

26 September 2011

Manager Announcements  
Company Announcements Office  
Australian Stock Exchange Limited  
10th Floor, 20 Bond Street  
SYDNEY NSW 2000

*Via electronic lodgement*

Dear Sir/Madam,

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**INVESTOR PRESENTATION – SEPTEMBER 2011**

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Please find attached the latest Investor Update for African Energy Resources Limited.

It is being presented on a marketing roadshow to Australian and Asian retail and institutional investors over the coming weeks.

For any further information, please refer to the Company's website or contact the Company directly on +61 8 6465 5500.

*For and on behalf of the board*

**African Energy  
Resources Limited**

ASX : AFR

Issued Capital  
326,376,735

**Directors:**

**Alasdair Cooke**  
Executive Chairman

**Frazer Tabear**  
Managing Director

**Bill Fry**  
Executive Director

**Mike Curnow**  
Non-Executive Director

**Valentine Chitalu**  
Non-Executive Director

**Phil Clark**  
Non-Executive Director

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# Developing mining options at the Sese coal project in Botswana



**Results from the Concept Study, September 2011**

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*Information in this report relating to Exploration results, Mineral Resources or Ore Reserves is based on information compiled by Dr Frazer Tabeart (an employee of African Energy Resources Limited) who is a member of The Australian Institute of Geoscientists. Dr Tabeart has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person under the 2004 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Tabeart consents to the inclusion of the data in the form and context in which it appears.*

# Executive Summary



## Company:

- ASX listed in 2007 (ASX:AFR)
- Board & Management with extensive African experience
- Track record of taking many projects through to mining
- Execution team with extensive coal experience

## Sese Project:

- Positive concept study supports further project evaluation
- Very large thermal coal deposit – JORC Resource 2.7 Bt
- Amenable to open cut mining with very low ROM costs
- Potential to produce large tonnages of domestic coal
- Potential to wash to export quality

## Development Plan:

- Commenced Bankable Feasibility Study in Q3 2011
- Bulk sample: 10,000t coal for marketing and test-work
- Stage 1 - 1Mtpa Stage 1 production mid-2013
- Stage 2 - ramp-up to 5Mtpa Stage 2 over 1-2 years
- Stages 3 & 4 – ultimately 20-30Mtpa via export market



# Capital structure and corporate overview



## Capital Structure

Shares on Issue	326M
Options	26.7M
Price range (52 weeks)	A\$0.13-A\$1.04
Market Cap	A\$130M
Cash	A\$15.5M
Debt	A\$4.9M
Enterprise Value	A\$120M

## Major Shareholders

Management	9.8%
Mr Stacey Radford	4.8%
Independent Asset Mgmt	4.0%
David Metford	3.8%
Geiger Counter Ltd	3.1%
Republic	1.2%
Mathews Capital	0.4%
Top 20	48.1%

## Board and Management

### Executive Directors

**ALASDAIR COOKE**, Executive Chairman  
*Geologist, founder of AFR, successful mine developer*

**FRAZER TABEART**, Managing Director  
*Geologist, 25 years global exploration experience*

**BILL FRY**, Executive Director  
*Accountant, funds management and project development*

### Non-executive Directors

**BLACKIE MAROLE**, Non-exec Chairman, Botswana  
*Economist, senior Board roles (Debswana) and Govt. roles*

**VALENTINE CHITALU**, Non-executive Director  
*Accountant, investment and development management*

**MICHAEL CURNOW**, Non-executive Director  
*Mining project development in Africa*

**PHIL CLARK**, Non-executive Director  
*Engineer, 33 years experience in global coal with BHPB*

### Senior Management

**DAVID SCOTT**, General Manager Projects  
*Engineer, coal mine development roles in Botswana*

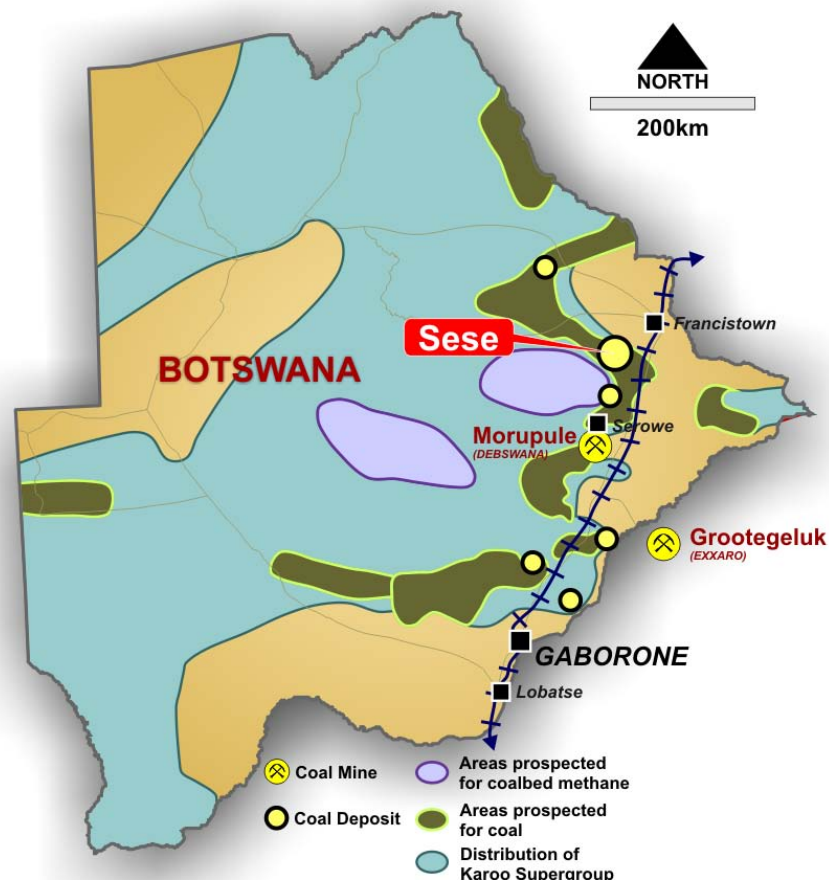


# Sese project location



## Botswana – an emerging global coal province

- Stable, safe and secure jurisdiction
  - *Widely perceived as an excellent investment destination by mining companies (and their bankers)*
- Good infrastructure along eastern corridor
  - *Existing road, rail and 220kV power line*
  - *Coal project is 25km west of this corridor*
- Government currently developing national coal “roadmap”
- Recent paradigm shift in global seaborne thermal coal market
  - *Asian demand is focussed on lower grade thermal coal (sub 5,500kcal)*
  - *Opportunity for Botswana to develop a globally competitive coal province/industry*



