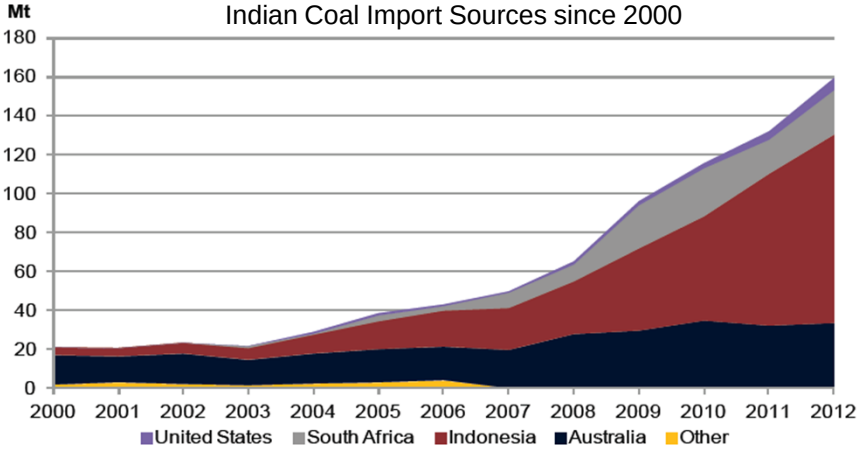
1. Mmamabula West project acquired for its export potential
   - Coal suitable for single stage washing to export grade
2. Rail/port infrastructure in place
   - Multiple routes and ports
   - Capacity is available and can be expanded for both rail and ports
3. Global thermal coal demand supported by huge power growth in China and India
   - India now the second largest importer of thermal coal (behind China)
   - Increasing market share for southern African coal with potential to displace some Indonesian supply

Export Markets for South Africa's Coal



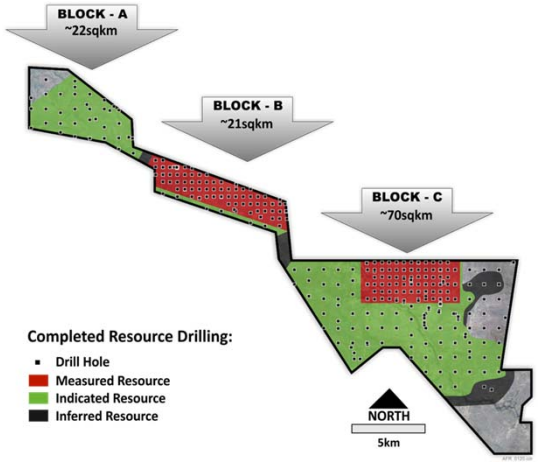
Sources: McCloskey (2013), *McCloskey Coal Reports 2010-2013*, McCloskey's, London, http://cr.mccloskeycoal.com; IEA analysis.

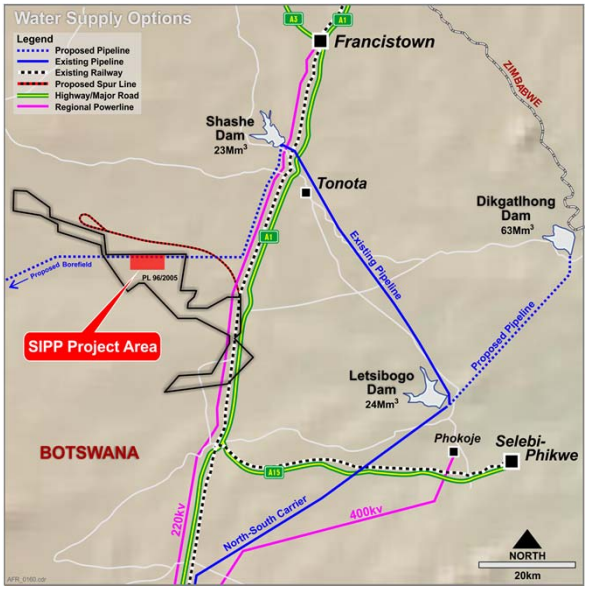
Indian Coal Import Sources since 2000



Sources: McCloskey (2013), *McCloskey Coal Reports 2010-2013*, McCloskey's, London, http://cr.mccloskeycoal.com; IEA analysis.

