



Together, rising to the challenge

Annual Report 2008

#### **Profile**

#### Scope of report

The annual report for I April 2007 to 31 March 2008 is an integrated sustainability report as Eskom aligns itself with international sustainability best reporting practices, including the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines.

The report considers economic, environmental, social and technical performance and is also available in an internet version on the Eskom website (www.eskom.co.za/annreport08). Additional sustainability information is disclosed in the internet report. When this is the case, the availability of extra web-based information is signalled in the printed report.

#### Nature of business, major products and services

Eskom generates, transmits and distributes electricity to industrial, mining, commercial, agricultural and residential customers and redistributors. Additional power stations and major power lines are being built to meet rising electricity demand in South Africa. Since the programme started in 2005, additional capacity of 2 582MW has been commissioned. The approved capacity expansion budget is R343 billion (in nominal terms) up to 2013.

Eskom buys electricity from and sells electricity to the countries of the Southern African Development Community (SADC). The future involvement in markets outside South Africa (that is SADC, African countries connected to the South African grid and the rest of Africa) is limited to those projects that have a direct impact on ensuring security of supply for South Africa.

Eskom is regulated under licences granted by the National Energy Regulator of South Africa (Nersa), originally under the Electricity Act (41 of 1987) – to be replaced by licences under the Electricity Regulation Act (4 of 2006) – and by the National Nuclear Regulator in terms of the National Nuclear Regulatory Act (47 of 1999).

The Eskom Enterprises (Pty) Limited group focuses mainly on activities that support its holding company and is also responsible for all non-core businesses. It supports Eskom by providing plant life-cycle support and plant maintenance, including return-to-service work, and supports the build programme for all the line divisions. It is also in the process of disposing of a number of non-core businesses, including its investment in arivia.kom. At the end of the past financial year, Eskom Enterprises disposed of Mountain Kingdom Communications (Pty) Limited (MKC), the telecommunications provider in Lesotho.

The core businesses of subsidiaries, Eskom Finance Company (Pty) Limited, Escap Limited and Gallium Insurance Company Limited include the granting of employee home loans and the management and insurance of business risk. R1,95 billion (82%) of the mortgage

# Eskom aligns itself with international sustainability reporting practices.



The turbine hall at Duvha power station near Witbank

book of Eskom Finance Company has been securitised, (2007: R1,6 billion representing 68%). The planned disposal of this company is expected to be finalised in the 2009 financial year. Eskom's corporate social investment is channelled principally through the Eskom Development Foundation, a section 21 company.

#### Countries in which operations are located

Eskom's head office is in Johannesburg and its operations are focused on South Africa.

The Eskom Enterprises group operates electricity generation concessions in Mali, Zambia and Uganda. Other than South Africa, Eskom Enterprises also has subsidiaries in various African countries, with offices in Uganda, Mali, Zambia and, up until the disposal of MKC, in Lesotho.

#### Regional sales breakdown

The majority of sales are in South Africa. Other countries of southern Africa account for a small percentage of sales. (Refer to the financial statements; note 5.)



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Nominal capacity: 43 037MW

Powerlines: 366 203km

## Southern Africa grid map



 $The \ map \ indicates \ the \ South \ African \ power \ network \ and \ some \ interconnections \ with \ neighbouring \ countries.$ 

#### i

## Key facts

Eskom, South Africa's electricity utility:

- → Is one of the top 13 utilities in the world by generation capacity
- → Is among the top 9 by sales
- → Generates approximately 95% of electricity used in South Africa
- → Generates approximately 45% of electricity used in Africa
- → Total assets: R171 181 million
- → Net profit: R974 million
- → Cash flows from operating activities: R7 655 million
- → Capital expenditure: **R24 764** million
- → Number of employees: 35 404
- → Training cost: **R784** million
- → Electricity customers: 4 152 312
- → Electricity sales: 224 366GWh
- → Nominal capacity: 43 037MW
- → Net maximum capacity: 38 744MW
- → Power lines: 366 203km (all voltages)
- → Carbon dioxide emissions: 224Mt
- → Total water consumption: 322 666ML

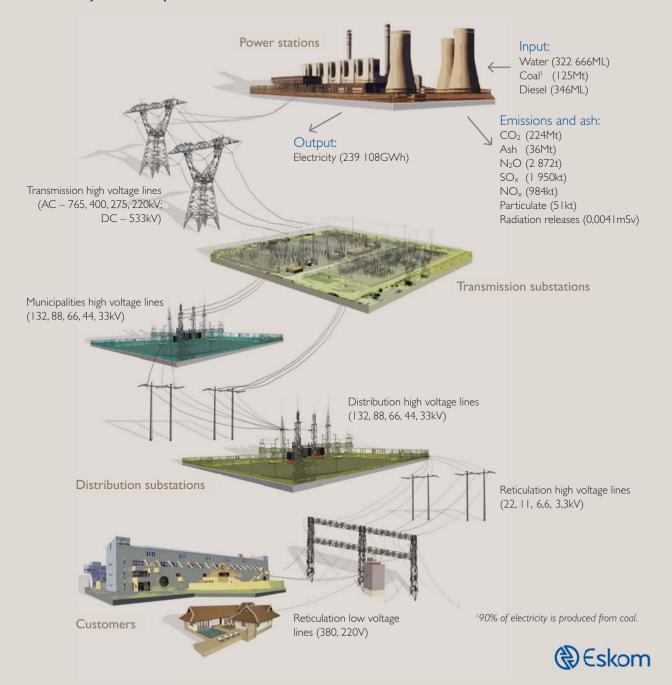


## Organisational structure





## Electricity: from power station to customer



## **Executive summary**





Top: Construction of Medupi power station is advancing well. Bottom: Insulators in the new 132kV yard at Medupi.

Meeting escalating electricity demand with a muchdiminished reserve margin has proven to be the biggest challenge in the past year. The management of plant performance became increasingly complex as the reserve margin decreased. An adequate reserve margin creates a window for maintenance and allows for unplanned outages. The organisation's ability to sustain high levels of electricity production while ensuring adequate maintenance and sufficient fuel stocks was severely tested.

Reserve margins continued to be eroded and, since September 2007, available generating capacity was not always sufficient to meet the demand for electricity, and load losses were experienced. Power stations were stretched to their limits, resulting in high levels of unplanned maintenance. In addition, abnormally high rainfall caused coal supply problems and coal handling difficulties, which, together with coal stock levels being significantly lower than planned target levels, restricted electricity production. This showed the importance of an adequate reserve margin to provide a buffer for unplanned maintenance and other supply problems.

In response to these events, an Eskom recovery plan has been established with six focus areas to address continuity of supply (see page 49).

The financial performance of the group was severely impacted by the increase in the cost of primary



energy (mainly coal and diesel). The operating profit before the fair value gain/(loss) on embedded derivatives and net finance cost for the group was R3 215 million (2007: R6 452 million) before the impact of the fair value loss on embedded derivatives of R143 million (2007: a profit of R4 305 million). The profit for the year was R974 million (2007: R6 476 million). If the impact of embedded derivatives is excluded, the profit after tax was R1 076 million (2007: R3 419 million).

Over the next five years to March 2013, Eskom will spend R300 billion (R343 billion in nominal terms) on capacity expansion — significantly higher than the R150 billion reported previously for the five years to 2012.

In terms of the revised plan, Eskom will now deliver an additional 16 304MW in generating capacity by 2017. Of this, 4 644MW will come on stream within the next five years, including the completion of the three old coal-fired stations being returned to service, extensions to the two open-cycle gas turbine stations and an upgrade of Arnot power station. The first units of Medupi and Ingula come online in 2012/13

Generation projects will take up 73% of the budget, with transmission investment accounting for another 13%. The rest of the budget will fund improvements to our distribution network.

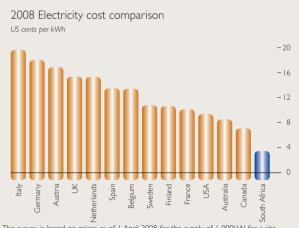
Over the next five years to March 2013, Eskom will spend R300 billion (R343 billion in nominal terms) on capacity expansion.



The Gourikwa open-cycle gas turbine station near Mossel Bay.



## Executive summary continued



The survey is based on prices as of I April 2008 for the supply of I 000kW for a site with a monthly usage of 450 000kWh. All prices are in US cents per kilowatt hour and exclude VAT. Where there is more than a single supplier, an unweighted average of available prices was used. Where available in each country and widely used by the consuming public, deregulated or liberalised contract pricing was used in this survey.

Source: Extract from  $^{\circ}$ 2007 - 2008 NUS Consulting Group International Electricity Survey and Cost Comparison, April 2008



The cooling fans at Matimba power station in Lephalale.

Some of the major transmission projects include a new 400kV transmission line and three new substations to strengthen the supply to the Platinum Basin, which will be completed this year. The new 765kV transmission power line and substations – approximately I 450km – from Mpumalanga to strengthen the supply to the Western Cape, are scheduled for completion in 2010/11.

Since the capital expansion programme was approved in 2005, an additional 2 582MW of capacity has been commissioned. Ankerlig and Gourikwa power stations were formally opened in October 2007. In October 2007 the R20 billion boiler contract and the R13 billion turbine contract for the Medupi power station were awarded. In December 2007 Eskom awarded contracts worth about R31,5 billion for the building of the Project Bravo coalfired power station. The return to service of the three mothballed power stations is progressing well. The target date of October 2011 for commercial operation of all 23 units (3 800MW installed capacity) will be achieved.

Eskom completed its second year of the multi-year price determination (MYPD) and faced significant challenges for 2008/9, based on the electricity price increase of 14,2% as approved on 20 December 2007 by the regulator (Nersa). The expansion programme will cost R343 billion over the next five years. There are further cost pressures due to increased primary energy costs, and the need to reduce consumption through demand-side management



and power conservation projects. The impact on Eskom's financial sustainability was reinforced by a credit agency placing the utility on "credit watch". In order to address the financial sustainability of Eskom, an application was submitted to Nersa for a revision to a 60% (53% real) price increase for 2008/9 so that all prudent primary energy and accelerated demand-side management costs could be recovered. Nersa announced on 18 June 2008 an additional increase in the electricity tariff of 13,3% for the year ending March 2009 which resulted in a 27,5% average increase year-on-year. Nersa also ruled that the price increase to "poor" residential customers be limited to 14.2%.

The government, as shareholder, agreed to provide R60 billion of loan finance over a period of five years to assist with the funding of Eskom.

Eskom's climate change strategy contains our commitment to reduce greenhouse gas emissions. We have developed a six-point plan (see page 70) to pro-actively manage the impacts of climate change on our business and people. Although the volume of CO<sub>2</sub> we emit will increase in the short to medium term, we are committed to reviewing our options, with a view to reducing the overall emissions. Lower carbon-emitting technologies, such as clean coal, nuclear and renewables, may play an important role in meeting Eskom's diversification aspirations. To this end, a decision was taken last year to invest in a 100MW wind

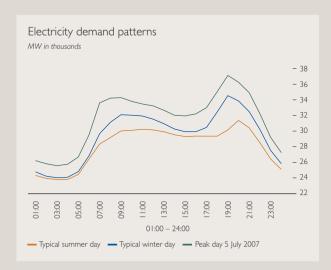
Some of the major transmission projects include a new 400kV transmission line and three new substations which will be completed this year.



The control room at Kendal power station.



## Executive summary continued





A new high-voltage transmission line being built near Bothaville.

facility in the Western Cape. Energy efficiency initiatives both internal to Eskom and through our demand-side management programme will also result in CO<sub>2</sub> emission reductions.

Safety remains a major concern for us as we regrettably have to report the deaths of 17 Eskom employees and 12 contract workers in the past year.

#### Highlights

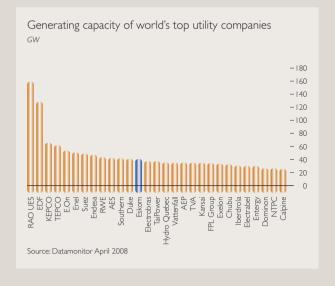
- → capital expenditure (including interest capitalised) for the year was R24 764 million, which is in line with the target for the year. This is significantly higher than the R17 707 million spent in 2007
- → in February 2008, Eskom announced that an additional 45 million tons of coal would be procured over a two-year period to supply power stations with additional coal for their normal burn, as well as to rebuild the stockpile to the targeted 20-day level. By the year end, contracts for 37 million tons had been concluded
- → some 168 538 electrification connections were made in the year, exceeding the target by 8 217
- → employment equity, gender and disability targets have been exceeded
- → a significant contribution has been made to black economic empowerment by spending R25,45 billion against a target of R18,96 billion, or 67% of discretionary spend
- → procurement savings from the strategic sourcing initiative for the financial year were R3,1 billion, against the target of R1,5 billion

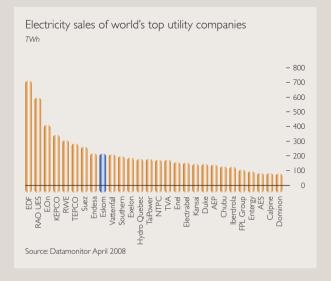


#### Lowlights

- → unplanned outages leading to load shedding caused major disruptions to all sectors of the economy
- → altogether 17 Eskom employees and 12 contract workers died during the past year
- → Eskom achieved only eight out of 17 targets in the shareholder compact. Financial efficiency and technical performance were impacted by the increase in primary energy costs and poor plant performance
- → the net reserve margin has decreased to about 8%, compared to an internationally accepted margin of 15%
- → the level of coal stockpiles increased to an average of 13 days at 31 March 2008, still short of the target of 20 days
- → sales growth was 2,9% in 2008, a drop from 4,9% in 2007
- → the return on assets was severely impacted by the large increase in primary energy costs and high capital expenditure
- → primary energy costs (mainly coal and diesel) increased from R13 040 million in 2007 to R18 314 million in 2008 while new sales only amounted to 2,9%
- → the amount of electricity debtors over 75 days amounted to R1 978 million (2007: R1 446 million)
- → the impairment provision for trade and other receivables increased from RI 533 million in 2007 to RI 877 million
- → the debt:equity ratio (including long-term provisions) weakened during the review period to 0,30 for the group
- → 2 177 people left the employ of Eskom during the year, attributable to normal attrition including retirements, deaths and resignations. During the same period 4 385 new staff members were recruited, resulting in a net increase of 2 208 in staff numbers

#### Comparison to international power companies







### Executive summary continued





Top: The smoke stack at Duvha is about 300 metres high. Bottom: Construction has started on two more units at Gourikwa power station.

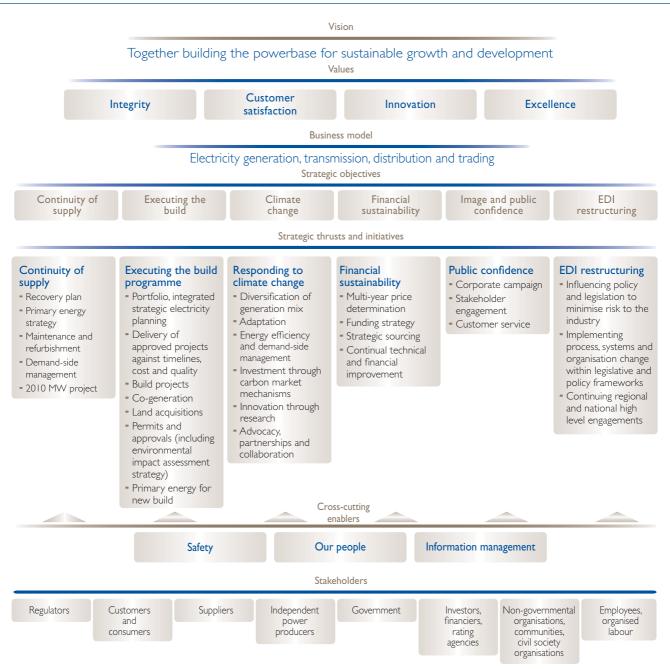
#### Application of the GRI principles

Eskom aligns itself with the Global Reporting Initiative (GRI), by applying the GRI principles as follows:

- → inclusivity: the results of our stakeholder engagement processes, as set out on page 82 of this report, are used to inform the structure and, more importantly, the issues reported on
- → relevance and materiality: the current and future issues addressed in this report have been determined by what our stakeholders have said to us, our business focus areas, priorities and the actively managed risks we face. This is depicted on page I covering our vision, values and strategic objectives
- → sustainability context: our understanding of sustainable development is set out on page 28 (business and sustainability performance review as set out in the introductory paragraph). The Eskom sustainability performance index on page 28, together with the performance areas and indicators set out in this report, reflect both the opportunities and constraints we face in executing our sustainable development strategy
- → completeness: our intention is to ensure that the material aspects of Eskom's business regarding sustainable development are reflected in terms of actual performance over the last financial year, giving insight into our future direction
- → setting the report boundary: the areas of our business included in this report are defined on the flap in Profile (nature of business, major products and services). The extent to which we have reported on these was based on the scale of our sustainability impacts and the degree to which we have control and influence.



