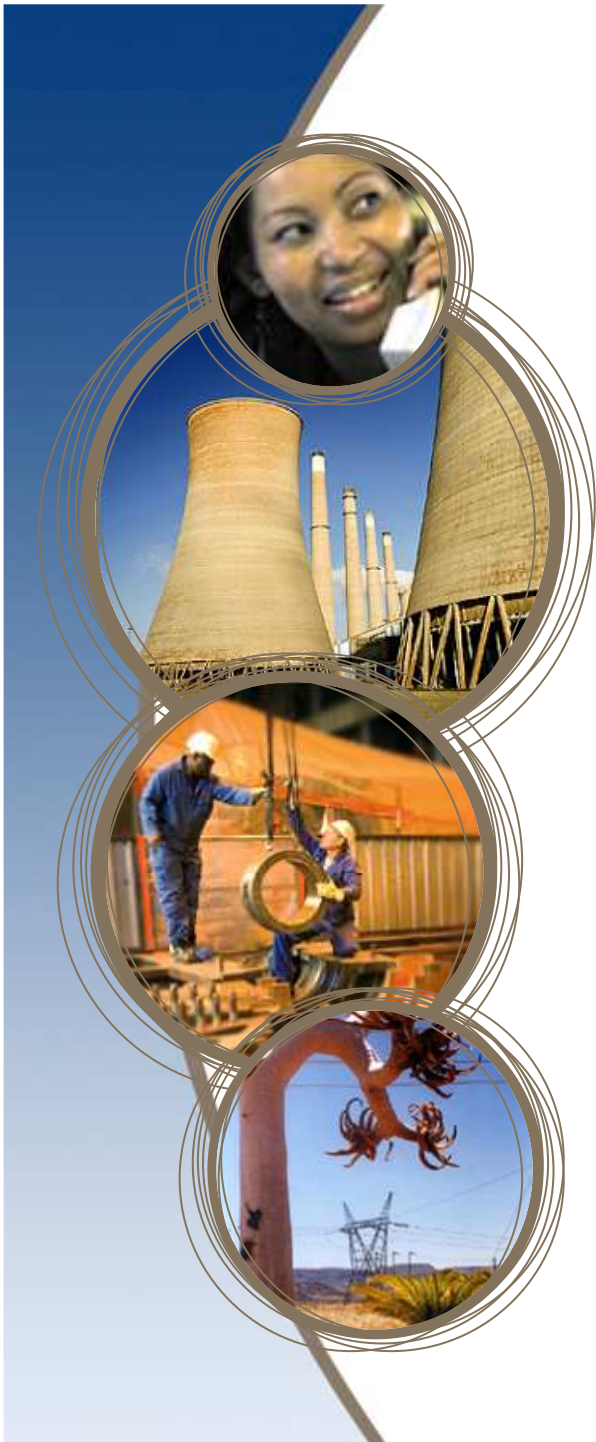




Eskom Holdings Ltd

**Coal Presentation:
A Presentation to the
Portfolio Committee on Public Enterprises**

28 January 2010



- The current environment has created major challenges for coal sourcing:
 - Constrained reserve margin
 - Coal production constraints and escalating mining costs
 - Long term contracts producing above contractual maximums
 - Declining coal quality and more challenging geological conditions
- This had major implications on the overall coal supply portfolio, coal and logistics costs as well as deteriorating roads.
- Eskom reacted to the supply crises by emergency purchases and immediate stock increases to 42 days and currently it is 36 days.
- Stations vulnerable to rain have 5 days of coarse coal treated with chemicals to resist moisture ingress.
- Eskom has a comprehensive coal sourcing strategy in place to reduce the reliance on shorter term coal supplies, achieve efficient cost-based prices, risk based stock management and reduce the amount and cost of coal transportation.

- **Introduction**
- Recap of recent coal supply performance
- Eskom's coal supply strategy and plans

