



Powering South Africa – Back to Basics

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Mining Indaba

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exxaro

POWERING POSSIBILITY

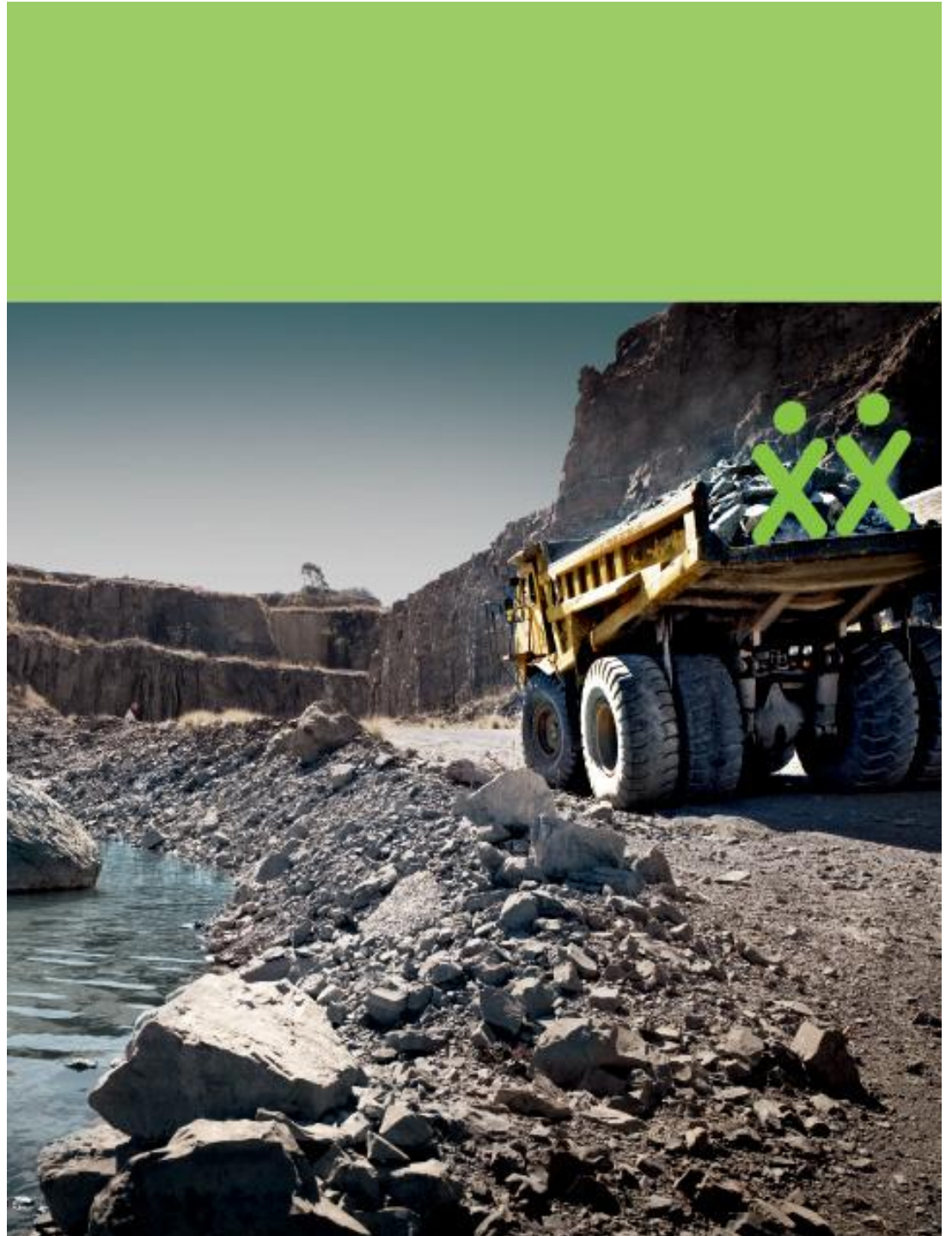


Content

- The Exxaro story
- Energy supply and demand in Southern Africa
- The Waterberg coal field as part of the medium to long term solution
- But what about the short to medium term?
- What are the solutions from a mining and government perspective?
- Other challenges



The Exxaro story





Introduction to Exxaro

Our commodities



COAL

the fourth largest coal producer in South Africa



MINERAL SANDS

one of the world's top three producers of zircon and chlorinatable TiO₂ slag



BASE METALS AND INDUSTRIAL MINERALS

the only zinc producer in South Africa

IRON ORE

20% holding in Sishen Iron Ore Company

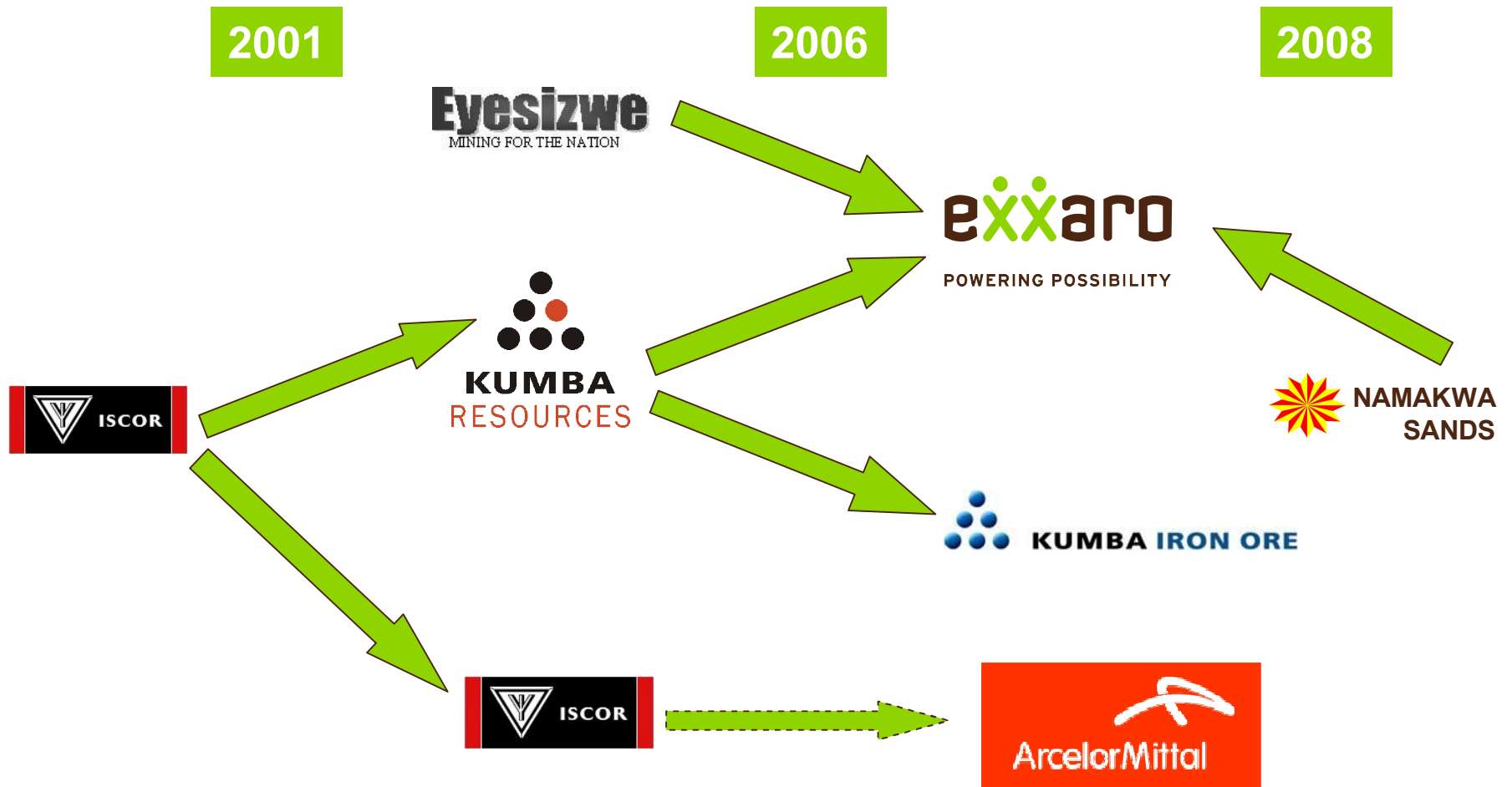
At a glance...

