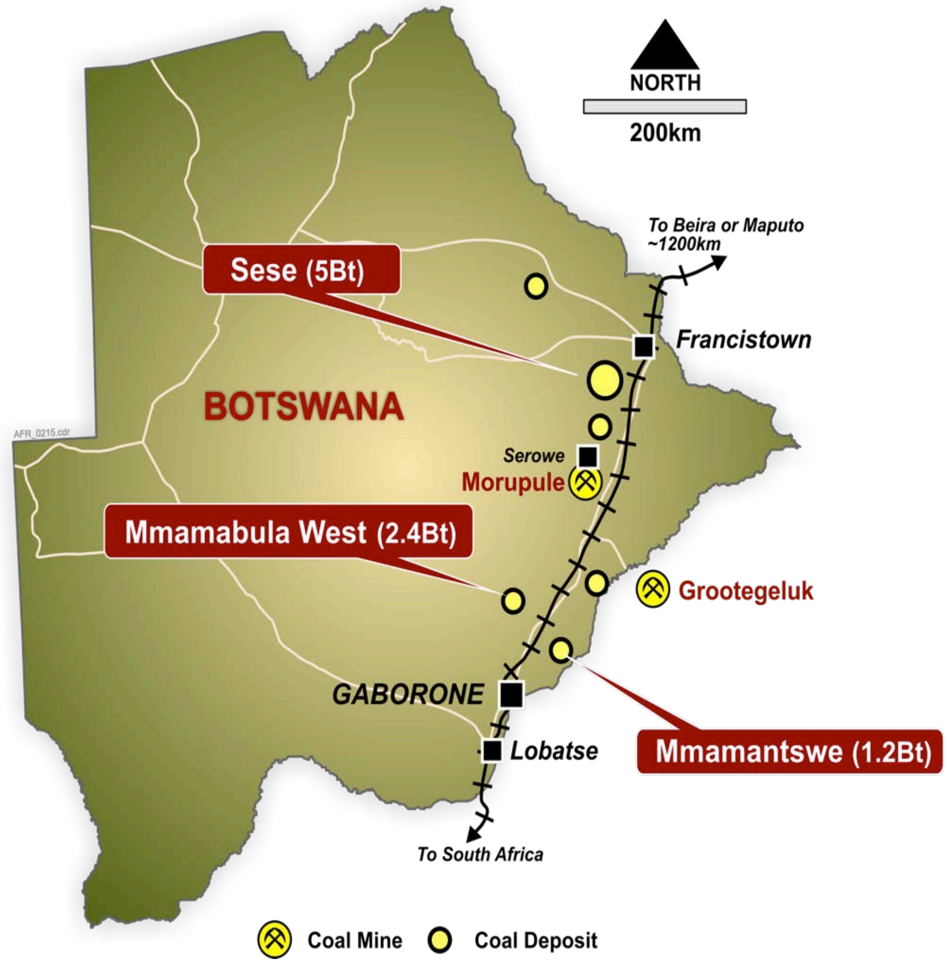
AfricanEnergy

# Developing Power Generation Projects in Southern Africa

July 2015

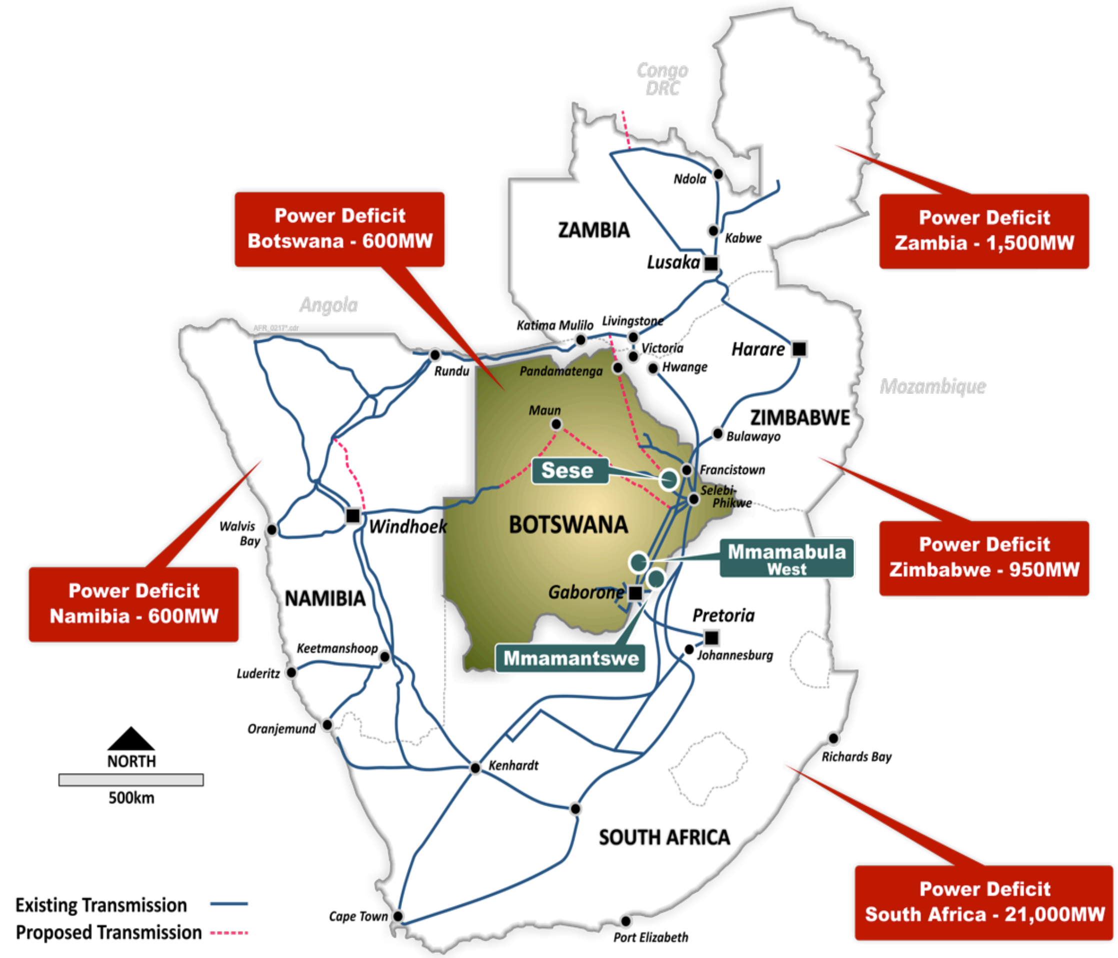
# Summary

- AFR is participating in the development of three large-scale power projects in Botswana
- These are close to the existing transmission grid and centrally located within SADC
  - Sese JV (AFR 49%): First Quantum Minerals are evaluating the potential for development of a fully integrated mine and power station
  - Mmamantswe (AFR 100%): binding term sheet agreed to sell project for US $20M subject to a tender bid being shortlisted
  - Mmamabula West (AFR 100%): seeking to create further value via development of integrated mine-mouth power station(s) +/- export coal mines



# Regional Power Hub

- African Energy has substantial coal resources in Botswana
- Positioning the business to focus on regional power demand:
  - **Surrounded by robust demand for power**: every country in SADC is chronically short of reliable, affordable base-load power
  - **Regional hub**: AFR's projects are centrally located within the SAPP transmission grid
  - **Easy access to core infrastructure**: AFR's projects within close proximity to grid connection
  - **Stable business environment**: Botswana provides the most secure/stable fiscal and political setting in southern Africa



# Power Generation – The Economic Case

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## 1. Robust market demand for affordable base-load power

- Cost of new baseload generation >>$0.10 per kWh across the region
- Utilities paying short term prices >$0.15 per kWh for imported power
- Most utilities still reliant to some extent on diesel/HFO at >$0.30 per kWh

## 2. Access to secure fuel source and low financing costs

- Ownership of fuel source reduces exposure to price risk
- Access to low cost coal via resource ownership minimises fuel costs
- Access to low cost finance allows competitive tariff offer whilst maintaining healthy equity returns

## 3. Competitive advantage for low-cost power producers

- Lowest fuel + finance costs a big advantage in securing long term power purchase agreements
- Few new base load projects able to offer competitive pricing at or below retail tariffs
- Opportunity for energy trading of surpluses if project finance structure allows

# AFR's Power Generation Portfolio

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Project strengthened via partnership with First Quantum Minerals

Sese JV fully funded to project decision point

JV partner brings balance sheet strength, project management experience and engineering skills

**SESE JV**

Short-term potential return from Mmamantswe

Under a binding term sheet, Mmamantswe project will be fully funded to bid for RSA IPP tender

Successful shortlisting will provide a strong cash return to AFR

**MMAMANTSWE**

Future project pipeline

A number of development options at Mmamabula West

Includes multiple power generation opportunities and regional/global export options