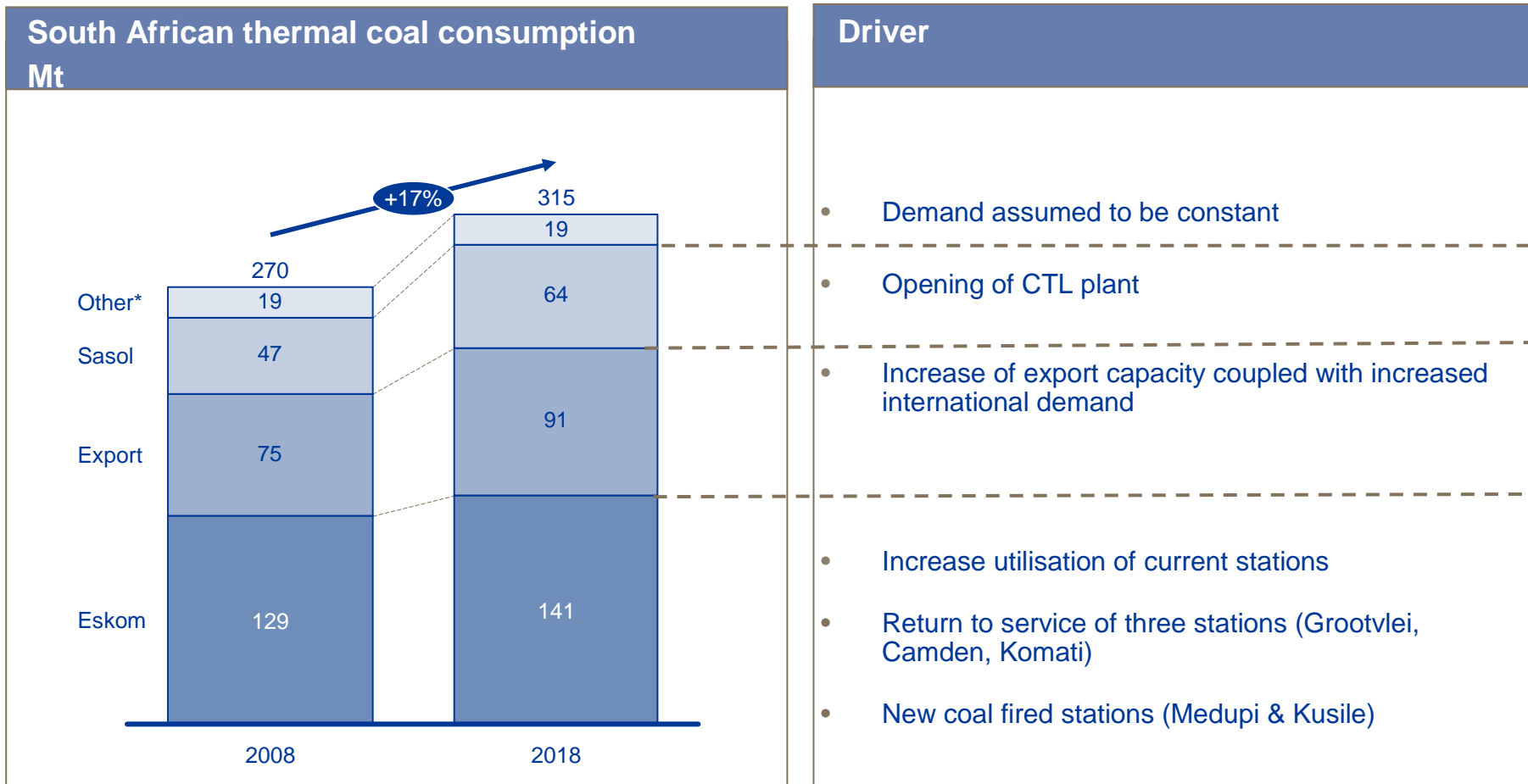
- Demand stretching total generation capacity
- Under-investment in coal industry and historic over-extension of base load coal contracts
- Global commodity super-cycle and economic rollercoaster
- Need to respond to changing environmental requirements
- Globalization of skills and capital, and acute local shortages

RESULTING CHALLENGES FOR COAL SOURCING



- Increased costs across the industry and disparity of returns between domestic and export coal businesses
- On-going requirement for medium and short term contracts
- Higher transport distances between coal supplies and power stations
- Major re-investments required in tied collieries (re-capitalise and extend life of mines)
- Development of new mines to supply new stations and to augment and replace existing supplies
- Increasing need to beneficiate coal and tighten management of coal quality
- Complexity of coal supply network requiring more sophisticated management of coal stocks