# Concept study summary



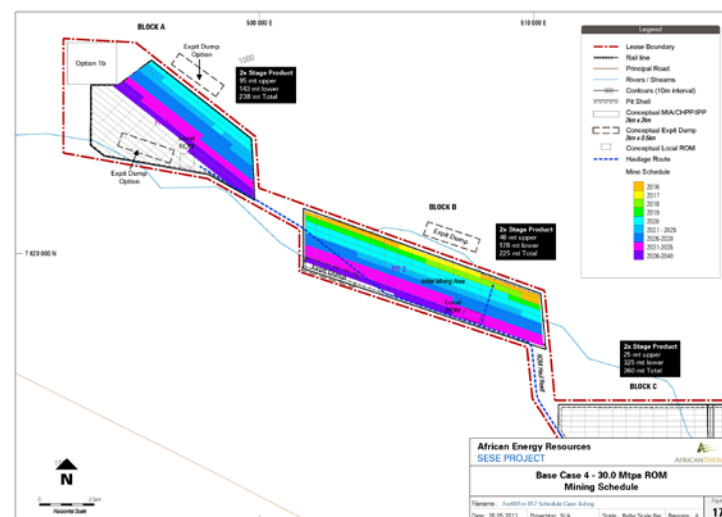
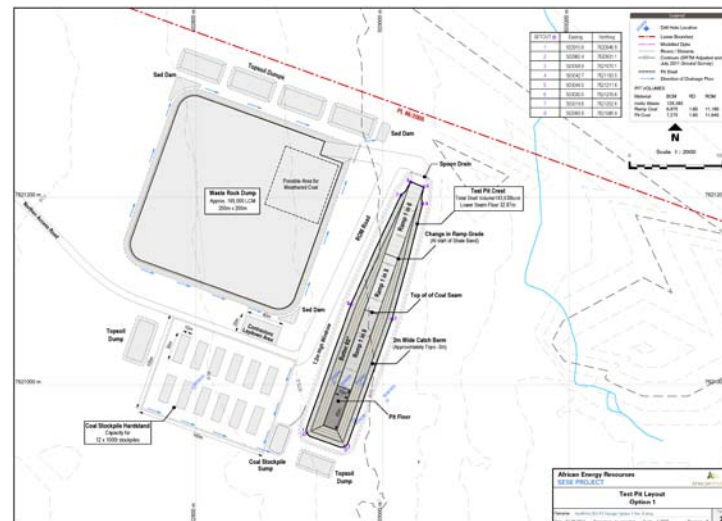
## Outcome

- Demonstrated project ability to generate positive cash flows under a variety of scenarios
- Staged development offers early cash flow and lowers execution risk
- Board approval for a formal BFS and EIA

## Concept study outline

***A preliminary technical and economic investigation to support the continuation or rejection of the project...***

- Internally managed, but utilising several external consultants:
  - *Geology and mineral resources (GEMECS, Coffey Mining)*
  - *Mining and mine scheduling (Minserve Pty Ltd)*
  - *Coal processing and handling (CPG Resources/QCC Ltd)*
  - *Marketing and price forecasts (Wood Mackenzie)*
  - *Coal chain logistics (Wood Mackenzie)*
  - *Power supply/demand for the region (Parsons Brinkerhoff)*
  - *Environmental issues relating to the project (Ecosurv)*
  - *Operating and capital costs estimates (Wood Mackenzie, plus in-house)*



# Markets for Sese coal



## Domestic markets

### *Growing regional markets...*

- Existing industrial customers in Botswana
- New customers entering market as new mines & businesses develop
- Replacement of diesel fired power at existing mines/industrial sites

## Regional markets

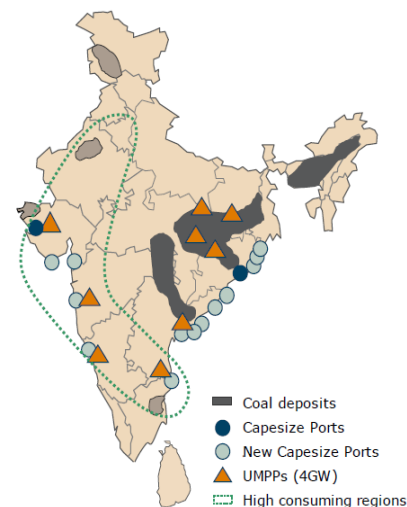
### *Southern African power crisis ...*

- Southern African Power Pool facing net regional electricity generating deficit – IPP potential
- Regional mine expansions underway – significant demand being created
- Growth in coal related products

## Export markets

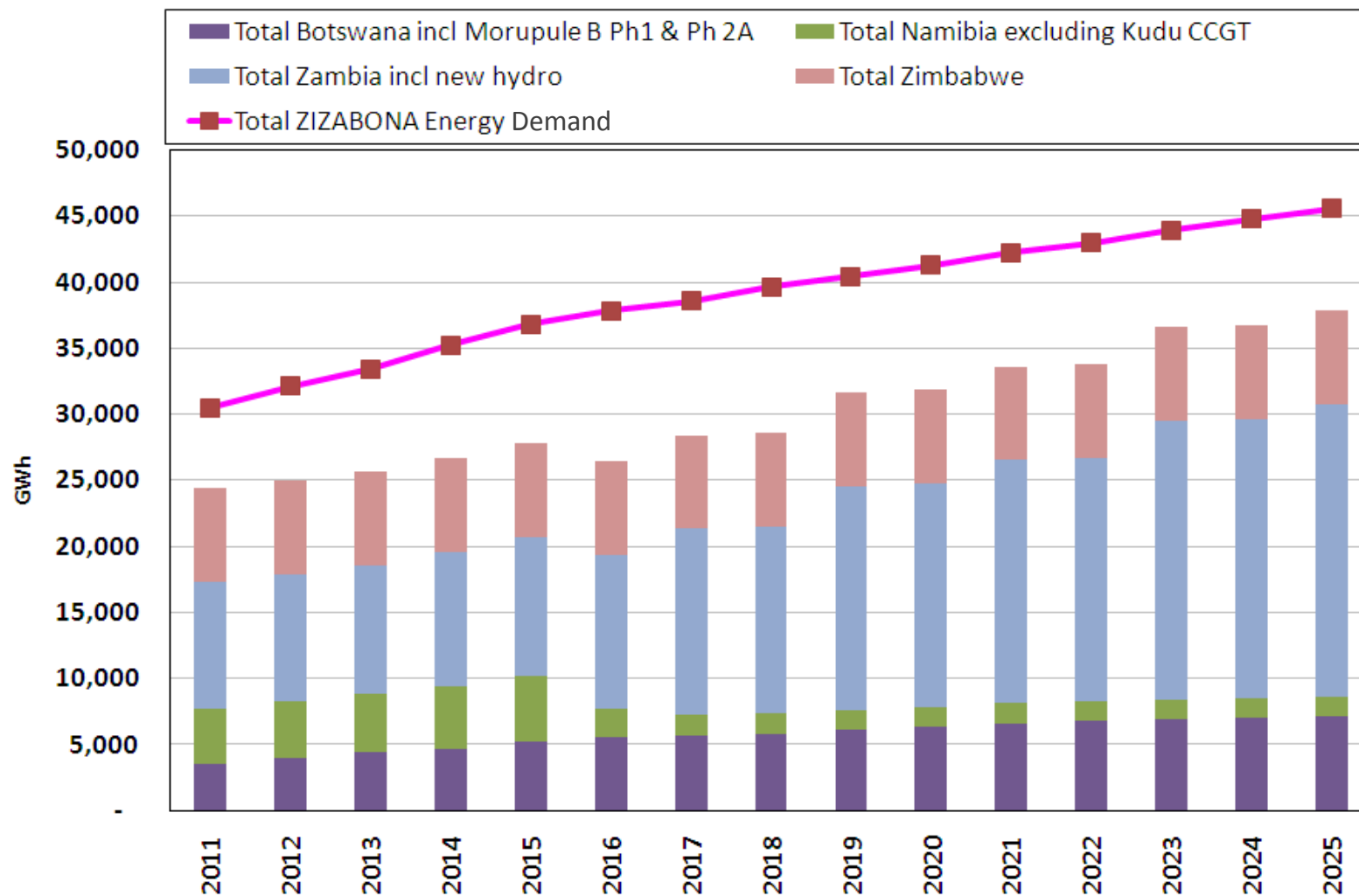
### *Rising Demand from India/China*

- India the likely market for Botswana's thermal coal – large current demand which cannot be met internally
- 39 GW under construction in India is equivalent to South Africa's entire installed capacity – and more construction is coming in India...





