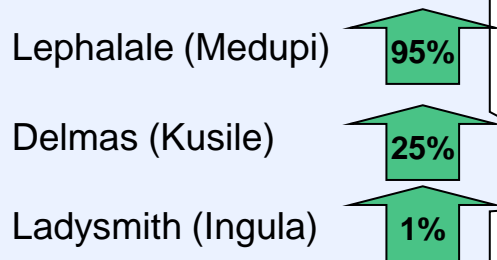




# **Eskom New Build Programme October 2009**

# IMPLICATIONS OF THE NEW BUILD PROGRAMME – LOCAL IMPACT

## Impact on local town's GDP from each project



*Local communities will receive a significant economic and social boost!*

## Typical local businesses and infrastructure created



Shops



Civil infrastructure



Schools



Transport

## Other businesses and infrastructure created:

- Catering
- Laundry
- Building companies
- House maintenance
- Hotels
- Entertainment
- Training facilities
- Security
- Schools / education
- Policing
- Churches
- Medical care
- Banks & financial services

# IMPLICATIONS OF THE NEW BUILD PROGRAMME - 3

*Specifically focussing on the major projects Medupi, Kusile & Ingula:*

New industries will be created as a result of knowledge transfer and local spend requirements

Local industries being developed for boiler and turbine manufacture. Significant investment in new manufacturing and training facilities, e.g.:

- Brand new boiler fabrication facility built in Nigel .
- Training facilities in Pretoria for pressure part manufacturing.
- Training school in Wadeville for structural steel manufacturing.

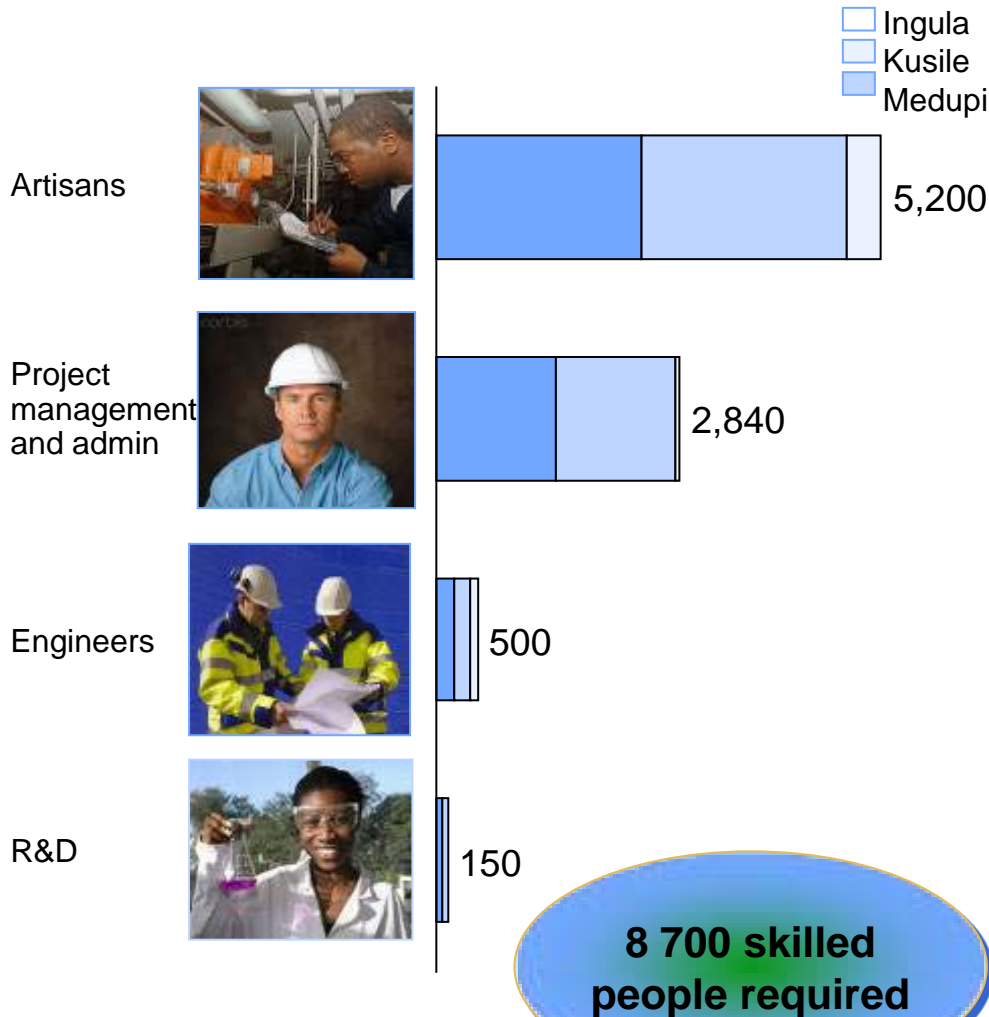
Example components manufactured locally:

