



### Eskom Audited Annual Results Presentation for the year ended 31 March 2011

October 2011

Eskom, Megawatt Park

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# Today's agenda



- 1. Overview
- 2. Eskom's triple bottom line
- 3. Results of operations
- 4. Financial position
- 5. Cash flows including funding
- 6. Operating highlights and challenges
- 7. Outlook

# Overview



**Brian Dames** 

**Chief Executive** 





### Overview



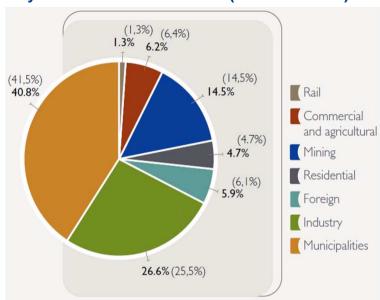
- No load shedding since April 2008, despite an extremely tightly balanced energy system
- We initiated the 49M campaign to educate South Africans about the importance of saving electricity and to help create a culture of energy efficiency
- Eskom kept the lights on during the last year when South Africa hosted a successful 2010 FIFA World Cup<sup>TM</sup>
- Safety remains a major concern and will be of primary focus going forward
- Posted a second consecutive year of strong financial performances these financial surpluses will be reinvested in the business, helping to fund the capacity expansion programme
- With government's guarantees and explicit support, Eskom has put a funding plan in place for the next seven years from 1 April 2010
- First year in the electricity market for Independent Power Producers
- Milestone reached of 4 million households electrified since inception of the electrification programme
- Eskom build programme is on track
- R41.9bn spent on Broad-based Black Economic Empowerment

### Eskom at a glance

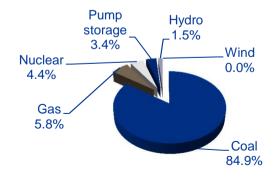


- Strategic 100% state-owned electricity utility, strongly supported by the government
- Supplies approximately 95% of South Africa's electricity and more than 40% of Africa's electricity
- 41 778 employees as at 31 March 2011
- Serves 2 857 industrial, 1 110 mining, 49 090 commercial, 84 393 agricultural and more than 4.5 million residential customers
- 27 (including 1 nuclear) operational power stations with a net maximum capacity of 41 194MW as at 31 March 2011
- Total electricity sales of 224 446GWh and gross electricity revenues of R90.38bn for the year ended 31 March 2011 (R69.83bn for the year ended 31 March 2010)
- Infrastructure includes 395 419km of power lines and cables (all voltages) as at 31 March 2011
- Committed to build 17.1GW new generation capacity expected by 31 March 2018. This includes 5.2GW already commissioned as at 31 March 2011
- Baa2 (Stable)/ BBB+ (Stable) rating by Moody's and S&P

# Eskom electricity sales by customer for the year ended 31 March 2011 (31 March 2010)



#### Eskom's net capacity mix – 31 March 2011



## Partnering for sustainable growth



# Securing energy supply

- No load shedding since April 2008
- Reserve margin at 14.9%
- Successful 2010 FIFA World Cup™
- Strategic plans developed to secure supply over the next three years

# Driving generating capacity

- R55.5 billion capital expenditure (including capitalised interest)
- Medupi: First unit expected late 2012: we are doing a detailed assessment of the schedule ensuring that contractors meet timelines as the schedule is at risk
- Wusile: Recommenced full construction. First unit comes on stream late 2014
- Commissioned 315MW of additional capacity, 443km of high-voltage transmission lines and 5 940MVA of new transformer capacity

# Improving financial health

- Surplus of R8.4 billion (2010: R3.6 billion)
  - 100% to be reinvested in the business
- Tariffs move towards cost-reflective levels
- Funding plan well advanced and more than 70% of sources of funds secured
- One of the last two remaining commodity-linked power agreements re-negotiated with negotiations on the remaining one continuing

#### Safety

- 6 employee, 18 contractor and 43 public fatalities
- The actual lost-time incident rate (LTIR) performance was **0.47** per 200 000 man-hours worked against a target of **0.31** for 2011
- The **safety** of our people remains fundamental to our business

# Partnering for sustainable growth



# Regulatory changes

- Cabinet approved the Integrated Resource Plan (IRP) 2010, which outlines South Africa's power supply requirements until 2030
- The plan for restructuring the electricity distribution industry in South Africa was formally revoked by Cabinet
- An independent system operator will be established as a mechanism to support the introduction of independent power producers (IPPs)
- A ring-fenced buyer office has been established within Eskom to operate as the interim single buyer of electricity from independent power producers
- Environmental levy increased by 0.5 cents/kWh to 2.5 cents/kWh with effect from 1 April 2011. This has no effect on the electricity tariff

# New growth path

- 79% local content in new build contracts placed in current year
- Learner pipeline of 5 283 learners and bursars
- More than R41.9 billion sourced from B-BBEE compliant companies
- The focus now is to target B-BBEE spend at all levels not just major projects

# A supportive shareholder

- Financial support provided by government to deliver the capacity expansion programme:
  - R60 billion subordinated shareholder loan (fully drawn)
  - R350 billion guarantees (R174 billion extension; R106 billion committed)

# Eskom's triple bottom line



If we all save as much as we can, we'll all have as much as we need

## Our business model balances three aspects



#### Socio-economic aspects, e.g.

- Skills development beyond own need
- Implementation of electrification

#### Purpose:

To provide
sustainable electricity
solutions to grow the
economy and improve the
quality of life of the people
in South Africa and
in the region

#### Commercial aspects, e.g.

- Being customer-centric
- Ensuring financial sustainability
- Adding value to shareholder

#### Environmental aspects, e.g.

- Meeting national emissions legislation
- Supporting government's climate change response strategy

Eskom plays a central role to support the New Growth Path

### Triple bottom line: socio-economic



- Eskom is a major driver of the South African economy estimated that approximately 3% of the country's GDP can be attributed to Eskom
- Eskom enables all South Africans to take part in the development of the country
  - B-BBEE attributable spend amounted to 52.36% (2010: 28.6%) or R41.9 billion (2010: R20.8 billion)
  - Significant job creation as a direct result of the build projects
  - Over 50% local content for major projects
  - The new build programme sources over 50% of the workers from local communities
  - A large share of the Medupi, Kusile and Ingula spend will be benefitting local construction companies
  - Many skills are being developed as local content requirements kickstart whole new industries in South Africa
- Eskom leads by example in corporate governance, contributes to the country's leading position in anti-corruption performance within Africa and supports the realisation of South African development goals set out by the government

## Triple bottom line: socio-economic



- Eskom is supporting the government's objective of advancing electrification
  - Since the inception of the electrification programme in 1991, a total of 4 050 968 homes, more than 11 000 schools and close to 400 clinics have been electrified
- Training and development has always been a major focus in Eskom to the extent that outside organisations make use of Eskom's training facilities
  - Investment in training for the year was R998 million (2010: R758 million)
  - Eskom's learner pipeline consists of 5 283 (2010: 5 255) learners. This includes 4 240 (2010: 3 780) engineering/technical learners
- Eskom Development Foundation invested R62m in corporate social initiatives during 2010/11 which impacted 254 organisations with some 303 983 project beneficiaries during the year