- South Africa's largest diversified resources company
- One of the top 40 companies on the JSE
- 8 300 employees
- Head office in Pretoria, South Africa
- Revenue: R4,85bn*
- Net operating profit: R891m*

■ * Interim results for six months ended 30 June 2007

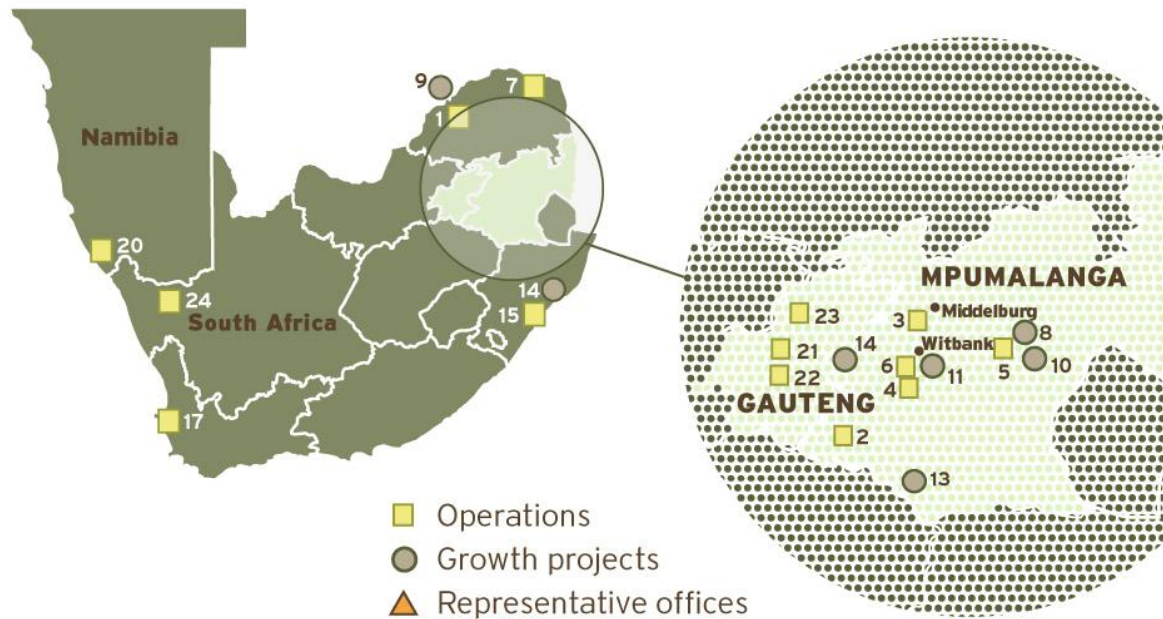


To summarise the history ...





Geographical locations – Southern Africa



COAL

- 1 Grootegeluk
- 2 Leeuwan
- 3 Arnot
- 4 Matla
- 5 North Block Complex (NBC)
- 6 New Clydesdale
- 7 Tshikondeni
- 8 Belfast
- 9 Mmamabula Central
- 10 Eerstelingsfontein
- 11 Inyanda
- 12 Moranbah South
- 13 Mafube
- 14 RBCT Phase V

MINERAL SANDS

- 15 KZN Sands
- 16 Toliara Sands
- 17 Namakwa Sands
- 18 Australia Sands

BASE METALS AND INDUSTRIAL MINERALS

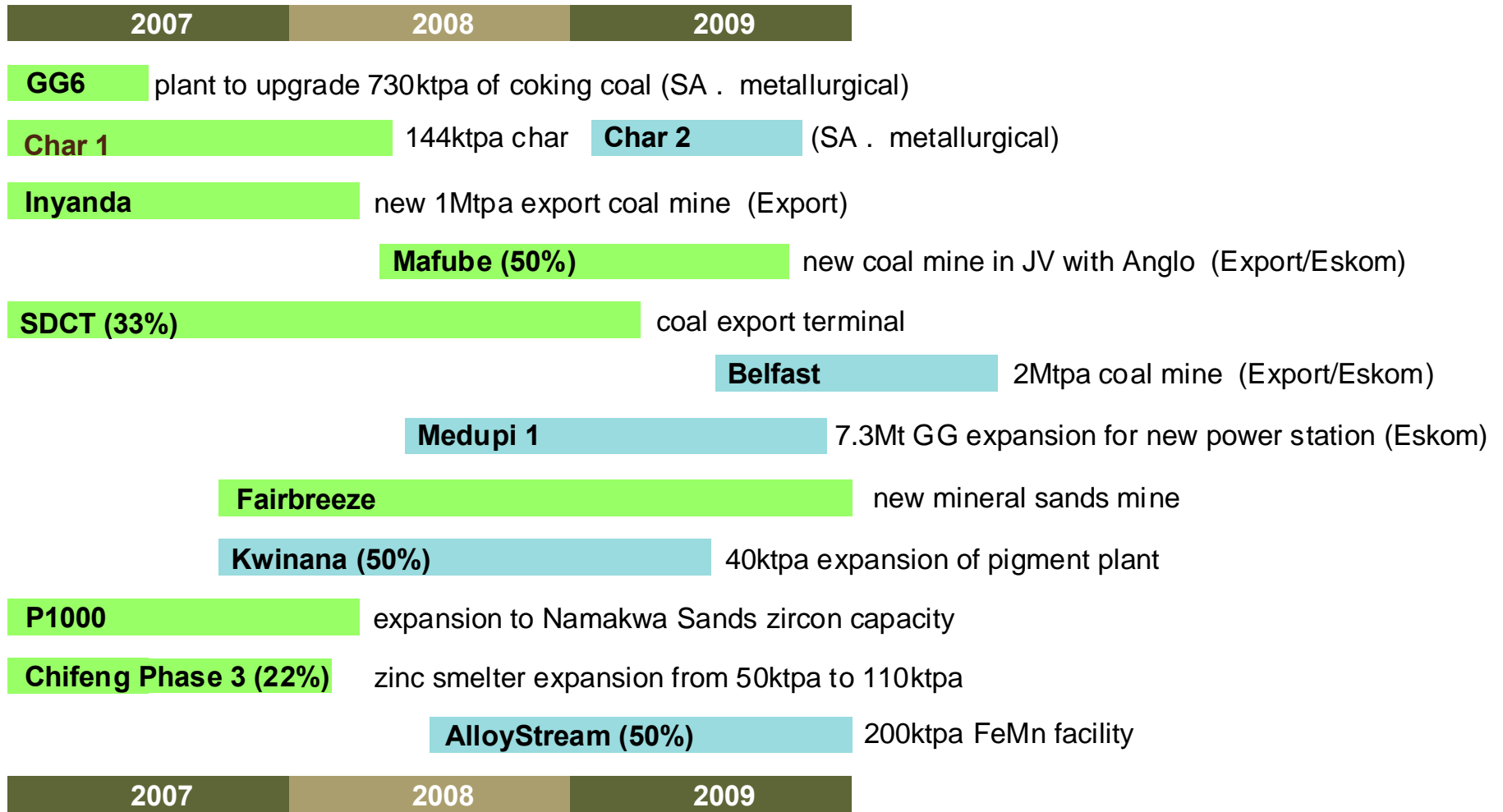
- 19 Chifeng NFC Hongye Zinc Refinery
- 20 Rosh Pinah
- 21 Zincor
- 22 Glen Douglas
- 23 FerroAlloys
- 24 Black Mountain