- Air Cooled Condenser
- Major pumps
- Heaters
- Main crane
- Soil investigations
- Detailed studies
- LP outer casing
- Feedwater tank



# IMPLICATION OF THE NEW BUILD PROGRAMME - SKILLS DEVELOPMENT

## Demand for skills on projects



The three projects will require about 85% of one year's artisans and 105% of one year's higher education graduates

**4 000 higher education graduates annually**

**5 000 artisans graduate annually; 45% Eskom requirement to be trained through contractors**

**HITACHI** Inspire the Next

**ALSTOM**

**Eskom**

# IMPLICATIONS OF THE NEW BUILD PROGRAMME - EMPLOYMENT

*Specifically focussing on the major projects  
Medupi, Kusile & Ingula:*



## Direct

• On site construction	19,200
• Supporting project staff	4,200
• Coal mine expansion	4,000
• Transmission expansion	2,800
• Crocodile River expansion	3,000
• Ongoing operations	1,400
	<hr/>
• Subtotal	~34,600

## Indirect

• Social services + local business	~ 4,000
------------------------------------	---------

Total employed	~38,600
x family multiplier (4 per family)	4

**People directly impacted by projects ~155,000**



# Kusile Project

The background of the slide is a blurred photograph of an industrial facility, likely a power plant or refinery. It features several tall, dark chimneys or towers rising from a complex network of pipes and structural steel. The scene is set against a bright, hazy sky, possibly during sunrise or sunset, which creates a warm, golden glow. The bottom portion of the image is obscured by a solid grey horizontal bar.