## Vision, values and strategic objectives



The material issues reported in this annual report are structured around current and future significant aspects that we face. These are determined through our business priorities, risks and issues raised by our stakeholders. This is depicted above.



## Vision, values and strategic objectives continued

Eskom demonstrates its commitment to its vision of "together building the powerbase for sustainable growth and development" through its core business focus of electricity generation, transmission, energy trading and distribution. It entrenches the values of excellence, innovation, customer satisfaction and integrity across all business operations.

Achieving the vision requires in-depth planning and implementation in a complex environment characterised by economic growth, greater demand for electricity and the increased need for significant infrastructure expansion, as well as competition for scarce materials (coal and equipment), funding, skills and supplier inputs. Challenges are compounded by the rising cost of primary energy and new components, restructuring of the electricity distribution industry, the need to continually improve our environmental performance and the growing involvement of stakeholder groups.

#### Six strategic objectives

Eskom has responded to the electricity challenge – the supply and demand imbalance – by identifying six strategic objectives that need to be achieved.

#### → Securing continuity of supply – the recovery plan

A stabilisation and recovery plan is being implemented to respond to the critical electricity demand and supply imbalance. The plan is to balance the demand and supply by getting the country to work together to reduce demand and to optimise the performance of existing generation assets so as to increase the reserve margin.

#### → Successfully executing the build programme

Eskom aims to deliver 4 644MW of new power station capacity by 2012/13. Successful delivery on the capacity expansion programme is at the core of Eskom's vision and constitutes the most sustainable long-term solution to the current electricity challenge.

#### → Responding to climate change

Eskom has implemented a climate change strategy and aims to reduce its relative  $\mathrm{CO_2}$  footprint until 2025 and thereafter to continually reduce absolute emissions in support of national and global targets. Key to this is an aspiration of reducing demand through energy efficiency and having lower carbon-emitting technologies, such as clean coal, nuclear and renewables.

#### → Maintaining financial sustainability

Significant capital expenditure on the build programme over the next 20 years will have a marked impact on Eskom's financial position. Continued reliance on efficiency improvements, together with real price increases and shareholder support, will remain essential components of a sustainable solution for Eskom and the industry. A fine balance needs to be maintained between earning an appropriate return on assets to ensure a financially sustainable Eskom and keeping electricity prices as low as possible in the interests of contributing to sustainable economic growth and development in South Africa.

#### → Restoring public confidence

The load shedding events in 2007 and 2008 and the expected capacity shortfalls for the next few years have had a severe impact on the public's confidence in Eskom. As a result, a programme has been initiated to inform the South African public and Eskom employees about the electricity supply and demand challenge and the extent of the situation, while addressing misconceptions.

#### → Successfully implementing EDI restructuring

Cabinet approved the proposal to create six regional electricity distributors (REDs) which will be established as public entities. The priority for the organisation will be the migration of the distribution business into the six REDs and ensuring fair value compensation for transferred assets.



As a national asset, we cannot overcome the current challenges successfully without strong partnerships.

#### Focus areas

Safety is a priority concern for the organisation.

A focused skills acquisition and retention strategy is addressing the shortage of critical skills.

In response to the electricity challenges, new solutions and communication mechanisms have been implemented. Eskom is deploying world-class IT infrastructure and systems that will enhance efficiency and effectiveness in the new power stations.

The new build programme creates opportunities to maximise the organisation's contribution to government's Accelerated and Shared Growth Initiative for South Africa (Asgisa) programme. Local content is a core requirement when major contracts are awarded.

All strategic objectives are pursued while paying due regard to the environment, stakeholder engagements and short-term priorities.

#### **Enabling strategies**

Various initiatives will be implemented to facilitate our six strategic objectives. Focused research and development will strengthen our technical performance and capacity expansion programme. A stakeholder engagement strategy is building stronger ties with strategic stakeholders and the general public, in an effort to create a national drive towards energy efficiency and to ensure that we are in line with stakeholder requirements.

The theme of this annual report is "together, rising to the challenge". Eskom is currently in the midst of a very challenging period driven by the fact that demand is outstripping the electricity generating capacity. As a national asset, we cannot overcome the current challenges successfully without strong partnerships — the most crucial being a change in the energy consumption behaviour of every person, business and industry in South Africa. Other invaluable partners in this recovery phase include providers of finance, government departments, major industries, mines, suppliers, contractors, customers, municipalities and a strong and motivated Eskom workforce.



KwaZulu-Natal schools receive information packs on energy efficiency.

## R24 764 million Capital expenditure

2007: R17 707 million

2,9%
Sales growth

2007: 4,9%

## 168 538 connections Electrification

2007: 152 125 connections



## Group five-year review

	Unit	2008 (12 months)	2007 (12 months)	2006 (12 months)	2005 <sup>1</sup> (15 months)	2003 (12 months)
Funding and resources						
Key financial figures						
Total assets	Rm	171 181	143 312	128 286	110 027	99 499
Total equity	Rm	64 738	58 357	50 371	46 947	42 841
Total equity and liabilities	Rm	171 181	143 312	128 286	110 027	99 499
Electricity revenue – local	Rm	42 000	37 874	34 223	39 842	30 646
Electricity revenue – international	Rm	1 971	1515	1 290	1 381	972
Group revenue	Rm Rm	44 448 (143)	40 068 4 305	36 052 1 318	43 207	32 948
Net fair value gain on embedded derivatives  Net fair value loss on other derivatives	Rm	(684)	(862)	(182)	(99)	(283)
Finance income	Rm	2 933	2 884	2 783	3 936	4 024
Finance cost	Rm	(4 721)	(4 232)	(4 521)	(5 447)	(5 328)
Profit before tax	Rm	`I 314 <sup>′</sup>	9 450	6 647	7 686	`5 276 <sup>´</sup>
Income tax expense – current	Rm	(128)	(1 394)	(1 594)	(182)	(118)
Income tax expense – deferred	Rm	333	(1 118)	(528)	(2   3   )	(1 741)
Profit for the period	Rm	974	6 476	4 641	5 411	3 417
Cash generated from operations	Rm Rm	7 37 I 7 655	15 666 13 954	13 292 12 346	15 515 15 302	13 535 13 451
Net cash from operating activities  Net cash used in investing activities	Rm	(24 322)	(16 908)	(9 003)	(5 345)	(3 311)
Net cash from/(used in) financing activities	Rm	18 018	2 267	(1 368)	(8 873)	(11 915)
Financial ratios	1 1 1 1	10 010	2 207	(1 300)	(0 07 3)	(11713)
Earnings protection (profitability indicators)						
Return on total assets	%	3,32	7,83	9,06	12,74	9,97
Return on average equity	%	1,58	11,91	9,54	12,05	8,48
Total operating expenditure/revenue <sup>8</sup>	%	80,59	70,48	67,15	65,26	64,84
Net pre-tax interest coverage	ratio	1,32	3,71	2,82	2,69	2,17
EBITDA interest coverage	ratio	2,81	4,17	4,00	4,16	3,48
Liquidity Solvency	ratio ratio	1,42 1,61	1,42 1,69	1,28 1,65	1,57 1,74	1,12 1,76
Cash flow protection (cash flow adequacy indicators)	Tatio	1,01	1,07	1,05	1,/ ¬	1,70
Funds from operations/average total debt	%	14,02	29,42	32,05	46,81	43,43
Funds from operations/capex	%	31,47	82,53	37,13	286,29	406,25
Funds from operations/net interest coverage	%	3,04	9,17	6,77	9,70	9,96
Capital structure						
Debt:equity	ratio	0,13	(0,05)	0,01	0,00	0,08
Debt:equity (including long-term provisions)	ratio	0,30	0,14	0,22	0,17	0,29
Interest cover	ratio	1,58	3,03	3,76	5,50	4,30
Credit ratings and outlook Standard and Poor's	Outlook	Rating				
- Foreign currency	CreditWatch	BBB+	BBB+/	BBB+/	BBB/	BBB/
1 3. 3.g.1 ca.1 3.1c/	Negative		Stable	Stable	Stable	Stable
– Local currency	CreditWatch	A-	A-/Stable	A-/Stable		A-/Positive
,	Negative					
Moody's	D 111	4.0	A 2 /C+ 1 1	A 2 /C+ 1 1	D 1/C: 11	D 1/C: 11
– Foreign currency	Possible	A2	A2/Stable	A2/Stable	Baa I/Stable	Baa I / Stable
– Local currency	Downgrade Possible	AI	Δ I /Stable	Δ I /Stable	A3/Stable	A 3/Stable
- Local currency	Downgrade	ΛΙ	ATTStable	ATTStable	Mariable	AJ/Jlable
FitchRatings	Downgrade					
– Foreign currency	_	_	_	_	_	_
<ul> <li>Local currency</li> </ul>	Negative	Α	A/Stable	A/Stable	A-/Stable	A-/Stable
Other						
Average selling price of electricity <sup>2</sup>	cents per kWh	19,453	18,063	17,013		16,053
Average total cost of electricity sold	cents per kWh	18,93	16,093			13,613
Employees	number R000	35 404 454	32 674 775	31 548 679	31 475	31 972 578
Value created per employee Productivity improvement/(decline) for electricity business	K000 %	(9,00) <sup>3</sup>		(2,10)	808 3 I,80 <sup>3</sup>	
Employment equity	% %	66,40 <sup>3</sup>		(2,10) 60,10 <sup>3</sup>		
Gender equity	%	34,80 <sup>3</sup>	33,30 <sup>3</sup>	31,803		
People with disabilities	%	3,30 <sup>3</sup>	2,80 <sup>3</sup>	2,50 <sup>3</sup>		
Training cost	Rm	784 <sup>3</sup>	748 <sup>3</sup>	543 <sup>3</sup>	518 <sup>3</sup>	505 <sup>3</sup>
Eskom bursars	Number	5 368 <sup>3</sup>	5 136 <sup>3</sup>	2 163 <sup>3</sup>	I 568³	I 850³



	Unit	2008 (12 months)	2007 (12 months)	2006 (12 months)	2005 <sup>1</sup> (15 months)	2003 (12 months)
Continuity of supply						
Electricity sold – local	GWh	210 458	204 531	195 194	240 951	186 807
Electricity sold – international	GWh	13 908	13 589	13 122	16 008	10 173
Total electricity sold	GWh	224 366	218 120	207 921	256 453	196 980
Coal burnt in power stations	Mt	125,30	119,10	112,10	136,40	104,40
Energy availability factor	%	84,85	87,50	87,40	89,50	87,50
Peak demand on integrated system	MW	36 513	34 529	33 461	34 195	31 928
Peak demand on integrated system including load reductions	MW	37 158	35 441	33 461	34 195	31 928
Unplanned automatic grid separations	trips per unit	2,80	1,76	1,55	1,33	1,78
Demand-side management savings	MW	650,4	169,80	72,30	85,40	0,50
Specific water consumption by power stations <sup>4</sup>	L/kWh	1,32	1,35	1,32	1,27	1,29
Deletive continuiste continuis	sent out	0.21	0.20	0.21	0.27	0.20
Relative particulate emissions	kg/MWh	0,21	0,20	0,21	0,26	0,28
Carbon dioxide emissions <sup>5</sup>	sent out Mt	223,57	208,90	203,70	247,00	190,10
Radiation release	milliSieverts	0,0041	0,0034	0,0049	0,0079	0,0123
Nadiation release	(mSv)	0,0041	0,0034	0,0049	0,0079	0,0123
Lost time incident rate	index	0,34	0.35	0.40	0.456	0,37
Employee fatalities	number	17	8	10	19	5
Contractor fatalities	number	12	18	13	17	6
Public fatalities	number	42	41	34	40	27 <sup>3</sup>
<u> </u>						-
Capacity expansion	N 40 4 /	1.041	1.251	170		
Generation capacity installed and commissioned	MW	1 061	1 351	170	207	2/2
Transmission lines installed	km MVA	480 I 355	430	237	397	262
Transmission transformer capacity installed		7 319	1 000 6 984	l 090 5 944	5 280 10 892	11 070
Distribution lines installed Distribution transformer capacity installed	km MVA	3 412	2 967	1 866	2 249	2 304
Distribution transformer capacity installed	TIVA	3 412	2 707	1 000	2 247	2 304
Developmental initiatives						
Black economic empowerment	Rm	25 447	16 557	11 681	10 334 <sup>3</sup>	6 86 l <sup>3</sup>
Electrification	number	168 538	152 125	135 903	222 314	175 396
	of homes					
	connected					
Corporate social investment <sup>10</sup>	Rm	69,80	74,70	83,6011	159,80	158,60

#### Definitions of ratios

Average total cost of electricity sold: Operating expenditure and net finance cost (including fair value adjustment on financial instruments) divided by external sales. Debt:equity including long-term provisions: net financial liabilities/assets plus non-current portion of retirement benefit obligation, decommissioning and nuclear waste management and closure, pollution and rehabilitation provisions divided by total equity. (Financial liabilities exclude lease, trade and other payables. Financial assets: exclude lease, trade and other receivables).

Debt:equity: net financial liabilities/assets divided by total equity.

EBITDA interest coverage: net operating income adjusted for interest income and depreciation divided by the financial interest.

Funds from operations/average total debt: cash flows from operating activities divided by the average total financial liabilities.

Funds from operations/capex: cash flows from operating activities divided by cash used in investment activities adjusted for capitalised interest.

Funds from operations/net interest coverage: cash flows from operating activities divided by interest expenditure adjusted for capitalised interest.

Interest cover: net operating income divided by net interest income and expenditure including the fair value gain or loss.

**Liquidity:** current assets divided by current liabilities.

Net pre-tax interest coverage: net profit before tax adjusted by interest expenditure divided by the finance cost adjusted for capitalised interest. Return on average equity: net profit divided by average equity.

Return on total assets: net operating income<sup>7</sup> expressed as a percentage of total assets<sup>8</sup>.

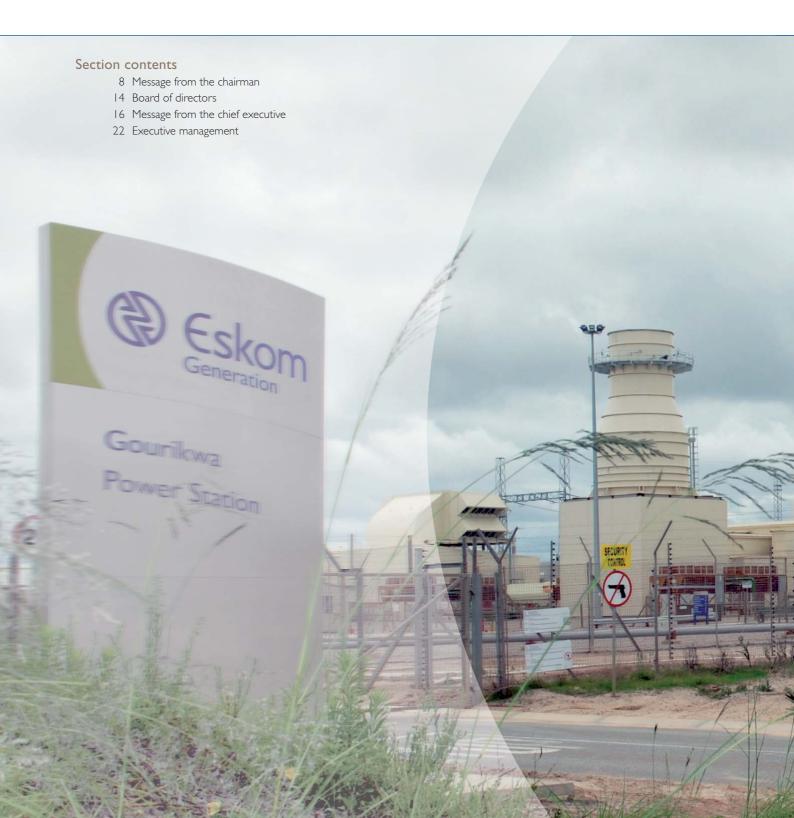
Solvency: total assets divided by total liabilities.

Total operating expenditure/revenue: total operating expenditure<sup>9</sup> divided by revenue after making an adjustment for depreciation. Value created per employee: value created divided by number of employees as per value added statement.

- Represents, unless indicated otherwise, the 15-month period from 1 January 2004 to 31 March 2005.
- <sup>2</sup> Average price of electricity sold based on total sales.
- <sup>3</sup> Represents Eskom Holdings information only.
- $^{\rm 4}$  Volume of water consumed per unit of generated power sent out, excluding rain and mine water used.
- <sup>5</sup> Calculated figures based on coal characteristics and the power station design parameters. Excludes gas turbines and return-to-service power stations.
- <sup>6</sup> Calculated for the period 1 April 2004 to 31 March 2005.
- <sup>7</sup> Net operating income is revenue less operating expenditure.
- 8 Total assets are reduced by financial market assets and interest receivable, since Eskom's funding is managed in a single pool of financial market assets and liabilities.
- $^{9}$  Total operating expenditure is before net finance cost, fair value (loss)/gain and taxation.
- <sup>10</sup> Expenditure by the Eskom Development Foundation only.
- 11 Amounts spent on the Eskom public scholarship programme are now reported under skills development.