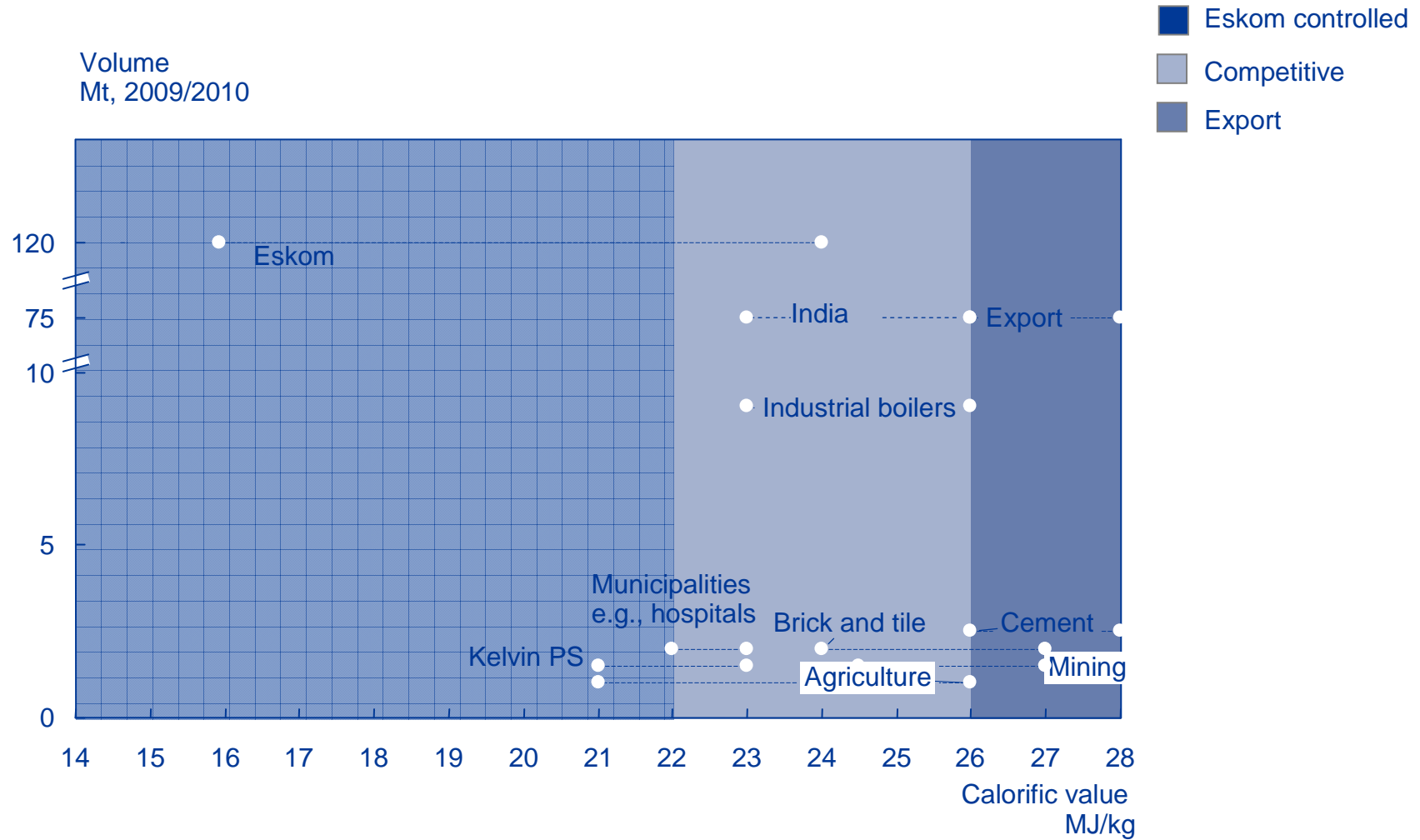
TOTAL SA THERMAL COAL DEMAND IS EXPECTED TO INCREASE BY ALMOST 20% OVER THE NEXT DECADE, DRIVEN LARGELY BY DEMAND FROM SASOL, ESKOM & EXPORTS



There is an urgent need for investment in the coal mining industry, at much higher levels than previous, given the coal demand needs from various users in South Africa

* Other electricity producers (1.5Mt), steel industry (3Mt), merchants (8.3Mt), cement and chemicals (3.1Mt) other industries (3Mt)

ESKOM IS THE ONLY BUYER FOR THE BULK OF THE COAL IN THE LOW GRADE MARKET; HOWEVER, IT DOES COMPETE FOR THE HIGHER GRADE COALS

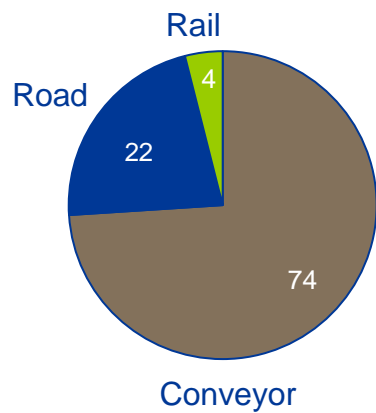


Note SASOL has been excluded as it largely mines its own coal; however, it could potentially compete with Eskom for future large resources