# Kusile Power Station Project Update

CONFIDENTIAL



Pouring Pile Cap – Unit 1 Boiler

## Kusile Power Station will have a significant impact on SA Inc.

### HEADLINE FIGURES

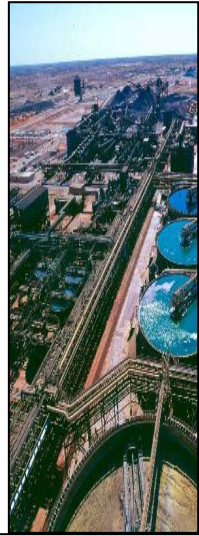
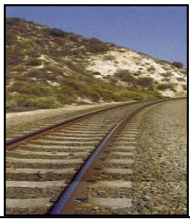
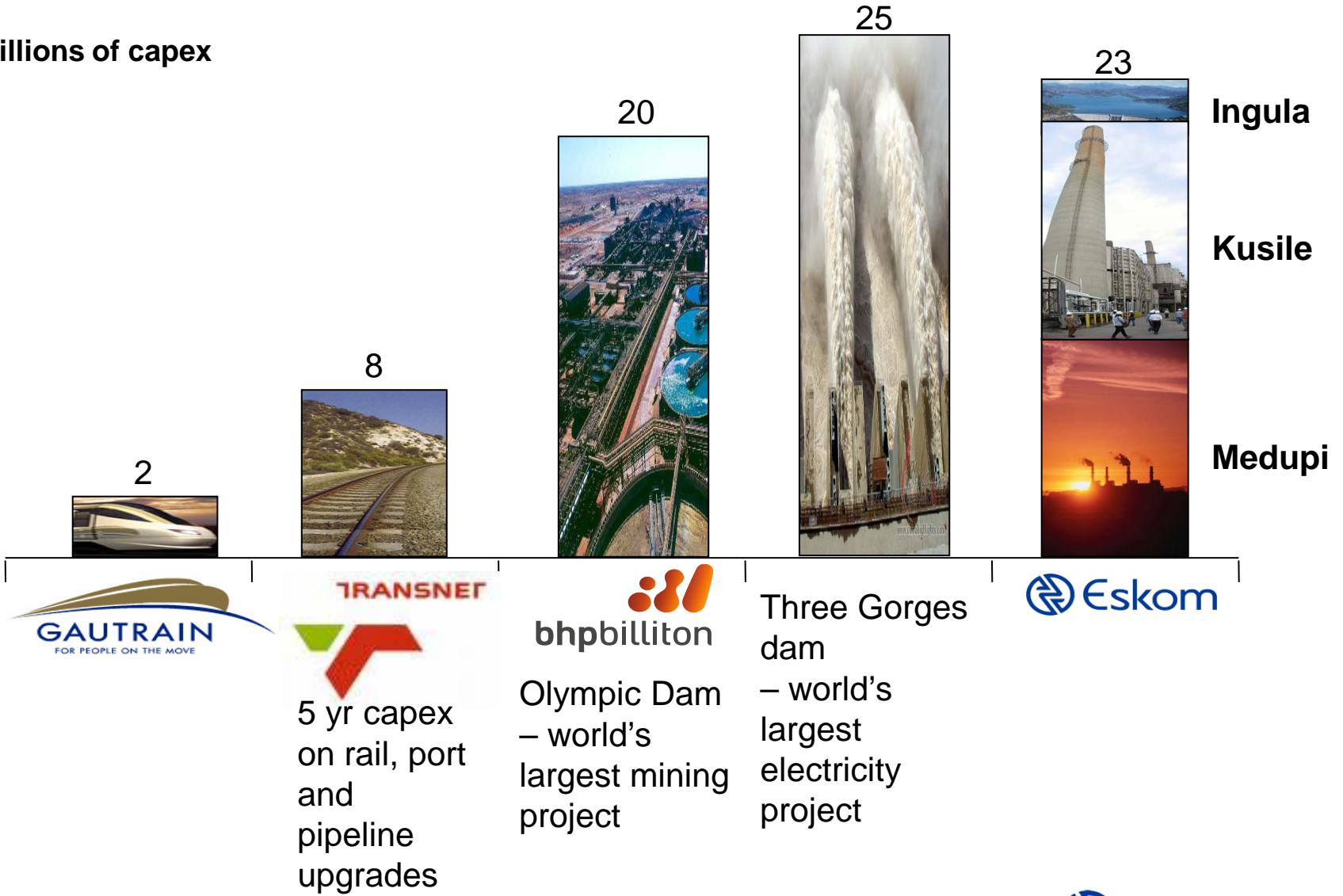
- **Funding required:** +-R141.5bn (local & offshore)
- **Capacity as % of Eskom's installed base:** 11% (4,800 MW)
- Will be the **2<sup>nd</sup> largest** power plant, **4<sup>th</sup> largest** coal plant in the world
- **Direct construction employment:** ~10,000  
(at peak)
- **Current construction employment:** 3700  
(Oct 09)
- **Indirect employment:** ~5000
- **Ongoing direct employment:** 12,750
- **People directly impacted by Kusile** ~51,000

.....plus keeping the lights on for all of South Africa!



# The capex for Eskom's 3 largest new build projects ranks among the world's largest construction projects...

\$ billions of capex



Ingula

Kusile

Medupi



5 yr capex on rail, port and pipeline upgrades



Olympic Dam – world's largest mining project

Three Gorges dam – world's largest electricity project



# Kusile is South Africa's largest construction project - by a long way

**4X larger  
than Gautrain**



**Kusile**

# Kusile Construction Safety

Safety and Health

Data as of 30Sept09

## Safety and health



Safety Statistics			Contractors			Eskom		
			Month	12 mth total	Project to date	Month	12 mth total	Project to date
Fatalities			0	0	0	0	0	0
Lost Time Incidents			1	3	4	0	0	0
Medical Incidents			1	15	18	0	0	0
First Aids			4	7	11	0	1	1
Near Miss Incidents			0	20	20	0	2	2
Occupational Diseases			0	0	0	0	2	2
Security/crime Incidents			0	3	3	0	2	2
Manpower numbers (month)			3,671			154		
Total ave. man-hours on the project ('000)			751	4,906	5,743	37	300	392
Total ave. man-hours since last LTI ('000)			268			324		
Last LTI (date)			10-Sep-09			NA		
Days without LTI			20			517		
<b>LTI investigation close-out</b>			<b>In process (&lt;30 days)</b>			<b>Overdue (&gt;30 days)</b>		
# of investigations			0			0		

LTIR	Target	Actual
Contractors	0.40	0.12
Kusile Team	0.20	0.00
Combined	0.40	0.12

**Comments** (If traffic light is red or amber include details on actions to improve situation)

## LTIs and fatalities

Date	Parties involved* and details of incident	Immediate corrective action
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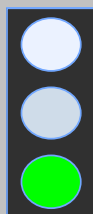
090910 - KCW employee was struck in back by test pile cable bundle which fell to the ground due to improper rigging.