# Regional electricity market



Source: Parsons Brinckerhoff SA 2011

# Global export market for Sese coal



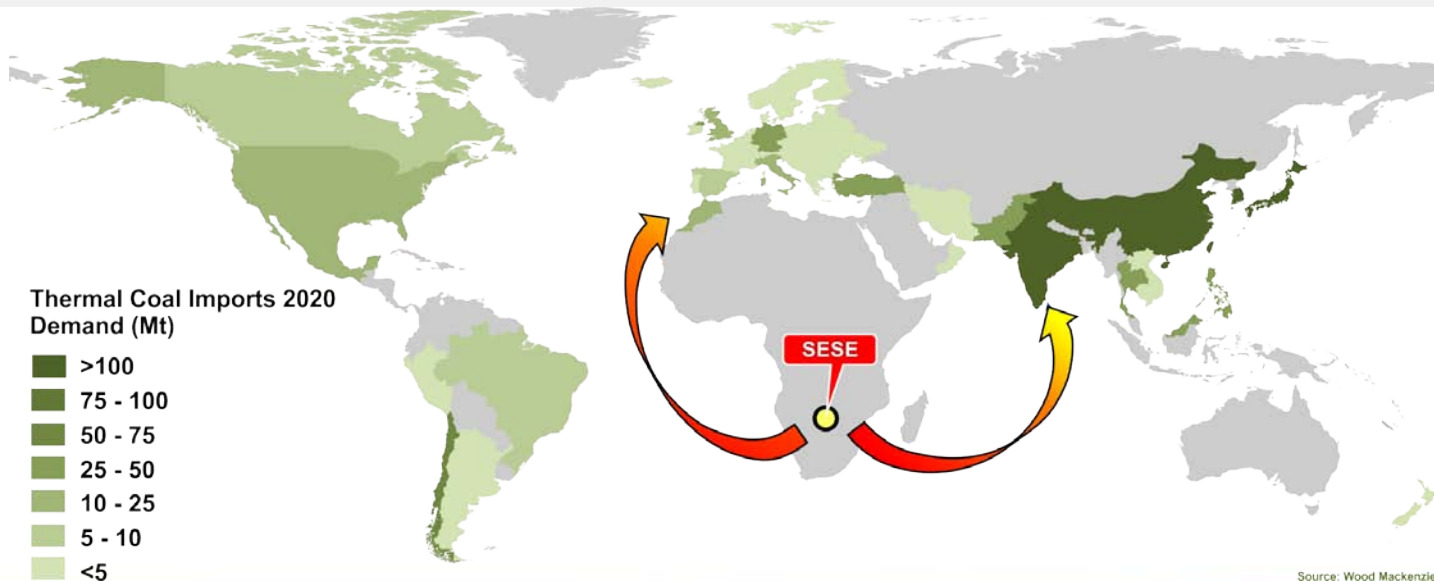
## Sese export markets

### *Rising Demand from India ...*

- India considered likely market for Sese thermal coal ( which is ideal for blending with 'wet' Indonesian coal)
- Demand set to increase from 50Mtpa in 2010 to 210Mtpa by 2025
- Indian demand predominantly for <5,500 kcal coal, largely driven by expansion of generating capacity