## Triple bottom line: environmental



- Water
  - Water use performance stabilised. Water used as part of the process to generate electricity increased slightly from 1.34 to 1.35 litres/kWh
  - Net raw water consumption increased
- Atmospheric emissions
  - Installed gaseous emission monitoring systems
  - Carbon dioxide (CO<sub>2</sub>) emissions increased from 224.7 Mt in 2010 to 230.3 Mt in 2011
  - Sulphur dioxide (SO<sub>2</sub>) emissions reduced from 1 856 kt in 2010 to 1 810 kt in 2011
  - Nitrogen oxide (NO<sub>x</sub>) emissions increased from 959 kt in 2010 to 977 kt in 2011
  - Relative particulate emissions performance improved from 0.39 kg/MWh in 2010 to 0.33 kg/MWh sent out. Although performance has improved, it is still not achieving the target of 0.26 kg/MWh
- Entered into a strategic water research partnership with the Water Research Commission (WRC)
- Finalising funding for the first large wind and solar plants for Eskom

# Triple bottom line: safety



### **Causes of fatalities**

1 April – 31 March 2011

#### **Employees and contractors**



Fatalities	Year to March 2011	Year to March 2010	Year to March 2009
Employees	6	2	6
Contractors	18	15 <sup>1</sup>	21
Public	43	41	28

#### **Public**



Lost-time incident rate:	Year to	Year to	Year to
	March	March	March
	2011	2010	2009
Index (target:0.31)	0.47	0.54	0.50

<sup>1</sup> Restated due to the late notification of a fatality by a contractor

# Triple bottom line: financial highlights



R million	31 March 2011 Audited	31 March 2010 Audited	31 March 2009 Audited
Income statement for the year			
Revenue	91 447	71 130	54 177
Growth/(reduction) in GWh sales, %	2.7	1.7	(4.2)
Profit for the year after tax	8 356	3 620	(9 668)
Return on average total assets, %	2.91	1.63	(5.29)
Revenue per kWh, cents per kWh (1)	40.3	31.9	24.7
Operating costs per kWh, cents per kWh (2)	32.8	28.2	25.9
Capital expenditure	55 457	57 003	47 099
As at end of year			
Average days coal stock, days	41	37	41
Debt securities issued/borrowings	160 310	105 973	74 184
Debt: equity	1.62	1.62	1.22

# Shareholder compact for year ended 31 March 2011



Performance area	Company level performance indicator	2009 Actual	2010 Actual	2011 Actual	2011 Target	2011 Goal achieved
	Generation capacity (MW)	1 770	452	315	625	
Provision of electricity	Transmission lines (km's)	418	600	443	446	<u> </u>
	Transmission MVA installed	1 255	1 630	5 940	3 565	
Reliability of	National load shedding	641.5mins	None	None	None	0
supply	DSM energy efficiency (annualised GWh)	n/a	n/a	1 339	994	
	Cost / kWh (1) (cents/kWh)	23.7	25.5	29.6	32.7	
	Internal energy efficiency (annualised GWh)	n/a	n/a	26.2	24.0	
Business sustainability	Water usage (L/kWh sent out)	1.35	1.34	1.35	1.35	
	Debt: equity (not greater than)	1.32	1.69	1.67	2.5	
	Interest cover (not less than)	(4.72)	0.72	1.48	1.0	
	% Local content in new build projects (contracts placed)	n/a	73.9%	79.7%	50.0%	
Skills development,	Eskom trainees	5 907	5 255	5 283	4 500	
procurement	Engineering trainees	3 535	3 780	4 240	3 500	
	Non-Eskom learners	n/a	236	550	450	

<sup>1.</sup>Cost excludes depreciation, fair value, forward exchange cost, embedded derivatives and other income

### **Executive remuneration**



- Eskom links executive management remuneration to the performance of the organisation and an individual's contribution
- Eskom strives to employ and retain talented executives
- International and local benchmarks are considered to ensure executive packages are in line with the median in the market. In comparison to similar entities, Eskom's executive compensation is towards the lower end of the norm
- Basic salaries are augmented by short- and long-term bonuses
  - Short-term incentives reward the achievement of individual predetermined performance objectives and targets as set by the chief executive in performance contracts
  - Long-term incentives are designed to attract, retain and reward the Exco members for meeting the organisational objectives as set by the shareholder over a three year period
  - Bonuses are only awarded if the qualifiers are met: no load shedding and cost saving targets met
  - Bonuses are based on both company and division specific priorities (KPA and KPI's) which link directly to the Shareholder Compact and Corporate Plan
  - Bonuses are not linked to Eskom's financial performance or profit
- Housing loan scheme allow Exco members access to housing loans at a variable rate (currently 7.25%) offered by the Eskom Finance Company (Pty) Ltd. The loans are granted on arms length terms and are repayable over a maximum period of either 20 or 30 years depending on the applicant's age

## Executive remuneration – 2011 financial year



- Eskom filled many vacancies on its Exco over the past 21 months
- The 109.2% increase in Exco pay and 34.9% overall increase in executive remuneration in 2011 can be attributed to filling these vacancies
- Four executives listed in the table only joined Eskom during the 2011 financial year, or towards the end of the 2010 financial year
- On a like for like basis, executive pay packages increased by 6.59%

	Financial year 2010		Financial year 2011		
	Total R ('000)	Number of months in service	Total R ('000)	Number of months in service	Year on year % change
<b>Executive Directors</b>					
BA Dames (1)	5 690	12	5 741	12	0.9%
PJ Maroga (2)	4 767	7	0	0	-100.0%
PS O'Flaherty (3)	1 114	3	4 986	12	347.6%
Non executive directors	6 434		6 997		8.8%
	18 005		17 724		-1.6%
Exco members other than	n executive	directors			
BE Bulunga (4)	501	2	3 040	12	506.8%
CAK Choeu (5)	0	0	2 488	10	n/a
EL Johnson	4 615	12	4 838	12	4.8%
SJ Lennon	3 707	12	3 938	12	6.2%
DL Marokane (6)	0	0	4 155	12	n/a
	8 823		18 459		109.2%
Totals:	26 828	-	36 183	_	34.9%

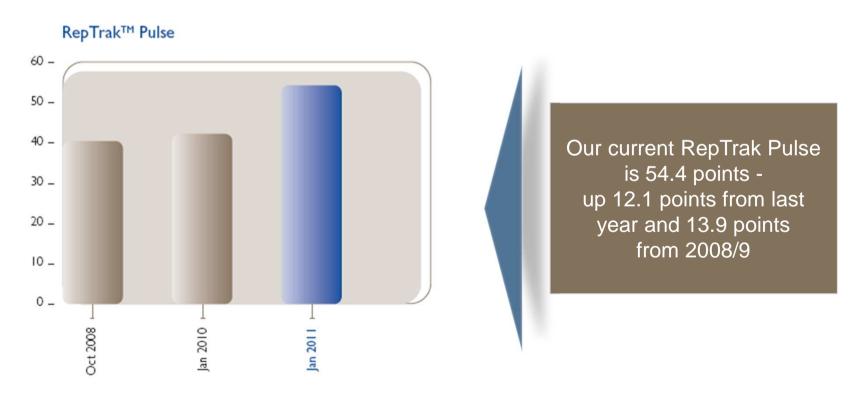
#### Notes relating to the table above:

- 1) BA Dames appointed as chief executive in June 2010
- 2) PJ Maroga resigned in October 2009
- 3) Eskom's finance director, PS O'Flaherty, joined Eskom in January 2010. His remuneration for the full 12 months of the 2011 financial year was R5.0 million, compared to R1.1 million for three months of the 2010 financial year
- 4) Divisional executive for Human Resources, BE Bulunga, joined Eskom in February 2010. His remuneration for the full 12 months of the 2011 financial year was R3.0 million, compared to R0.5 million for two months of the 2010 financial year
- 5) Divisional executive for Corporate Affairs, CAK Choeu, joined Eskom in June 2010
- 6) DL Marokane joined the executive committee in September 2010 when he was promoted to Chief Commercial Officer

# Eskom's reputation



- Each year we measure our reputation by using the globally recognized RepTrak score as measured through the Reputation Institute's RepTrak process
- We noted a steady improvement in our reputation



# Results of operations



Remember, we're all connected

# Income statement for the year ended 31 Mar 2011



- Electricity sales of 224 446 GWh, an increase of 2.7% when compared to the 218 591 GWh reported in the 2010 financial year
- Group revenue of R91.4 billion (31 March 2010: R71.1 billion), an increase of 28.6%
- Revenue growth driven primarily by 24.8% tariff increase granted by NERSA effective from 1 April 2010
- Effective tax rate of 27.9% (2010: 34.8%)
- Net profit increased from R3.6 billion to R8.4 billion

ZAR m	Audited Year ended 31 March 2011	Audited Year ended 31 March 2010	Audited Year ended 31 March 2009
Revenue	91 447	71 130	54 177
Other income	587	552	610
Primary energy	(35 795)	(29 100)	(24 884)
Opex (including depreciation & amortisation)	(36 772)	(31 719)	(29 626)
Net fair value loss on financial instruments	(3 691)	(5 943)	(2 392)
Operating profit before embedded derivatives	15 776	4 920	(2 115)
Embedded derivative (loss) / gain	(1 261)	2 284	(9 514)
Operating profit	14 515	7 204	(11 629)
Net finance costs	(2 866)	(1 234)	(1 167)
Share of profit of equity - accounted investees	24	14	37
Profit before tax	11 673	5 984	(12 759)
Income tax	(3 261)	(2 080)	3 786
Loss from discontinued operations	( 56)	( 284)	( 695)
Net profit for the year	8 356	3 620	(9 668)

21

# Key performance ratios



	Unit	Year ended 31 March 2011	Year ended 31 March 2010	Year ended 31 March 2009
EBITDA	R m	21 734	12 920	(6 711)
Funds from operations (FFO)	R m	17 019	2 356	13 865
Gross debt/ EBITDA	ratio	8.19	9.50	(13.00)
FFO/ gross debt	%	9.56	1.92	15.89
Debt service cover ratio	ratio	1.97	2.53	0.75
Return on average total assets	%	2.91	1.63	(5.29)
Return on average equity	%	10.61	5.58	(16.02)
Working capital ratio	ratio	0.87	0.91	0.78
Revenue per kWh (electricity sales) <sup>(1)</sup>	cents per kWh	40.3	31.9	24.7
Costs per kWh (electricity business)(1)	cents per kWh	32.8	28.2	25.9
Bad debt as percentage of revenue	%	0.75	0.83	1.54
Average debtor days: Distribution	days	22.2	22.0	20.8
Average debtor days: Transmission	days	16.0	16.1	18.1
Average days of coal stock	days	41	37	41

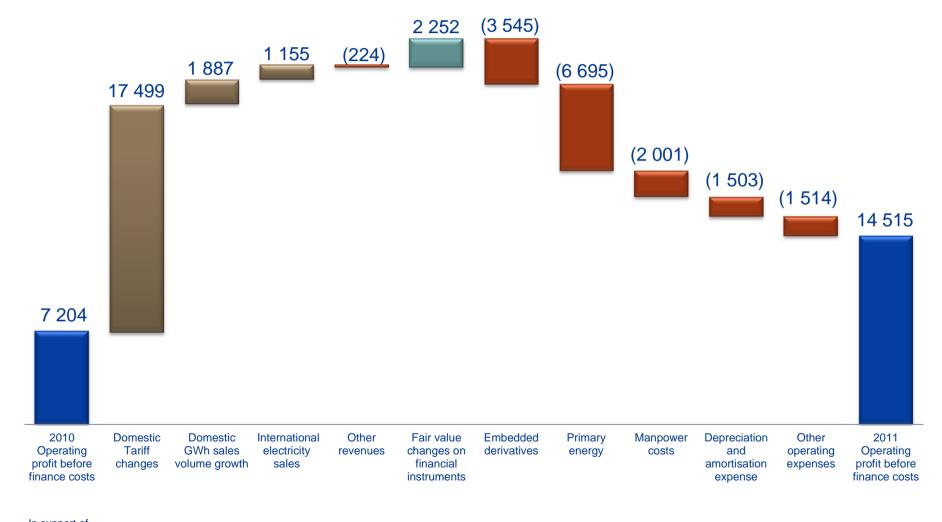
<sup>(1)</sup> Including environmental levy



# Net operating profit



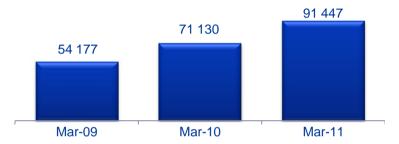
#### R million



# Return to profitability





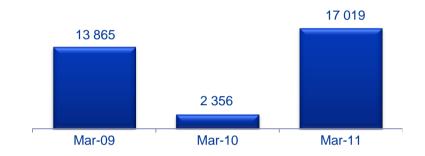


**Net profit** 



#### Free funds from operations (FFO)



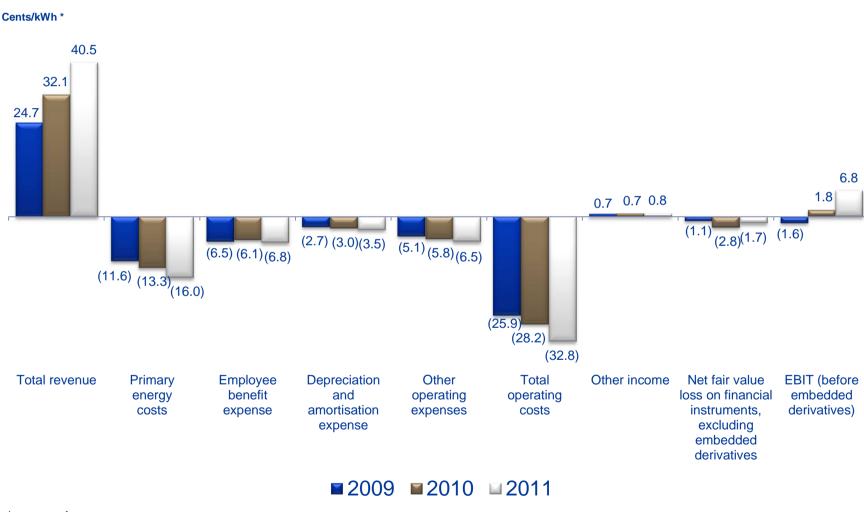


- Revenue growth is primarily driven by an increase in tariffs
- Electricity sales are subject to seasonal fluctuations and are higher in the first two quarters of Eskom's reporting cycle
- Large power user prices higher in winter compared to summer prices
- Eskom has held a moratorium on dividend payments since 2008 due to its capacity expansion programme