# Kusile Construction Site Environmental

Environment

Data as of 30Sept09

Environment



Key Performance Indicators	Environmental Incidents			NCR's		
	Month	YTD	ITD	Month	YTD	ITD
<b>Total</b>						
Major chemical/oil spills	0	1	4	0	0	0
Minor chemical/oil spills	0	6	20	0	0	0
Fauna	0	0	0	0	0	0
Vegetation	0	0	0	0	1	1
Waste Management	0	0	0	0	1	1
Public complaints	2	2	3	0	0	0
Other (specify, e.g. air pollution)	1	2	4	1	5	17

Incidents not closed out	30 days	90 days
# of incidents	0	0

**Comments** (If traffic light is red or amber include details on actions to improve situation)

External Audit Score = 97%

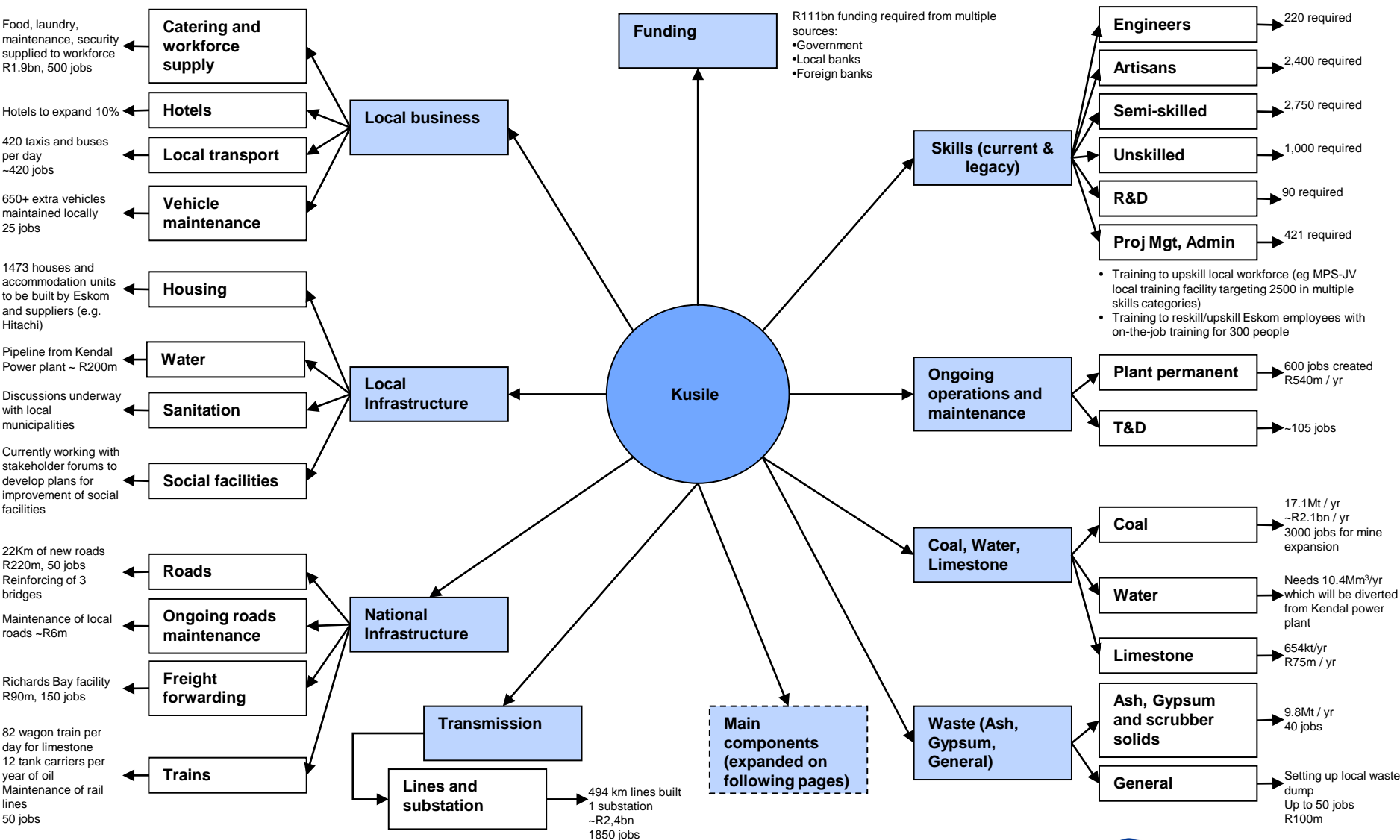
**Details of legal contraventions and other serious incidents**