Sese: Coal & Power Project

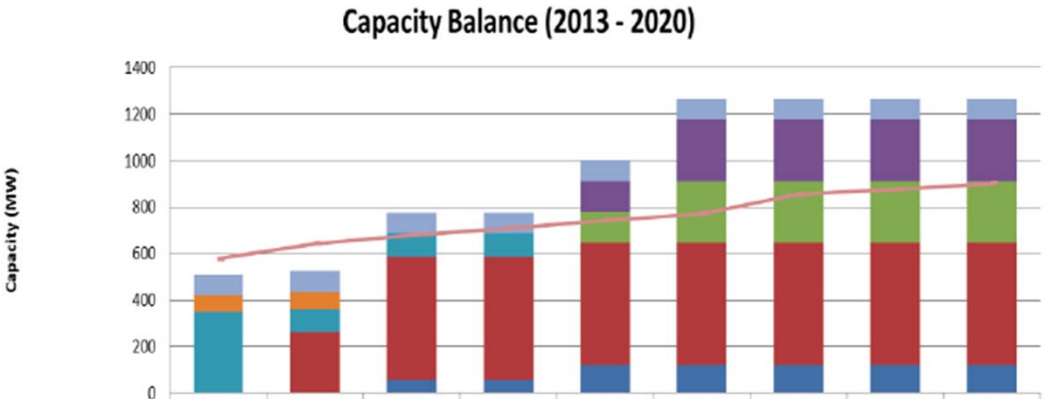




- Well characterised resource (2.5Bt) from 435 drill holes
- **Sese Integrated Power Project (SIPP)** comprises one or more 300MW CFB power stations plus 1.5Mtpa 'captive' coal mines
- Low-cost fuel supply due to low strip ratio mining and minimal processing requirements
- Local source of low-cost limestone <10km from SIPP (sorbent used to reduce SO_2 emissions)
- Water allocation from nearby Shashe Dam approved, negotiating abstraction licence, multiple back-up sources
- Close to existing high-voltage transmission lines
- ESIA draft report to be submitted by mid-February

Sese: Power Consortium Tender Bid

- Botswana 300MW greenfield IPP tender process underway
- AFR and ACWA Power International have formed a bid consortium and executed a Joint Development Agreement covering this and future projects
- Expression of Interest (EOI) was submitted on 2nd October 2013
- Ministry of Minerals, Energy and Water Resources has received approval to request a bid from the Sese consortium