### EBIT before embedded derivatives



#### Company EBIT (before embedded derivatives)

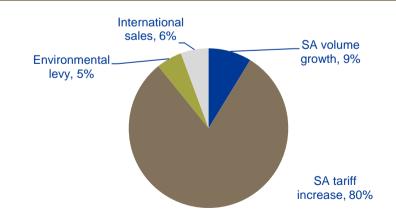


# Revenue growth driven by tariff increase



- 2.7% increase in GWh sales mainly due to improved economic conditions:
  - Industrial customer GWh sales increased by 6.8%
- Sales growth hampered by a slower than anticipated recovery, the downscaling of certain mines and lower demand from certain smelters
- 26.0% increase in electricity revenue per kWh, predominantly due to the 24.8% tariff increase granted by NERSA effective from 1 April 2010
- Industrial customer prices increased by 27.0% whereas prices to residential customers only increased by 3.9% due to the inclining block tariff
- International sales remained static but prices increased by 38.9%

### Revenue growth components



#### **Electricity sales (GWh)**



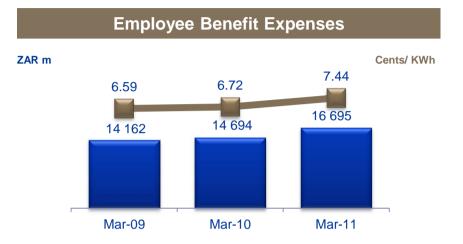
#### Electricity revenue (c/kWh)



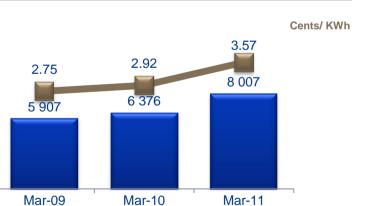
# Operating expenses(1)



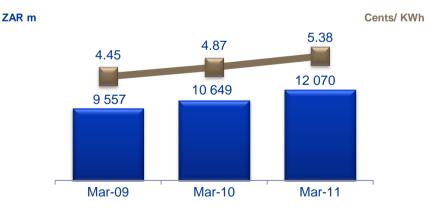




#### **Depreciation & Amortization Expenses**(2)



#### Other Operating Expenses<sup>(3)</sup>



- (1) Cents/KWh figures are calculated based on Total Electricity Sales numbers
- (2) Including Net Impairment Loss
- (3) Including managerial, technical and other fees, R&D, operating lease expense, auditor's remuneration, repairs and maintenance

In support of

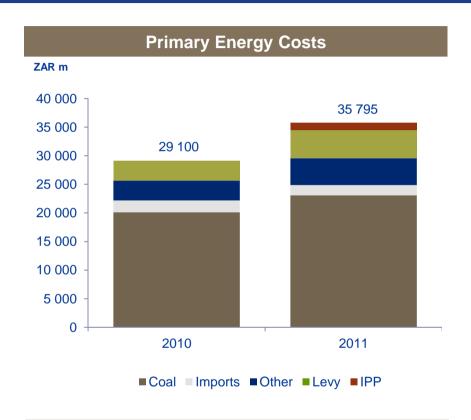
ZAR m





# Analysis of primary energy costs





Coal burnt				
	2010	2011	% Change	
Coal burnt (Mt)	122.7	124.7	1.6%	

Primary energy cost increased by 19.8% from 13.31 c/kWh for the previous year to 15.95 c/kWh for the current year.

The 2.64 c/kWh increase is made up of the following:

- the increased cost of coal burnt (12.8% per ton) contributed 1.09 c/kWh
- the environmental levy increase (only in effect for nine months in the prior year) contributed 0.62 c/kWh
- the cost of using IPPs (R1.3 billion) contributed 0.57 c/kWh
- the increases in the cost of coal handling, coal-fired start-ups, gas-fired start-ups and nuclear fuel costs made up the remainder of the increase of 0.36 c/kWh

# Hedging policy



#### **Primary Energy Hedging:**

- Eskom does not formally hedge against increases in coal prices
- Coal purchased as follows:
  - 47% cost plus contracts
  - 24% fixed price or indexed contracts
  - 29% short/medium term contracts
- Limited correlation with International Coal Prices
- Approximately 80% of the cumulative coal supply until 2020 is contracted

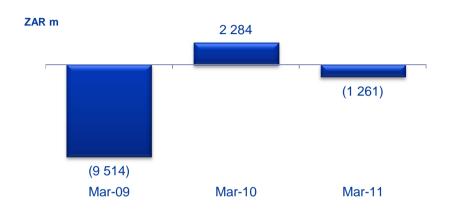
#### **Commodity Derivatives Hedging:**

- Hedging in place to mitigate potential losses on the embedded derivatives since 1998
- Renegotiating the last remaining commoditylinked power agreement

#### **Foreign Currency Hedging:**

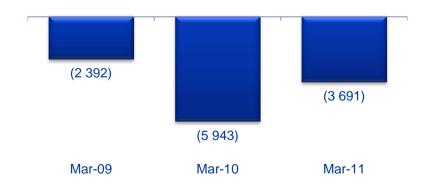
- Eskom's policy is to hedge all foreign currency exposure over ZAR50 000 once commitment has been made
- Uses inter-alia forward exchange contracts with short maturities and roll over at maturity as well as cross currency and interest rate swaps
  - Note that 90% of our total debt as at 31 March 2011 has a fixed interest rate component

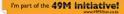
#### **Embedded Derivatives (Loss) / Gain**



#### **Net Fair Value Loss on Financial Instruments**

ZAR m







# Financial position



If you're not using it, switch it off

# Statement of financial position



R million	31 March 2011 Audited	31 March 2010 Audited	31 March 2009 Audited
Assets			
Non-current assets	265 183	203 162	154 160
Property, plant and equipment	236 724	187 905	138 642
Future fuel supplies	4 089	3 768	3 510
Investment in securities	13 259	1 923	3 558
Payments made in advance	2 396	2 856	5 081
Other	8 715	6 710	3 369
Current assets	62 258	42 953	41 106
Inventories	8 904	7 378	6 581
Trade and other receivables	10 953	9 391	8 191
Investment in securities	24 546	2 148	4 360
Other	5 768	8 495	3 592
Cash and cash equivalents	12 087	15 541	18 382
Non-current assets held for sale	704	20	4 036
Total assets	328 145	246 135	199 302