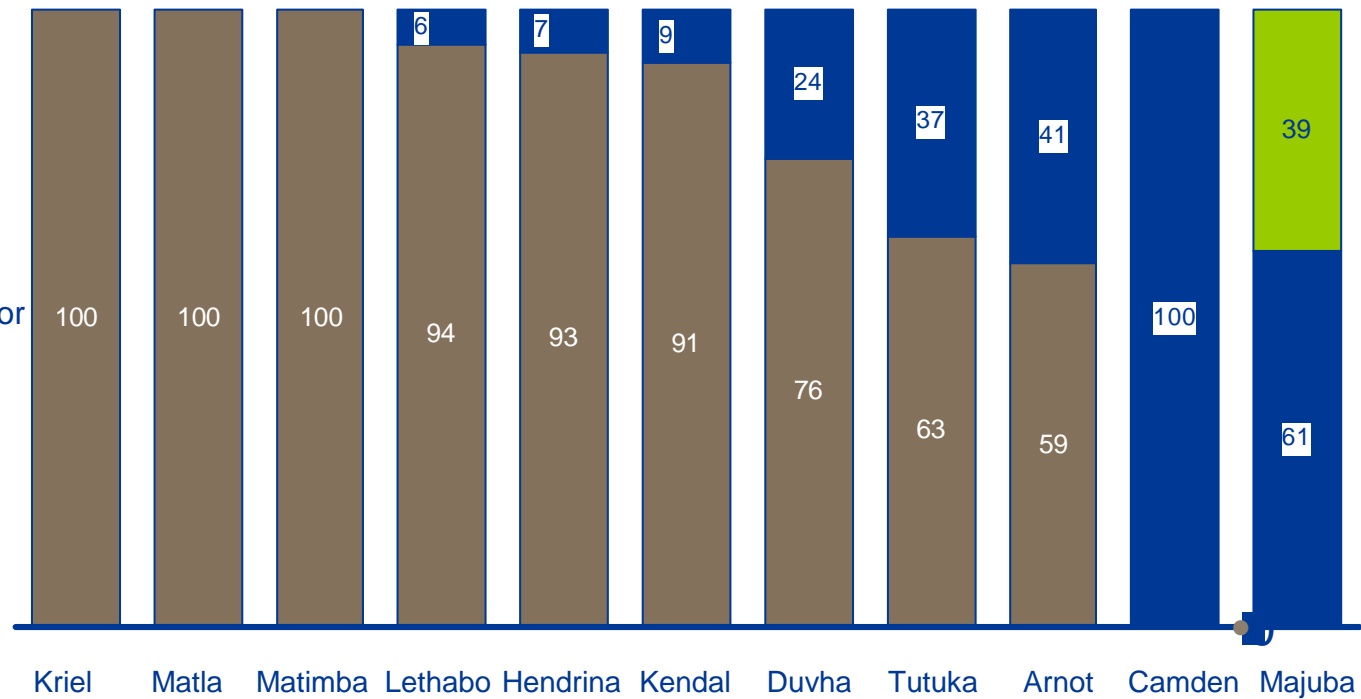
ESKOM'S PREDOMINANT TRANSPORT MODE IS STILL CONVEYOR



Transport by mode, F2008



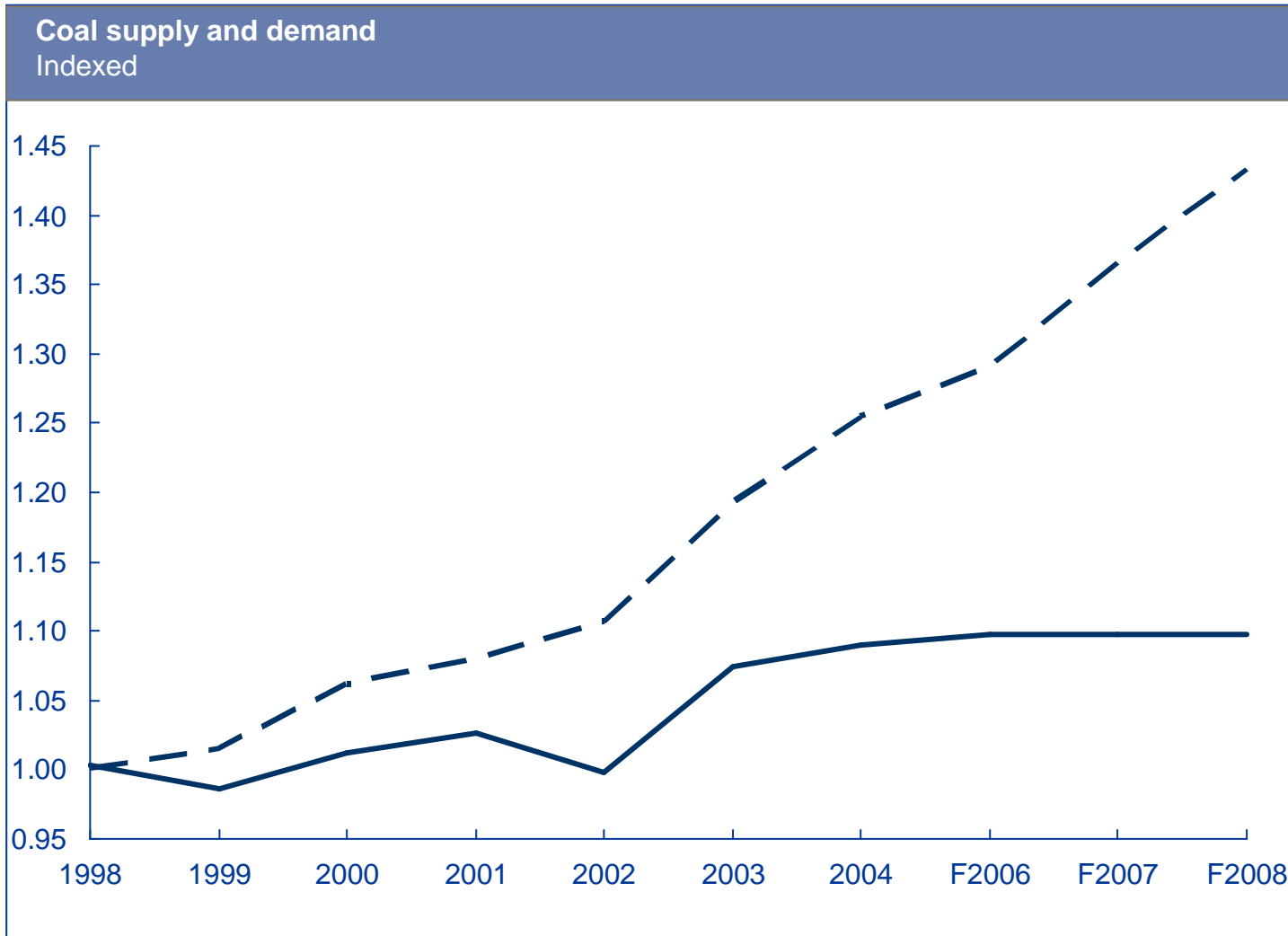
Transport mode by plant Mt



Note: Majuba is currently the only station with rail offloading facilities

- Introduction
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INVESTMENT IN NEW MINES LAGGED DEMAND GROWTH RESULTING IN THE EROSION OF ANY EXCESS CAPACITY IN THE INDUSTRY