## Chairman and chief executive



South Africa is not alone — there is a shortage of power globally.



## Message from the chairman

## Reflecting on the past three years

It is a privilege for me to deliver this annual report, the last under my chairmanship, in the aftermath of one of the most challenging periods of Eskom's history. Allow me to reflect on an exciting journey at the helm of our national electricity utility.

#### Overview of challenges

From the early days of my tenure, it was clear that Eskom was on an unsustainable path – both from a financial perspective as well as our ability to meet national power demand. This came to a head in the closing months of 2007 and the first quarter of 2008 when the national demand for electricity could not be met by the available generation capacity.

For many years Eskom had been the crown jewel of the South African state-owned enterprises. Several awards and honours were bestowed on the utility, which bears testimony to this fact. In 2001 Eskom won the Financial Times Global Energy Award for the Power Company of the Year. This was in recognition of the organisation's success in "providing the world's lowest-cost electricity while at the same time making superior technology innovations, increasing transmission system reliability and developing economical, efficient and safe methods for combustion of low grade coal". This has been an exceptional achievement.

As a country, we promoted South Africa as an attractive destination for foreign direct investment on the back of low cost and reliable electricity supply. At the turn of the century, Eskom had high excess capacity with the reserve margin at an impressive 25% in 2002.

With all the accolades, it was exceedingly difficult for Eskom to convince anyone that the organisation was on an unsustainable path. The mindset of most South Africans did not reflect the fact that electricity was fast becoming a scarce resource. Within



Valli Moosa Chairman



# Eskom has always had a plan, and this plan was fast-tracked from 2004.

Eskom, however, the mood was completely different. There was a sense of urgency and anxiety to act — and act decisively. It was almost as if Eskom had a premonition that there was an electricity crisis looming which had to be averted.

It was this premonition that drove a lot of the decisions of the board in the first year of my tenure – how do we operate within the constraints of the current policy and regulatory environment whilst preparing for an uncertain future? In this regard we started preparing for that future, refocusing Eskom's strategy away from an African-wide, diversified, unbundled business model to one which focused on the core business of power generation, transmission and distribution, with a focus on South Africa's market. In parallel with this process we engaged vigorously with government to establish an enabling environment for the sustainability of the business.

#### The road to recovery

In October 2004, government took the first bold step and allowed Eskom to lead this current phase of building new electricity generation capacity. While there is consensus that we started late with the programme, this decision of Cabinet was to be welcomed as undoubtedly an important scene setter for the future of the electricity industry. The decision by Eskom to continue with planning while we were prohibited from building new capacity, placed South Africa in a much stronger position to respond.

My experience as the chairman of the Eskom board for the past three years has given me comfort that the utility is well on the road to recovery. Significant progress has been made to address all the key challenges identified. Jacob Maroga was appointed as the chief executive effective on 1 May 2007.



Deputy president, Ms Phumzile Mlambo-Ngcuka, and chief executive Jacob Maroga opened the two new open-cycle gas turbine power stations on 1 October 2007.

He brings with him vast technical and Eskom experience. During the reporting year, further changes were made to the executive committee and the overall organisational structure.

This is not an easy business environment for Eskom's new management team. There are six key challenges that needed urgent attention – keeping the lights burning on the back of inadequate reserve margin; addressing artificially low tariffs; building new generation and transmission capacity to meet the rising demand for electricity; mobilising all South Africans to become more energy efficient; responding to climate change imperatives; and mobilising all three spheres of government.



## Message from the chairman continued

#### New build programme on track

There has been tremendous progress since the 2004 decision of Cabinet. Eskom has spent a total of R53 billion (2005/6: R10,6 billion; 2006/7: R17,7 billion; 2007/8: R24,7 billion) with a forecast spending of R46 billion for the 2008/9 financial year. Six new transmission substations have been completed and I 026km of transmission lines constructed since 2004. A total of 2 582MW of new power generation capacity is now on line with I 061MW of this total installed during the 2007/8 financial year. To date, the board has approved projects to the value of R260 billion with I 6 304MW of new generation and other capacity committed.

Towards the end of 2005, the board approved an investment to build what is today the first two new power stations conceptualised, built and commissioned by the democratic South Africa – Gourikwa and Ankerlig open-cycle gas turbine stations. The last time Eskom built and commissioned an OCGT plant was in 1976, and so the utility started this project having lost all of its institutional memory in this regard. Construction at both sites started in January 2006, and the construction teams had to deal with one of the biggest floods seen in the Western Cape in a very long time.

The total duration of the project from concept to completion was two years and nine months. The construction time was 17 months, with 13 months between turning the first sod to synchronising the first machine. Both plants were ready to supply power for the winter of 2007. This is world class performance by any measure.

The board investment decision on Medupi power station, a new 4 788MW coal-fired base load power station located in Lephalale, was taken on 5 December 2005. This was 14 months after the Cabinet decision of 2004. In May 2007, the construction of the power station started. Work on the project is on schedule. Construction of the second 4 818MW coal-fired base load power station – "Project Bravo" – began on 1 April 2008, which is 27 months after the Cabinet decision.

The return to service of the three mothballed stations – Camden, Komati, and Grootvlei – has also been proceeding exceedingly well. In March 2005, Unit 6 of Camden power station was successfully synchronised to the national power grid and for the first time in 15 years, it generated and supplied electricity. Six of the eight units at Camden went into commercial operation between then and March 2008, adding some 1 250MW to the system. Later this year, all of the eight units of Camden will be in commercial operation with the entire station being successfully returned to service – something that, to my knowledge, has never been done before.

The first of the six units (Unit I) at Grootvlei went into commercial operation on 3 I March 2008 and added 200MW to the system. Commercial operation for the second unit is planned for later this year, with the last unit of the station planned to be in commercial operation later in 2009. The first unit of Komati power station, on the other hand, is planned for commercial operation during 2009.



My hope is that South Africa as a nation will truly become part of the solution.

This is sterling performance, noting of course that Eskom was on virgin territory with no international comparative experience on the return to service of power stations that have been mothballed for this long.

#### The regulatory environment

The price of electricity in South Africa is unsustainably low and does not reflect the true cost of producing, transporting and distributing electricity. Between January 1998 and March 2007, the real price of electricity declined by 12%.1

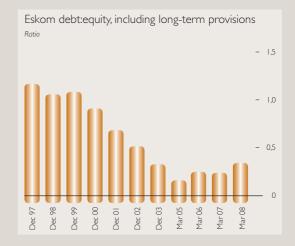
Given the low reserve margin and the pressing need to invest significantly in new electricity generation capacity, South Africa has to move decisively toward economic prices . For several years prior to my appointment to the board, Eskom made this point consistently.

During the past financial year, the debate on the future tariff path took a new turn. For the first time ever, Nedlac hosted a stakeholder summit to deliberate on Eskom's second application for a further tariff increase for 2008/9. Representatives of civil society, organised labour, business and government, worked together and agreed on a common submission to Nersa. It was agreed at the summit that the new price proposals must be done in a manner that protects the poor and ensures that they still have access to affordable electricity.

On 18 June 2008, Nersa announced a decision to increase the average price by 27,5% in 2008/9, including the previous decision of 14,2% in December 2007 ie, an additional increase of 13,3%.



More than 800 people from the Lephalale area have already been employed to work on the Medupi power station project.





When compared with CPIX as an inflation index.

## Message from the chairman continued

It is notable from the decision that the regulator indicated that a mechanism will be developed to take into account unforeseen changes in primary energy costs and other costs. Furthermore, the regulator gave a projection of the price path of between 20% and 25% per annum for the next MYPD assuming that the current economic climate continues to prevail and Eskom's capital expenditure remains as currently stated.

This decision by Nersa is of deep significance for it constitutes a paradigm shift and signals a completely new tariff path into the future. The power industry is now on a path to financial sustainability.

I end my term at Eskom satisfied that the building blocks for overcoming the challenges ahead are now in place.

#### Climate change

Climate change is the biggest environmental problem facing the world.

Eskom has pro-actively finalised and implemented a climate change strategy, notwithstanding the lack of a national target in terms of climate change. Its intention is to reduce its relative  ${\rm CO}_2$  footprint until 2025 and thereafter continually reduce absolute emissions in support of national and global targets.

Eskom's commitments to climate change will not be done in isolation, but in conjunction with others – for example collaboration with the South African government's long-term mitigation scenario process for identifying scenarios for mitigation of climate change for South Africa and the global policy work of bodies such as the World Business Council for Sustainable Development (WBCSD) and the World Economic Forum (WEF). We also need to bear in mind

that we will have to live with the negative impacts of climate change no matter what action is taken to reduce emissions. As such adaptation to these impacts is an important element in our project design and investment decision making.

Government is preparing legislation around energy efficiency relating to compact fluorescent lamps (CFLs), and enabling power rationing. I don't think there is another place in the world where an energy efficiency campaign is being implemented at the pace at which it is happening in South Africa today.

My one major regret this past year has been the increase in the number of employee and contractor fatalities. I do know that both Eskom staff and our contractors are under tremendous pressure to deliver new build projects and keep the existing plant in good condition, but this is never an excuse for the loss of lives.

#### Acknowledgements

Let me take this opportunity to pay a special tribute to the people of Eskom – the women and men of Eskom who take to the trenches, ensuring that the lights in South Africa keep burning. During my tenure as chairman of Eskom, I have not received a single report of an Eskom employee who has abandoned his/her post even at the height of the crisis. Such loyalty, dedication and selfless contributions must be commended.

Eskom is led by a top team with a long track record of excellent service to this company and the country in general. I would like to thank each of the people who served in the Eskom leadership team personally: Jacob Maroga, Bongani Nqwababa, Brian Dames, Erica Johnson, Steve Lennon, Mpho Letlape, Mongezi Ntsokolo, Ayanda Noah, Johnny Dladla and Ehud Matya.



I would also like to thank my fellow board members for their counsel over the past three years and wish them well in providing guidance and assurance to this important national asset. They have spent an enormous amount of additional time in special board meetings this year, to address the various challenges and I thank them for their invaluable time. I would like to make special mention of our international board members -Brian Count, chairman of Progressive Energy, Lars Joseffson, president and chief executive of Vattenfall, a Swedish power company, and Mustafa Bello, executive secretary and chief executive officer of the Nigerian Investment Promotion Commission – for the international perspective they brought into our deliberation in the board.

Finally, it is my sincere wish that South Africa as a nation will also become an integral part of the solution to the challenges at hand and will work with Eskom. Let us all conserve our vital energy sources - the lifeblood of our economy.

Together, let's build the power base for sustainable growth and development.

Valli Moosa Chairman

Valli



#### Board of directors

at 31 March 2008















#### I MV (Valli) Moosa (51)

Chairman

BSc (Durban-Westville)

Valli was appointed in August 2005

Executive chairman: Lereko Investments

Non-executive director: Sanlam, Imperial Holdings,

Sun International

Member: Auditor-general's advisory board

**President:** World Conservation Union (IUCN)

#### 2 M (Mustafa) Bello (54) (Nigerian)

Non-executive director

BEng (Civil) (Ahmadu Bello, Zaria)

Mustafa was appointed in August 2005

#### 3 LCZ (Zee) Cele (54)

Non-executive director

BCom (Fort Hare), PostGrad Dip Tax, MAcc (Natal) Executive Leadership Development Programme (Cambridge, USA)

Zee was appointed in August 2005

**Director:** Hulamin, Combined Motor Holdings, Sports For All Franchising

#### 4 Dr BM (Brian) Count (57) (British)

Non-executive director

MA (Mathematics) (Cambridge), PhD (Physics) (Exeter, UK)

Brian was appointed in July 2002

Chairman: Progressive Energy and Ceres Power

Appointed as chief executive from 1 May 2007.
Only major directorships included.



#### **5 LG (Lars) Josefsson** (57) (Swedish)

Non-executive director

MSc (Applied Physics) (Chalmers, Sweden)

Professor, Cottbus University, Germany

Lars was appointed in July 2002

President and chief executive: Vattenfall

Vice-president: Eurelectric

Senior adviser: German Federal Government on

Climate Policy

#### 6 WE (Wendy) Lucas-Bull (53)

Non-executive director

BSc (Wits)

Wendy was appointed in July 2002

**Director:** Dimension Data Holdings plc, Development Bank of Southern Africa, Lafarge Industries South Africa

#### 7 PM (Mpho) Makwana (37)

Non-executive director

BAdmin (Hons) (Pretoria), EDP (North Western)

Mpho was appointed in July 2002

**Chairman:** Epitome Investments

**Director:** Monitor Group















#### 8 PJ (Jacob) Maroga (48)1

Chief executive BSc (Electrical Eng) (Wits), AMP (Harvard) Jacob was appointed on 1 May 2007 as chief executive

#### 9 ET (Errol) Marshall (61)

Non-executive director

BCom (Unisa)

Errol was appointed in October 2006

Chairman: NCP Biofuel

Director: Thebe Tourism Group, Nzalo Consulting

#### 10 JRD (Jacob) Modise (41)

Non-executive director

BCom, BAcc, CA(SA), MBA (Wits), AMP (Harvard), AMP (Samford)

Jacob was appointed in July 2002

Director: Batsomi Group, Altron, Blue IQ Investment Holdings, Independent Regulatory Board for Auditors, Electricity Distribution Industry Holdings, Road Accident Fund

Trustee: Nelson Mandela Children's Fund

#### II AJ (Allen) Morgan (60)

Non-executive director BSc, BEng (Electrical) (Stellenbosch) Allen was appointed in July 2002

Director: Kumba Iron Ore

12 SA (Sintu) Mpambani (55)

Non-executive director MSc (London)

Sintu was appointed in July 2002

Member: St Bernard's Hospice, Alfred Nzo District Municipality, Untu-Consult

#### 13 U (Uhuru) Nene (47)

Non-executive director

MSc (Structural Eng) (Patrice Lumumba, Moscow) Uhuru was appointed in August 2005

#### 14 B (Bongani) Nqwababa (42)

Finance director

BAcc (Hons) (Zimbabwe), CA (Zimbabwe), MBA (Manchester and Wales, UK)

Bongani was appointed in September 2004

Chairman: Eskom Finance Company, Escap, South African Revenue Service audit committee

**Director:** Eskom Enterprises, Rotek Industries, Rosherville Properties, Rosherville Vehicle Services, Roshcon, Old Mutual plc UK

#### 15 V (Versha) Mohanlal Rowjee (36)

Non-executive director

BCom (Wits)

Versha was appointed in July 2002

**Director:** Disability Empowerment Concerns

Investment Holding Company

Trustee: Thabo Mbeki Development Trust for People with Disabilities



## Message from the chief executive

## Our goal is transparency

Power supply interruptions of the scale seen during the reporting year have been unprecedented in South Africa. Meeting an increasing national demand for electricity with a much-diminished reserve margin has undoubtedly been Eskom's biggest challenge for this past financial year.

The convergence of a diminished reserve margin, increased unplanned generation plant outages as well as coal supply and quality constraints forced Eskom into an undesirable position of having to interrupt the supply of electricity nationally. Between October 2007 and February 2008, emergency load shedding was implemented. In order to avoid a potential overall nationwide blackout, a national electricity emergency was declared on 24 January 2008.

Load shedding activities undertaken during this period – and at any other period – have been a source of distress and discontent to most South Africans, causing major disruption to all sectors of the economy. As the national utility, we have used every available opportunity to explain the underlying reasons, improve how load shedding is managed, and minimise its impact on the nation. While the explanation would have resonated with some, the inconvenience is, however, deeply regretted.

While our current focus is understandably on responding to the demand for electricity we continue to ensure that overall good practices are in place and that we do not take our attention off our triple bottom line. We are determined to make a positive difference through our continued support for the United Nations Global Compact. As a signatory to the compact, the world's largest voluntary corporate responsibility initiative, we commit to show leadership in the compact's 10 principles around labour standards, the environment and anti-corruption.



Jacob Maroga Chief executive

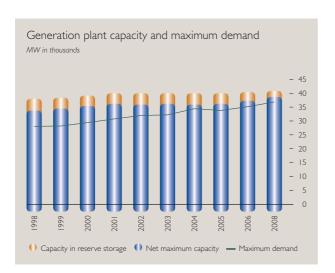


I thank every person who has come on board to find solutions to this national challenge.

#### Diminishing reserve margin

Since taking office as chief executive on 1 May 2007, my team and I have dedicated a significant amount of leadership time reflecting on the challenges at hand and aligning all the resources of the organisation towards a solution. The fundamental and underlying problem is that the power system has an inadequate reserve margin which is at an all time low of around 8%. This does not compare well to our aspiration of 15%.