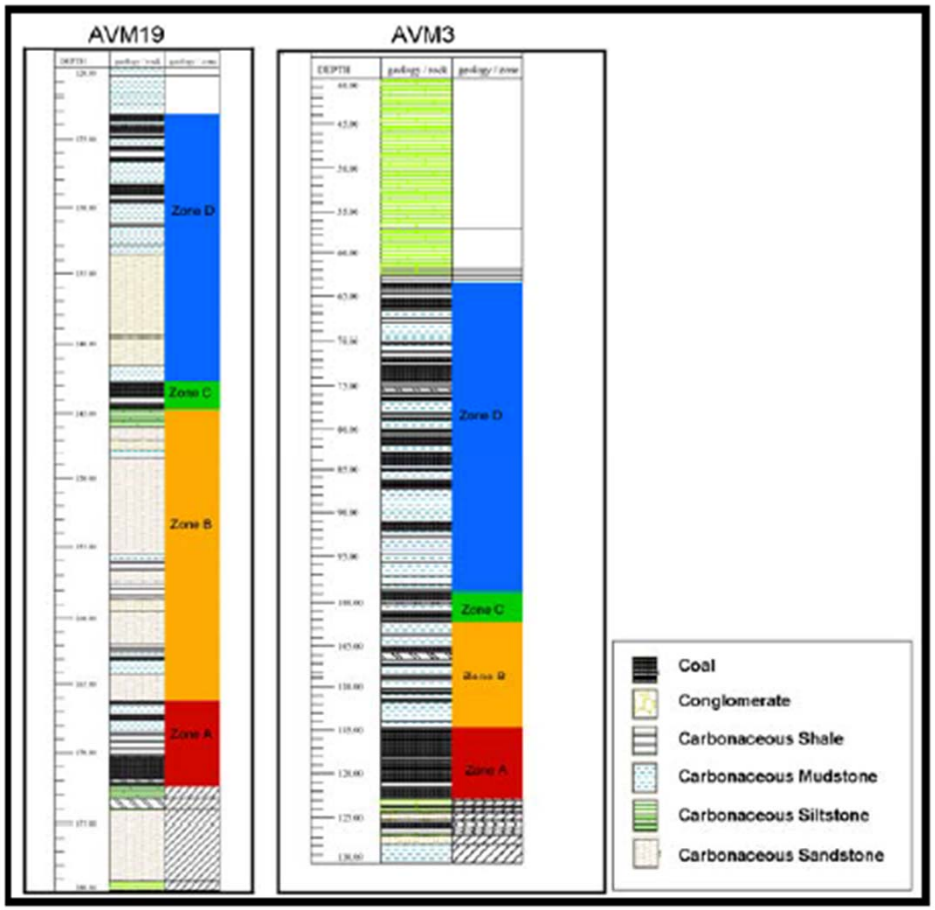


	2012	2013	2014	2015	2016	2017	2018	2019	2020
Orapa 90MW	90	90	90	90	90	90	90	90	90
APR Rental Plant	70	70	0	0	0	0	0	0	0
Eskom (Imports)	350	100	100	100	0	0	0	0	0
IPP Green Field	0	0	0	0	132	264	264	264	264
Morupule B (5 & 6)	0	0	0	0	132	264	264	264	264
Morupule B	0	264	528	528	528	528	528	528	528
Morupule A	0	0	60	60	120	120	120	120	120
Peak Demand	580	644	681	711	744	773	854	877	902
Total Supply	**510**	**524**	**778**	**778**	**1002**	**1266**	**1266**	**1266**	**1266**
Peak Demand	**580**	**644**	**681**	**711**	**744**	**773**	**854**	**877**	**902**
Capacity Balance	**-70**	**-120**	**97**	**67**	**258**	**493**	**412**	**389**	**364**

Source: Request for Expression of Interest (EOI) from potential Independent Power Producers for the development of a 300MW coal fired power station (greenfield) in Botswana. Ministry of Minerals Energy and Water Resources July 2013

Mmamantswe: Coal & Power Project

- Well characterised coal occurs in four zones, similar to Waterburg stratigraphy, and is <20km from South African border
- Extensive studies between Dec 2007 and Jan 2011 on coal quality, coal processing options, coal mining and power generation
- SRK Scoping Study released in 2010 for a 10Mtpa ROM operation producing up to 4.6Mtpa product at US$9.10/t ROM cash cost
- 8Glpa borefield (near town of Artesia) has been drilled, fitted, pump tested and registered
- ESIA for 10Mtpa ROM and 1,000MW power station has been approved