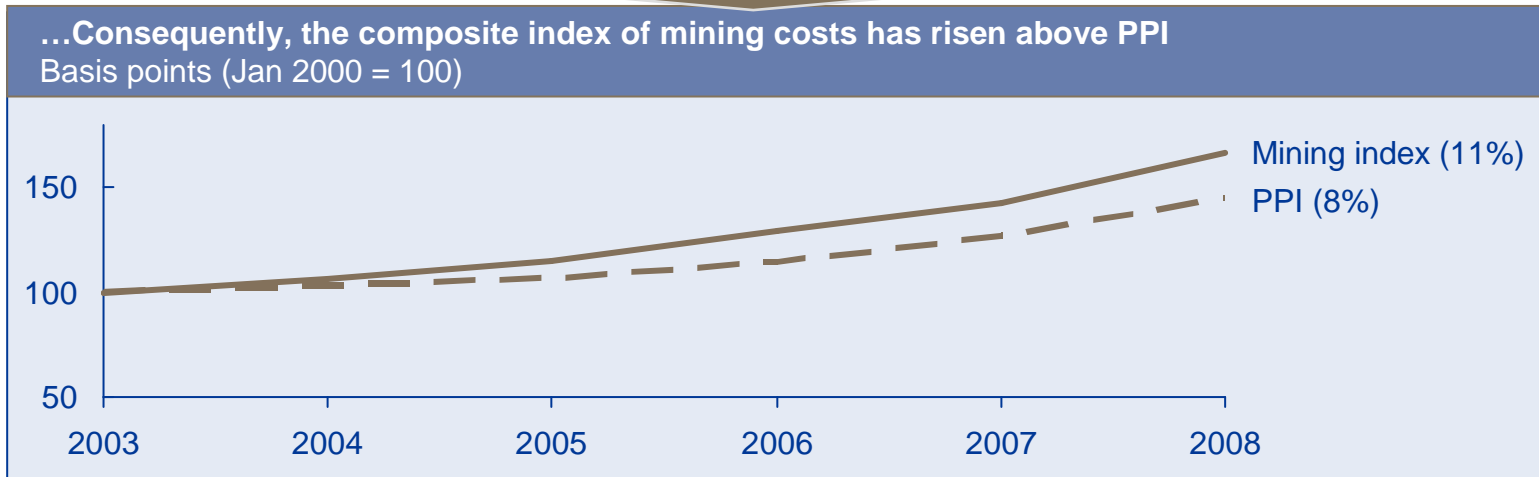
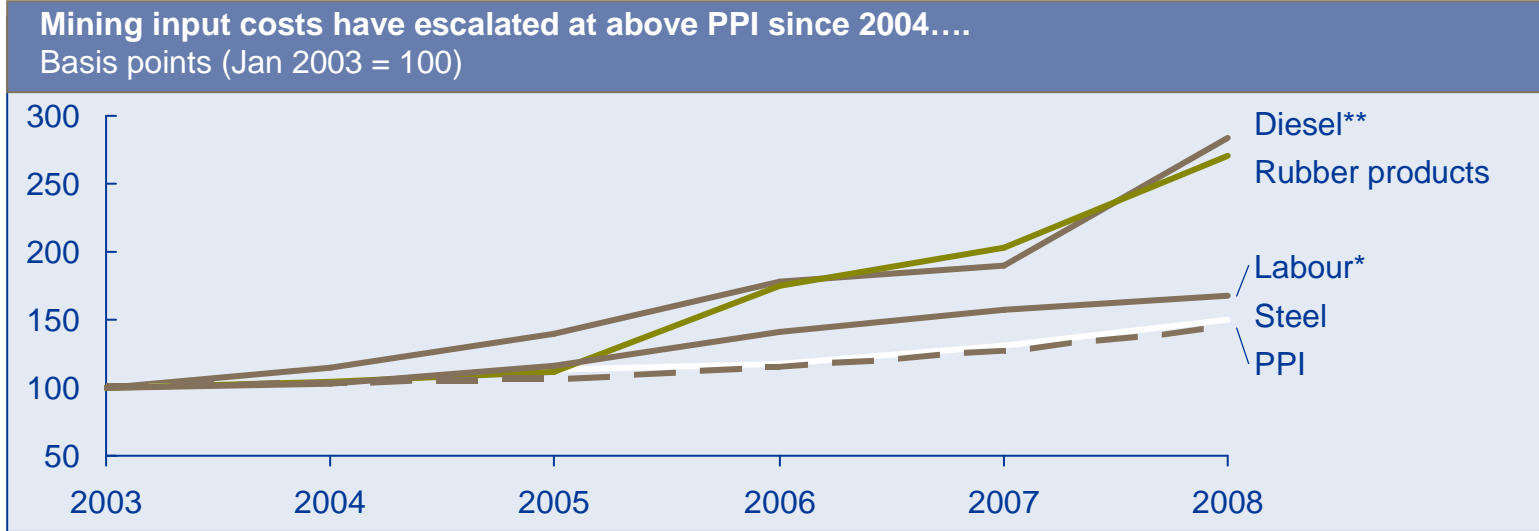