Since 1994, the demand for electricity has grown by about 50% on the back of robust economic growth. This welcomed growth has all but exhausted Eskom's surplus electricity generation capacity. To us at Eskom, this has been one indicator that we watched closely and with a sense of trepidation. Monitoring the diminishing reserve margin has been an integral part of Eskom's operations, as it is a proxy for the long-term adequacy of the power system, including the short-term security of supply. In the absence of any investment in new generation capacity, misalignment between the demand and the available supply emerged and therefore





Camden is one of the older power stations being returned to service.

the 2007 crunch was inevitable. The Cabinet decision of 2004 marked an important milestone where Eskom could start investing in new generation capacity.

Increasing Eskom's reserve margin to adequate levels is central to the organisation's ability to ensure that power supply is not impacted by technical events upstream in the supply chain. A healthy reserve margin is necessary to create a window for planned maintenance and a cushion to manage unplanned maintenance. In this way conventional and inevitable technical problems are absorbed within the system and do not degenerate to a national crisis. This margin is further required to optimise the cost of running the power system. With such an inadequate reserve, Eskom has very little choice but to run all the available power stations irrespective of the cost of running them.

Despite the low reserve margin, Eskom has commenced issuing quotations to potential customers who apply for new connections or upgrades above 100kVA. However, the period that it will take before a customer applying for a connection above 100kVA receives energy will depend on the rate at which space is created on the electrical system and the rate at which applications for new capacity are received.



## Message from the chief executive continued

The challenge of operating a power system that has a low reserve margin should not be underestimated. It is serious, deep, material and will take a few years to resolve. Our response to this challenge has to be comprehensive, with interventions on both the demand and the supply side.

#### Recovery

In response to this challenge Eskom, in partnership with the South African government and major stakeholders, has already made significant progress in rolling out the national recovery plan. We successfully stabilised the power system after the extreme events of January and February 2008, coal stockpiles have significantly increased with the target of an average of 20-system days reached, and undertaken the required maintenance in anticipation of the winter peak season.

With the contribution of our key industrial customers and the broader South African public, we are well on track to successfully implement a power conservation programme.

#### New build programme

Eskom is embarking on a very large infrastructure expansion programme which has a board-approved budget of R343 billion up to 2013 and is expected to grow to more than a trillion rand by 2026. Additional power stations and major power lines are being constructed in line with our plan to deliver an additional 16 304MW in generation capacity by 2017. Ultimately, Eskom will double its capacity to about 80 000MW by 2026.

This massive build programme has been designed such that it adequately responds to the challenge of electricity availability and reliability. It has also been aligned with government's target of 6% GDP growth between 2010 and 2014.

I am pleased to report that the Eskom build programme is on track to deliver the additional infrastructure as planned. We have made excellent progress during the past financial year, and have indeed achieved what we set out to do in this regard. Ankerlig and Gourikwa power stations – the two new open-cycle gas turbine stations located in the Western Cape – were officially opened. The National Energy Regulator of South Africa (Nersa) granted Eskom the licence to build the first new coal-fired power station in more than 20 years.

Hitachi Power Africa was awarded a R20 billion contract for boilers, and Alstom S&E was awarded a R13 billion contract for turbines for Medupi power station. We also awarded contracts worth some R31,5 billion for the "Bravo Project", a coal-fired power station to be built by 2017 – R18,5 billion to Hitachi Power Africa for boilers and R13 billion to Alstom S&E for turbines.

Work is well underway on the return to service of the three previously mothballed power stations — Camden, Komati, and Grootvlei. The construction of Ingula pumped storage scheme is also progressing well. We are also on track with several of our transmission projects.

For the reporting year, capital expenditure of R24,7 billion was incurred. This was R218 million above the target for the year – a confirmation that the accelerated programme is on track.

I must pay special tribute to the Eskom team for ensuring that this all important programme of building new capacity remains on track notwithstanding all the adversities brought about by an inadequate reserve margin.

#### Financial sustainability

Eskom's massive capacity expansion programme will take the organisation into a new and exciting, but also very challenging, phase in its history. Funding the programme is one such challenge which will test the organisation's financial sustainability. The financial health of the organisation has come under pressure given the increase in primary energy costs and the need to reduce consumption through demand-side management and power-conservation projects.



## The coal stock situation has improved greatly.

The profit for the year for the Eskom group was R974 million (2007: R6 476 million) after taking into account the fair value loss on embedded derivatives of R143 million (2007: fair value gain of R4 305 million).

The profit for the year for the company was RI 333 million (2007: R6 030 million) after taking into account the fair value loss on embedded derivatives of R149 million (2007: fair value gain of R4 131 million).

Primary energy costs (mainly coal and diesel) increased from R13 040 million in 2007 to R18 314 million in 2008, while the growth in sales only amounted to 2,9%. This was mainly due to an increase in coal price and the extended use of the opencycle gas turbines due to the reduced reserve margin in October 2007 and the early months of 2008.

The higher primary energy cost that Eskom incurred in 2006/7 and 2007/8, together with projections for the 2008/9 financial year prompted the organisation to approach Nersa with the view to re-open tariff discussions. It was clear that Eskom, in the absence of any decisive action, was on a financially unsustainable path. During the financial year, Standard and Poor's (credit rating agency) placed Eskom on "credit watch" with negative implications, reinforcing the need to secure our financial health.

Going forward, Eskom will require significant contributions from all sources of capital namely price increases, funding support from government, and borrowings from both the local and international market.

On 18 June 2008, Nersa announced a decision to increase the average price by 27,5% in 2008/9, including the previous decision of 14,2% in December 2007, ie an additional increase of 13,3%. It is notable from the decision that the regulator



A coal stacker/reclaimer is used for coal handling at the coal stockyard.

indicated that a mechanism would be developed to take into account unforeseen changes in primary energy costs and other costs. Furthermore, the regulator gave a projection of the price path of between 20% and 25% per annum for the next multiyear price determination assuming that the current economic climate continues to prevail and Eskom's capital expenditure remains as currently stated.

This decision by Nersa is of deep significance for it constitutes a paradigm shift and signals a completely new, improved tariff path into the future. The power industry is now on a path to financial sustainability.

The South African government, which is the sole shareholder of Eskom, has announced its intention to support Eskom initially with a R60 billion subordinated loan to be drawn down in tranches in the next five years. Pressure in the global credit markets is an additional challenge for Eskom's funding opportunities. Alternative funding sources are continually being pursued in order to maximise funding options.



## Message from the chief executive continued

#### Internal efficiencies

As part of ensuring the long-term financial sustainability of the organisation, we have put in place a programme to maximise internal efficiencies. Two years ago, we commenced the procurement and supply chain strategic sourcing initiative with the aim of securing the supply of goods and services for the organisation in the most optimal manner. I am pleased to report a R3,1 billion savings achieved this year against a target of R1,5 billion. This brings the total inception-to-date savings to R3,9 billion against the overall savings target of R7,8 billion over the five years to 2011. We are confident that such a target will be achieved.

#### Skills in Eskom

Attracting and retaining appropriately skilled staff is central to ensuring a reliable and secured electricity system. As we accelerated this massive capacity expansion programme, we have also intensified our efforts to bring more skilled people into the organisation. Core, critical and scarce skills have been identified with particular attention given to these priority areas. We know that major build projects are happening in other parts of the world, and as such Eskom competes for the same skills set. This is why the Eskom resourcing strategy had to be all encompassing addressing, among others, training and development, recruitment, succession management, retention and incentives, and pipelining.

The total staff composition of Eskom has shown a net growth of 2 208 over the reporting year following national and international recruitment campaigns. A programme to attract retired Eskom employees with needed skills is also proving successful.

Eskom remains committed to developing its employee value proposition to ensure it remains an employer of choice.

#### Safety

As a caring employer, we are committed to providing and maintaining a safe working environment for our employees and

contractors. Despite significant efforts, our occupational, health and safety remains unsatisfactory in that Eskom did not meet its target of zero fatalities for the reporting year.

It is with great sadness that I have to report the deaths of I7 Eskom employees and I2 contract workers in the past year. These fatalities were mainly due to vehicle accidents and electrical contacts. Of the eight Eskom vehicle fatalities seven have sadly been due to third parties. Safety is and will always remain one of the top priorities in our business.

#### Contribution to society

Corporate social investment (CSI) forms an integral part of the way Eskom does business. Various CSI programmes are executed through Eskom's support to government's rural development programme, its contribution to the Accelerated Shared Growth Initiative for South Africa (Asgisa) and through the development work done by the Eskom Foundation. I am proud to say that we have made meaningful contributions to many communities around our build projects and elsewhere in the country, and we will continue to do so for years to come

#### In conclusion

Ensuring the security of supply at a time when the power system has an inadequate reserve margin will remain a key challenge for South Africa, the electricity sector, and Eskom. We accept that the load shedding activities of the magnitude seen in recent times have dented South Africa's confidence in the power system and in Eskom. We have made the commitment to regain public confidence in the system. In this regard, all our work towards re-building trust will be based on open, honest and transparent sharing of information.

For the next five years at least, the South African power system will remain vulnerable given the low reserve margin. Plans are in place, and implementation has been accelerated. We are



## Partnership is key to solving the electricity challenge.

confident that the activities we are undertaking today – as Eskom, the energy sector, government, and the country at large - will enhance Eskom's ability to deliver into the future.

#### Acknowledgements

The past year has been a testimony to the old adage "through adversity comes strength". We are heartened by South Africa's response, especially when asked to conserve electricity. We are also grateful to all who have made a contribution to the work of the organisation during the past year.

Our employees have been and remain indispensable to our organisation. I would like to pay a special tribute to all of the men and women of Eskom for their loyalty, dedication and commitment to the task at hand.

A word of appreciation goes to the Ministers of Public Enterprises and Minerals and Energy and their respective departments for their leadership and guidance through this difficult time.

Our appreciation also goes to members of the Portfolio Committee, the National Energy Regulator of South Africa, Nedlac stakeholders, key industrial customers, municipacilities, and the broader South African public.

We are confident that together, we will rise to the challenge.



Rural communities are key partners in the build programme in terms of community development.





## Executive management committee

at 31 March 2008







The executive top structure has been rationalised and two chief officer positions - Generation business and Networks and Customer Services business - were introduced effective from 6 February 2008.



Chief executive BSc (Electrical Eng) (Wits), AMP (Harvard)

#### 2 B (Bongani) Nqwababa (42)<sup>2</sup>

Finance director

BAcc (Hons) (Zimbabwe), CA (Zimbabwe), MBA (Manchester and Wales, UK)

Chairman: Eskom Finance Company, Escap, South African Revenue Service audit committee

Director: Eskom Enterprises, Rotek Industries, Rosherville Properties, Rosherville Vehicle Services, Roshcon

Non-executive director: Old Mutual plc UK Provide financial and procurement strategy, policies, assurance and strategic services to the Eskom group

#### 3 BA (Brian) Dames (42)<sup>2</sup>

Chief officer - Generation business

BSc (Hons) (Western Cape), MBA and Graduate Diploma in Utility Management (Samford, USA)

Chairman: Rotek Industries, Roshcon

Chief executive officer: Eskom Enterprises

Operating and maintenance of generation assets throughout the plant lifecycle, nuclear operations and strategic primary energy sourcing

Designing, building and refurbishing electricity assets, leading project development for the Eskom group, be the custodian of the nonregulated businesses and offer strategic and commercial lifecycle services to the divisions





#### **4 E (Erica) Johnson** (39)<sup>3</sup>

Chief officer - Networks and Customer Services BSc (Electrical Eng) (UCT), MSc (Electrical Eng) (UCT), MBA (Wits)

**Director: PBMR** 

Accountable for the Network and Customer Services business of Eskom. Entails the planning, operations and maintenance of a 360 000km transmission and distribution network, and the management of 36GW customer base and a revenue stream of about R40 billion

#### 5 Dr SJ (Steve) Lennon (48)<sup>2</sup>

Managing director - Corporate Services

MSc (Phys Metallurgy) PhD (Wits) Professional scientist (Pr.Sci.Nat.), Fellow of the Academy of Engineering, Fellow of the Royal Society

Chairman: Board of trustees Fossil Fuel Foundation, National Advisory Council on Innovation

**Director:** EDI Holdings, Electric Power Research Institute, Eskom Enterprises

Supporting growth, innovation and sustainability of Eskom group by influencing strategic direction and risk management, ensuring safety, assurance, strategy execution, an optimal portfolio of assets, regulatory compliance, effective groupwide governance, and providing strategic services in the area of information management, environment, security, insurance and research, demonstration and development to the benefit of the business as a whole

<sup>&</sup>lt;sup>3</sup> Appointed to Exco from July 2007.



<sup>&</sup>lt;sup>1</sup> Appointed as chief executive from 1 May 2007.

<sup>&</sup>lt;sup>2</sup> Member of Exco for the whole year.











#### 6 ME (Mpho Emily) Letlape (48)<sup>2</sup>

Managing director - Human Resources division BSc (Comp Sci, Psych) (Fort Hare)

**Director:** Nakatomi Corporation Board member: Global Health Initiative

Advisory board member: Global Business Coalition on HIV/Aids

Provide human resources strategy, direction, policies and assurance, strategic services including health and wellness, industrial relations, learning, organisational effectiveness and remuneration and benefits. Drive culture change through effective change management and implementation and development of appropriate programmes

#### 7 M (Mongezi) Ntsokolo (47)<sup>4</sup>

Managing director – Transmission division BSc (Electrical Eng) (Wits), HonsB, (B&A) (Stellenbosch), MBA (Stellenbosch), Fellow of SA Academy of Engineering (FSAAE), AMP (Harvard)

Board member/director: Electricity Distribution Industry Holdings

Ensure reliable and sustainable electricity power supply by operating, maintaining, refurbishing and extending the South African transmission power grid

Provide focused and dedicated customer service

#### 8 JA (Johnny) Dladla (45)4

Managing director - Special Project 2010 division

BA (Com) (Hons) (Fort Hare), CM (SA) AMP (Harvard)

Chairman: O'Brian Marketing **Director:** Emerald Trading

Ensuring reliable electricity delivery, Eskom preparedness and mitigation of risks to enable a successful FIFA 2010 World Cup in South Africa

#### 9 A (Ayanda) Noah (41)3,4

Managing director - Distribution division BSc (Electrical Eng) (UCT), MBA (BSN), EDP (Wits), PrEng, MSAIEE

**Director:** South African National Energy Association

Leading and directing the wires and retail business throughout South Africa to ensure and assure a well-operated and maintained distribution infrastructure. Also playing an active role in restructuring of the distribution industry

#### 10 EN (Ehud) Matya (44)4

Managing director - Special Projects BSc (Eng) (Wits), AMP (Harvard), PrEng

#### Retirements and other changes

TS (Thulani) Gcabashe was the chief executive until 30 April 2007.

PD (Duncan) Mbonyana was managing director corporate division until he retired on 31 August 2007.

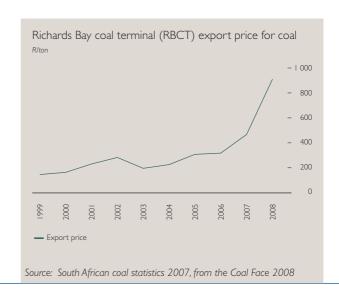


<sup>&</sup>lt;sup>2</sup> Member of Exco for the whole year.

<sup>&</sup>lt;sup>3</sup> Appointed to Exco from July 2007.

<sup>&</sup>lt;sup>4</sup> Official of Exco. Member of Exco up to 5 February 2008.

#### Market and industry overview



#### Financial market and economic trends

In the final quarter of 2007 and in early 2008, global financial markets were dominated by liquidity concerns as a result of the United States housing market credit crunch. As the liquidity concerns spread from the banking sector to the wider real economic sector, the American economy increasingly threatened to dampen world economic growth prospects. A crumbling housing market, increasing energy costs and rampant food inflation all contributed to a real reduction in the level of consumer demand. Weaker economic growth prospects in the United States, weighed heavily on the US dollar:

The possibility of a hard landing in the US economy, and growing concerns about the global credit crunch propelled leading central banks across the globe to inject liquidity in the financial markets. This was done in the form of direct injections, rescue packages for troubled financial institutions and softer interest rates. The US Federal Reserve was particularly aggressive by reducing its key lending rate from 5,25% in August 2007 to 2% to date. The challenges faced by the US economy and increasingly softer interest rates, drove the US dollar to an all-time low against the euro. Although a weaker US dollar raised hope of a correction of the US trade balance against the rest of the world, it also increased the risk of higher energy and food inflation.

A weaker US dollar also meant that commodity prices were pushed higher, at least in absolute US dollar terms. Oil prices continued to set new record levels with precious metals such as gold also rising to historic levels.

South Africa was also subjected to higher energy and food inflation. Faced with higher inflation and rising household debt levels the South African Reserve Bank gradually increased interest rates to maintain price stability. Although economic growth has been robust in recent times, averaging above 5,00% during the last four years, higher interest rates, slowing consumer demand and increasing infrastructure bottlenecks could result in a slower rate of economic growth in the coming quarters.