Also operations, prospects and offices in:

- “ Australia (Perth/Bowen Basin)
- “ China (Beijing/Chifeng)
- “ Netherlands (Amsterdam)
- “ Switzerland (Zug)



A robust project pipeline



approved projects

advanced stage of approval



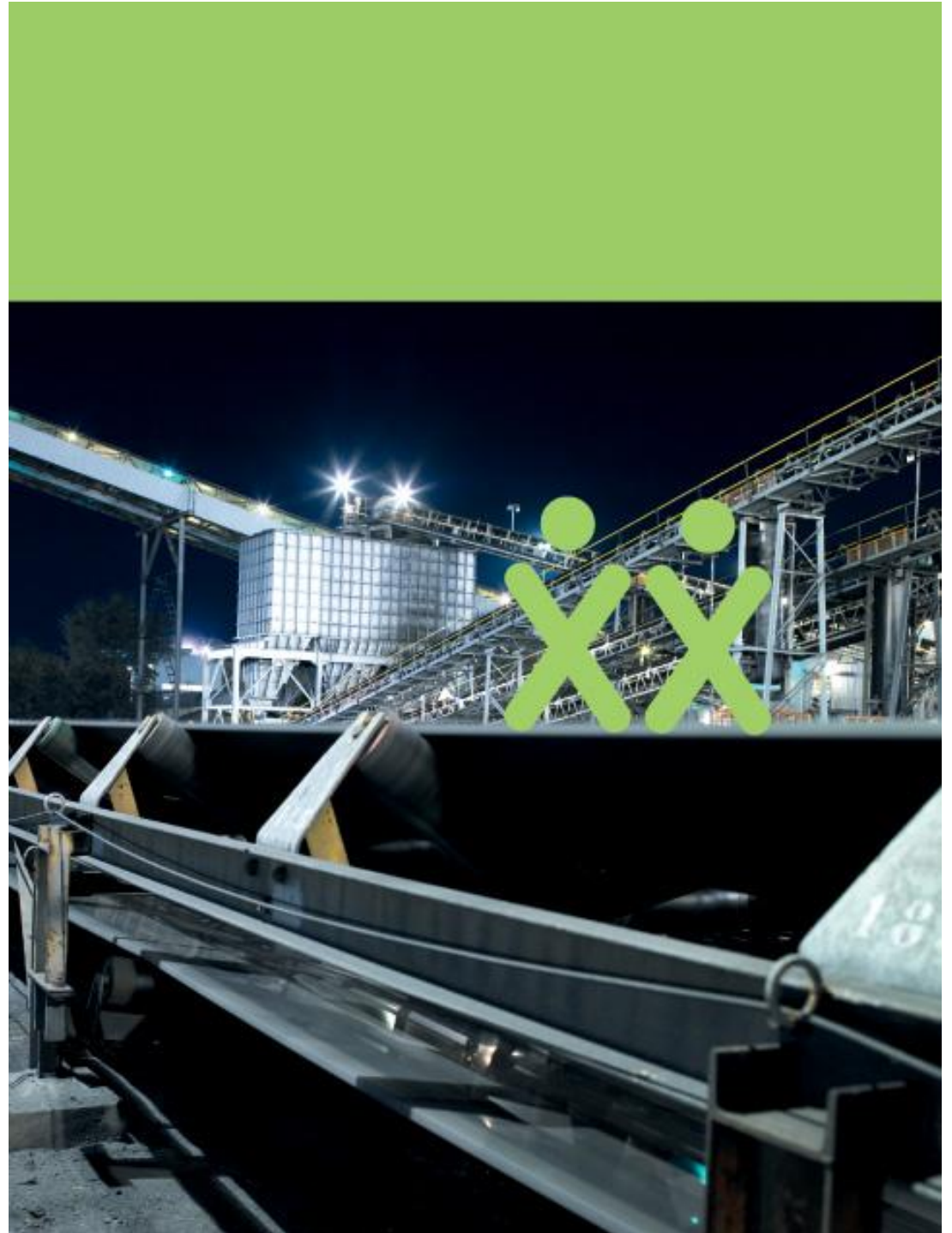
Our strategy

- Aim to become a significant world player in coal and mineral sands and a significant regional player in base metals and industrial minerals
- Focus on commodities and investments that offer above average growth and returns, while minimising risk by investing in a diversified portfolio of commodities and geographies
- Evaluate new business opportunities on an ongoing basis
- Strategic criteria of adding value on a sustainable basis and diversifying the income stream
- Seek opportunities to capitalise on centres of specific competence, utilising well-developed skills in project and risk management, value enhancement and continuous improvement techniques
- Focus to maintain and improve international competitiveness, adopt international best practices and optimize current operations
- Support government in safety initiatives to further reduce fatalities and injuries