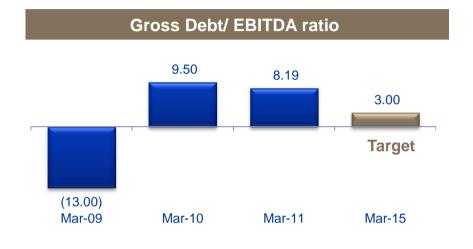
# Statement of financial position



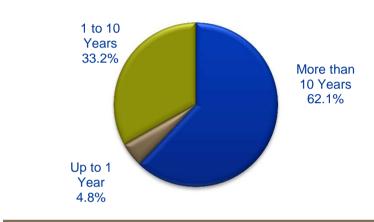
R million	31 March 2011 Audited	31 March 2010 Audited	31 March 2009 Audited
Equity	87 259	70 222	59 578
Non-current liabilities	196 270	132 700	95 349
Debt securities issued	84 396	59 322	44 253
Borrowings	63 380	34 628	12 796
Derivatives held for risk management	4 576	3 626	786
Embedded derivatives	5 357	4 583	8 219
Provisions	11 203	8 494	8 883
Other	27 358	22 047	20 412
Current liabilities	43 756	43 213	42 362
Trade and other payables	18 876	16 331	16 701
Borrowings	9 654	9 143	13 811
Derivatives held for risk management	1 404	4 644	2 626
Embedded derivatives	516	139	43
Other	13 306	12 956	9 181
Non-current liabilities held for sale	860	-	2 013
Total equity and liabilities	328 145	246 135	199 302

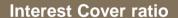
# Debt maturity and leverage

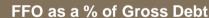




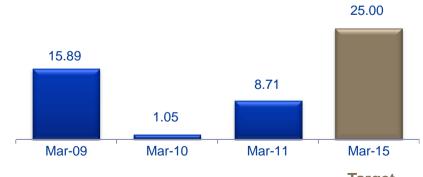
### **Debt Securities & Borrowings Maturity Profile**(1)











(1) As at 31 March 2011

**Target** 

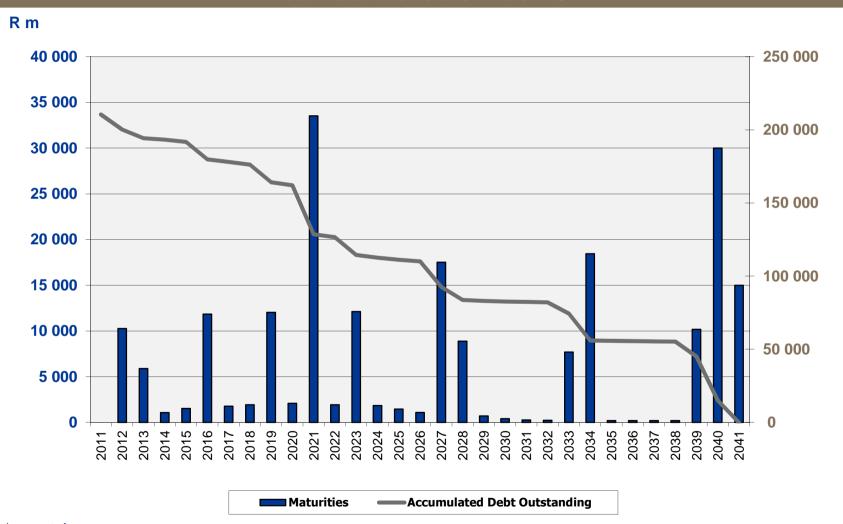
In support of



# Total debt maturity profile



#### **Debt maturities as at 31 March 2011**



# Eskom capacity expansion programme



#### Return-to-service (RTS)

#### New coal



#### Peaking & renewables



#### **Mpumalanga** refurbishment



**Transmission** 



- Komati (1 000 MW)
- Camden (1 520 MW)
- Grootvlei (1 200 MW)

3 720 MW

- Medupi (4 764 MW)
  - Kusile (4 800 MW)

9 564 MW

3 536.3 MW

Ankerlig (1 338.3MW) Arnot capacity increase

- Gourikwa (746 MW)
- Ingula (1 352 MW)
- Sere (100 MW)

**300 MW** 



- (300 MW)
- Matla refurbishment
- Kriel refurbishment
- Duvha refurbishment

765kV projects

- Central projects
- Northern projects

~ 4 700 km

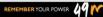
Cape projects

**Commissions of new stations** 

	First Unit	Last Unit
Medupi	2012	2015
Kusile	2014	2018
Ingula	2014	2014

- ~ 17 120MW of new capacity (5 222MW installed and commissioned)
- ~ 4 700km of required transmission network (3 268km installed)

Medupi is the first coal-generating plant in Africa to use supercritical power generation technology



# Build progress to date



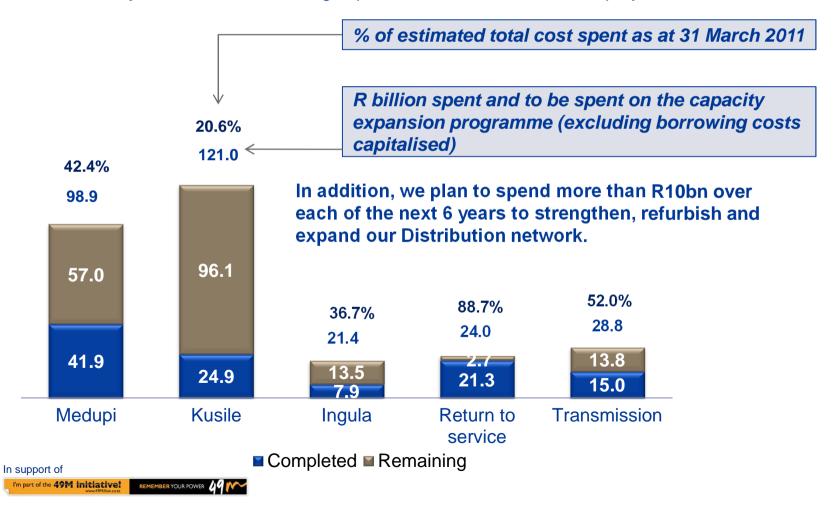
To date, a large amount of construction work has been completed, adding ~5 221.8 MW, ~3 268 km of transmission network, and ~17 670 MVA of sub-station transformers



# Significant progress in build programme – began in 2005 with completion in 2017/18



- The first Medupi unit is expected in late 2012; we are doing a detailed assessment of the schedule ensuring that contractors meet timelines as the schedule is at risk
- We are focusing systematically on supplier performance, so we can pick up and mitigate any risk factors early on; also understanding impact of labour situation on the project



# Current planned capacity expansion plan



Project	11/12 FY	12/13 FY	13/14 FY	14/15 FY	15/16 FY	16/17 FY	17/18 FY	18/19 FY	Total
Grootvlei (return to service)	200								200
Komati (return to service)	225	400							625
Arnot capacity upgrade (coal fired)	30								30
Medupi (coal fired)		794	1 588	1 588	794				4 764
Kusile (coal fired)				800	800	800	800	1 600	4 800
Ingula (pumped storage)			338	1 014					1 352
Sere wind farm (renewable)			100						100
TOTAL	455	1 194	2 026	3 402	1 594	800	800	1 600	11 871









Medupi

**Kusile - Unit 1 Turbine Pedestal** 

**Central Grids** 

Ingula - Bramhoek dam





# Cash flows including funding



Let natural light into your home – it's free

### Group cash flow statement



2009

#### **Cash flows from operating activities**

Cash generated from operations Net cash flows from financial trading assets Net cash flows from financial trading liabilities Other operating activities

#### Net cash from operating activities

#### **Cash flows from investing activities**

Acquisitions of intangibles, property, plant and equipment Other investing activities

#### Net cash used in investing activities

#### **Cash flows from financing activities**

Debt raised
Debt repaid
(Increase)/ decrease in investment in securities
Net interest repayments
Other financing activities