Date	Parties involved* and details of incident	Immediate corrective action
17-Sep-09	KCW entered demarcated wetland with bakkie. No notification required.	Removed

# Kusile Power Station's potential impact on SA Inc.

## - supporting infrastructure

ALL NUMBERS ARE ESTIMATES



## Impact on employment goes beyond the immediate build

<b>Direct</b>		
• On site construction	10,000	
• Supporting project staff	300	
• Coal mine expansion	3,000	
• Transmission expansion	1,850	
• Ongoing operations	600	
• Subtotal	~17,500	
<b>Indirect</b>		
• Social services + local business	5,000	
Total employed	17,700	
x family multiplier effect (4 per family)		4
<b>People directly impacted by Kusile</b>	<b>~71,000</b>	

# KUSILE – INTERESTING FACTS

## PROJECT FACTS

- Impact on the total Growth Domestic Product on the local town – 25% per year.
- Kusile will contribute 0.34% to SA's Growth Domestic Product growth per year.
- Community projects and interventions currently involved with: relocation of farm workers, training centre at Wilge, employment of farm dwellers & registration of a community forum.
- The Kusile Project has recently launched an information centre in the Witbank area of Mpumalanga which enables local communities to have access to information pertaining to the project.
- Labourers on site which are attributed to local areas include:
  - KCW-JV: 336 (from Delmas, Ogies & Witbank area)
  - Roshcon (terracing & site services): 1445 (Delmas, Ogies, Witbank, Phola, Wilge & Local farms)
  - Lonerock (access road): 79 (local farms)
- The process of building permanent houses for the farm dwellers that were relocated from the footprint of the station is in progress.
- Overall, safety is progressing very well on the project.



# **Eskom Price Application**

# Introduction: Process

- We have submitted the proposed MYPD 2 application to NERSA, National Treasury and SALGA on 30 September 2009
- This marks the beginning of a consultative dialogue with South Africa
- NERSA will hold public hearings to obtain further input on the application
- Decision is expected from NERSA early in 2010 in order to allow for the tabling of that decision in Parliament
- Implementation on 1 April 2010 for Eskom customers and on 1 July 2010 for municipal customers

## The Funding Options

- Retained earnings (reserves)
- Equity
- Borrowings
- Regulated revenue and tariffs

## Equity

- **Provided by Shareholder**
- **R60bn over three years**
- **R176bn Government guarantees**

## Borrowings

- Borrowing target of R40 bn per annum over the three-year period
- Borrowing programme supported by Government guarantees of R176bn
- Funding from Development finance institutions (World Bank and Africa Development Bank) to be included in mix
- Dependent on depth of market
- Supportive price path is key to unlocking funding
- Depends on credit rating

## Regulated Revenue

- Recover prudent costs
- Move towards sustainable tariffs
- Strengthen capacity to borrow
- Support investment grade credit rating

## The Country Plan

- South Africa requires additional 20 000 MW by 2020
- The plan integrates climate change objectives of the country
- MYPD allows for cash flows associated current build programme, IPP's and future investment
- Energy efficiency initiatives are an important element

## IPPs

- Support Independent Power Producer investment
- Over the next three years IPPs will contribute
- 2189 MW at the end of MYPD period

## Free basic electricity

- Average low income customer's consumption is 80kWh
- Recommends free basic electricity increase from 50 kWh to 70kWh
- Recommends funding incremental costs through a cross-subsidy

# The Application

Eskom has considered two alternatives

## A Once-off increase

- 146% increase in the first year from 33c to 83c
- 12% increase in year two from 83c to 93c
- 12 % increase in year three from 93c to 104c

Significant increase in year one will have major impact on customers and economy

## B Smoothing option

- Smoothed over three years
- 45%, per year, over three years
- Price increase over period to 99c/kWh
- R30bn cash shortfall in Eskom
- Eskom will look into other funding interventions to address the expected shortfall

Preferred option as it is progressive over a period.

- We are committed to closing the R30 bn shortfall
- This application serves as a transition to financial sustainability
- An unavoidable adjustment for a sustainable and secure future
- We are committed to continuously identifying efficiencies in the value chain
- We are committed to a dialogue with our customers and stakeholders

## The value proposition of this application

- Ensuring the continuous supply of power
  - power is the oxygen of the economy
- Setting a foundation for a cleaner and greener future
- Build capacity for the future needs of the country
- Empower the industrial development and economic growth of the country
- Create employment opportunities
- Build confidence in the future

**THANK YOU**