Higher inflation expectations have translated into some weakness in the domestic capital markets. Given the broader infrastructure initiatives across the economy, and thus the funding requirements, the capital markets could remain under pressure. On the positive side, the government anticipates budget surpluses in the coming fiscal years which could limit its participation in the capital markets and thus free capital for use by parastatals among others. Direct capital injections by the state into Eskom have also been an unprecedented feat, highlighting the overall challenges and opportunities from a developmental point of view.

#### Supplier and industry trends

#### Impact of global expansion in the power sector

During the last year, the economy experienced extreme turbulence coupled with ever-rising primary fuel costs, commodity price increases and numerous interest rate hikes. The expansion programmes in India and China increased demand for utility-specific commodities. All these factors increased pressure on utilities to secure supply, while at the same time containing costs. Market signals indicate further turbulence in the markets during the months to come. Supply market volatility has seen suppliers struggling to meet demand. While capacity was increasing it was not keeping up with demand, leading to an increase in quality issues, prices and delivery lead times. As supply tightens, traditional suppliers are increasingly declining to bid, thereby increasing the need for global sourcing.

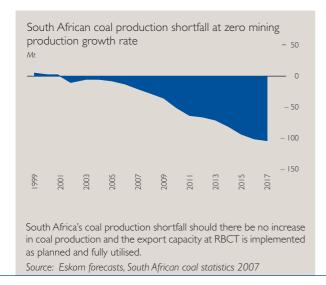
#### Critical skills

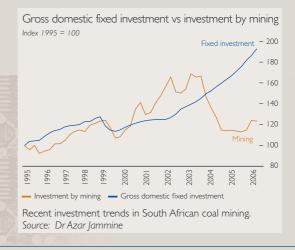
The global drive to increase electricity supply capacity, particularly in India and China, has resulted in a growing local and international demand for scarce technical skills both on the operating and construction side.

#### Global coal demand trends

Globally, coal is the fastest growing energy source. Demand for coal is soaring, especially in the Indian and Chinese markets. With increased demand, global coal prices are following the escalating oil price and the South African coal export price at the Richards







Bay Coal Terminal (RBCT) recently broke through USD115 per ton, up from USD53 per ton at the beginning of 2007. This puts pressure on Eskom's short-term coal price and volumes.

The quality of coal required by importers is declining, particularly in respect of the Indian coal market. This makes many current coal sources and, more importantly, potential future sources, with some beneficiation, attractive to the export market. Such coal was, historically, only suitable for the Eskom market.

#### South African coal production growth

The low growth in South Africa's coal production is of very great concern and poses a serious supply risk to Eskom and South Africa. If there is no intervention, South Africa may face an annual coal shortage of up to 100Mt by 2017.

#### Water

Eskom purchases its water at first-tier level from the Department of Water Affairs and Forestry (DWAF) directly via abstraction from state-owned water works or through intermediaries, for example, in the case of Lethabo Power Station, through Rand Water, and Matimba Power Station through Exxaro. DWAF is reviewing the institutional arrangements for the supply of water and is expected to establish the National Water Resource Infrastructure Agency (NWRIA), which will develop, operate and maintain all bulk water infrastructure of national importance at first-tier level.

#### Environment and climate change

Eskom is controlled by various independent regulators including the National Energy Regulator of South Africa (Nersa) and the National Nuclear Regulator (NNR), the Department of Water Affairs and Forestry as well as the Chief Air Pollution Control Officer (Capco) from the Department of Environmental Affairs and Tourism (DEAT). These independent regulators protect the public interest and regulate Eskom's activities to ensure effective

environmental protection. This is achieved, among others, through the issuing of authorisations for construction, permits and licences for particulate emission releases and water usage.

South Africa is a signatory to the United Nations Framework Convention on Climate Change (UNFCCC) and its implementing mechanism, the Kyoto Protocol. As a developing country, there are no binding obligations as yet for South Africa to reduce greenhouse gas emissions. However, there is increasing in-country commitment for development to be carried out in a sustainable manner that will result in benefit to the economy, society and the environment and that is compatible with actions required to combat climate change. It is important that South Africa actively contributes to global efforts to combat climate change while ensuring the sustainability of the economy and society.

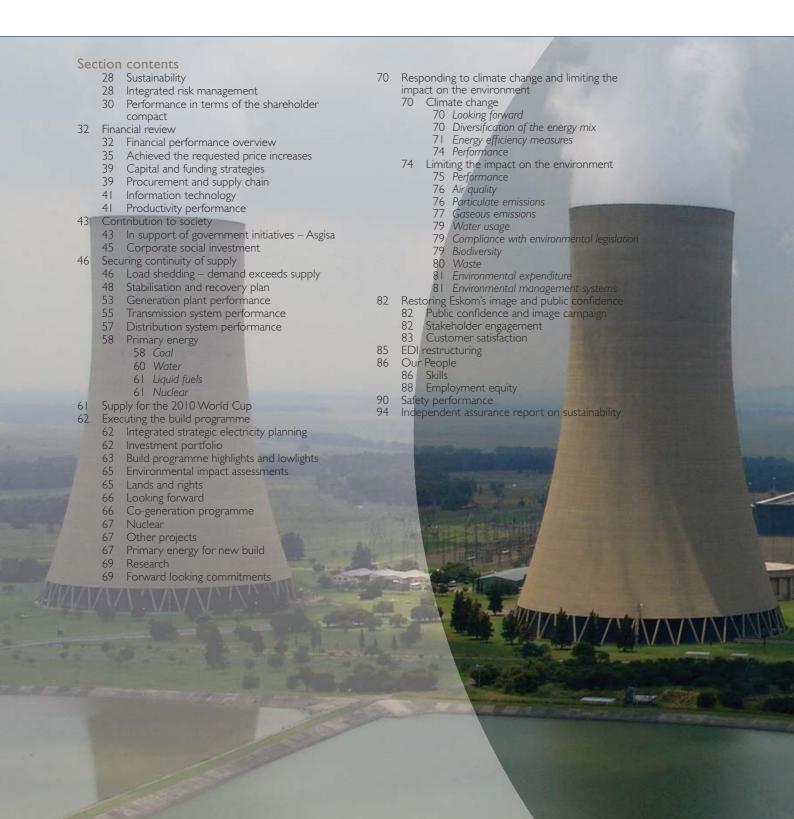
Refer to www.eskom.co.za/annreport08/001 for more detail on the environment and climate change.

#### Electricity distribution industry restructuring

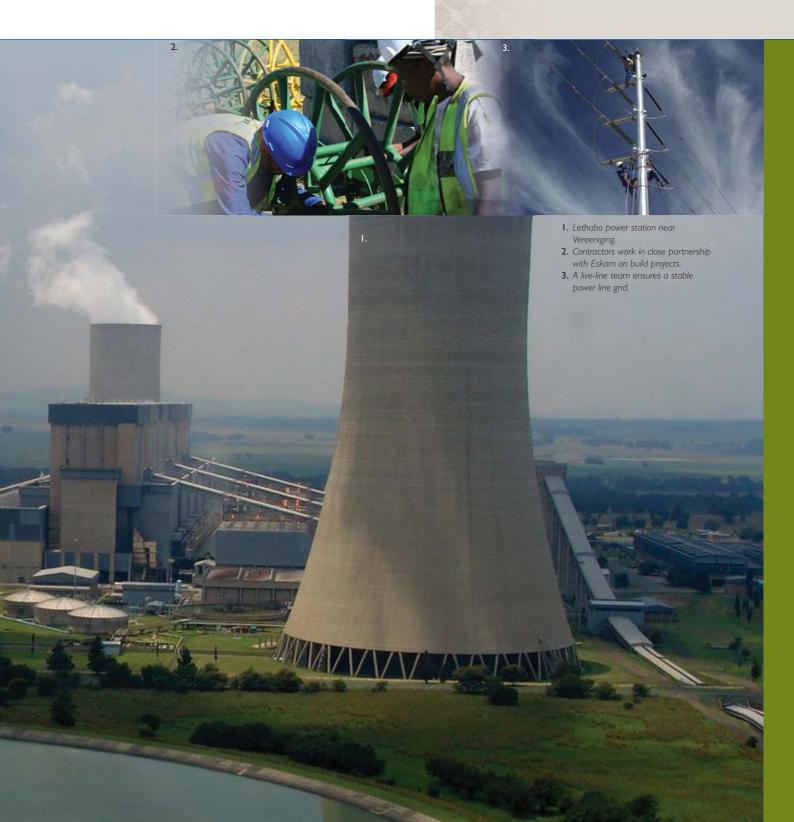
In October 2006 Cabinet approved the proposal to create six regional electricity distributors (REDs) to consolidate the electricity distribution businesses of the municipalities and Eskom. These REDs are to be established as public entities, accountable to the Department of Minerals and Energy. Electricity Distribution Industry Holdings (Pty) Limited is responsible for implementing government's restructuring policy. The critical next steps include the finalisation of outstanding policy issues and the drafting of enabling legislation.



#### Business and sustainability performance review



Eskom has integrated sustainable development issues into decision-making for many years.



### Introduction Sustainability

At Eskom, we ensure that sustainable development issues are fully integrated into all our activities and business practices. Our sustainability strategy was first developed in 2004 and is periodically reviewed. Our broader definition of sustainability includes issues such as technology development and deployment, quality, risk, safety and skills development. This allows us to take a long-term view and ensure that the scope of our work covers all relevant elements and assesses the practicality of implementation.

Eskom has integrated sustainable development issues into decision-making for many years. Given that our sector is long term in nature and that many decisions have implications for decades, it is vital that we take robust and responsible decisions. As the new build programme progresses and decisions are taken on key operational practices and programmes, many of the critical issues are identified and factored into decisions. These include diversification of the energy mix, climate change considerations, financial aspects, improvements in environmental performance and social issues such as job creation.

Eskom's sustainable development philosophy and practice form a vital and integral part of our business which guides our vision. It ensures that we strive to continually improve our performance in consultation with our stakeholders in a transparent manner. Our performance is continually benchmarked against international practice, as we strive to go beyond what is required of us in terms of legislation.

#### Sustainability performance

Our sustainability performance index provides an overarching view of our long-term sustainability status through the use of 20 appropriate indicators drawn from different indices in the organisation. The index addresses economic, environmental, social and technical aspects of the organisation and provides a score from a holistic perspective. It is used to determine our long-term sustainability status.

The overall performance is considered sustainable if the score is equal to or greater than three on a five-point scale. Eskom's overall performance for the reporting period was 2,5 (2007: 3,0) with sector scores as follows:

→ technical
 → economic
 → environmental
 → social
 2,5
 (2007: 3,2)
 (2007: 2,6)
 (2007: 2,6)
 (2007: 2,6)

With the decline in the reserve margin the load factor increased, resulting in a drop in plant availability. Performance also declined as a result of the unacceptably high number of fatalities, an important element of the social sector of the index. Further areas that declined were productivity, interest and return on capital employed, as well as contraventions of environmental legislation. Areas that performed well included the reduction in electricity demand through demand-side management, race and gender equity, electrification and black economic empowerment.

To ensure continual improvement, Eskom was benchmarked by Ethical Investment Research Services Limited (London) (EIRIS) against the JSE SRI index using 2007 financial year performance data, which assessed non-financial risk policies, management systems and performance including environmental, social and governance issues. We performed particularly well for the 2006/7 period and achieved the required standard to qualify for the JSE SRI index. We also stood out in the HIV/Aids section, meeting all the criteria.

#### Integrated risk management

Eskom Holdings values the importance and benefits of having a comprehensive, fully integrated risk management (IRM) programme. Our programme manages risks on an enterprise-wide basis. The Eskom IRM programme strives to comply with best practices, having regard to the requirements of King II, the DPE Risk Management Framework, and the broad guidelines of international benchmarks such as the Integrated Risk Management of South Africa (IRMSA) Code of Practice, the Committee of Sponsoring Organisations of the Treadway Commission (COSO), and other international risk guidelines.



Strategic risks are climate change, skills, primary energy, financial sustainability and the policy environment.

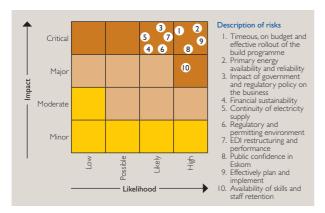
The board acknowledges its overall accountability for ensuring an effective results-driven, integrated risk management process. Exco, through the general manager: risk management, has implemented a risk control system to enable management to respond appropriately to significant risks that could impact negatively or positively on business objectives.

Risk reviews are conducted twice a year with input from divisional and functional areas. Risks identified are ranked by divisions and subsidiaries, reviewed, and then assessed by Exco, the risk management committee, and the board to determine the major operational, strategic, and business continuity risks. The ratings of the risks are finalised after considering the mitigation plans, and executive accountability is assigned for each of the risk categories.

#### Integrated risk profile

Eskom reports on operational, strategic, and business continuity risks as part of the risk profile. The risk dashboard reflects the likelihood and impact of the top ten risks facing us.

Safety, climate change, leadership, ethics and attention to detail are focus areas inherent in all risk mitigation actions and impact all of these risks.



#### Operational risks

These are events, hazards, variances, or opportunities that could influence the achievement of Eskom's operational and compliance objectives. We have 10 major operational risks, which have not changed significantly over recent years.



Coal is one of the strategic risks receiving high-level attention.

#### Strategic risks

In the Eskom context, a strategic risk is a significant unexpected or unpredictable change or outcome beyond what was factored into the organisation's strategy and business model and which could impact the group's performance.

The strategic risks monitored and managed by the board and Exco are climate change, skills availability, primary energy, financial sustainability, and the policy environment.

#### Business continuity risks

Business continuity management (BCM) addresses business process continuity, recovery, and restoration following business interruption and disasters. BCM risks are those events, hazards, variances and opportunities that could influence the continuity of Eskom.

All divisions and subsidiaries develop, implement, maintain and review appropriate business continuity plans for all the areas of their business.

Refer to www.eskom.co.za/annreport08/002 for more details of major operational risks and strategic risks.



#### Performance in terms of the shareholder compact

This is an overview of business performance against the shareholder compact key performance indicators. Refer to page 206 for more detailed information on the shareholder compact.

Key performance area	Key performance indicator	Unit of measure	Target 2008	Actual 2008	Actual 2007	Exceeded/ not achieved
Capital and financial	Return on average capital employed (ROACE)	Budget (%)	≥6,I	5,4	9,7	not achieved
efficiency	Earnings before interest and tax margin (EBIT)	Budget (%)	≥11,5	9,2	16,9	not achieved
	Generation capital expenditure	Budget (Rm)	≥9 940	11 004	7 056	exceeded
	Transmission capital expenditure	Budget (Rm)	≥2 171	2 394	l 170	exceeded
Capital expansion	Generation technical plan expenditure (investment in existing infrastructure)	Budget (Rm)	≥3 703	3 461	2 942	not achieved
(infrastructure and capital	Distribution capital expenditure	Budget (Rm)	≥3 476	3 886	3 430	exceeded
expenditure)	Generation capacity installed and commissioned	Plan (MW)	≥1 041	1 061	I 360	exceeded
	Transmission lines installed	Plan (km)	≥270	246	430	not achieved
	Transmission MVA installed	Plan (MVA)	≥295	I 295	1 000	exceeded
	Major incidents (transmission system minutes lost)	Plan	≤I	6	2	not achieved
	<ul><li>– severity degree one</li><li>(≥1, but less than 10 minutes)</li></ul>		≤I	5	1	
	<ul><li>– severity degree two</li><li>(≥10, but less than 100 minutes)</li></ul>		0	0	1	
	- severity degree three (≥100 minutes)		0	1	0	
Operating efficiency and	Transmission system minutes lost (<1)	Plan (SML)	≤3,9	3,56	3,67	exceeded
effectiveness	Generation unplanned capability loss factor (UCLF)	Plan (%)	≤4,2	5,13	4,34	not achieved
	Distribution system average interruption duration index (SAIDI)	Plan	≤42,3	73,7	51,40	not achieved
	Distribution system average interruption frequency index (SAIFI)	Plan	≤22,8	33,72	25,20	not achieved
	Rand/megawatt hour (before embedded derivatives)	Budget	≤183,00	189,25	160,90	not achieved
Socio-	Eskom trainees/bursars (learner pipeline)	Target	≥4 000	5 368	5 136	exceeded
economic	Number of engineering trainees/apprentices (part of learner pipeline above)	Target	≥3 000	4 563	4 3651	exceeded

<sup>&</sup>lt;sup>1</sup> Estimated figure, detailed split of engineering and technical trainees and bursars is not available.



Eskom trainees/bursars

Target: 4 000 Actual: 5 368

#### → Capital and financial efficiency

The return and earnings ratios were impacted negatively by the following:

- there was a significant increase in the cost of coal in line with the trend in rising prices for export coal
- during significant energy shortages, the open-cycle gas turbines (using diesel) were run much more than expected due to the low reserve margin, and the diesel was purchased at a time of high world oil prices
- in terms of the MYPD rules, the price increase was restricted to less than the inflationary increases of coal and diesel

We made an application to the regulator regarding the recovery of all or some of these over-expenditures by way of an increased tariff in future.