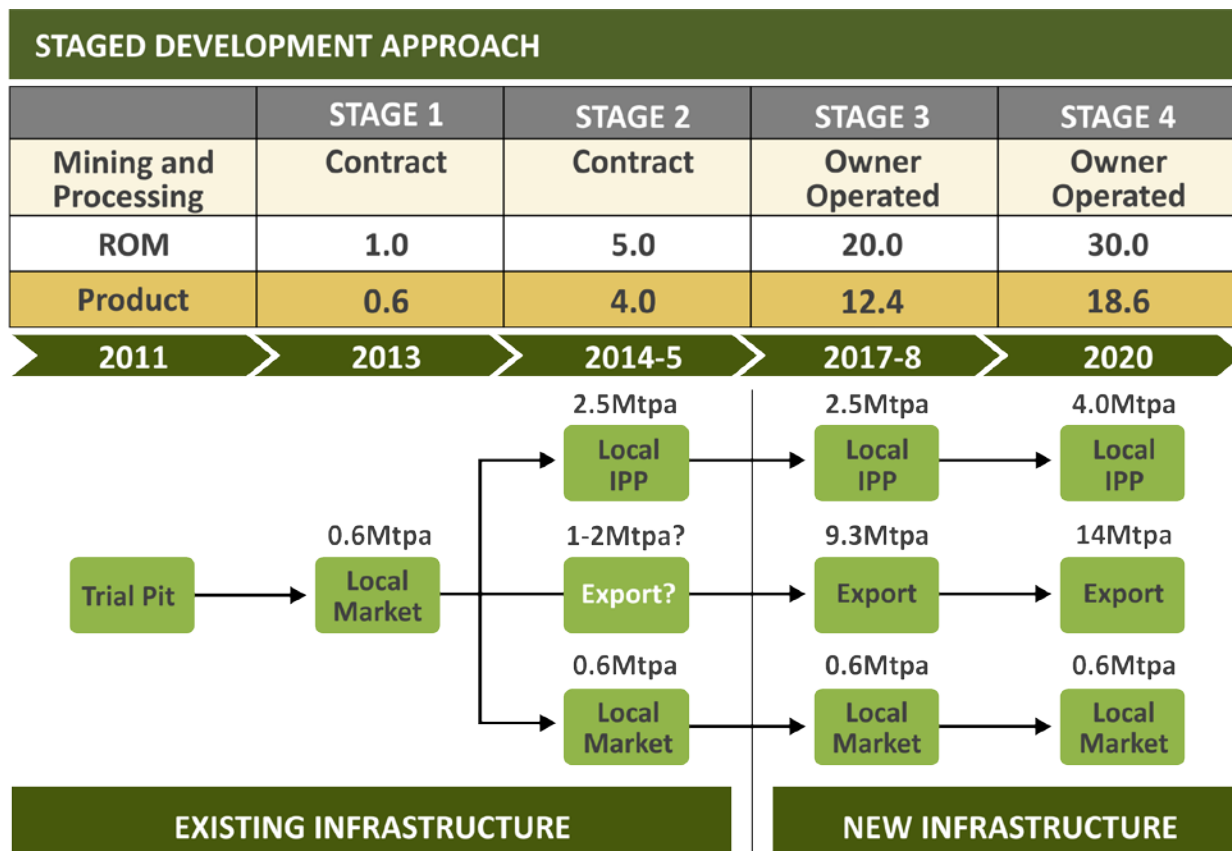
### *... and China*

- Imports of thermal coal expected to double to 213 Mt by 2025



Source: Wood Mackenzie

# Staged development plan



# Coal chain logistics

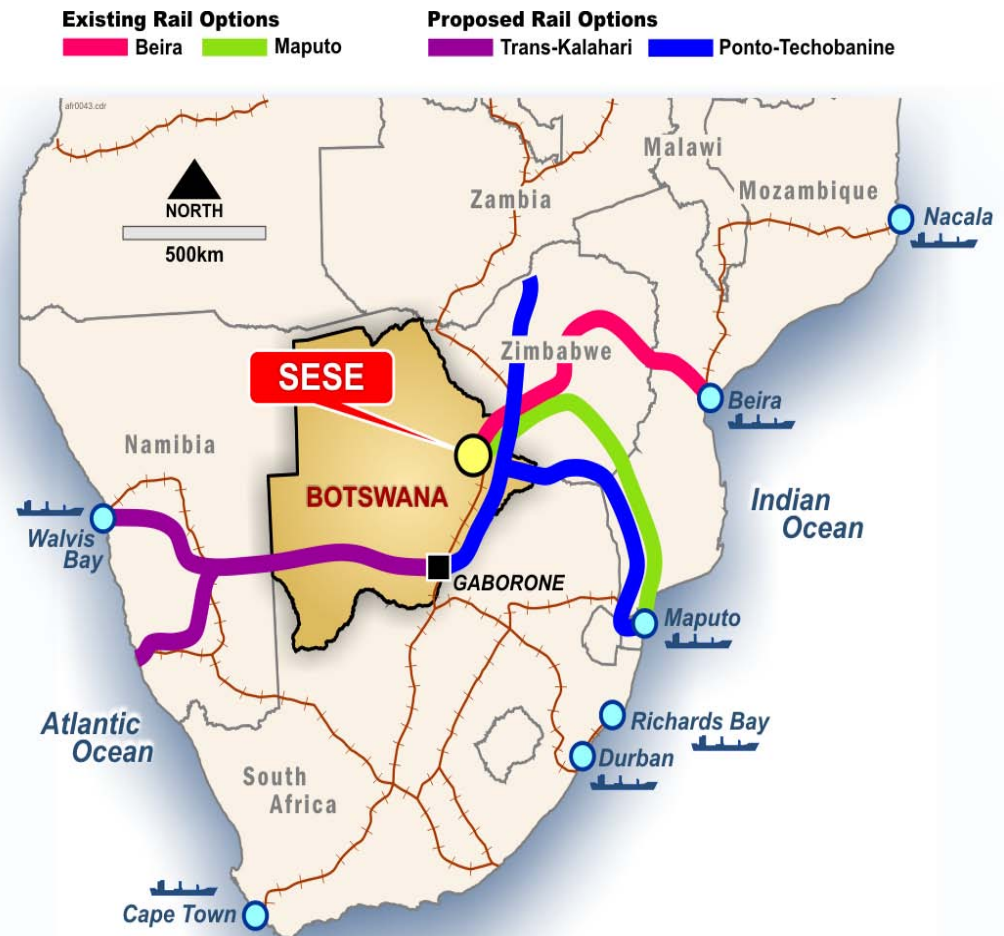


## Stage 1 and 2: existing infrastructure

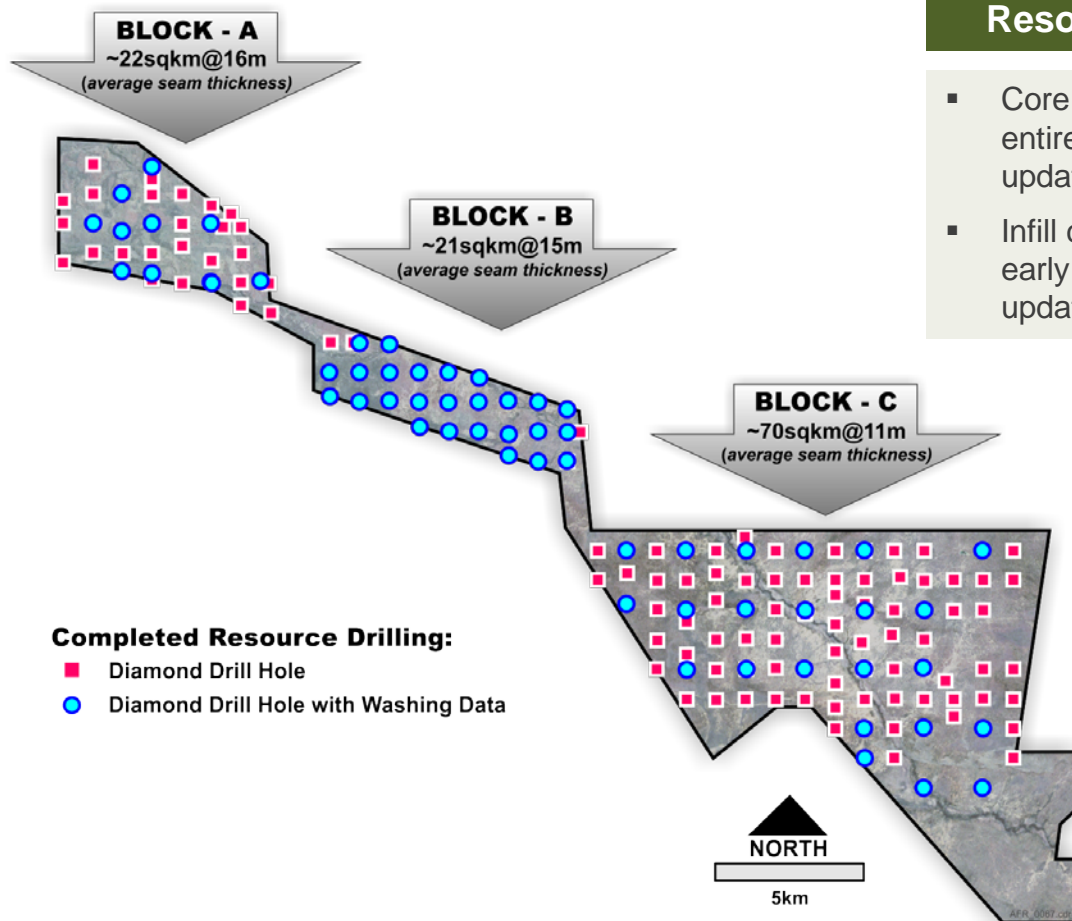
- Existing freight line 30km east of Sese
- Potential for 2-3Mtpa export via 13t axle loading – cost and reliability to be evaluated
- Trial “export” using coal from bulk sample pit
- Beira/Maputo port expansions underway

## Stage 3 and 4: proposed infrastructure

- Two consortia evaluating routes (Trans-Kalahari Railway and Ponto Techobanine)
- Both proposing 60Mtpa via 30t axle loading
- Currently at prefeasibility stage.
- Likely to be moving to feasibility in late-2011
- 3-4 year build time, operational by 2017/8?
- Very strong support from Botswana Govt.