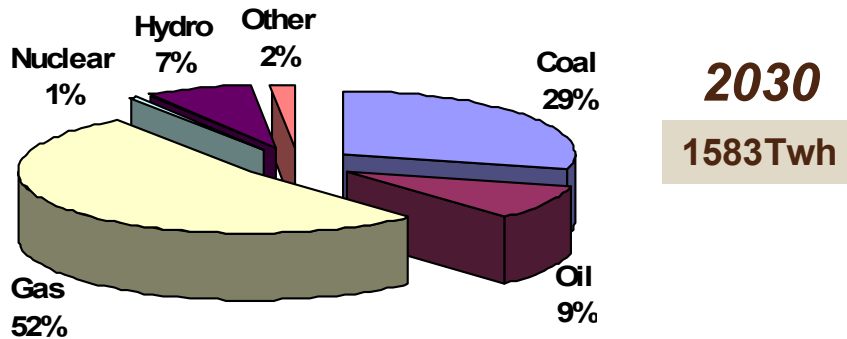
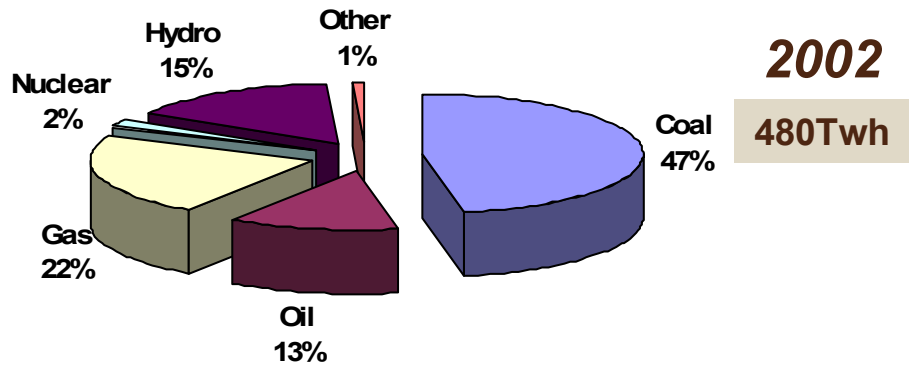
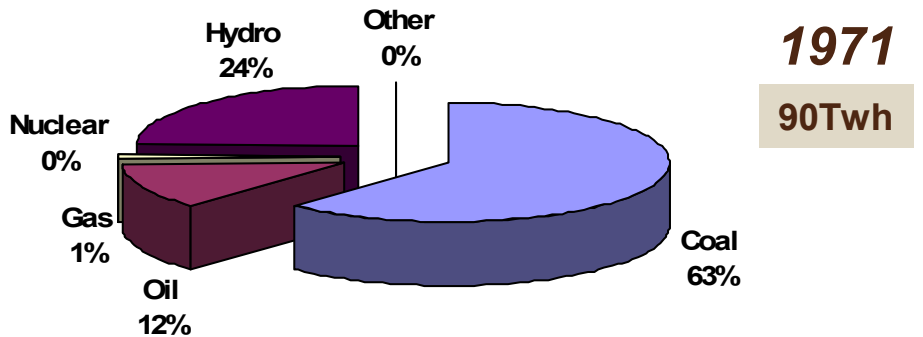


Energy in South Africa





African energy outlook

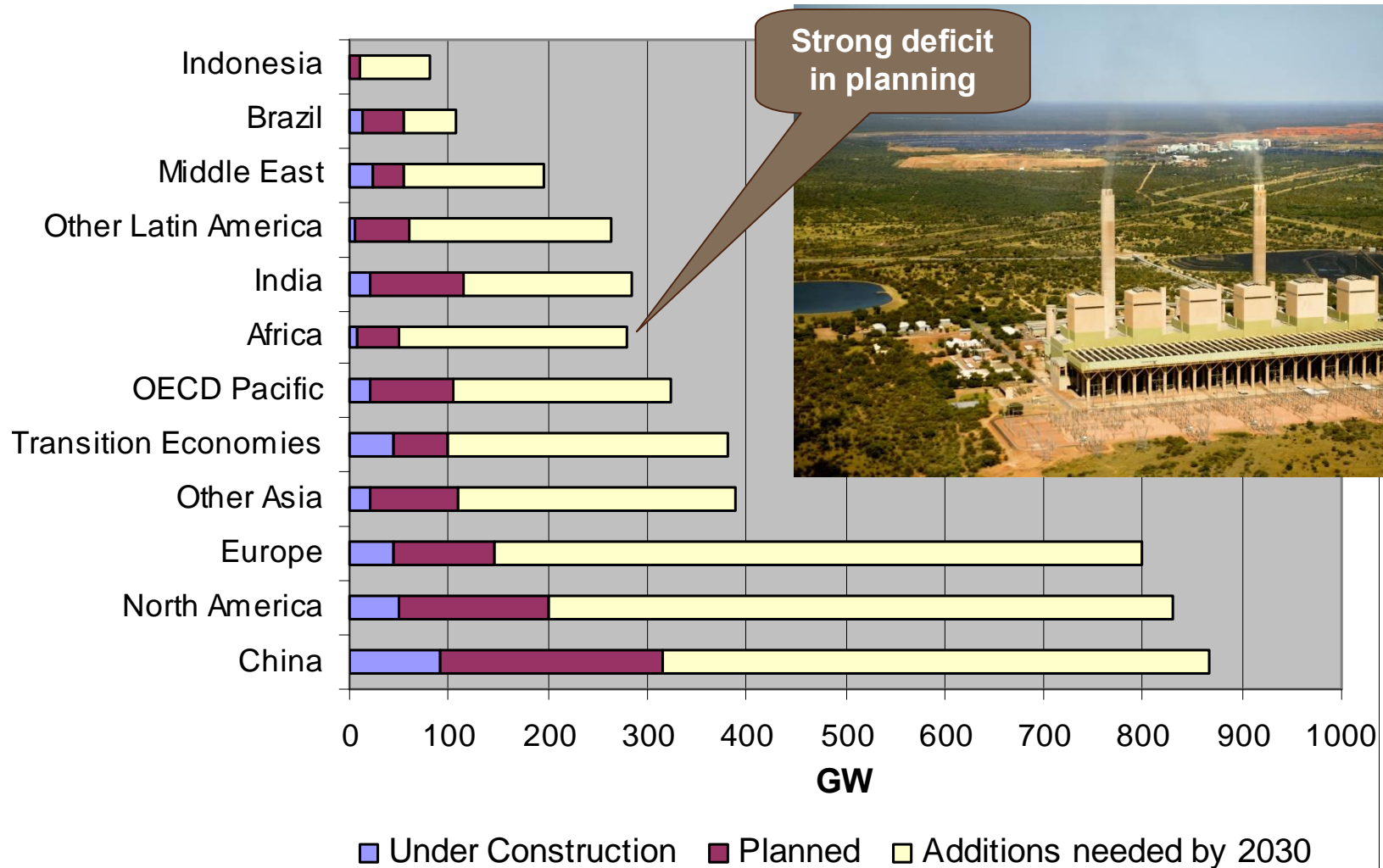


Africa energy needs to treble by 2030!

- “ Although coal’s contribution is expected to decline, the absolute volume will more than double
- “ The expected increase in the contribution of natural gas in Africa is even more marked than for the world in total
- “ SA needs to double its generating capacity by 2025 to support current GDP growth rates of 6%