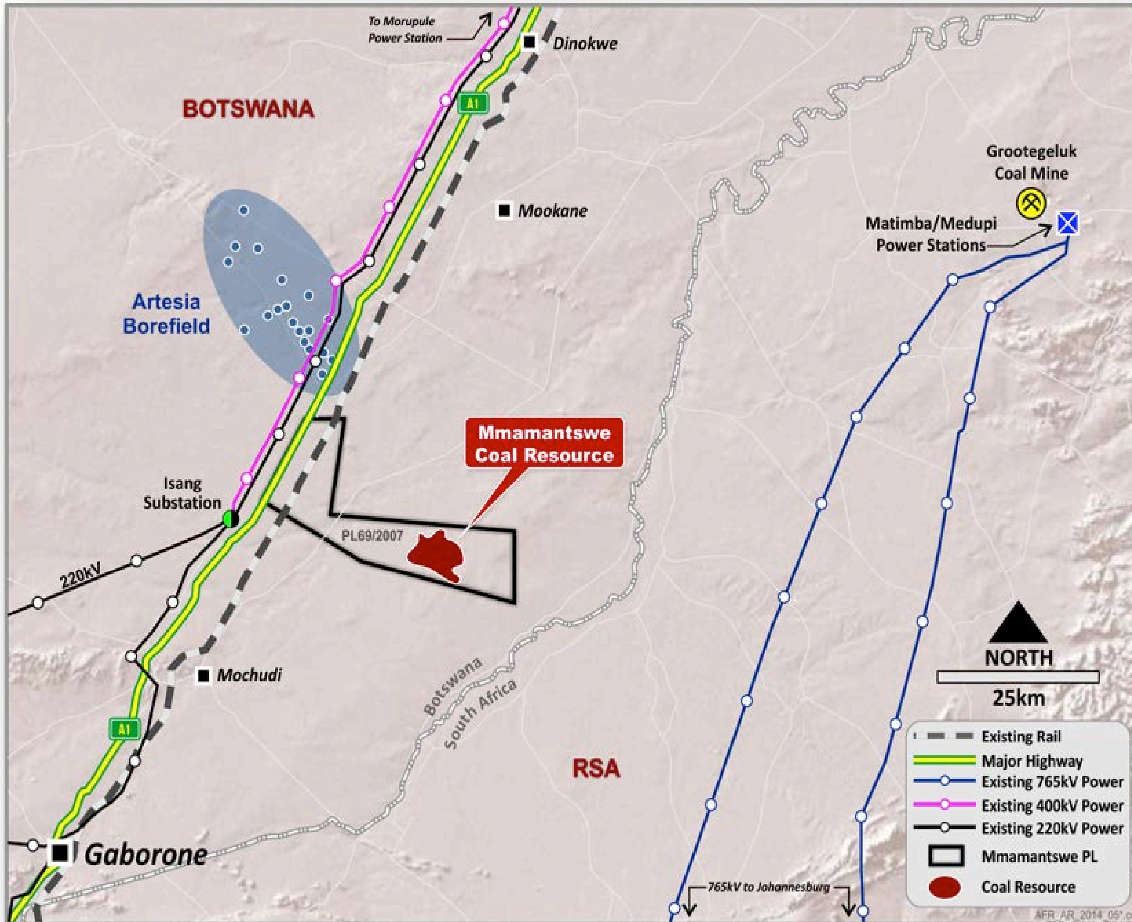
**MMAMABULA WEST**

# The Sese JV– Key Terms

- First Quantum Minerals Limited (FQM) have invested AUD $8M in Sese to take a 51% project interest and are now the manager
- FQM increasing their interest to 75% by sole funding the next AUD $12M in the joint venture
- This funding is being used to evaluate the development of a fully integrated mine and mine-mouth power station
- FQM are responsible for sourcing all additional funding beyond the initial $20M investment, which would include that necessary to build an integrated power project (if approved)
- AFR's 25% share of this additional funding will be loaned to it by FQM, carried to commercial production, and is to be repaid from dividends