#### → Capacity expansion (infrastructure and capex)

- in total, Eskom spent R1 455 million more in capital than targeted in the shareholder compact, indicating the effectiveness and fast tracking of the rollout of the capital expansion programme
- the generation technical plan expenditure was underspent by R242 million (6,5%). While there was an increase of major maintenance overhauls undertaken, this was offset by the deferral of scope of work on other maintenance projects in order to manage the capacity constraints
- Eskom built 24km less transmission lines than targeted for the year. Delays and difficulties in obtaining the necessary servitudes, which we need to enable us to proceed with construction over privately owned land, delayed the completion of a number of major projects

#### → Operating efficiency and effectiveness

The increased growth in demand over recent years, combined with limited operational capacity, has resulted in a significant increase in the production requirement on existing power stations. In order to deliver on the continued demand, this increased production has, in many instances, led to plant components being stressed beyond their design operating parameters. This increased level of usage, combined with exceptionally wet conditions in January and February 2008, contributed significantly to a



A typical transformer at a substation next to a power station.

culmination of conditions that resulted in forced capacity losses. These performance issues are being addressed as part of the generation technical recovery plan

- equipment failure contributed significantly to the five "degree-one" incidents on the transmission network. Various preventative and corrective actions have been identified already in order to address the poor interruption performance. The one "degree-three" incident was the result of load shedding
- the distribution performance has not improved since the previous year and the business plan target was not achieved due to a higher number of planned interruptions for maintenance and refurbishment and an increase in unplanned interruptions, caused by an increase in conductor theft, energy theft in the winter months, and bad weather. Load shedding also had a negative impact on operational performance

If load shedding is excluded, SAIDI and SAIFI would have achieved 55,51 and 25,36 respectively, which still represents a deterioration in performance compared to the previous year.

 as indicated above, the increase in the cost of coal and diesel was the primary reason for increase in the rand/megawatt per hour performance indicator



## Financial review Financial performance overview Performance of Eskom and its subsidiaries

The operating profit for the year for the Eskom group, before the impact of embedded derivatives and net finance costs, was R3 215 million (2007: R6 452 million) and for the company R3 132 million (2007: R5 815 million) after taking into account the following:

- → a dividend of R800 million (2007: R200 million) from a subsidiary is included in the net profit for Eskom (but eliminated for the group)
- → the change in the projected asset lives of coal-fired generation plant from 35 to 50 years impacted the profit by a favourable amount of R484 million
- → the increased amount spent on primary energy. The costs of coal and diesel increased from R13 040 million in 2007 to R18 314 million in 2008

The profit for the year for the Eskom group was R974 million (2007: profit of R6 476 million) after taking into account the fair value loss on embedded derivatives of R143 million (2007: fair value gain of R4 305 million).

The profit for the year for the company was RI 333 million (2007: profit of R6 030 million) after taking into account the fair value loss on embedded derivatives of RI49 million (2007: fair value gain of R4 I31 million).

The forward electricity price curve used to value the embedded derivatives was 27,5% for the 2008/9 year, 25% for the next three years, 18% for the 2012/13 year and CPI plus 2% thereafter. A sensitivity analysis for the embedded derivatives appears in note 3.

The debt:equity ratio including long-term provisions weakened from 0,14 to 0,30 at the end of the current year.

#### Highlights

- → the group capital expenditure (including interest capitalised) of R24 764 million for the year was significantly higher than the R17 707 million in the previous year and exceeded the target by R218 million, indicating that the capital expansion programme is on track
- → the BEE spend was R25 447 million compared with a target of R18 955 million
- → strategic sourcing savings of R3,1 billion against the target of R1,5 billion

#### Lowlights

- → the impairment provision for trade and other receivables increased from R1 533 million in 2007 to R1 877 million
- → primary energy costs increased significantly during the year
- → a rating agency placed Eskom on credit watch during February 2008
- → the revised price increase of 14,2% for 2008/9, announced by Nersa in December 2007, was lower than the 18% requested by Eskom
- → the return on assets for the year was 3,3% compared to 7,8% last year

Refer to www.eskom.co.za/annreport08/003 for more details on capital expenditure.



#### Income statement

Group business performance for the year ended 31 March 2008<sup>1</sup>

	Eskom Holdings	Eskom Enterprises	Escap	Gallium	Inter- company eliminations	Consoli- dated
	Rm	Rm	Rm	Rm	Rm	Rm
2008						
Revenue	43 584	5 456	560	_	(5 152)	44 448
Other income	1 744	254	23	_	(1 790)	231
Net fair value (loss)/gain on financial instruments excluding embedded derivatives	(729)	25	16	_	4	(684)
Operating expenditure	(41 467)	(5 357)	(622)	8	6 658	(40 780)
Operating profit/(loss) before net fair value (loss)/gain on embedded derivatives	3 132	378	(23)	8	(280)	3 215
Net fair value (loss)/gain on embedded derivatives	(149)	10	_	_	(4)	(143)
Operating profit/(loss) before net finance costs	2 983	388	(23)	8	(284)	3 072
Finance income	2811	201	140	55	(274)	2 933
Finance expense	(4 815)	(94) 20	_	_	188	(4 72 I) 30
Share of profit of equity accounted investees	_		_			
Profit before tax	979	515	117	63	(360)	1314
Income tax expense	354	(149)	(30)	_	30	205
Profit for the year from continuing operations	I 333	366	87	63	(330)	1519
Discontinued operations	_	(13)	-	_	(532)	(545)
Profit for the year	I 333	353	87	63	(862)	974
2007						
Operating profit before interest and finance charges	9 946	1012	169	107	(477)	10 757
Included in above is:					( )	
Net fair value gain on embedded derivatives	4   3	174	_	_	_	4 305
Profit for the year	6 030	840	186	199	(779)	6 476

#### Other key information

	Actual 2008	Actual 2007
Sales		
Eskom electricity sales (GWh)	224 366	218 120
Eskom electricity sales growth (GWh %)	2,86	4,90
Eskom electricity sales growth (Rm %)	10,61	11,30

Due to the insignificant amounts involved, the figures for PN Energy, a wholly owned subsidiary of Eskom Holdings, have not been included in the above table.



#### Eskom

The growth in electricity sales (GWh) was 2,9% compared to the sales growth of 4,9% in the previous year. The electricity price increase for 2007/8 was 5,9%. Primary energy costs increased from R13 040 million in 2007 to R18 314 million in 2008. This is mainly due to the steep increase in coal prices and the extended use of the diesel-powered open-cycle gas turbines due to the reduced reserve margin in October 2007 and at the beginning of 2008.

Eskom received a dividend of R800 million (2007: R200 million) from its subsidiary Gallium Limited.

At the end of March 2008 an amount of R1 978 million (2007: R1 446 million) of the electricity trade debtors was older than 75 days, a substantial portion of which relates to pre-2001 service-level agreements. Refer to the financial statements on pages 131 to 133 for further information. Adequate provision has been made for impaired electricity debtors.

Eskom is not in a tax-paying position and the tax credit to the income statement was R354 million (2007: a tax charge of R2 407 million), which is mostly deferred tax. Some R417 million (2007: R1 377 million) in tax was paid to the South African Revenue Service during the review period.

#### Change in asset lives of generation plant

With many of Eskom's power stations in the 30-year age group, the board deemed it prudent to extend the economic life of the power stations from 35 to 50 years. This change was treated as a change in estimate in terms of International Financial Reporting Standards. The impact of this adjustment was a reduction of R484 million in the depreciation charge for the current year.

International experience indicates that power stations generally have an economic life greater than 50 years, and there are examples of stations much older than this. The major indicator of the economic life of a power station is not the age of the plant, but rather the availability and cost of coal. It is much more cost-effective to refurbish a power station than to build a new one, and with refurbishment it is possible to both significantly extend the life and improve the efficiency of a power station.

#### Embedded derivatives

The net impact on the income statement of changes in the fair value of the embedded derivatives of the company is a fair value loss of R149 million (2007: R4 131 million fair value gain) and a fair value loss of R143 million (2007: R4 305 million fair value gain) for the group. At 31 March 2008, the embedded derivative assets amounted to R12 713 million (2007: R8 686 million) and the embedded derivative liabilities to R5 084 million (2007: R914 million) for the group.

The forward electricity price curve used to value the embedded derivatives was 27,5% for the 2008/9 year, 25% for the next three years, 18% for the 2012/13 year and CPI plus 2% thereafter. A sensitivity analysis for the embedded derivatives appears in note 3.

#### Revenue and credit management

Eskom maintains systems, procedures, processes, and training programmes to ensure efficient and effective revenue management. In addition, adequate cash collection and investment management processes were in place throughout the period under review.

This is covered in detail in note 3 of the financial statements (refer to page 125).

#### Valuation of assets and impairments

There is cross-subsidisation between certain customer categories (depending on electricity consumption, geographical location and voltage supply). However, Eskom recovers all the costs of supplying electricity to its overall customer base and earns a positive return on assets. On this basis, the directors believe that no adjustment is required to the value of assets relating to any particular customer category.

The directors believe that, based on the principle of crosssubsidisation, there is no need to raise a provision for the impairment of certain classes of property, plant and equipment in the current period. It might, however, be necessary for Eskom to raise a provision for impairment in respect of certain classes of assets in future years, depending on the nature of the planned restructuring of the electricity distribution industry.





# Primary energy costs increased from R13 040 million in 2006/7 to R18 314 million in 2007/8.

#### **Subsidiaries**

#### Eskom Enterprises (Pty) Limited group

Turnover for the year was R5 456 million (2007: R4 457 million). Net profit after tax from continuing operations was R366 million (2007: R896 million) while the loss from discontinued operations was R13 million (2007: R57 million), resulting in a total profit of R353 million (2007: R840 million). Of this, R311 million (2007: R845 million) is attributable to the equity holder and R42 million (2007: loss of R5 million) is attributable to minorities. (The profit for 2007 was favourably impacted by the reversals of impairment provisions raised in previous years.)

The actual performance of the group for the year was substantially better than expected due to additional maintenance and the capital expansion programme work received from Eskom divisions, Anglo Coal and the Department of Minerals and Energy. The turnaround strategy implemented at Arivia.kom (Pty) Limited (arivia.kom) during the previous year has reaped tremendous benefits, with the company achieving a profit before tax of R88 million (2007: loss of R7 million).

#### Disposal of MKC

Eskom Enterprises disposed of its investment in Mountain Kingdom Communications (Pty) Limited (MKC) on 31 March 2008, for R68 million, resulting in a loss at group level of R142,7 million. Eskom Enterprises was released from its letter of support for a R156 million loan from Standard Lesotho Bank to Telecom Lesotho as part of the MKC disposal.

#### Disposal of arivia.kom

Transnet and Eskom are currently working on the outsourcing and disposal of the arivia business. Following a public release of an expression of interest document and a rigorous adjudication process, a shortlist of prospective bidders has been drawn up. It is expected that the sale will be completed by 31 March 2009.

Refer to www.eskom.co.za/annreport08/004 for details of other Eskom Enterprises group business interests earmarked for sale.

#### Escap Limited and Gallium Insurance Company Limited

Eskom's captive insurance subsidiary companies, Escap and Gallium, continue to provide a full range of customised short-term insurance products to the Eskom group.



Exhibits at major conferences are used for awareness campaigns and stakeholder engagement.

While Escap's underwriting loss for the year is R54 million (2007: underwriting profit of R86 million), it showed a net profit after tax of R87 million (2007: R186 million), reflecting the effect of investment returns.

Gallium continues to be used on a limited basis, with Escap fulfilling substantially the full insurance mandate for Eskom. The ongoing role of Gallium is considered on a year-by-year basis.

Gallium's underwriting profit for the year is R10 million (2007: R109 million), with a net profit of R63 million (2007: R200 million). Gallium paid a dividend of R800 million to Eskom during this financial year (2007: R200 million).

#### Achieving the requested price increases

In December 2007, Nersa awarded Eskom a revised price increase of 14,2% for the year to March 2009, being the third year of the first multi-year price determination (MYPD I). This was less than the increase of 18% that Eskom requested. In addition, Nersa did not allow the rule changes for MYPD I applied for by Eskom, stating that the rule changes would be addressed in the second multi-year price determination (MYPD 2), which will only be finalised by September 2008. Refer to page 37.

Refer to www.eskom.co.za/annreport08/005 for details on Eskom's average tariff adjustments for the last 15 years compared to CPI.





Steep increases in the short-term contract price of coal and general coal inflation over the past year placed operating costs under enormous pressure. The power shortages at the end of 2007 necessitated the increased operation of the open-cycle gas turbines, which consume large volumes of diesel that had to be purchased at a time when the oil price was at a record high, coupled with a weakening rand against the dollar.

Revenues from electricity sales are first used to cover operating costs, with the balance being applied to the funding required for the expansion programme commitments. The balance of the funding will be sourced from borrowings on the local and foreign markets and from the shareholder, which is the government of South Africa.

The borrowing capacity for debt finance is dependent on the market's willingness to lend and Eskom's ability to service the debt. The cost of servicing the debt, and the market's willingness to lend, are directly linked to Eskom's credit rating from rating agencies. A limitation on the borrowing capacity of Eskom both in the local and foreign markets has been quantified at R150 billion over the next five-year planning period.

Rating agencies, aware that the 14,2% price increase for 2009 was inadequate to cover the enormous increase in operating costs, let alone contribute towards the servicing of loans necessary for the capital expansion, placed Eskom on credit watch in February 2008.

The Minister of Finance announced a R60 billion shareholder support programme during the annual budget. Terms and conditions are being finalised. Following the announcement of the lower than expected price increase of 27,5% for 2008/09, the drawdown from the shareholder loan is expected to be bigger than originally expected for 2008/09.

In March 2008, Eskom submitted an application to Nersa for a revision of the price increase for the year to March 2009 from 14,2% to a nominal 60% (53% real). This is to enable Eskom to recover the full primary energy and other operating costs, and

to earn a realistic return to enable it to fund both servicing and scheduled repayments of the capital expansion programme.

The capital expansion plan has a high risk of escalation due to the tight supply market, exchange rate movements, higher inflation, skills shortages, the acceleration of projects and higher commodity prices.

Eskom's proposed tariff increase of 53% real to Nersa resulted in the urgent call for Nedlac to convene a "national energy summit". The meeting was in response to a call by the African National Congress (ANC) and other stakeholders for further consultation and explanation of the request by Eskom for the tariff increase.

The summit raised the point that electricity tariffs should ensure the sustainable development of the industry but that it must avoid imposing unacceptable costs to the poor/or an excessive shock to the economy.

The way forward as suggested by the summit is summarised as follows:

- → constituencies to work together and agree on price increases over the next five years
- → the increases granted will be subject to Nersa regulatory processes
- → price increases to be phased in
- → Eskom would require fiscal injections to support the credit rating
- → demand-side management funding to be excluded from the tariff
- → special arrangements are needed to protect low-income households

Nersa announced on 18 June 2008 an additional increase in the electricity tariff of 13,3% for the year ending March 2009 which resulted in a 27% average increase year-on-year. Nersa also ruled that the price increase to "poor" residential customers be limited to 14.2%.



A substantial price increase is essential to strengthen electricity supply in South Africa.

Nersa made the following comments in their announcement:

- → they recommended that in order for Eskom to maintain a strong balance sheet to support its borrowing capabilities, that the drawdown profile for the R60 billion funding from government be reviewed so that Eskom maintains a healthy credit rating
- → that a mechanism be developed by Nersa that will take into account unforeseen changes in primary energy and other costs.

  This mechanism must also take into account the efficiency of costs, the prudency with which the costs are incurred, Eskom's measures to control these costs and its ability to predict such costs at the time of application
- → the principle of smoothing the prices is supported as part of the MYPD
- → if the current economic climate continues to prevail and Eskom's capital expenditure remains as is, then tariff increases of 20% to 25% per annum are projected over the next three years
- → Eskom's conditions of licence will be amended with the objective of ensuring that Eskom manages its risks efficiently and optimally, particularly in regard to primary energy costs
- → accelerated demand-side management (DSM) of R2,5 billion was disallowed by Nersa. The DSM programme is a vital component of ensuring security of supply. In order to continue with these programmes, government would need to fund the initiatives

The chief executive's response to the announcement by Nersa was that it sets Eskom and the energy sector in general on the path to long-term financial sustainability. However, even with the 27,5% price increase, Eskom will make a loss in 2009. Increased shareholder support will make up for lower cash flows from operating activities.

Refer to www.eskom.co.za/annreport08/006 for more information regarding the capital expenditure programme.

#### Second multi-year price determination (MYPD 2)

The existing MYPD I will conclude at the end of the 2009 financial year. We are in the process of applying for the second multi-year price determination (MYPD 2) for the three years ending in March 2010, 2011 and 2012.



Coal trucks offloading at the Majuba power station stockyard.