#### Net cash from financing activities

#### Net (decrease)/ increase in cash and cash equivalents

Cash and cash equivalents at beginning of the year Cash and cash equivalents at beginning of the year transferred (to)/ from non-current assets held-for-sale

#### Cash and cash equivalents at the end of the year

2011	2010	2009	
Audited	Audited	Audited	
Rm	Rm	Rm	
28 275	15 999	5 155	
2 925	(4 908)	1 616	
(1 456)	3 040	(2 330)	
(7 460)	(5 013)	7 323	
(7 400)	(0 010)	7 020	
22 284	9 118	11 764	
(44 325)	(44 882)	(43 632)	
(1 670)	(2 642)	687	
( /	( - /		
(45 995)	(47 524)	(42 945)	
78 758	60 107	53 959	
(18 756)	(20 351)	(23 492)	
(33 693)	3 924	7 366	
(5 916)	(4 065)	(752)	
(63)	(4 115)	1 790	
, ,	,		
20 330	35 500	38 871	
(3 381)	(2 906)	7 690	
15 541	18 382	10 893	
(73)	65	(201)	
12 087	15 541	18 382	

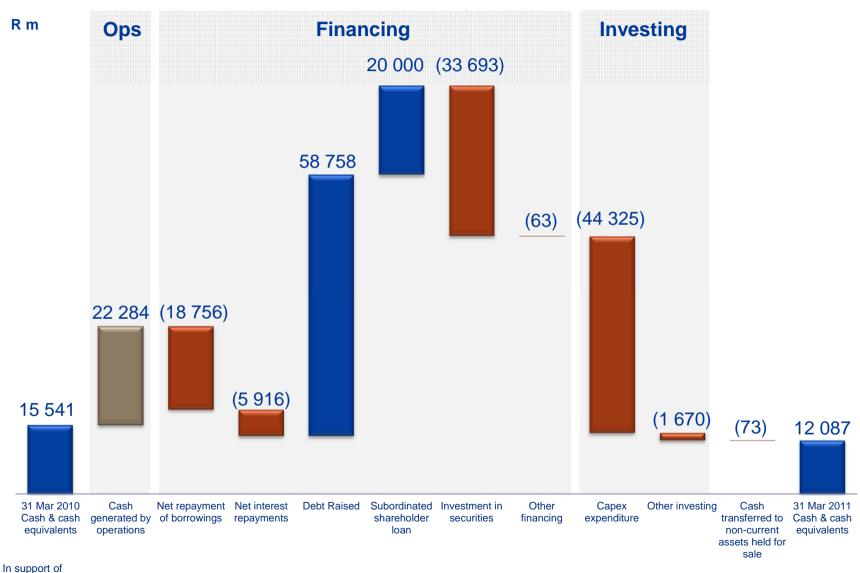
2010

2011



## Summary of cash flows





# From funding gap to funding plan – R300 billion funding plan to 2017



Source of funds	Funding sourced Rbn	Currently secured Rbn	Draw-downs to date Rbn	Amount supported by Government Rbn
Bonds	90.0	26.7	26.7	15.0
Commercial paper	70.0	70.0	10.0	0.0
Export Credit Agency backed	32.9	32.9	7.5	0.0
World Bank loan	26.1	26.1	2.6	26.1
AFDB loan	21.0	21.0	3.9	21.0
DBSA loan	15.0	15.0	1.0	0.0
Shareholder				
- Loan	20.0	20.0	20.0	20.0
Other sources	25.0	0.0	0.0	0.0
Totals	300.0	211.7	71.7	82.1
Percentages		70.6%	33.9% <sup>(1)</sup>	38.8% <sup>(1)</sup>

(1) As a percentage of the currently secured total



# Operating highlights and challenges



Switch from traditional light bulbs to CFLs or LEDs

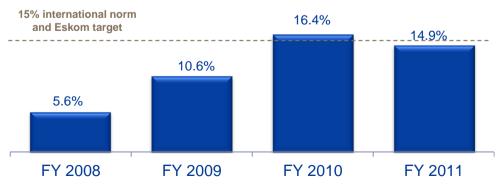
### **Generation Business**



- Operates Eskom's power stations
- 27 power stations: 13 coal, 4 gas / liquid fuel turbines, 6 hydro electric, 2 pumped storage, 1 nuclear and 1 wind
- Total net capacity of 41 194MW as at 31 March 2011
  - Approximately 85% of net capacity is coal-fired
- Koeberg nuclear power station
  - 1 830MW net capacity
  - 12.1TWh electricity produced from nuclear in year ended 31 March 2011
- Approximately 17 120MW of new capacity plans committed and expected by 2018 (this includes 5 222MW already commissioned since 2005)
- Reserve margin of 14.9% for FY 2011, up from 5.6% for FY 2008 but below Eskom's target of 15%

Key figures				
	Financial Year 2011	Financial Year 2010	Financial Year 2009	
Net Capacity (MW)	41 194	40 870	40 506	
Capacity from Coal (MW)	34 952	34 658	34 294	
Coal Share in Total Capacity	84.9%	84.8%	84.7%	
Capacity from Nuclear (MW)	1 830	1 800	1 800	
Nuclear Share in Total Capacity	4.4%	4.4%	4.4%	
Total Output (TWh)	237	233	229	
Production from Coal (TWh)	220	216	212	
Coal Share in Total Output	92.8%	92.7%	92.6%	
Production from Nuclear (TWh)	12.1	12.8	13.0	
Nuclear Share in Total Output	5.1%	5.5%	5.7%	
D				

#### **Reserve margins**

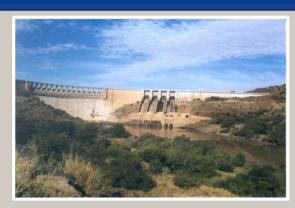


### Generation Business – operational performance



### **Highlights**

- No load shedding in the past financial year
- Successfully powered the 2010 FIFA Soccer World Cup<sup>TM</sup> over the winter period when the highest ever peak in demand was recorded
- Water utilisation across the fleet of power stations is within target
- The Integrated Generation Control Centre (IGCC)
  was successfully commissioned to centrally monitor
  the performance of all power stations







### Generation Business – operational performance



### **Challenges**

- The return to service of Duvha Unit 4 turbine and generator which was extensively damaged in February 2011 estimated recovery period is greater than 12 months
- Constrained power system as we balance the need for planned maintenance on ageing plant with the demand of a growing economy
- Particulate emissions performance is unfavourable and requires focussed attention
- Coal-related energy losses have increased substantially since 2008, contributing to the reduction in the availability of some coal-fired plant to meet demand
- Improved performance of Koeberg nuclear power station curtailed by two significant forced outages immediately following a refuelling outage
- Original equipment suppliers' impact on power plant performance