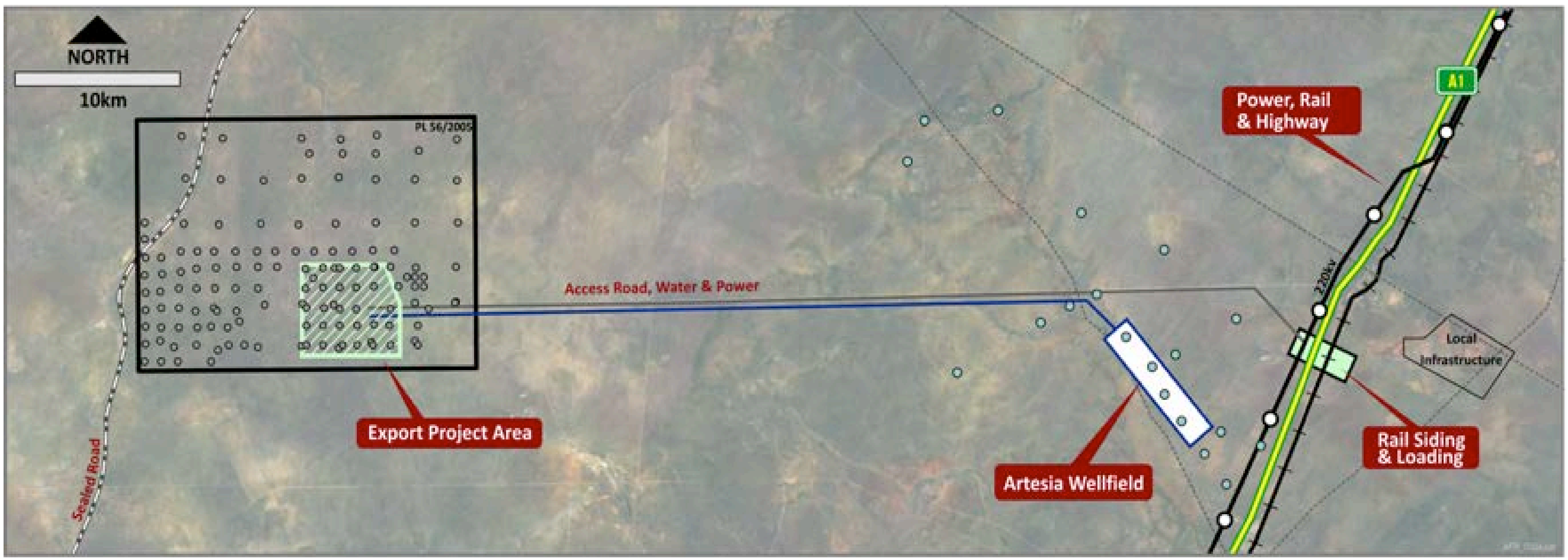
# Mmamantswe – Sale Opportunity

- South Africa's Dept. of Energy seeking 600MW of cross-border, coal-fired baseload IPP via public tender
- Binding term sheet recently executed to sell the project to an experienced SA project developer who intends to submit a bid:
  - Qualifying criteria and the RFP documentation to be released later this year
  - Developer will form a bid consortium and will sole bid preparation and submission
  - AFR will be paid USD $10M if bid is shortlisted, at which point project ownership will be transferred to the developer
  - AFR paid a further USD $10M at financial close



# Mmamabula West : Project Overview

- 2.47 billion tonnes in two main ~5m thick, 100-150m deep coal seams
- Seam geometry and coal quality provides multiple options for **power generation and/or export** of coal
- Prefeasibility study (March 2014) evaluated a 220Mt portion of A-Seam for a conventional underground mine and modular wash plant, capable of producing export quality coal and/or power station fuel
- AFR sole funding the permitting activities, currently discussing subsequent phases with potential development partners



# Mmamabula West : Development Pathway

| | Phase 1: Project permitting | Phase 2: Development of fully integrated power project | Phase 3: Construction of road, mine and power station | Phase 4: Operation of Integrated power project |
|---|---|---|---|---|
| ***Key activities*** | • Amend EIA to include power<br>• Surface Rights<br>• Water rights | • Infill drilling for reserve<br>• Mine and power study BFS<br>• Mining Licence application<br>• Generation Licence application<br>• Project financing close | • Access road + water pipeline<br>• Grid connection<br>• Mine + civils EPC contracts<br>• Power station EPC contracts | • Power station O&M<br>• Power station OEM support<br>• Power sales/marketing |
| ***Partnership opportunities*** | • AFR managed and sole funded | • Lead Developer (may be AFR)<br>• Co-developer(s)<br>• OEM contractor input<br>• O&M contractor input | • EPC contractor<br>• OEM contractor<br>• O&M contractor<br>• Infrastructure EPC<br>• Equity providers | • O&M contractor<br>• OEM contractor<br>• Mining contractor |
| ***Investment size for a 300MW project*** | **<$1M** | **$10-15M** | **$300M equity + $600M debt** | |
| ***Indicative Timeframe*** | **6-9 months** | **12-18 months** | **27-36 months** | **~35 year operation** |

# Summary - Project Pipeline

| | | |
|---|---|---|
| **Sese JV** | FQM evaluating an integrated mine and power project | FQM earning-in, AFR loan carried to production |
| **Mmamantswe** | Binding terms for a Share Sale Agreement in place | Potential $20M short term return, conditional upon SA IPP bid shortlisting |
| **Mmamabula** | Multiple power projects and longer term coal export potential | AFR sole funding permitting. Partners being sought for development phases |

# Corporate summary

| | |
|---|---|
| <u>ASX Code</u> | AFR |
| Shares on issue | 620 million |
| Market Cap (@ $0.07) | AUD $43M |
| Cash (31 May 2015) | AUD $8.2M |
| Debt | Nil |

| | |
|---|---|
| <u>Major Shareholders</u> | |
| The Sentient Group | 22% |
| First Quantum Minerals | 11% |
| Management | 10% |
| Top 20 | 62% |

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