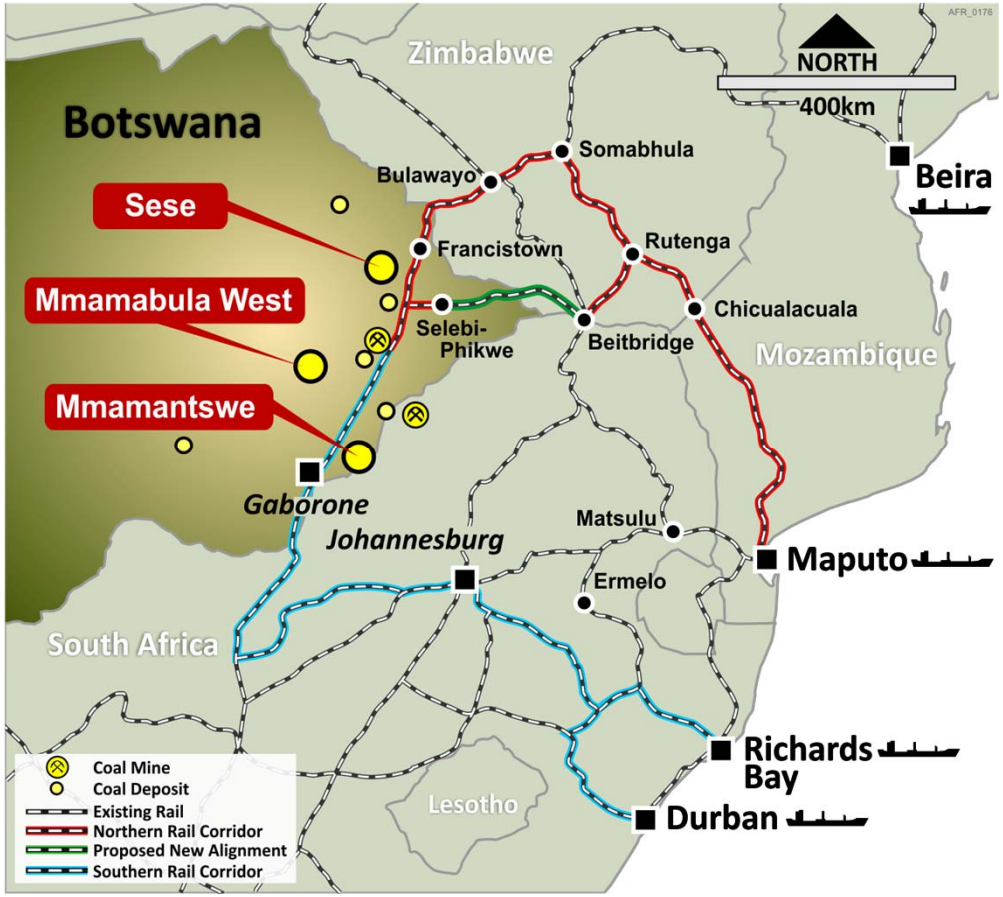


Mmamantswe: Power Market

- South Africa's updated Integrated Resource Plan (2013) stipulates a requirement for ~20,000 MW of new generational capacity by 2030
- Whilst there will be a focus on renewables, new coal-fired generation is likely to play a major role for the next 10 years (nuclear option has been deferred)
- Mmamantswe project ideally located for this market due to proximity to border and key transmission links
- Discussions with potential project partners underway