— SA Coal production
- - Eskom Burn

- South African coal production growth has been effectively zero over the last three years
- Together with the tight reserve margin this has forced Eskom to source from short term resources, in order to fulfil requirements

* 2006 figures assume just April 2006 to March 2007. Prior to 2006, figures are for Calendar year. After 2006, figures are for Financial years

THE COSTS OF MINING INPUTS INCREASED WELL ABOVE INFLATION



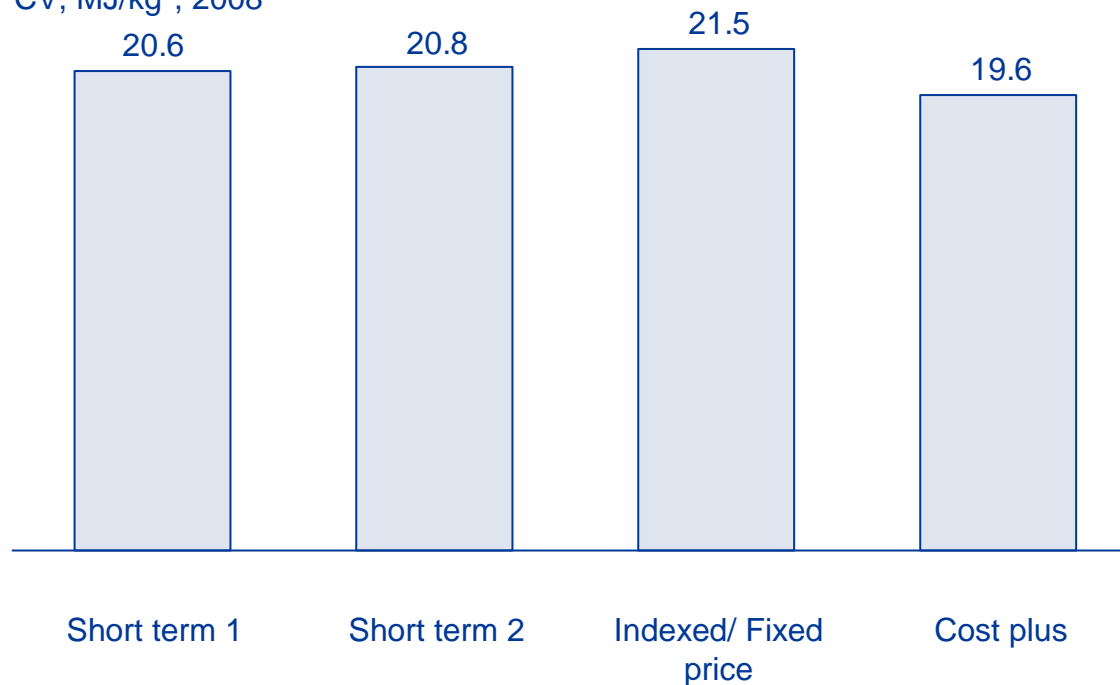
* Estimated using labour costs from Eskom cost-plus mines; labour includes standard labour costs (25-31%), contracted services (7-11%) and overheads (13-15%)

** Calculated using the SA Diesel 0.05% sulphur c/l price; diesel costs differ widely due to differentials in underground vs opencast mining methods

ALTHOUGH A FEW OF THE SHORT TERM CONTRACTS WERE FOR LOW QUALITY COAL...

Average coal qualities

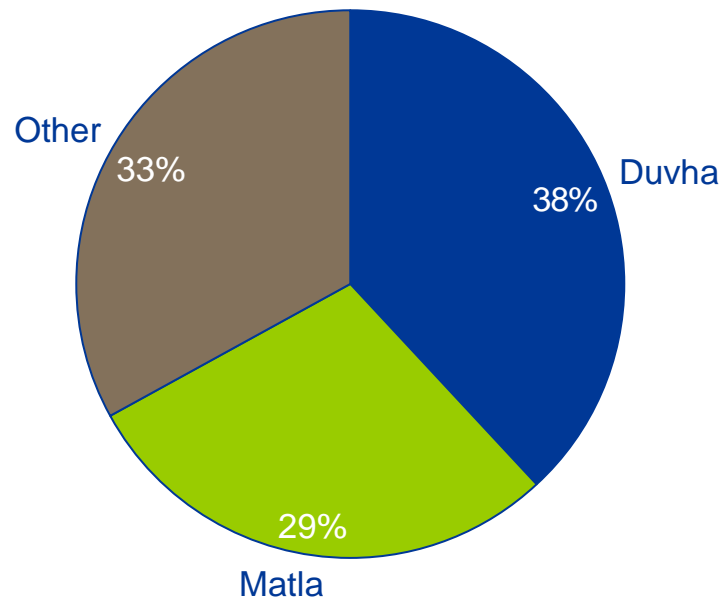
CV, MJ/kg*, 2008



- Although within contractual specifications, quality of coal supplied by some of the long-term contracts deteriorated from 2003
- Impact on Eskom has increased
- Coal quality can have a significant impact on the operational conditions of the power stations