In the MYPD 2 application we ask Nersa to take into account the current operating conditions when determining the new prices. To do this, we have requested Nersa to consider the following MYPD rule changes:

- → the current MYPD rules allow for volume changes in primary energy costs while rate/price changes are not allowed. Eskom proposed that we also be allowed to recover primary energy price increases when setting the tariffs
- → the current rule allows for compensation of capital expenditure only in the following MYPD cycle. As a result of the accelerated expansion programme, Eskom requested that the rule be changed to allow for compensation when the capital expenditure is made
- → the trigger for reopening prior years be changed from one which focuses only on the revenue amount, to one that will be based on an earnings band which includes costs as well
- → the other critical rule change is to allow depreciation on modern equivalent replacement value. At the moment Nersa uses an indexing method based on historical values

These rule changes were requested by Eskom and disallowed by Nersa in the December 2007 ruling.



#### Nersa clawback

Nersa pre-determines revenue limits based on prudent costs that it allows to be recovered through the tariff and a fair rate-of-return calculation on the regulated asset base. In 2008, higher sales growth resulted in revenues higher than the pre-determined limits. In terms of the regulatory rules, this is deemed to be a clawback or over-recovery. Nersa uses these over-recoveries to reduce future price increases.

In terms of International Financial Reporting Standards, the clawback cannot be recognised as a charge to the income statement nor can the corresponding liability (or asset) be raised.

#### Tariff restructuring

Our strategy for tariffs is to build on cost-reflective signals that promote economic efficiency and sustainability. Our tariffs support both energy and capacity efficiency, through time- and seasonally-differentiated energy rates with cost-reflective network charges, to optimise the use of networks.

The tariffs are designed to be as non-discriminatory as possible by taking into account the needs of all customers on a fair and equitable basis. This is why our tariff options are based on consumers' demand sizes with charges differentiated by location and voltage for the larger supplies.

Eskom standard tariffs already include various pricing signals for efficiency, but will be reviewed to ensure maximum support for the latest energy conservation initiatives. Initiatives to enhance energy efficiency include the development of the following pricing efficiency signals:

- → the update of the notified maximum demand rules will ensure a strong pricing incentive not to exceed the notified maximum demand
- → a price signal to incentivise customers to improve low power factors that will encourage the efficient use of electricity and promote energy savings

In the medium term we are moving into a period of high annual price increases. We fully recognise that the proposed increases could have a negative impact on the poorer customers, with

undesirable social impacts. In order to address this concern we have proposed that the impact of the proposed price increases be limited for poorer customers by minimising the increase to the Homelight tariff (mostly prepayment customers). Nersa limited the price increase for these customers to 14,2%.

Refer to www.eskom.co.za/annreport08/007 for more information regarding tariff restructuring.

#### Explaining tariff subsidisation

#### Tariff subsidies

Statements have been made in the press that industrial customers are subsidised by residential customers by comparing the average prices between the two categories. The fundamental mistake is to ignore the fact that the cost to supply the average industrial customer is significantly less than the cost to supply a residential customer. When considering the average price of electricity for different customer categories, it is important to understand the electricity supply cost chain and where exactly in this chain the different customers take their supply.

Smaller customers have a much higher cost per kWh than larger customers for the following reasons:

- → typically a residential customer is supplied on the network at a low voltage whereas a large industrial customer would be supplied on the network at a high voltage. This means that many more electrical networks have to be built, maintained and operated to supply smaller customers than those that are required for larger customers on higher voltage networks
- → more electrical losses occur at the lower voltages as the electricity has to travel greater distances
- → as a ratio of overall consumption, smaller customers also tend to use much more electricity in the more expensive peak periods and have a poorer load factor than larger customers. This means that their average cost of electricity per kWh is higher than that of a larger customer who uses electricity more evenly throughout the day

Refer to www.eskom.co.za/annreport08/008 for further explanation as to how the cost of supply is determined and justified.



Actual savings from the strategic sourcing initiative were R3, I billion, against a target of R1,5 billion.

#### Capital and funding strategies

The capital expenditure plan of R343 billion (nominal) over the next five years requires significant access to all funding sources ie, equity, debt and appropriate revenue. Eskom has determined that it can realistically raise directly from the capital markets up to R150 billion during this timeframe, which addresses both market appetite and maintenance of credit rating metrics. The remainder will thus need to be sourced from equity and electricity price increases. Eskom has undertaken much financial modelling to determine the optimum mix of equity and electricity tariffs within the context of maintaining its credit rating to ensure sustainable access to and cost-effective pricing of debt. The Nersa decision in June 2008 has informed us of the residual funding gap, which will require shareholder assistance beyond the R60 billion already committed. The terms and conditions of this assistance are currently under negotiation but it is certain to provide a funding foundation from which rating agencies and other lenders can take comfort.

Eskom's funding philosophy remains to responsibly maximise our access within the local market and diversify our international borrowing opportunities.

Late in the financial year 2006/7 Eskom launched a new bond, the ES26, and proceeded to tap the market predominantly via this instrument throughout the year. Eskom was rewarded by the Bond Exchange of South Africa (BESA) via its members by receiving a Spire Award for the best new issuance for 2007.

This was achieved purely via local financing. During the year new international facilities were negotiated and are linked to spending on particular projects and hence will be drawn as projects progress.

Eskom found it necessary to increase the authorised volume of the ES26 and ES33 within the R65 billion domestic multiterm note programme listed with BESA from R10 billion to R15 billion each in order to meet ongoing investor demand.



Workers remove wet coal jamming conveyor belts at Duvha power station.

Investor concerns regarding the vastness of the funding requirement and sources thereof, resulted in Eskom spreads versus government bonds widening significantly during the year. During the year under review our funding strategy unfolded well, however, the final quarter brought rating agency actions that provided an additional challenge. Eskom postponed an intended international loan pending the outcome of rating agency deliberations. This is expected to be resolved in July 2008.

In January, in a bid to broaden liquidity of Eskom bonds, Eskom formalised five banks to act as supplementary market makers alongside Eskom. As this is a new endeavour Eskom will evaluate it on an ongoing basis and encourage its success in the interests of our investors.

#### Procurement and supply chain

The objective of procurement and supply chain management is to secure supply while balancing the competing objectives of lowering the total cost of ownership and ensuring the quality, timing and safety of our purchases, while at the same time meeting Eskom's Asgisa objectives. These include broad-based black economic empowerment targets and the initiation of competitive supplier development programmes. (Refer to page 43 for the Asgisa objectives.)



#### Strategic sourcing strategy

Eskom launched a strategic sourcing initiative during 2006 in support of our objectives of maintaining quality and continuity of supply, capacity expansion and building sustainable supply chain security.

Supply market volatility has seen suppliers struggling to meet demand and an increase in prices, quality concerns and delivery lead times. As supply tightens, many of Eskom's traditional suppliers are increasingly declining to tender for work, thereby increasing the need for global sourcing for new suppliers<sup>1</sup>.

Within this volatile climate, multiple long-term contracts have been placed, ranging up to 10 years, and additional commodity strategies are at various stages of development to ensure that long-term requirements and savings targets are met.

Actual savings from the strategic sourcing initiatives were R3,1 billion, against the target of R1,5 billion for the year. This brings the total inception-to-date savings to R3,9 billion against the overall savings target of R7,8 billion over the five years to 2011.

#### Competitive supplier development programme

Eskom has implemented the competitive supplier development programme (CSDP) of the Department of Public Enterprises, which aims to increase the competitiveness, capacity and capability of the local supplier base in South Africa. The CSDP obliges suppliers with import contracts exceeding USD10 million, to invest 30% of the imported contract value within the power industry and related supplies.

In line with this programme, Eskom will select established equipment manufacturers that are willing to develop local factories. By having equipment manufactured in South Africa, we will benefit from the improved competitiveness of the products and the securing of long-term local supply options with local industry.

Source: Power Advocate Market Intelligence Report March 2008.



The improvement in the capacity and competitiveness of our local supplier base will contribute to the Asgisa goals of shared growth, employment creation, poverty reduction, skills development, and broad-based black economic empowerment (BBBEE). South African partners will participate in Eskom's expected R1,3 trillion spend on power infrastructure up to 2025 and create about 66 000 jobs.

#### Black economic empowerment (BEE) performance

Eskom makes a significant contribution to black economic empowerment by supporting black-owned businesses and black women-owned businesses. This is reflected in the group procurement spend of R25,4 billion against a target of R19 billion, being 67% of discretionary spend. (This excludes procurement from Eskom group businesses, public enterprises and state departments, as well as costs relating to human resources such as salaries and wages. It includes expenditure on coal and demand-side management.)

BEE expenditure	Target 2008 Rm	Actual 2008 Rm	Actual 2007 Rm
Eskom company			
Total BEE expenditure	17 855	23 492	15 429
Black women-owned businesses (included in total BEE expenditure)	3 214	3 083	2 039
Eskom group			
Total BEE expenditure	18 955	25 447	16 557
Black women-owned businesses (included in total BEE expenditure)	3 412	3 188	2 096

The 2009 target is that 70% of all discretionary expenditure should be with BEE businesses, and 20% of that with black women-owned businesses. Eskom will continue to empower black women-owned businesses to accelerate their participation in the mainstream economy.

The company recorded a productivity loss of 9% or R4 060 million.

#### Information technology

Information and the management thereof is integrated in all aspects of Eskom's business and supports about 30 000 users.

In the past year we have kept all the mission-critical systems operational with high availability and reliability. Diligent disaster recovery and redundancy planning ensured that critical systems, such as the National Control Centre, remained operational at all times. New solutions and communication mechanisms have been implemented with extensive upgrades to the load shedding website, in response to the electricity challenges. We are building and deploying world-class information technology infrastructure and systems that will enhance efficiency and effectiveness in the new power stations being built.

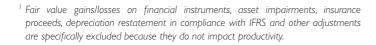
Our systems have withstood a significant increase in system attacks and global hacker activity. A business impact risk assessment ensured that critical systems are identified and monitored for all possible intrusions and disruptions. Virus infections have been prevented and no mission-critical system unavailability occurred during this period.

#### Productivity performance

The measurement of productivity improvement provides a better understanding of business performance by analysing the change in net income between two accounting periods in terms of the impact of productivity, inflation (price recovery) and growth.

Productivity improvement occurs through the more efficient and effective use of all operating and capital resources, which include coal, employees, other expenses and assets.

Price recovery refers to the relationship between the price increases passed on to customers and the inflationary impact on the cost of resources to Eskom. Growth represents the change in net profit when resource quantities and prices change at the same rate as electricity sales quantities and prices.





Healthy coal stockpiles at Matimba power station.

#### Overall productivity performance for Eskom

	March 2008 Rm	March 2007 Rm
Net profit before tax	979	8 437
Net profit before tax for the previous period	8 437	7 167
Change in net profit before tax	(7 458)	I 270
Adjustments not impacting on overall performance <sup>1</sup>	3 036	(1 206)
Change in adjusted net (loss)/ profit before tax	(4 422)	64
This is attributable to:		
Net productivity (decline)/gain	(4 060)	667
Price under-recovery	(731)	(1 139)
Growth	369	536
Total	(4 422)	64



#### Productivity and price recovery

The company recorded a productivity loss of 9% or R4 060 million. This was due to the difference between the substantial increase in resource costs compared to a more moderate sales growth. The actual weighted sales growth was 3,2%, while the actual resource quantities over the same period increased by 13,3%. Sales quantity growth would have been higher were it not for the recent aggressive demand-side management focus and load shedding.

The price under-recovery was 1,8% or R731 million and resulted from the difference between a weighted tariff increase of 7,8% (the Nersa tariff increase for 2008 was 5,9%) and the 9,8% inflation which Eskom was subjected to in terms of the price of resources. The weighted sales price increase is higher than the Nersa-approved increase mainly due to the impacts of commodity-linked pricing deals with certain key customers that fall outside the Nersa price determination parameters. These commodity-linked price deals have made a favourable contribution to the price recovery, though insufficient to make a total price over-recovery.

The contribution to productivity performance from the major resource categories is set out below and is split between capacity utilisation and efficiency.

	March	2008	March 2007		
	Rm	%	Rm	%	
Total productivity (loss)/gain	(4 060)	(9,0)	667	1,9	
Primary energy (including electricity purchases) Manpower Other operating expenses Capital	(2 781) (284) (309) (686)	(14,7) (3,1) (3,3) (8,5)	(162) (273) 906 196	(1,2) (2,9) 14,2 3,2	
Total productivity	(4 060)	(9,0)	667	1,9	
Capacity utilisation Efficiency	715 (4 775)	1,6 (10,5)	l 029 (362)	2,9 (1,0)	

Primary energy reflects a productivity decline of R2 781 million or 14,7%. This resulted from an increased usage of gas turbine power stations (diesel) and increases in both the quantities and price of coal burnt. The price under-recovery for primary energy was R1 573 million.

Operational manpower costs increased by 6,6% in 2007/8 while recorded sales quantities increased by 3,2%, resulting in a productivity decline of R284 million or 3,1%. This reflects the impact of additional staffing to cater for expanding operational needs.

Other operating costs reflect a productivity loss of R309 million or 3,3%. This is attributable to increased maintenance and demand-side management costs.

Capital (depreciation, interest and finance charges) reflects a productivity loss of R686 million or 8,5%, largely attributable to increased borrowing costs.

The unfavourable efficiency of R4 775 million reflects the short-term impact of the accelerated capacity expansion drive, demand-side management, increased utilisation of expensive diesel-fired power stations and lower grade coal, and the impact of load shedding against the tide of resource increases.

#### Long-term Eskom competitive position

This year's productivity loss has reversed the 10-year positive trend, to record a cumulative productivity loss of R1 056 million. This reversal reflects the effect of supply issues and unsustainable price under-recovery from less-than-optimal price increases of electricity.

Refer to www.eskom.co.za/annreport08/009 for a graph of Eskom's competitiveness over 10 years.



## Contribution to society In support of government initiatives Asgisa

The government-led Accelerated and Shared Growth Initiative for South Africa (Asgisa) aims to ensure that the country achieves economic growth, focusing on poverty and unemployment.

Eskom is ideally positioned to make a significant contribution to the Asgisa initiative through our core business of supplying electricity, our massive procurement and our capital expansion programme. Eskom's contribution to Asgisa is mainly through leveraging associated activities for developmental benefit.

Leveraging these associated activities includes the following:

- → continuing the rollout of electrification
- → maximising local content, the participation of black economic empowerment (BEE), small and medium enterprises (SME) and black women-owned enterprises (BWO), as well as skills development for the rollout of the build programme
- → maximising skills development by having 4 000 learners registered in our learner pipeline

#### Free basic electricity

Government aims to bring relief to low-income households through the national electricity basic services support tariff, thereby ensuring optimal socio-economic benefits from the national electrification programme. Qualifying customers are eligible for 50kWh of free electricity a month.

Two categories of customers receive free basic electricity (FBE):

- → customers who receive a monthly electricity bill, which is adjusted to allow for their free electricity entitlement
- → customers who buy prepaid electricity tokens and collect their monthly free basic electricity token from an electricity vendor

Eskom provides FBE in its supply areas and this is recoverable from municipalities at a standard tariff. Any under-recoveries from differences between the customer tariff and the applied free basic electricity standard tariff, implementation costs or other costs, are recoverable from government. Eskom has engaged with various inter-governmental stakeholders to find a sustainable solution for any under-recoveries that arise as a result of providing FBE under the current policy and guidelines.



A student at Mulbarton Primary School reads Eskom material written for schools.

#### Free basic electricity

	Unit		
Description	measure	2008	2007
Municipalities contracted to provide FBE	number	241	240
Municipal contracts rolled out	%	98	97
Customers approved by municipalities for FBE	number	I 298 747	1 181 823
Customers' meters reconfigured to receive FBE	number	I 268 986	I 074 340
Reconfigured customers consuming FBE in the year	g average %	98	65
Amount invoiced to contracted municipalities	Rm	242	172
Cumulative tariff differential and cost under-recoveries <sup>1</sup>	Rm	60	60

#### Electrification

The DME began funding the Integrated National Electrification Programme (INEP) in April 2001. Eskom implements the programme in its licensed areas of supply on the DME's behalf.<sup>2</sup>



<sup>&</sup>lt;sup>1</sup> Tariff differentials and cost under-recoveries have been cumulative since 2006.

<sup>&</sup>lt;sup>2</sup> Electrification within the licensed areas of supply of a municipality is carried out by that municipality.

Operating costs relating to this electrification programme are paid by Eskom as the licensed distributor supplying electricity to the consumers.

Since the inception of the electrification programme in 1991, a total of 3 638 188 (2007: 3 469 650) homes have been electrified.

Funding is currently made available for new connection and infrastructure development projects that are part of the INEP. We expect that the average cost of infrastructure development and the cost per connection will increase as we electrify communities in more remote rural areas. In addition, technical specifications for network design have been enhanced to better accommodate future growth in electricity demand and to improve the quality and reliability of the electricity supply in these areas.