# Resource delineation



## Resource upgrades

- Core drilling now complete at 1km grid over entire resource – **INDICATED RESOURCE** update expected in Q4 2011
- Infill core drilling to 500m grid commenced in early September – **MEASURED RESOURCE** update expected in Q2 2012

## SESE COAL RESOURCE, May 2011

SEAM	RESOURCE CATEGORY	IN-SITU TONNES
LOWER MAIN	Indicated	295 Mt
	Inferred	1,395 Mt
	<b>TOTAL</b>	<b>1,690 Mt</b>
UPPER MAIN	Indicated	205 Mt
	Inferred	835 Mt
	<b>TOTAL</b>	<b>1040 Mt</b>
	<b>TOTAL</b>	<b>2,730 Mt</b>



# Geology and coal quality

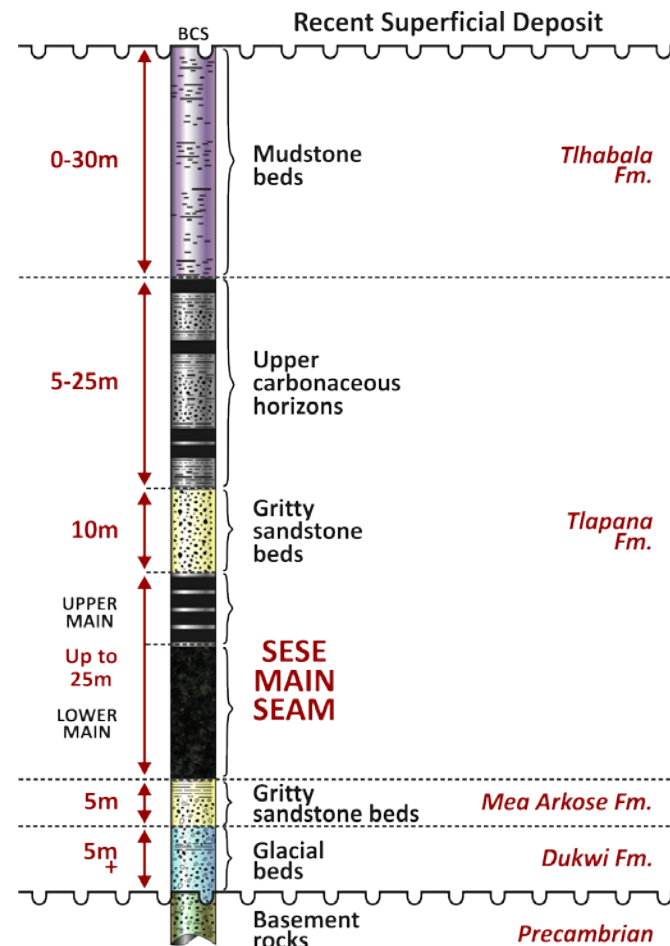


## Geological Interpretation

- Sese Coal forms a thick basal seam comprising:
  - *Upper Main Seam*
  - *Lower Main Seam*
- Lower Main Seam has superior coal quality
- Soft overburden amenable to low cost open-cut
- Thick seams amenable to low cost bulk mining

### Block-B coal, air-dried basis

	Full Seam Raw	Lower Seam Raw	Washed coal range
CV (MJ/kg)	16.8	19.1	20.3 to 22.7
CV (kcal/kg)	4,020	4,560	4,850 to 5,420
Ash %	32.6	25.9	13.8 to 20.8
IM %	8.2	8.9	8.0
VM %	19.7	20.4	24.3 to 26.2
FC %	39.4	44.7	46.9 to 52.0
TS %	1.7	1.9	0.23 to 0.31



# Low cost mining due to low S/R



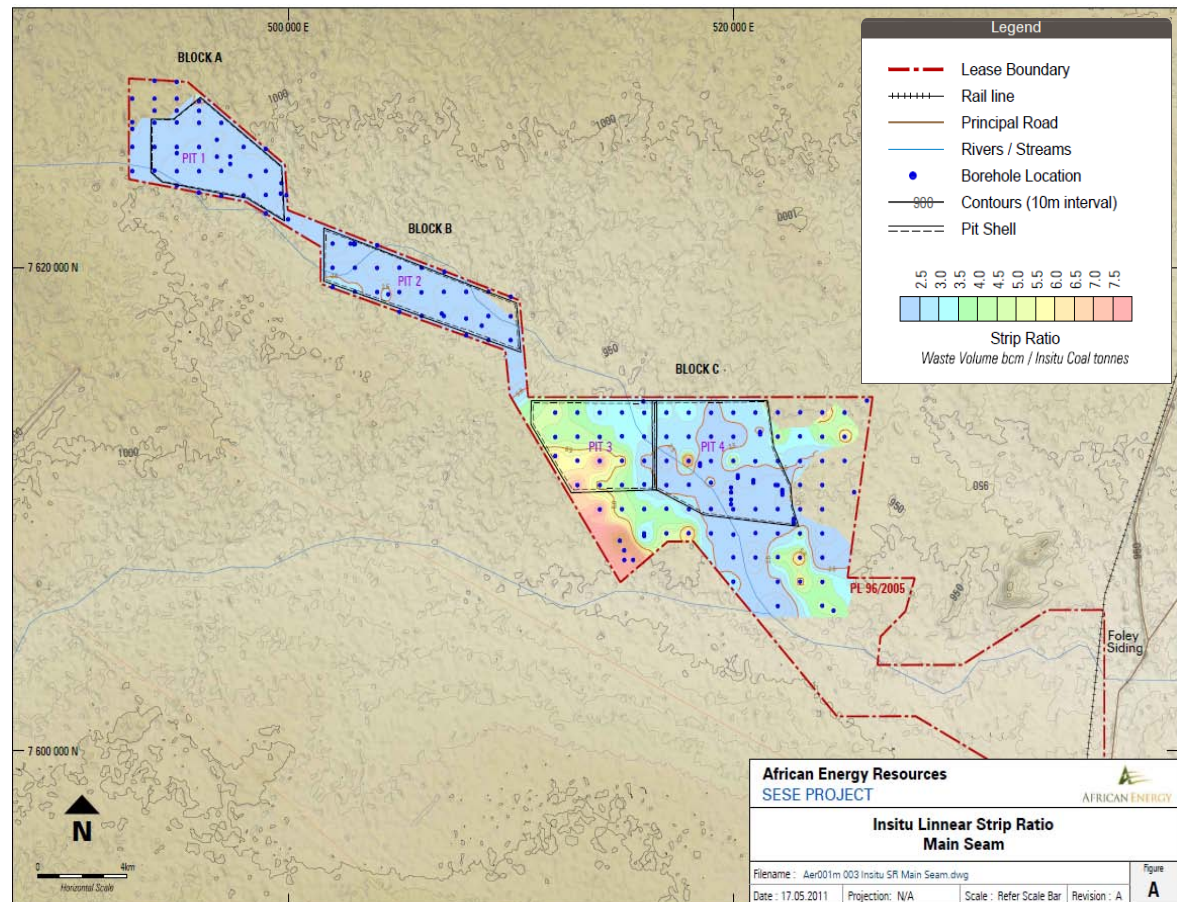
## Seam Delineation

- Thick consistent coal seam
  - Average total Main Seam thickness 14m (up to 26m)
- Gently dipping to the southwest ( $0.6^\circ$ ) – simple geometry and easy mining/scheduling
- Very shallow coal seam
  - Life of Mine strip ratio from 1.5:1 to 3:1
  - First 25 years mining possible at strip ratios averaging 1.6:1