Source: IEA from ABSA

Capacity requirements - progress



Strong deficit in planning





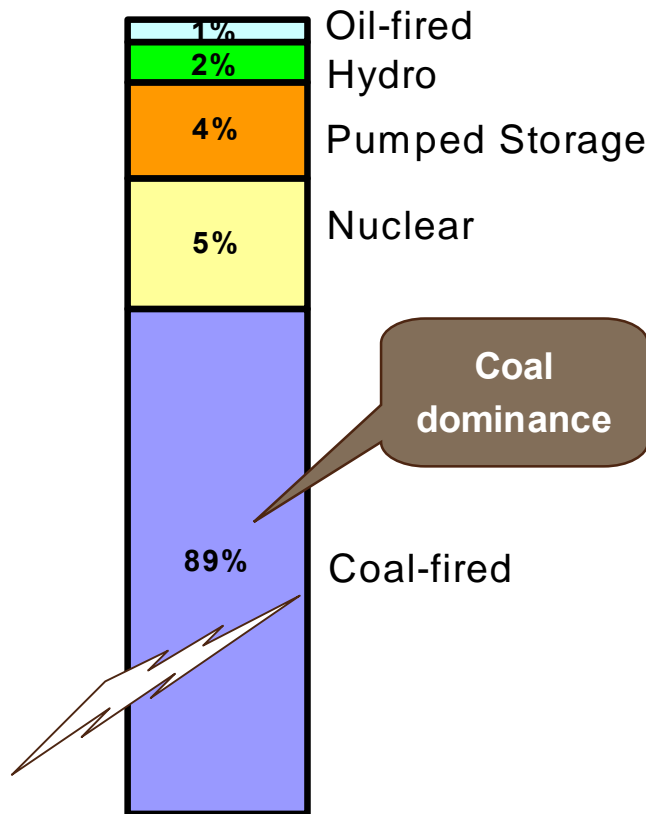
Energy supply demand context in SA

- “ Electricity demand is outstripping electricity supply
- “ 2000 . 2008:
 - . Installed capacity grown marginally from 40 000 MW to 42 000 MW
 - . Operational capacity also expanded from 36 500 MW to 40 250 MW
 - . BUT, the reserve margin shrunk from 25% to around 8% today!
- “ Exponential long term demand growth s cenario:
 - . Approx 40 000 MW needs to be added to current capacity
(new target of 78 000 MW by 2025)
 - . Based on 4% electricity growth supporting 6% GDP expansion
- “ The first new base load station, Medupi, will come on line in 2012
- “ SA needs to move out of its current power generati on mix paradigm



South Africa power supply mix

Eskom's installed power generation capacity: 42,011 MW

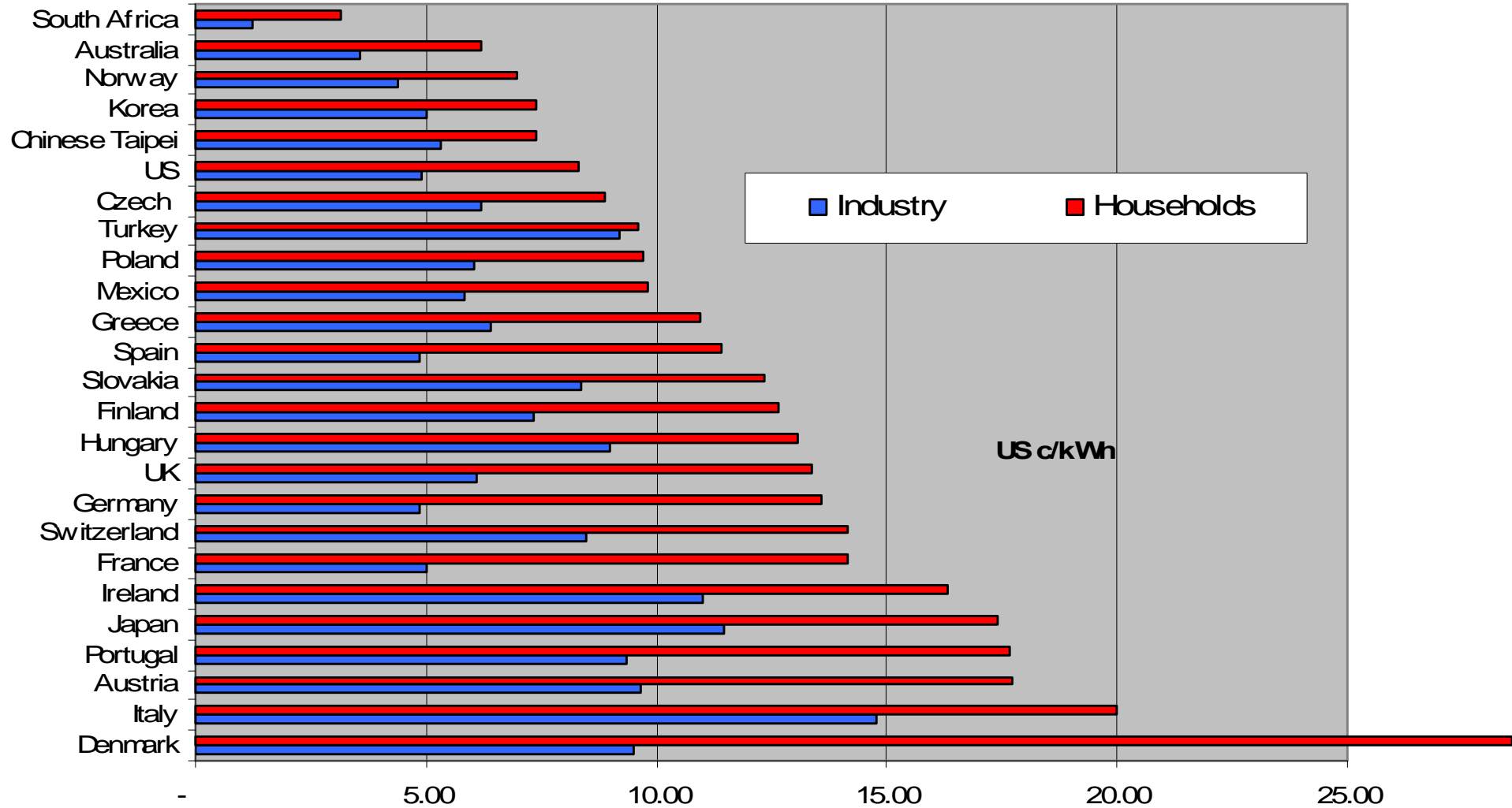


Source: Eskom

- “ South Africa's energy needs are met overwhelmingly from the use of coal as a primary energy source
- “ Due to long hiatus in electricity generation capacity investment during the last decade or two, a significant backlog has developed
- “ Considerable investment required in the decades ahead with an expected impact on prices
- “ Government growth ambition of 6% per year
- “ Current reserve margin at between 8% and 10%, far below the global benchmark of 15%
- “ Eskom is planning to move to a 30% nuclear mix within the next 15 years
- “ We believe that coal will still play a significant role in power generation