...THE BULK OF THE COAL QUALITY PROBLEMS WERE WITH EXISTING, LONG TERM SUPPLIERS

Total coal related load losses (FY 09)



Duvha

- Too flexible contract provisions resulted in qualities being supplied at just above the rejection level

Matla

- Mine has supplied above contract tonnages since 2002
- However, this has been achieved by mining the lower quality number 3 mine
- In addition, geological and operational challenges have reduced output from the higher quality number 2 mine

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ESKOM'S LONG TERM COAL SUPPLY STRATEGY TO MEET ITS FUTURE COAL REQUIREMENTS (1/2)



Key Elements	Details
<p>1 Optimal portfolio of long, medium and short term coal sources</p>	<ul style="list-style-type: none"> • Contract for the life of the resource • Contract small portion of requirement 1 -2 years ahead • <i>Medupi Long Term Coal Supply Agreement was signed in 2008</i> • <i>Goedgevonden Coal Supply Agreement was signed in 2009</i> • <i>Medium term contracts are currently being negotiated</i>
<p>2 Prices based on efficient costs plus a fair return</p>	<ul style="list-style-type: none"> • Prices of future coal contracts will be based on efficient costs and fair returns on capital invested by the mining industry
<p>3 Investment in low cost, flexible coal transport infrastructure</p>	<ul style="list-style-type: none"> • Road to rail long term solutions and conveyor options are being pursued • <i>Eskom has established a Work Group with Transnet to facilitate rail solutions</i>
<p>4 Quality management and selective beneficiation to reduce TCO*</p>	<ul style="list-style-type: none"> • Coal quality related losses are being evaluated • Eskom will invest in coal beneficiation where necessary • <i>Detailed studies have been concluded for Matla and Duvha Power Stations</i>

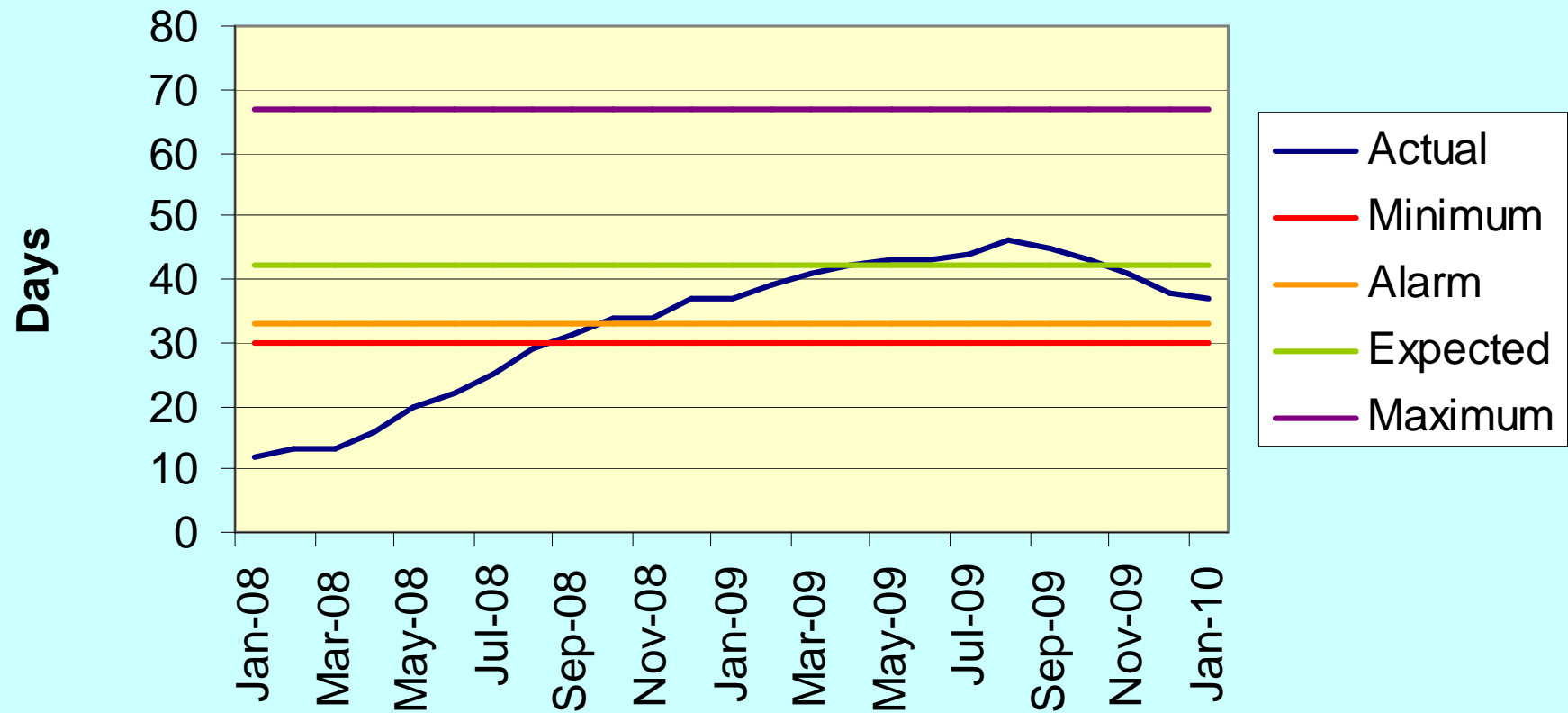
*Total Cost of Ownership, including all coal, transport and power station costs