**Low-cost, long-life operation**

## Low strip ratios across whole deposit



# Mining methods and equipment list



## Mining methods

- Entire deposit amenable to open-cut strip mining
- Low risk and very low cost
- Mining blocks 500m long x 200m across
- Various mining methods could be used
  - *Draglines (for Stage 3 or 4 operation)*
  - *Electric rope shovels with rear dump trucks*
  - *Hydraulic (electric/diesel) excavators and rear dump trucks*

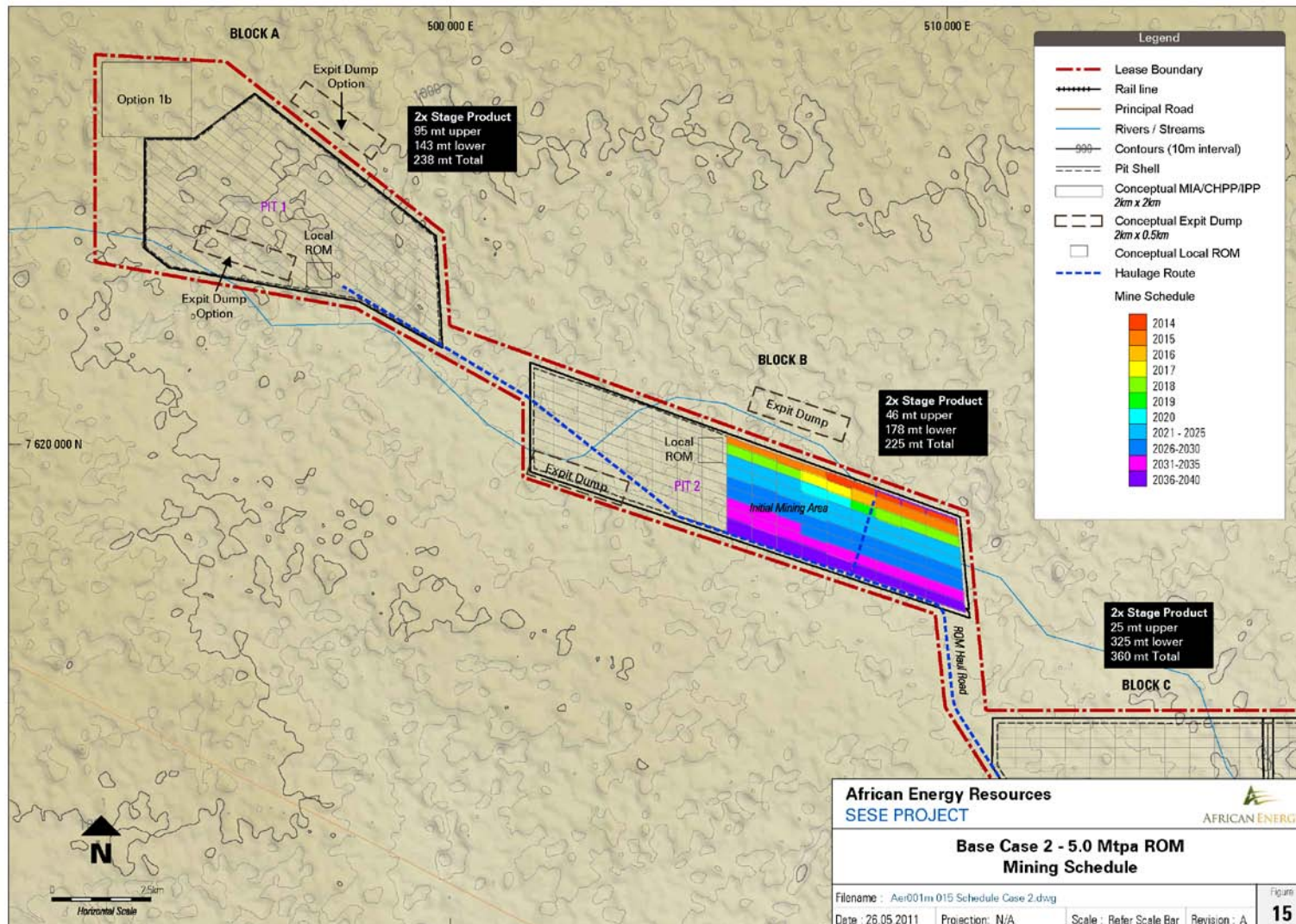


Rolleston Mine, Queensland – example of an 8Mtpa dragline operation similar to that under consideration for Sese Stage 3/4