Costs of electricity - worldwide



Source: ABSA



Lowest cost electricity

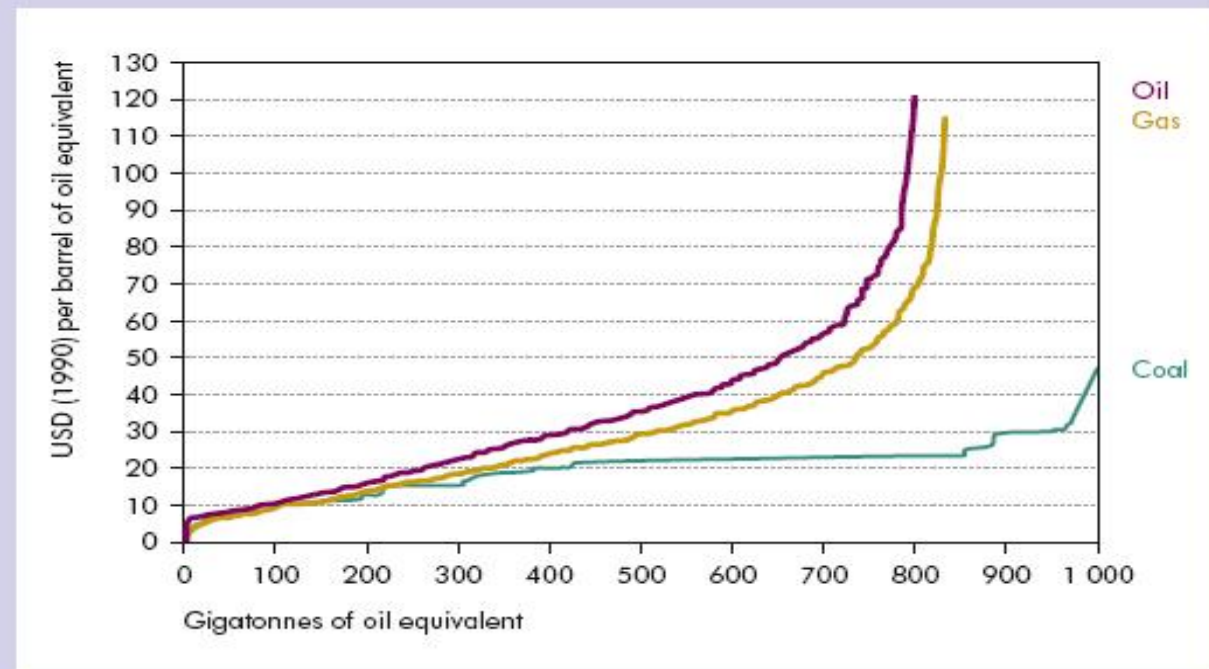
- “ To maintain SA's cost competitiveness we would need to continue to rely on coal being the cheapest source of power generation
- “ Catalyst for energy-intensive industry investment
 - . Aluminium smelters
 - . Ferrochrome and motor industry
- “ Enabler for national economic growth ambition
- “ Cost of new generation capacity will drive energy cost higher
- “ But even if cost of electricity increases significantly, as proposed by the NER, it will still be among the cheapest tariffs in the world

Challenges:

- “ Race against time
- “ Gas reserves too small and expensive
- “ Depleting coal reserves in the Highveld
- “ Clean coal technology
- “ Transmission infrastructure must be upgraded

The cost of future energy production

Figure 7.4 • Oil, gas and coal cost curves from Rogner



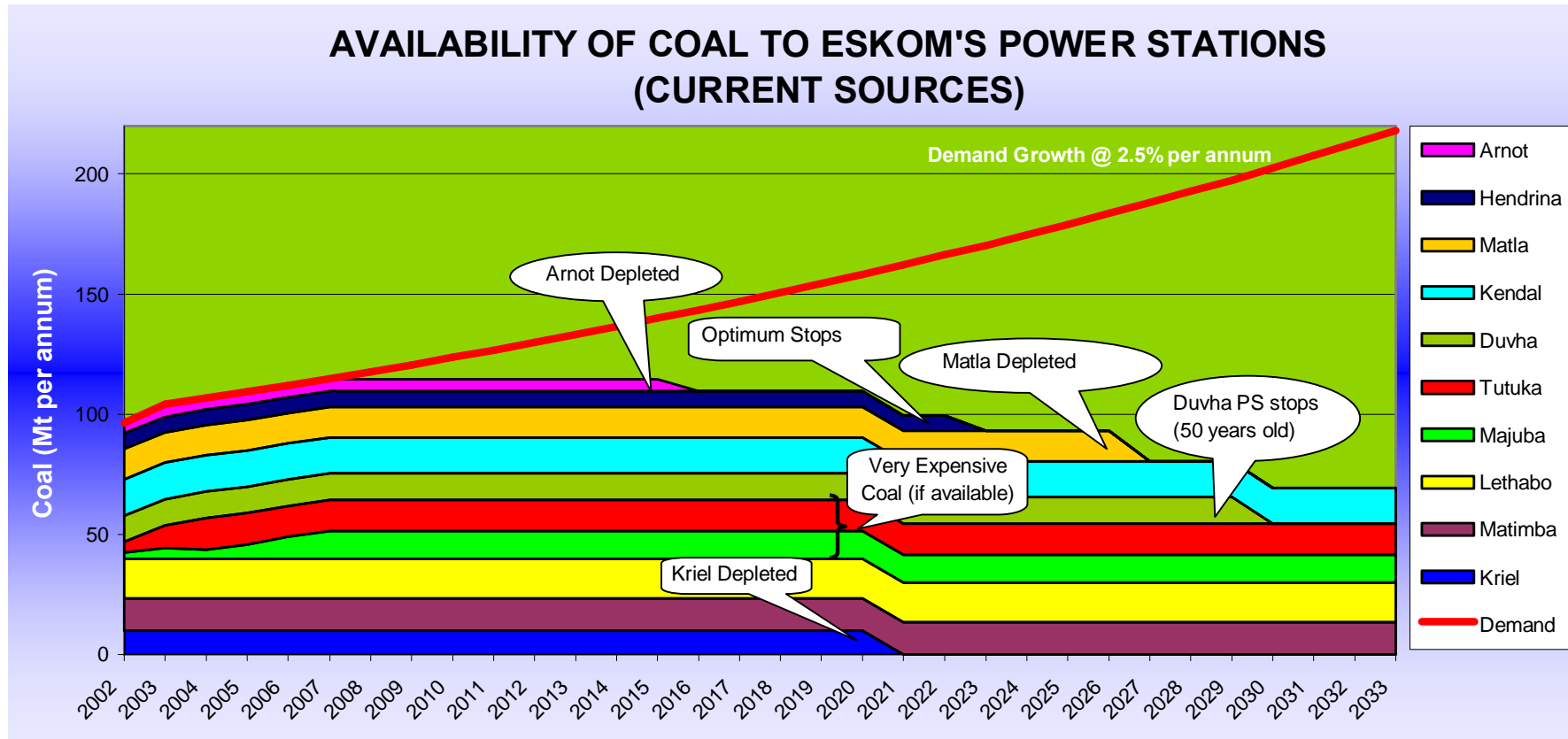
Note: 1 tonne of oil equivalent is approximately 7 barrels of oil equivalent.

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- “ The crux of the debate . what will the future production costs of the different types of primary energy be?
- “ Fossil fuel derived energy will be with us for years to come ò .