# Generation Business – technical performance



Measure	Description	Actual Year-end March 2011	Actual Year-end March 2010	Actual Year-end March 2009
Unit capability factor (UCF)	UCF measures the plant availability and indicates how well the plant is operated and maintained.	85.9%	85.9%	86.1%
Energy availability factor (EAF)	EAF measures plant availability (UCF above), plus energy losses not under the control of plant management	84.6%	85.2%	85.3%
Unplanned capability loss factor (UCLF)	UCLF measures the lost energy due to unplanned production interruptions resulting from equipment failures and other plant conditions.	6.1%	5.1%	4.4%
Generation Load Factor (GLF)	GLF indicates the extent to which the generation fleet was loaded on average over the year to produce the energy demanded.	66.4%	66.2%	67.0%
Planned capability loss factor (PCLF)	PCLF - planned energy loss is energy not produced during the period because of planned shutdowns or load reductions due to causes under plant management control.	8.0%	9.0%	9.5%
Unplanned automatic grid separations / 7000 hours (UAGS/7000)	UAGS/7000 indicates the amount of unplanned unit trips per 7000 operating hours	3.6	2.8	2.9
Reserve margin (including imports)	Difference between net system capability and the system's maximum load requirements (peak load or peak demand) as a percentage of the peak demand	14.9%	16.4%	10.6%

In support of



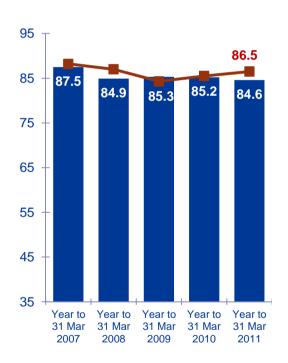


### Generation Business – technical performance



#### Generation

#### **Energy availability factor (EAF) %**



Actual Annual target

- EAF indicates the energy availability on the grid, taking into account the planned, unplanned, and other capability losses due to elements beyond management control
- The actual EAF for 2011 was 84.6% which is below the target of 86.5%. This was affected by the total unplanned unavailability of 7.4% at YE against a target of 5.5% (UCLF and OCLF). The planned unavailability target of 8% was met
- The poor performing power stations are in their mid-life and require more maintenance. With the low reserve margin less time is available to carry out essential maintenance. The quality of coal has deteriorated over the past few years and has greatly affected the performance of some stations. This situation directly contributed to the high particulate emissions
- The generation recovery process in 2008/9 resulted in improved availability and reliability of those plant areas that were given priority then. However subsequently, other plant areas like coal handling, milling plant, air heaters and flue gas cleaning plant (affecting particulate emissions) have shown a significant deterioration in performance mainly due to poor coal quality
- Despite these challenges, we have managed to avoid load shedding since April 2008
- Eskom requires an aspirational PCLF (maintenance ratio) of 10%, but the tightness of the system meant that we could achieve a ratio of only 8%. There is a growing maintenance backlog that will require plant shutdowns, and this must be addressed over the coming year.

### Primary Energy – operational performance



#### Coal

- Largest primary energy source in South Africa
- Average coal stock of 41.4 days as at 31 March 2011; Burnt 124.7 million tonnes of coal in the year ending 31 March 2011 (2010: 122.7 million tonnes)
- Coal purchased as follows:
  - 47% cost plus contracts
  - 24% fixed price or indexed contracts
  - 29% short/medium term contracts
- Limited correlation with International Coal Prices
- Approximately 80% of the cumulative coal supply until 2020 is contracted

#### Water

- 327 252 million litres of water used in year ended 31 March 2011
- Relative water consumption to generate electricity increased from 1.34 l/kWh sent out as at 31 March 2010 to 1.35 l/kWh sent out as at 31 March 2011

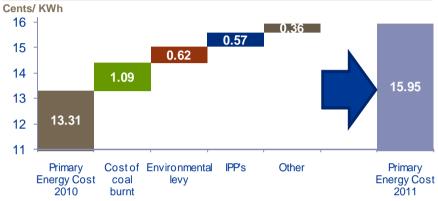
#### Nuclear

- Sourced mainly on international market
- Uses on average ~ 30 tonnes of enriched uranium (equivalent to ~270 tons natural uranium) fabricated into ~ 70 fuel elements per
- Government authorizes all nuclear fuel contracts and importation of nuclear fuel in accordance with the Nuclear Energy Act

#### Gas / Liquid Fuel

- Sourced locally with regulated price
- No take or pay obligations in place except for tank rental obligations
- Eskom does not hedge against diesel price fluctuations due to the uncertainty around the timing and quantity of usage

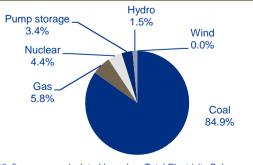
#### Factors influencing Primary Energy Costs (c/KWh) (1)



#### **Primary Energy Costs as % of Electricity Revenues**



#### Eskom's Net Capacity Mix - 31 March 2011



### Primary Energy – operational performance



### **Highlights**

- For the year ended 31 March 2011 coal cost maintained below budget
- Dam levels are higher than expected, resulting in lower pumping costs
- In partnership with Transnet:
  - Implemented the Camden containerised rail solution
  - Improved the rail performance for coal supplies to Majuba power station from 5.6Mt in 2010 to 6.9Mt in 2011
- Some successes in the roads repair program:
  - Havenga Street in Ermelo (R47.7 million)
  - The pothole repair program started (with approximately 50% expenditure against the approved R106.5 million)
- Signed a number of medium-term coal supply agreements (to 2019) to ensure continuity of supply
- Komati water scheme and Mokolo Crocodile water augmentation project agreements signed









## Primary Energy – operational performance



### **Challenges**

- Delays in spending on the road repair programme
- Poor performance of some mines has resulted in the purchasing of more coal from the short/medium-term market, resulting in higher coal and transport costs
- Reducing defunct mine liability
- Road fatalities among both the public and coal transporters despite a number of safety initiatives
- Supply risk exposure to disruptions in mining operations due to legal non-compliance







### **Customer Network Business**



- Total electricity sales of 224 446GWh and more than 4.65 million customers (including transmission customers) as at 31 March 2011
- Directly provides electricity to 45% of all end users in South Africa
- Two main types of customers:
  - Redistributors: Mainly municipalities that sell electricity to residential customers.
  - Direct customers: Industrial, commercial, mining, agricultural and residential consumers
- Key Sales and Customer Service unit deals with customers using ≥100GWh of energy per year
  - At 31 March 2011, KSACS had approximately 139 customers accounting for 34.9% of total revenues
- Some customers have supply contracts indexed to commodity prices
- A member of Southern African Power Pool ("SAPP")

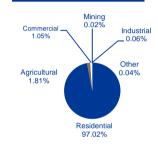
### Key figures - 31 March 2011

2011 Sales Split Total: 224 446GWh 2011 Gross Electricity Revenue Split Total: ZAR90.375m

Customers Total: 4.65 million







### **Energy Losses**

	Budget / Target	2011	2010	2009
Distribution losses	<= 6.00%	5.68%	5.87%	5.46%
Distribution Technical losses	-	3.98%	4.11%	3.82%
Distribution Non-technical losses	-	1.70%	1.76%	1.64%
Transmission losses	<= 3.40%	3.27%	3.27%	3.08%
Total Eskom losses	<= 8.75%	8.25%	8.45%	7.94%

# Customer Network Business – operational performance



### **Highlights**

- Successful partnership with local authorities to ensure incident-free electricity supply for the 2010 FIFA Soccer World Cup™
- Launch of Operation Khanyisa as part of the Energy Losses Management Programme
- Schools connections (special projects) higher than target
- Total energy losses of 8.25% lower than target of 8.75%
- The system minutes lost < 1 performance of 2.63 system minutes is exceptional against the target of 3.4
- No major incidents recorded on the Transmission grid during 2010/11, a performance last achieved in 2004/05
- Demand-side management savings of 354MW against a target of 301MW