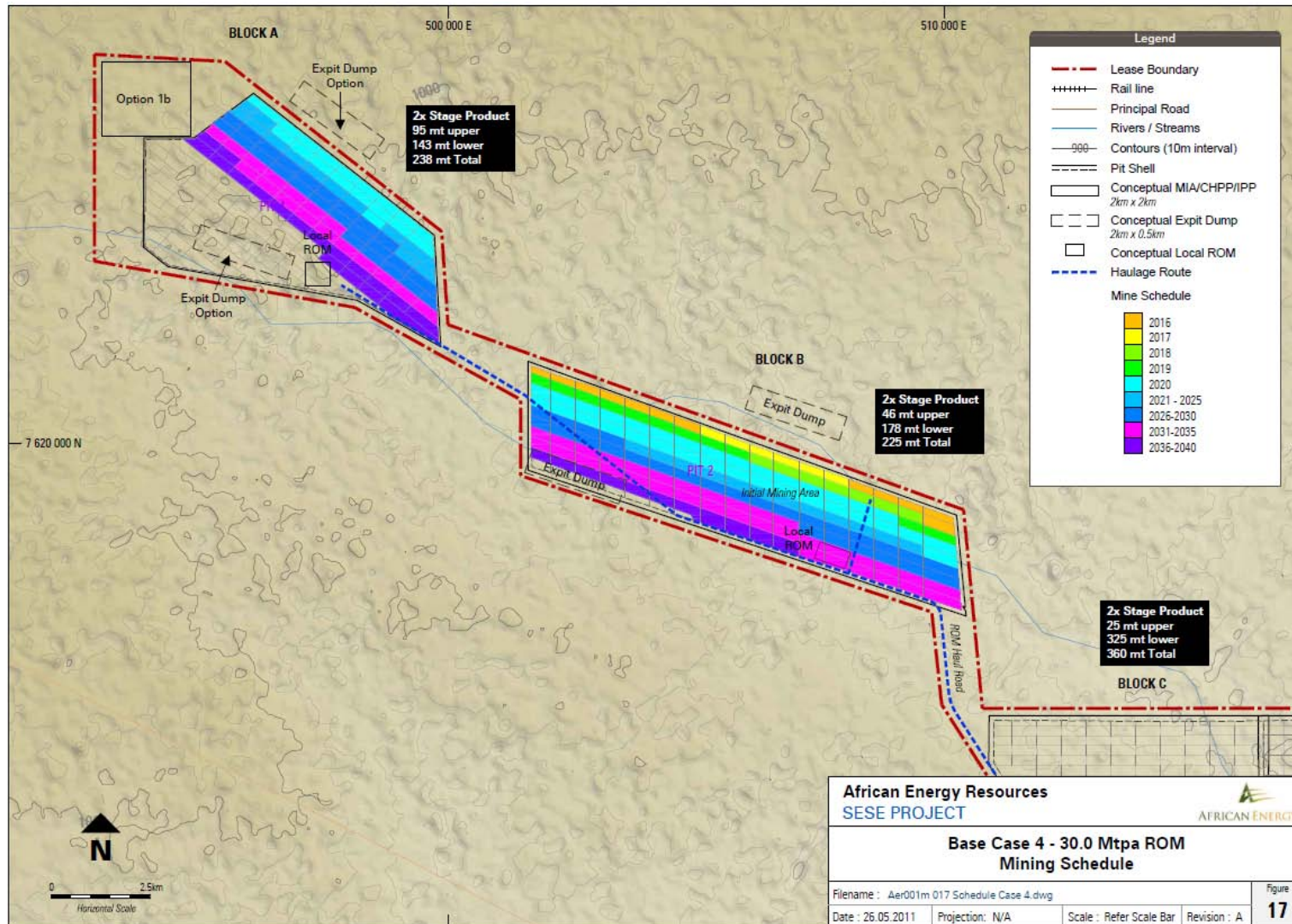
Major mining equipment	Stage 1	Stage 2	Stage 3	Stage 4
Average units required	1Mtpa	5Mtpa	20Mtpa	>30Mtpa
O&K RH340E Excavator	-	-	4	6
Liebherr R9350 Excavator	-	1	-	-
Liebherr R9250 Excavator	-	1	-	-
Liebherr R9100 Excavator	2	-	-	-
Cat 789 Rear Dump (180t)	-	5	-	-
Cat 777 Rear Dump (80t)	-	5	-	-
Cat 773 Rear Dump (50t)	10	-	-	-
Cat 793 Rear Dump (240t)	-	-	26	39
Cat D11T Dozer	-	1	2	2
Cat D10T Dozer	1	2	3	4
Cat D9R Dozer	1	1	3	3
Cat 834H Wheel Dozer	-	-	2	3
Cat 16M Grader	1	1	3	4
Cat 14M Grader	-	1	1	-
Cat 773WT Water Truck	1	1	3	4
Cat 988 Wheel Loader	1	1	8	11
Cat 740 Articulated Truck	-	-	-	-
Cat 329DL	1	1	1	1
Low Loader	-	-	1	1
DK25 Production Drill	1	2	-	-
IDM70 Production Drill	-	-	3	4
<b>Average direct manning levels</b>				
Staff	45	62	106	129
Operations	82	125	281	385
Maintenance	39	65	171	242
<b>Total Onsite</b>	<b>166</b>	<b>252</b>	<b>557</b>	<b>757</b>



# Indicative 5 Mtpa Stage 2 project, 25 years



# Indicative 30 Mtpa Stage 4 project, 25 years





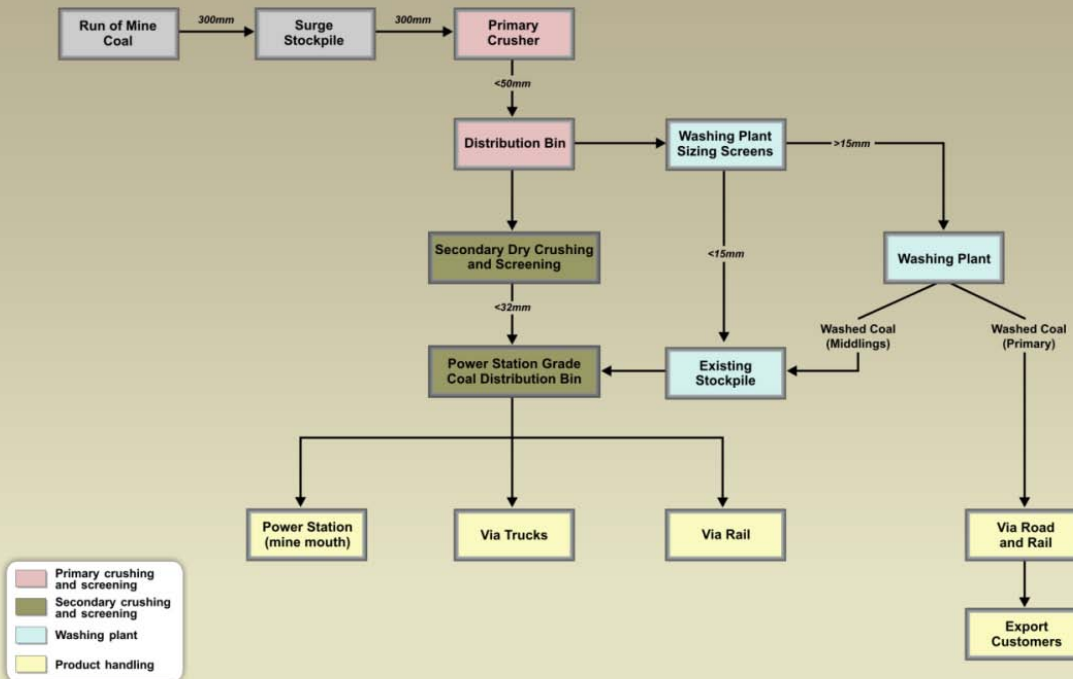
# Coal processing plant and handling



## Two product streams: domestic coal and export coal

- Domestic coal (power station fuel) by-passes processing plant
- Export coal processed through washing plant; either conventional DMS plant or air-separation plant (uses less power and water, but lower yield)