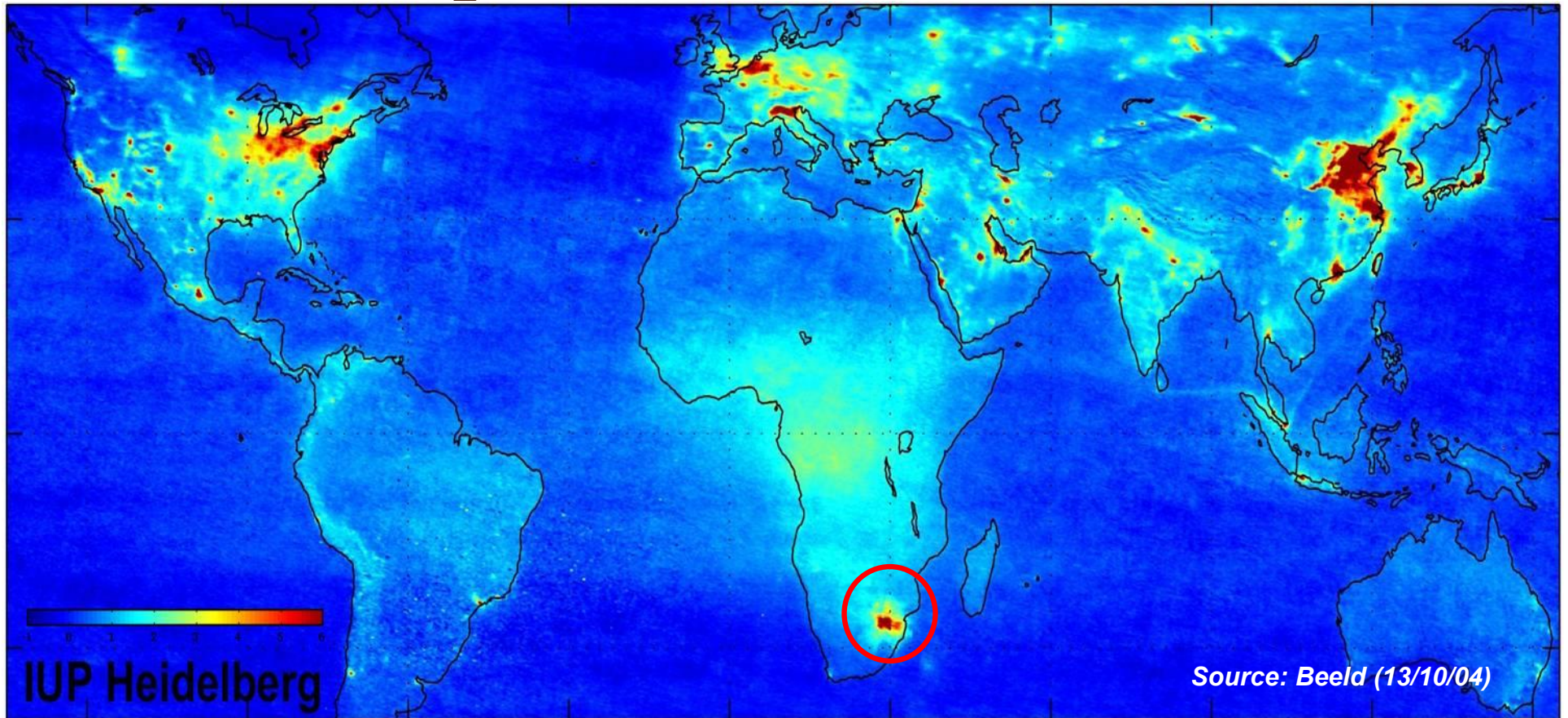


Where will all the coal come from?





Nox pollution image of world, showing Lloyd's blanket in Highveld

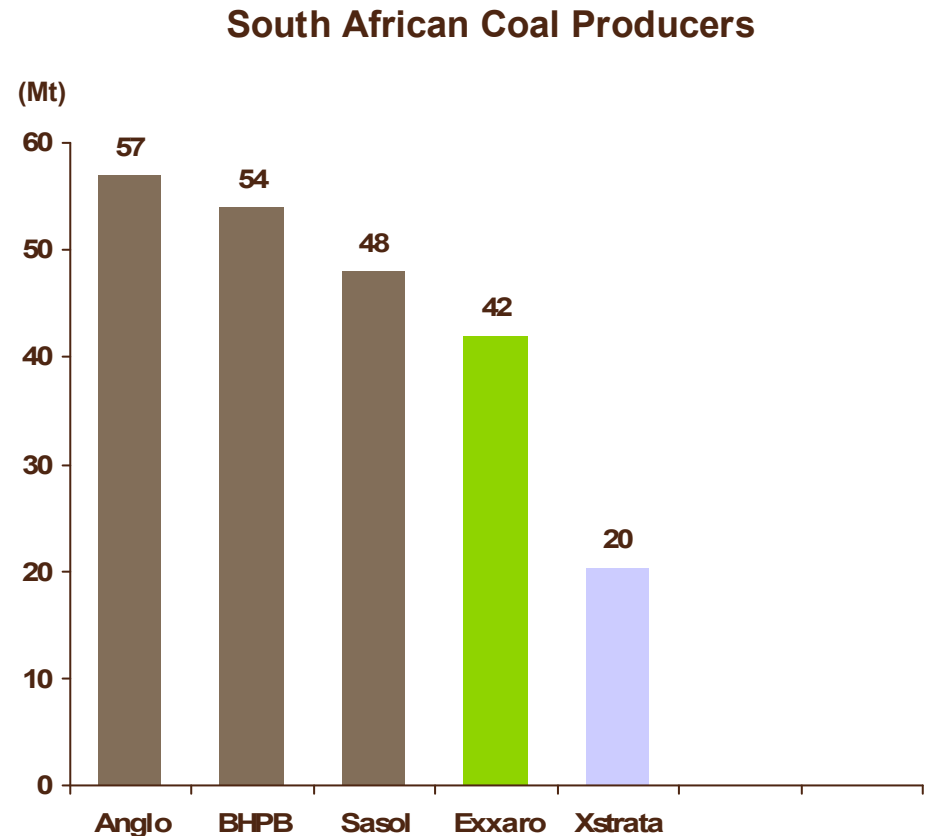


The expansion of electricity generation in the Mpumalanga Highveld and Gauteng will be limited due to pollution levels - Exxaro



Exxaro is the fourth largest coal producer in SA

- “ Potential to become the largest coal producer in South Africa, with planned expansions in the Waterberg and elsewhere
- “ Current combined annual production of 41.5Mtpa . on par with South Africa's largest producers