ESKOM'S LONG TERM COAL SUPPLY STRATEGY TO MEET ITS FUTURE COAL REQUIREMENTS (2/2)



Key Elements	Details
<p>5 Risk based stock management</p>	<ul style="list-style-type: none"> • Stock management philosophy based on station specific coal supply risks has been developed and implemented • <i>Stock managed around 42 days, current average system stock days – 36 days</i>
<p>6 Improve co-operation with major stakeholders</p>	<ul style="list-style-type: none"> • Major emphasis to be placed on improving partnerships with key stakeholders • <i>High level engagements with mining houses are in progress</i> • <i>Work group established with Transnet</i> • <i>National Energy Coal Forum established with Govt, mining industry, unions and Transnet</i>
<p>7 Investment in long term infrastructure</p>	<ul style="list-style-type: none"> • Long term investments: <ul style="list-style-type: none"> • Rail infrastructure projects • Upgrade water infrastructure • <i>Majuba Rail Project and other rail solutions</i> • <i>Developed a containerised rail solution for Camden</i>
<p>8 Strengthening the organisation capability</p>	<ul style="list-style-type: none"> • <i>Implement a new organisation to support the new strategy</i> • <i>Recruiting of key skills</i>

Eskom system stock days since January 2008



ESKOM INTRODUCED A RISK BASED STOCK METHODOLOGY

Methodology

- The risk profile of each station is used to determine the appropriate stock day range for that station
- Some of the typical risks (and its associated impacts) include the following:
 - Above average rainfall
 - Geological conditions
 - Face breaks
 - Coal quality
 - Logistics (road and rail)
 - Major project delays
 - Mine planning
 - Productivity
 - Resource estimations
 - Lead time to procure and deliver replacement coal

Tutuka Power Station – Demand events

- Swing station => high variability in coal burn
- Will pick up additional burn requirements from
 - Increase in overall demand
 - Generation problems elsewhere in the network



Tutuka Power Station – Example supply events

Event	Prob. Of Occurrence	Duration	Stock day impact
Road transport	Once every 4 years	At least a week	~ 3 days
Mine facebreak	High	1wk- 4mths	25 days
Longwall moves	2 moves per annum	2 months	12 days per move

A COMPREHENSIVE LOGISTICS STRATEGY IS BEING IMPLEMENTED TO REDUCE LOGISTICS COSTS AND INCREASE RELIABILITY AND FLEXIBILITY



Strategy and approach

A

Mode selection and logistics infrastructure

Evaluate and determine optimal mode (road rail or conveyor) for each mine-power station pairing with assistance of specialist logistics engineering partner

- **Rail**
 - Transnet to **expand Mpumalanga rail network**;
 - **Eskom to provide capex** only in certain cases (e.g. Majuba Heavy Haul, power station offloading facilities)
 - **Waterberg rail link** feasibility to be investigated in cooperation with Transnet and the coal industry
 - Investigate use of **Inland Coal Consolidation Terminals** (“Coal Pantries”)
- **Conveyor**
 - **Dedicated conveyors** to be used where economically viable
- **Road***
 - Minimise use of **public roads**
 - Eskom or mine to fund any **dedicated haul roads**
 - **Rehabilitation** of Mpumalanga road network

B

Short term trucking reductions

- **Optimise road transport** - reduce truck movements & costs
- Put in place **short term rail** (and coal supply) **solutions** at critical power stations

C

Logistics capability

- Strengthen the overall road and rail logistics competency and skills

SUMMARY

- Coal is a critical part of South Africa's energy mix and for security of supply
- The Eskom coal portfolio is massive. Eskom consume > 50% SA coal production with 70% of coal being supplied by three companies: Anglo Coal, BHP, and Exxaro
- Since January 2008, Eskom increased the average stockpiles across the fleet from 13 days to 42 days, currently at 36 days
- Eskom has been dealing with a number of critical challenges including (i) escalating export prices (ii) escalating local costs for most primary inputs into mining (iii) higher than planned burn levels (iv) significant increase in short term purchases and (v) significant increases in truck transportation
- There is an urgent need for investment in the coal mining industry, at much higher levels than previous, given the coal demand in South Africa
- Key areas need to be addressed to ensure coal supply requirements are met. (i) investment of significant capital to open new mines (ii) addressing the significant skill shortage for opening and running mines and (iii) ensuring transportation infrastructure is addressed
- Eskom is in the process of implementing a coal sourcing strategy to reduce the reliance on shorter term coal supplies, achieve efficient cost-based prices, risk based stock management and reduce the amount and cost of coal transportation

Thank you