### Conceptual Process Flow



## Conventional DMS plant



## 240tph air-separation plant



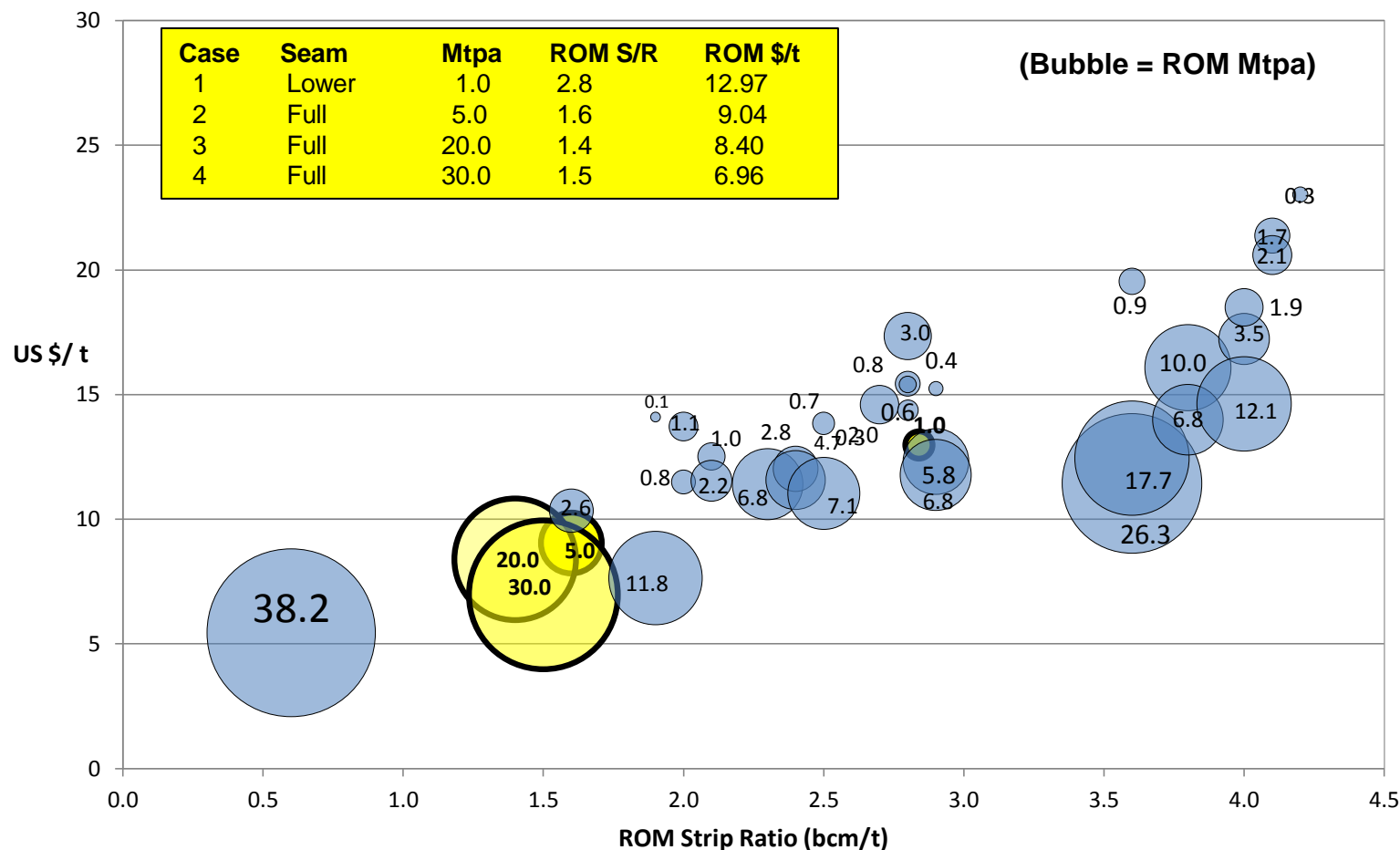
# Operating cost estimates



Estimated Operating Costs (+/-35%)		Stage 1 1 Mtpa Contractor Based	Stage 2 5 Mtpa Contractor Based	Stage 3 20 Mtpa Owner Operated	Stage 4 >30 Mtpa Owner Operated
<b>ROM coal costs</b>					
Strip Ratio		2.84*	1.60	1.40	1.50
Drill and Blast	US\$/bcm	0.90	0.90	0.90	0.90
Waste Mining	US\$/bcm	2.50	2.87	1.95	1.95
Coal Mining	US\$/ROM t	1.42	1.42	1.12	1.12
Rejects Removal	US\$/t	1.01	1.00	0.89	0.89
Support Services	US\$/ROM t	1.00	1.00	1.00	1.00
Local ROM to ROM Haulage Cost	US\$/ROM t	-	0.65	1.30	1.30
<b>ROM Unit Costs</b>	<b>US\$/ROM t</b>	<b>12.97</b>	<b>9.69</b>	<b>8.40</b>	<b>6.96</b>
<b>Additional costs related to washing and loading</b>					
Washing Cost (incl. Power)	US\$/ROM t	3.54	3.54	2.90	2.90
Product Haul / Conveyor to Siding	US\$/PROD t	-	-	3.54	3.54
Train Load (excl. Bypass Tonnes)	US\$/PROD t	-	-	1.75	1.75
Corporate Overheads and Marketing	US\$/PROD t	0.50	0.50	0.50	0.50

\* Lower seam only for Stage 1, other Stages based on full seam mining

# ROM operating cost benchmarking



Source: Wood Mackenzie Coal Supply Series South Africa 2011, and Sese Concept Study

# Capital cost estimates



Capital Cost Estimate – Project Establishment (+/- 35%) All costs in US \$ (million)		Stage 1 1 Mtpa Contractor Based	Stage 2 5 Mtpa Contractor Based	Stage 3 20 Mtpa Owner Operated	Stage 4 >30 Mtpa Owner Operated
Mining Equipment, Support Plant	US\$M real	3	6	168	254
Onsite Infrastructure	US\$M real	6	19	25	25
Onsite Transport Infrastructure	US\$M real	7	15	82	82
Offsite Transport Infrastructure	US\$M real	5	5	5	5
Coal Handling and Preparation Plant	US\$M real	18	18	349	508
Tailings and Reject Disposal	US\$M real	-	19	25	40
Design and Construction Management	US\$M real	7	23	76	99
<b>Total</b>	US\$M real	<b>\$46m</b>	<b>\$104m</b>	<b>\$730m</b>	<b>\$1,013m</b>

# Coal price forecasts



## Domestic coal pricing

- Predominantly used for power station fuel
- Benchmarks largely derived from Eskom
- Price range depending on coal quality and nature of contract
- Benchmark price range \$1.20 to \$1.60 per MJ/kg
- **Sese coal price range expected to be between \$25/t and \$35/t at the mine-gate (2013)**
- Actual pricing will be determined by coal specs



## Export coal price forecast

- Forecast supplied by Wood Mackenzie
- Evaluated typical Sese “export” coal specification
- Price forecast basis is F.O.B. east-coast Africa
- Assumes competition from Indonesian coals
- Assumes no price pressure from Mozambique middlings
- **Forecast price approximately \$80/t in 2013, increasing to over \$100/t by 2025**





# Indicative pre-mining development timeline



## SESE COAL PROJECT DEVELOPMENT PLAN

	JUL 2011	AUG 2011	SEP 2011	Q4 2011	Q1 2012	Q2 2012	Q3 2012	Q4 2012	Q1 2013	Q2 2013	Q3 2013	Q4 2013
<i>BULK SAMPLE</i>												
<i>RESERVE DRILLING</i>												
<i>FEASIBILITY STUDIES</i>												
<i>EIA and BASELINE SURVEYS</i>												
<i>ENVIRONMENTAL APPROVAL</i>												
<i>MINING LICENCE APPLICATION</i>												
<i>DEVELOP MARKETS</i>												
<i>MINE CONSTRUCTION</i>												
<i>COAL SALES</i>												STAGE 1

# Summary



- ✓ Massive 2.7 billion tonne resource in Africa's most stable country
- ✓ Team of experienced mine developers with significant coal expertise
- ✓ Thermal coal suitable for both export and domestic markets
- ✓ Bulk sample excavation underway to establish credibility and develop markets
- ✓ Staged development offers early cash flow and lowers execution risk
- ✓ Initial 1 Mtpa Stage 1 operation in 2013, ramping up to 4-5 Mtpa for Stage 2
- ✓ Ultimate project may exceed 30 Mtpa

**CREATING SHAREHOLDER VALUE**