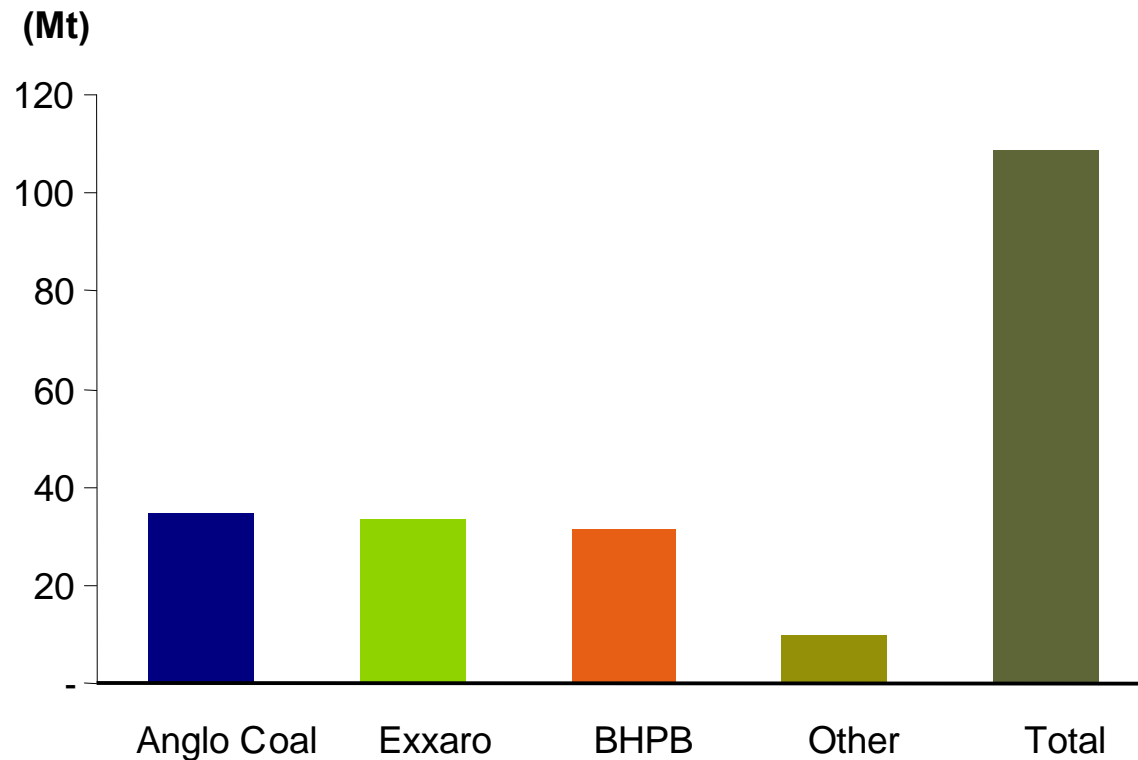


Source: Company websites and reports



... but one of the biggest suppliers to Eskom

- “ 30.9% of total power station demand in South Africa in 2006
- “ Exxaro is significant supplier of coal to Eskom in 2006 with 34.6 Mt coal sold to Eskom
- “ Supply to Eskom is split between supply from Mpumalanga Highveld and the Waterberg, but growth is significantly skewed to Waterberg over the next 8 years





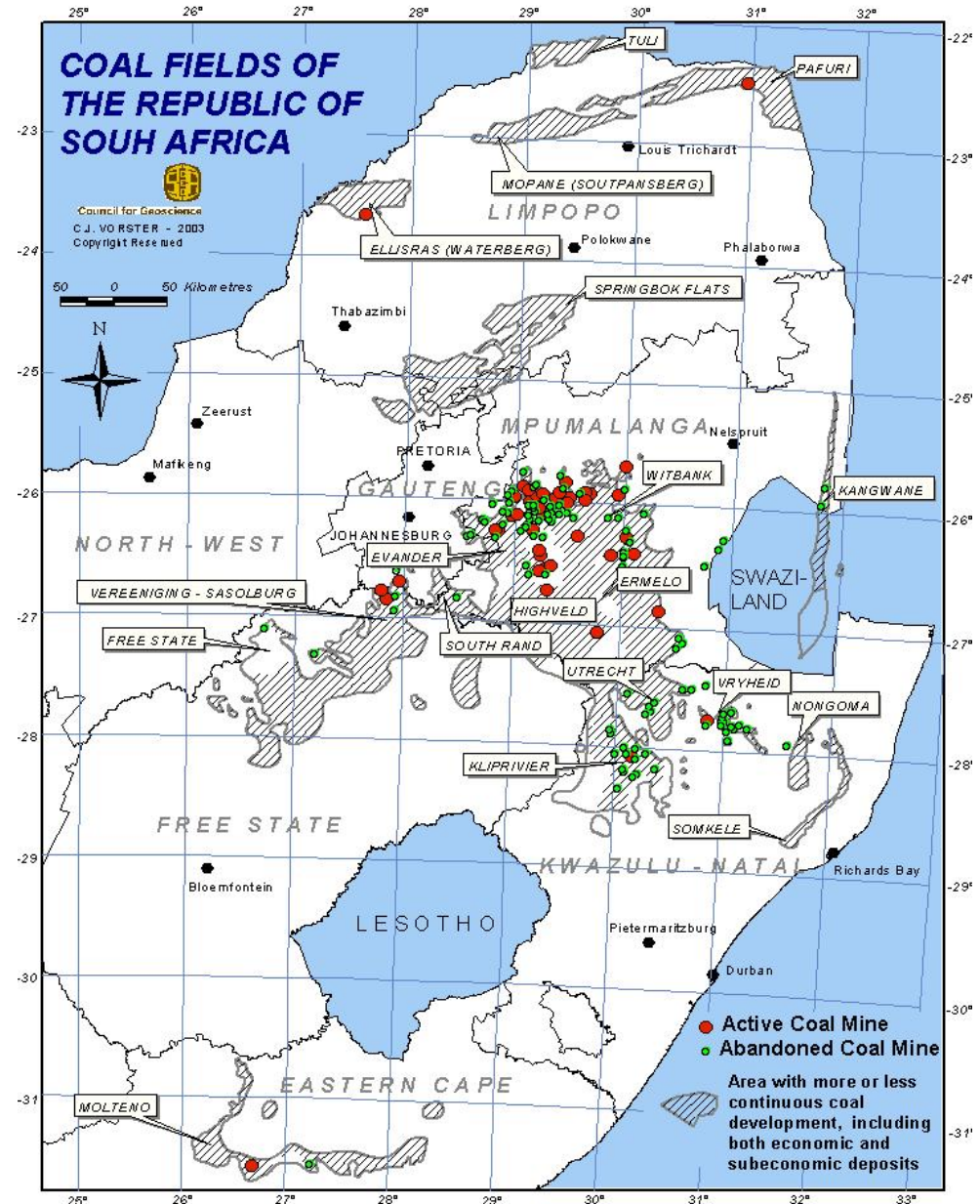
The Waterberg ... The future for SA's coal-fired energy needs





What is the Waterberg coalfield?

- “ Situated in Limpopo province
- “ 40% of remaining reserves in SA
- “ Significant coal deposit with good quality power station and metallurgical coals
- “ Exxaro is the only company mining in this area
- “ Exxaro's total resources in mineral rights area : 6,016Bn tons
- “ LOM : > 75 years
- “ We believe the coalfield could support 8 to 10 additional new power stations
- “ Medupi is currently being constructed, one of the first such new power stations
- “ Challenges . infrastructure, environmental stewardship
- “ Clean Energy programme . cleaner technologies; energy efficiency; low carbon economy





What can the mining industry do to be part of the energy solution?

- “ Become more energy efficient and thereby also reducing our carbon footprint. There is a lot of short term quick wins in this regard
- “ Utilise and exploit co-generation possibilities to reduce emissions and enhance energy efficiencies
- “ Promote the use of clean technologies
- “ Ensure stable and reliable supply of coal to power stations i.t.o. quantity and quality
- “ Fast track coal mining projects
- “ Ensure skills availability



What can government do to create an energy solution?

- “ Provide a context for private investors to develop IPPs
- “ Provide a context which ensures that there are incentives when private investors want to invest in renewable clean energy
- “ Ensure that we create the skills capacity to allow us to execute all these growth initiatives
- “ Provide incentives for skills development
- “ Ensure approval of mining rights



So what does all of this mean ...

- “ South African economy continues to grow
- “ Sustained growth at above average historical rates . projected to accelerate
- “ Concerted drive to improve and construct new infrastructure . Gautrain, Soccer World Cup 2010, King Shaka airport, ports, power stations
- “ Translates into enormous power growth scenario
- “ Coal-fired power generation still an economically preferred option
- “ Exxaro is the largest supplier to Eskom and will continue to grow coal supply to the utility
- “ Exxaro and its Waterberg coalfield are well placed to responsibly meet the country's future needs for coal-fired power generation



Concluding remarks

- “ Exxaro is optimally placed in the SA coal production market
- “ Destined to play a significant role in the growth of SA's energy industry
- “ The Waterberg coal field provides the only long term sustainable solution to new coal fired base load stations
- “ Industry is faced with issues, particularly around safety of employees, and Exxaro is committed to supporting government initiatives in this arena to further reduce fatalities and injuries

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THANK YOU