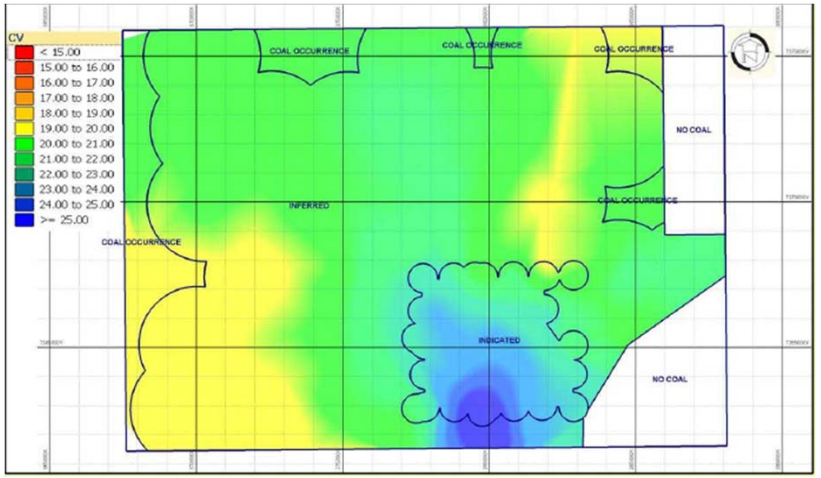
Mmamabula West: Export Logistics

- Export infrastructure study completed by AFR in 2013
  - Maputo is the best short and medium term port option up to 20Mtpa, with expansion potential to >100Mtpa
  - Existing rail has potential to transport up to 20Mtpa
  - Successful 1,600t trial export train to Maputo in Nov 2012 – proof of concept
  - Alternative routes through South Africa offer additional capacity (up to 10Mtpa) and keep market competitive
- Coal quality important at start-up
  - Until rail volumes >20Mtpa, rail tariffs will dictate that higher coal qualities are needed for commercial viability
  - Mmamabula West acquired for this reason
  - Higher volume, lower quality coal exports possible once rail tariffs reduce

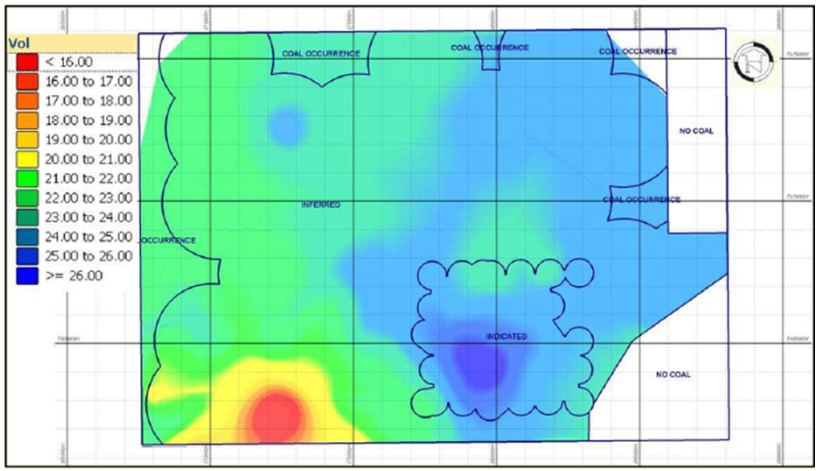


Mmamabula West : Coal for Export

- Mmamabula West (2.4Bt) acquired for USD $2.5M
- Single stage washing can produce a high yield export product from two seams:
  - K-Seam averages 5.5m thick, 105m depth
  - A-Seam averages 4.5m thick, 130m depth
  - >25km^2 “preferred mining area” within indicated resource has higher raw CV and higher yields than rest of deposit
- 60km west of existing power, rail and AFR’s Artesia water borefield
- ESIA and feasibility study for a 4Mtpa underground export coal mine (based on the preferred mining area) in progress