## Customer Network Business – operational performance



### **Challenges**

- High levels of theft of equipment and electricity is affecting plant performance and increasing cost
- Sadly three Distribution employees and ten contract workers passed away
- Sales growth lower than budget and projection
- Municipal debt payments improved, R123 million overdue as at 31 March 2011



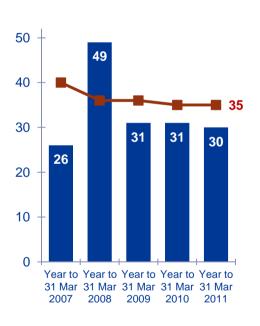
- Non-payment by large and residential customers, including a large customer liquidation case; and some contractual payment disputes experiencing lengthy resolution delays
- Employee security is becoming a concern
- Collisions and electrocutions of birds on distribution power lines
- Not meeting the target of 158 430 overall electrification connections in 2010/11 (149 914 made)

# Customer Network Business – Transmission technical performance

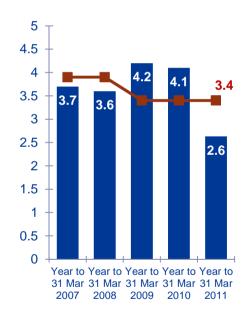


### **Transmission**

# Number of Supply Interruptions



# Severity of Interruptions (System minutes lost ≤ 1)



Annual target

The system minutes lost < 1 of 2.63 system minutes was exceptional when compared to the target of 3.4 and the historical performance. It is also a substantial improvement on the 4.09 recorded for the previous financial year.

The number of Transmission supply interruptions target was achieved and the measure showed a modest improvement year on year.

No major incidents were recorded on the Transmission network during the year, which is a significant achievement based on historical performance.

Actual

### Customer Network Business – Distribution technical performance



- Average customer interruption duration of 53 hours per year
- SAIDI performance showed a marginal improvement, while SAIFI performance deteriorated slightly
- Network-related constraints, the impact of increased theft and vandalism on resources and adverse weather conditions have affected performance

### **SAIDI (Hours/annum)**

System average interruption duration index



### **SAIFI** (number/annum)

System average interruption frequency index



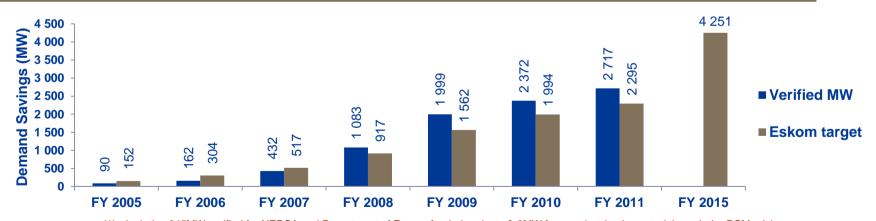
## Customer Network Business – Integrated Demand Management performance



Evening peak demand savings of 354MW achieved against a target of 301MW in the financial year to 31 March 2011

Programme category	Savings achieved (MW) <sup>(1)</sup>	Expenditure incurred (R million)
Residential lighting	199.1	47
Water heating load management	31.7	25
Compressed air systems	41.9	98
Industrial process optimisation	73.1	70
Commercial and industrial lighting and air-conditioning	2.1	40
Solar water heating	5.9	225
Heat pumps	0.3	40
Total	354.1	545

#### Verified cumulative demand savings (MW) against the accumulated Eskom target per year (2)



- (1) Includes 345MW verified for NERSA and Department of Energy funded projects & 9MW for a project implemented through the DSM advisory service policy. The 9MW saving is expected to be verified by NERSA and the Department of Energy in the coming year.
- (2) Verified for NERSA and Department of Energy funded projects.





## Outlook



Watch out for Power Alert and switch off appliances you don't need

# We took action to address the challenges we identified at the beginning of the year



What we said	What we did
Demand would be back at 2007 levels and would increase by 2% in 2011	Demand is up 1.4% compared to 2010
We would improve coal handling and coal quality to reduce load losses	Coal-related production losses were reduced by 26% for the first 5 months of the year compared to 2010; coal stockpiles being rebuilt after coal industry strike.
We targeted to improve generation output by 1%-2% over three years	Although the plant availability improved over the last four months, year to date deteriorated compared to the previous year from 91.9% to 90.6%. The Duvha unit 4 incident contributed to this deteriorating performance. A sustainable availability improvement requires execution of more planned maintenance: every opportunity for maintenance is utilised
We would sign up about 400 MW of co-generation and own generation by April	891MW contracted of which 376 MW from IPP's and about 515 MW of municipal generation
We needed to undertake significant maintenance during summer	Critical maintenance has been prioritised, with lower than expected winter demand enabling some maintenance to be done during winter
We would execute the demand side programme	Reduced demand by 113 GWh during the first quarter
We would communicate with our stakeholders on the state of the system	Extensive programme of engagement with stakeholders

### Keeping the lights on



- We implemented our plans, on the supply and demand sides, to address the challenges and manage a tight system
- We kept the lights on during winter this year
- Demand saving important to create space for maintenance
- Summer will continue to be tight
- If all South Africans, individuals, companies and government save 10% of their energy use of 2010, we will have enough to ensure a secure power system and grow the economy: 10% saved = 3700 MW = one new power station = ~23 million tonnes less CO<sub>2</sub>
- We are resolved to keep the lights on but Eskom cannot do it alone: we need partnerships with our stakeholders

### Our focus is on:



Value chain

Generation

Transmission & Distribution

**Customer Service** 

**Efficiency** 

### **Industry value driver**

Availability & reliability
Portfolio management
Efficiency of operations
Capacity
Environment

Capacity
Efficiency of operations
Availability & reliability
Regulatory management

Customer segmentation
Sales channels
Customer satisfaction
Efficiency / Costs to serve
Reputation

Cost reduction
Value maximisation
Procurement
Back to Basics

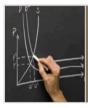


### Eskom fully supports government's priorities



### **Government's priorities**

#### **Eskom's contribution**



# Improving education



- Provide apprenticeship training to 10 000 young people by 2015
- Train 5 000 young people p.a. by 2015
- R998 million investment in training and 300 000 days of training in 2010/11
- Partner with universities to develop engineering skills



Improving healthcare



- Enhance employee health and wellness practices being more proactive
- Provide effective psycho-social support
- Roll out key HIV/AIDS initiatives



Creating decent work



- Provide employment opportunities for 100 000 in Eskom's cloud by 2015
- Secure 50% of local content for our build program and helping to build local industries



Fighting crime and corruption



- Review and introduce anti-fraud and anti-corruption initiatives
- Major projects proactive involvement by Eskom' Assurance & Forensic Department



Rural development and land reform

- Electrify rural areas as part of the government's electrification program
- Reached the 4 million electrifications mark since inception

### Please partner with us



 Embrace energy saving as a national culture, joining the global journey towards a sustainable future

 49M campaign aims to create a culture of energy efficiency in SA

Remember the three Ps: save Dower, save your Docket and save our **P**lanet. If you're not using it, switch it off!





I DONT WAN

TO BE ON

ALL BY MYSELF







# Thank you