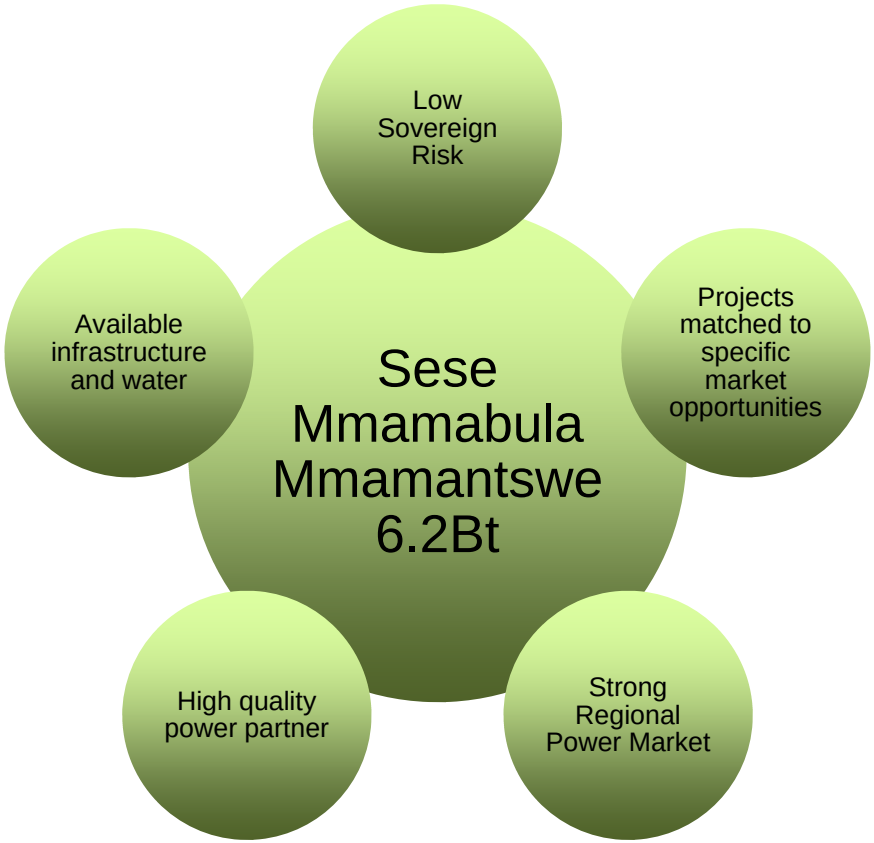
A-Seam RAW Coal CV (MJ/kg)



A-Seam RAW Coal Volatiles %

Summary

- Significant progress made in the last 12 months:
  - Portfolio consolidation at low-point in market
  - Acquisitions selected on the basis of their strength for specific market opportunities
  - High quality partner attracted to Sese Power
  - Potential partners seeking access to Mmamantswe Power
- Next 12 months:
  - Complete competitive tender process for Botswana 300MW greenfield power project
  - Continue to develop additional 300MW or larger power opportunities based on Sese coal
  - Finalise development partner for Mmamantswe and develop relationships into South Africa's energy sector
  - Complete feasibility study and ESIA for 4Mtpa export coal mine at Mmamabula West



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Global Coal Resource Summary

Sese Coal & Power Project: Resource Summary (Raw coal on an air-dried basis)								
Resource Zone	In-Situ Tonnes*	CV (MJ/kg)	CV (kcal/kg)	Ash %	IM%	VM%	FC%	S %
MEASURED (Block-C)	333 Mt	17.6	4,200	30.2	7.9	20.6	41.4	2.1
MEASURED (Block-B)	318 Mt	16.0	3,820	34.8	7.4	20.4	37.4	1.7
INDICATED	1,714 Mt	15.3	3,650	38.9	6.6	18.7	35.8	2.0
INFERRED	152 Mt	15.0	3,600	39.1	6.4	19.5	34.9	2.2
TOTAL	**2,517 Mt**							
Mmamabula West Project: Resource Summary (Raw coal on an air-dried basis)								
Resource Zone	In-Situ Tonnes*	CV (MJ/kg)	CV (kcal/kg)	Ash %	IM%	VM%	FC%	S %
MEASURED	N/A							
INDICATED	892 Mt	20.2	4,825	25.5	6.0	26.0	41.0	1.5
INFERRED	1,541 Mt	20.0	4,775	25.5	5.7	25.9	41.2	1.7
TOTAL	**2,433 Mt**							
Mmamantswe Project: Resource Summary (Raw coal on an air-dried basis)								
Resource Zone	In-Situ Tonnes*	CV (MJ/kg)	CV (kcal/kg)	Ash %	IM%	VM%	FC%	S %
MEASURED	978 Mt	9.5	2,270	56.5	3.9	15.8	21.8	2.0
INDICATED	265 Mt	7.9	1,890	62.3	3.3	14.2	18.1	2.1
INFERRED	N/A							
TOTAL	**1,243 Mt**							
GRAND TOTAL	**6,193 Mt**							

*In-Situ tonnes have been derived by removing volumes for modelled intrusions, burnt coal and weathered coal and then applying geological loss factors to the remaining Gross In-Situ Tonnes