#### Electrification programme

	Unit of measure	Target 2008	Actual 2008	Actual 2007
Total connections	number	160 321	168 538	152 125
<ul> <li>Direct connections, excluding farm workers</li> </ul>	number	159 101	167 164	151 088
<ul><li>Farm worker connections</li></ul>	number	I 220	I 374	I 037
Total capital investment	Rm	1 010	I 022	765
<ul><li>Reticulation and connections</li></ul>	Rm	900	910	626
<ul> <li>Sub-transmission infrastructure development</li> </ul>	Rm	106	108	123
<ul> <li>Farm worker connections incentives paid</li> </ul>	Rm	4	4	2
<ul> <li>Special projects</li> </ul>	Rm	_	_	14

In his recent state of the nation speech, the President stated that government aims to achieve universal access to electricity by 2012. Meeting the future universal access programme requirements is dependent on the availability of funding from DME via the INEP. Eskom is in discussions with DME and other key stakeholders regarding the planning, funding and other requirements needed to achieve universal access.

#### Electrification of schools and clinics

The electrification of schools and clinics is funded by the DME through the National Electrification Fund. This programme is focused on electrifying specifically identified schools and clinics.

#### Electrification of grid schools and clinics

	Target 2	Target 2008 Actual 2		2008	Actual 200	
	Number	Rm	Number	Rm	Number	Rm
Department						
of Minerals						
and Energy	879	112	751	88	272	17

#### Black economic empowerment

Suppliers are selected on merit and we make every effort to ensure that they are not dependent on Eskom to be sustainable. (Refer to page 40).

In April 2008, we will start implementing the codes of good practice for broad-based black economic empowerment (BBBEE), issued by the Department of Trade and Industry. Procurement systems, policies and procedures are being updated to accommodate the six elements that will be monitored for BBBEE recognition and reporting: management control; employment equity; skills development; preferential procurement; enterprise development; and socio-economic development.

The focus of BBBEE in Eskom will be on the development of businesses associated with the build programme, and especially small businesses in rural areas around the new build sites.



An additional 168 538 homes were electrified (2007: 152 125).

#### Rural development

The Eskom rural development programme supports government's Integrated Sustainable Rural Development Programme.

In 2008, the programme focused on building permanent classrooms for schools and teaching educators to manage their schools like a business. All planned projects were completed in the financial year with expenditures in line with the R21 million budget.

Refer www.eskom.co.za/annreport08/010 for more details on rural development.

#### Nepad

In line with the aims of the New Partnership for Africa's Development (Nepad), and as an active member of the Southern African Power Pool (SAPP), Eskom continues to support development studies and energy trading within the sub-region.

In support of co-operation and to enhance the efficiency of the interconnected transmission network joining countries, Eskom held meetings with utilities in Angola, Botswana, Democratic Republic of Congo, Mozambique, Namibia, Zambia and Zimbabwe.

#### Corporate social investment

Focused corporate social investment initiatives, aligned with Eskom's strategic objectives, are carried out through the Eskom Development Foundation (foundation) to enhance the quality of life in target communities while maximising the strategic impact for Eskom.

The foundation is a wholly owned subsidiary of, and receives its mandate from, Eskom Holdings Limited. It is an association not for gain, incorporated under section 21 of the Companies Act.

The foundation provides support to economic and social projects through grants and donations, targeting communities where we implement our new build programme and the communities in which we operate.



Electrification targets have been exceeded.

The foundation approved grants and donations benefiting a total of 60 634 people (2007: 77 415) during the reporting period.

#### Summary of corporate social investment

	2008	2008	2007	2007
	Number	Rm	Number	Rm
Economic and social development grants, national programmes and flagship projects	64	44,9	15	61,2
Philanthropic and welfare donations, including the Chairman's fund	135	3,9	50	2.1
Rural development	_	21,0	_	11,4
Total donations and				,.
grants		69,8		74,7

Refer to www.eskom.co.za/annreport08/csi for further information about the Eskom Development Foundation.



#### Securing continuity of supply

#### What is load shedding?

When there is insufficient power station capacity to supply the demand (load) from all the customers, the electricity system could become unstable, possibly resulting in a national blackout. To avoid this, Eskom can either increase supply or reduce demand.

To increase supply, Eskom runs its power stations at maximum available capacity. In addition to the coal and nuclear plant, hydro and gas turbine stations are used at peak times when demand is high.

To reduce demand, Eskom will first call on customer contracts that allow for supply to be reduced or interrupted for specific periods and durations. If this is not enough, Eskom is forced to cut supply to all other customers. This could be done through either scheduled or emergency load shedding.

During scheduled load shedding, parts of the network are switched off according to a predetermined schedule, with the impact spread equitably over the customer base. Load shedding is predictable and allows for customers to plan accordingly, as opposed to blackouts that are not.

In exceptional circumstances, such as many unplanned outages at power stations, additional emergency load shedding could be required. Control centres will then shed load using emergency switching in order to protect the network. This will be less predictable and all customers may be affected at any time.

#### Load shedding - demand exceeds supply

#### Introduction

Between October 2007 and February 2008 South Africa suffered major supply interruptions, as load shedding had to be implemented to manage the energy shortage.

Load shedding is carried out by Eskom, together with redistributors (municipalities), when the demand for power on the national grid exceeds the available generation capacity. Failure to manage this would result in the possibility of massive power blackouts across the nation. To avoid this, Eskom monitors the demand for power and sheds (shuts down) sections of the grid to reduce the load and ensure network stability.

Electricity cannot be stored to act as a buffer against any unforeseen events. An adequate reserve margin<sup>1</sup> acts as a buffer against such circumstances. With the decline in the reserve margin the only option available is to reduce the load through load shedding and reduced demand by customers.

#### Why the energy shortage?

From 1996 to 2004, both the private sector and government felt that Eskom should not build new capacity, although they were warned that a decision was required by 2000. Government wanted to bring independent power producers into the market. Eskom's low prices, however, dissuaded independent power producers from investing in the power-generation sector. We were only given the go-ahead to start building new plant in October 2004. Taking into account the long lead times to build new stations, there was not sufficient time to build new power stations to ensure adequate generation capacity in the short term.

A cushion of spare capacity that can be used when planned maintenance is necessary and when the system is impacted by unexpected technical faults that demand unplanned maintenance, such as poor coal quality, sudden peaks in demand, or "acts of God", such as extreme weather conditions. Reserve margin is measured as a percentage of maximum generating capacity.



Eskom's reserve margin has decreased to about 8%, well below the accepted international norm of 15%.

As a result, Eskom's reserve margin has decreased to about 8%, well below the accepted norm of 15%1. When generator units are taken out of service for planned maintenance², the lower reserve margin means that the remaining generator units need to run harder to meet the demand for electricity. This makes the units more vulnerable to faults caused by accelerated wear and tear. As a result, we experienced an increase in technical faults during this period.

The situation was worsened by a reduction in the quality of the coal received, which necessitated the burning of increased volumes of coal for the same output of electricity. The unusually heavy rains during January and February 2008 also caused production delays at the collieries. In addition wet coal, which turns to sludge, created coal handling problems both at the collieries and the power stations. As a result of these coal problems, a number of power stations were unable to operate at full production.

Government and Eskom have apologised for these events. We acknowledge that load shedding is very disruptive and we are extremely concerned about its impact on our customers. Many difficult lessons have been learnt.

#### Managing demand

Eskom has the challenge of optimally balancing the supply of, and demand for, electricity to ensure a more reliable supply of energy for all consumers.

The solution is to improve the operational performance of our power stations and at the same time find sustainable short-, medium- and long-term solutions to the current situation. A number of initiatives have been implemented such as the construction of two open-cycle gas turbine power stations and the recommissioning of three mothballed coal-fired power stations, and further alternatives are being developed to address the challenges. Another supply-side solution is co-generation. In the short term the primary focus is on demand-side initiatives to reduce the demand for electricity, which unfortunately currently includes load shedding.



Major transmission line construction strengthens the national grid.

Eskom is confident that it can address the challenges, but this is only achievable with the support and assistance of all stakeholders. It is, however, important that emergency load shedding and other demand reduction initiatives should be implemented in a transparent manner to fairly share the load and responsibility among all consumers.

We have developed a set of guiding principles to assist with the optimal planning and effective execution of national load shedding:

- → maintaining network stability
- → integrated national approach to the crisis
- → minimising the safety risk
- → minimum disruption to our customers and the community:
  - predictability of disruption
  - fairly share load shedding among customers
  - rotation of load shedding times
  - accommodating special customer needs where possible



<sup>&</sup>lt;sup>1</sup> Nersa has recommended a reserve margin of 19%.

<sup>&</sup>lt;sup>2</sup> Planned maintenance is mostly scheduled in the summer months, as electricity demand is traditionally lower in summer than in winter.

#### The rationale for exporting electricity

Eskom is frequently asked why it exports electricity to neighbouring countries when there is a power shortage in South Africa. Eskom's exports amount to 5,7% of the total energy available in the Eskom system and imports account for 3,9% – giving a net export of 1,8% of total energy.

Our neighbouring countries have a relatively small system demand for electricity, which makes it uneconomic for them to invest in generation capacity. Some of our neighbours rely on imported power for between 50% and 80% of their electricity needs. Such a situation cannot be reversed very quickly and a sudden cut in the electricity supply to them will have a crippling effect on the regional economy.

Firm power agreements are in place with the national utilities of Botswana, Swaziland and Lesotho, while an agreement with Namibia ensures their continued supply as well. In addition to national utilities, Eskom also has firm supply agreements with three large customers across the border in Mozambique and Namibia. These three customers make up the bulk of Eskom's total exports.

The SADC region has considerable coal and gas resources and hydro-electric potential that present attractive generation opportunities for the future. As South Africa's domestic electricity demand grows and production costs increase, there is a growing potential for electricity imports into the country, with environmental benefits if the hydro capacity is considered. Eskom already imports electricity from Mozambique, the DRC and at times the other countries in the region. The current and future imports could be severely jeopardised if exports of electricity from South Africa are restricted.

Ultimately, due to the relatively small size of the level of net exports, ceasing exports and losing imports would not result in a significant difference to the current South African energy situation. The short-term response to the energy situation has been to maximise purchases and reduce sales as far as possible. The load reduction required of the South African customer base (currently 10%) is also expected of the neighbouring countries, and when manual load shedding is necessary our neighbouring utilities also undertake proportional manual load shedding.

#### Stabilisation and recovery plan

#### National response plan

The Department of Minerals and Energy and the Department of Public Enterprises launched a national response plan to the electricity challenge on 25 January 2008.

This plan involves plans to increase generating capacity – Eskom's build programme (refer to page 62), as well as co-generation (refer to page 66) and a I 000MW open-cycle gas turbine power station to be built by an independent power producer. On the demand side, the plan includes the medium-term power conservation programme (PCP) and demand-side management programmes.

#### Eskom stabilisation and recovery plan

Eskom has established a three-phase stabilisation and recovery plan for the next five years. In phase 1, we stabilised the supply of, and demand for, electricity. Phase 2 involves re-establishing an adequate reserve margin by managing demand; and then in phase 3, we plan to establish a sustained load reduction of 3 000MW through the power conservation programme.

The emergency load shedding at the start of 2008 enabled a 4 000MW load reduction by the end of February 2008. This enabled us to reduce generation load losses and to provide for more planned maintenance.

In response to a call for a sustained 10% reduction in demand, key industrial customers are already voluntarily providing I 200MW in load reduction. Eskom itself achieved a I 000MW reduction in load losses by stabilising coal supply.

Unfortunately, only limited reductions were forthcoming from other customers by the end of March 2008.



We acknowledge that load shedding is very disruptive and are extremely concerned about its impact on our customers.

#### Solar-powered traffic lights research

A research project was initiated in 2007, to evaluate a solar-assisted battery back-up energy supply solution for traffic lights. The project was a collaboration between Eskom research and innovation department and the National Energy Efficiency Agency. A pilot site, an eight-robot intersection, was identified in Cape Town, where the official launch took place on I October 2007.

The traffic lights at the intersection were retrofitted with energy-efficient LED lights, a monitoring unit, a solar panel and batteries. The pilot site was monitored and measured for three months to determine the success of the technology. The aim of this project was to evaluate and demonstrate the success of a solar-assisted battery solution for this application as an effective means of providing back-up power supply to large traffic intersections during power outages.

Refer www.eskom.co.za/annreport08/011 for more detail about the solar powered traffic lights.

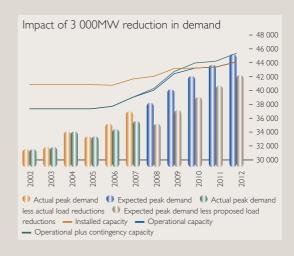
#### Implementing the recovery plan

Eskom has established a recovery task team around the supply and demand side of the business, focusing on six major streams: supply-side recovery; power buy-back; demand-side management (DSM); public confidence building and communication; employee morale and engagement; planning, risk and resilience management.

The aim is to re-establish our ability to provide a secure power supply by achieving a sustained reduction of 3 000MW over the next four years. This sustained reduction, together with the new capacity from the build programme, improved coal quality and quantity and plant performance, will enable the reserve margin to recover to about 15% between 2010 and 2012 and should provide sufficient energy to cater for the expected economic growth. We will need further interventions by 2012, when the reserve margin is expected to drop to about 9%.



Lethabo power station near Vereeniging.



#### Supply-side recovery

The supply-side recovery team is working hard to return coal stock to 20 days (refer also to page 58) and improve the generation plant reliability and availability, so that the UCLF (unplanned capability loss factor) and OCLF (other capability loss factor) are consistently within the reserve margin allowance (refer to page 54).



#### Power buy-back and demand-market participation (DMP)

The power buy-back team needs to obtain a 2 000MW to 3 000MW demand reduction from energy-intensive customers (furnace and smelting processes) and marginal producers. This is in the feasibility phase.

The DMP programme allows customers to offer Eskom flexible loads on a year-ahead or day-ahead basis, at a favourable predetermined price. When Eskom is experiencing a load shortage, we can first reduce or cut the load to these DMP customers before having to consider other load shedding options. The programme is approved by Nersa and has prevented load shedding on many occasions over the past year. DMP savings of 67MW were contracted for 2008.

#### Demand-side management (DSM)

Demand-side management involves the installation of energy-efficient and load-shifting technologies to alter the load profile of Eskom. As such it is "hard wiring" savings into the system thereby ensuring a higher level of security of supply in the short to medium term.

There is a need to remove a certain amount of energy, measured in GWh, from the system before 2012, when the supply side options will assist in energy supply. This can be achieved by co-generation, DSM and permanent behaviour change of customers. As a result of this analysis, it is apparent that DSM needs to be accelerated to achieve the required 10 000GWh saving by 2011/12. This requires 3 800MW of energy saving devices to be installed over the next four years. The main focus will be on lighting (residential, commercial and industrial), solar water heaters, smart meters and motor systems.

Mass rollout programmes will involve residential lighting, smart meters and solar water heating. The latter two options will be rolled out in the second half of 2009 and 2010.

In addition to these mass rollout programmes, smaller projects are driven by independent energy services companies (ESCos). These projects yield valuable MWh savings by large industries and corporate customers. 2009 and 2010 will place a large emphasis on energy-saving initiatives, mainly lighting, by using these resources.

DSM implementation has been guided by Nersa, which includes verifiable short-term DSM savings in its multi-year price determination (MYPD) tariff setting process. Verified DSM savings of 650,4MW (which includes DMP contracted savings of 67MW) were achieved for the year against the Eskom target of 400MW (2007: 169,8MW verified against the Eskom target of 213MW). The mass rollout of compact fluorescent lamps (CFLs) in early 2008 contributed 389,9MW to these savings.

Should the DSM initiatives not result in these energy savings, there is an increased risk of load shedding from 2010 until the supply side options are available. The success of the programme to remove 10 000GWh out of the system by 2011/12, will depend on the correct funding levels being available over the next four years, regulatory support to ensure the correct projects can be implemented, as well as to allow flexibility in the implementation to ensure optimum deployment of DSM interventions.

Refer to www.eskom.co.za/annreport08/012 for more details on DSM initiatives.





# The DSM programme saved 650,4MW against a target of 400MW.

#### Electricity savings tips

#### At home

There is a golden rule that applies to saving electricity in the home: If you are not using it, switch it off.

By partnering with Eskom and changing the way we use energy every day, you can make a difference to the electricity supply shortage in our country.

**Geyser** – it uses up to 39% of your monthly energy. Switch it off to reduce your energy demand. Don't forget to insulate the geyser and water pipes.

**Shower** – it uses less water than bathing, and using less hot water means less work for the geyser. Use an aerated shower head since it uses less water.

**Lighting** – replace all your incandescent bulbs with energy-saving compact fluorescent lamps (CFL) and switch off the lights in unoccupied rooms.

**Standby electricity** – don't leave your TV, DVD player, etc. on stand-by mode. They still use up to 50% of their operating power. Rather switch them off at the power button and don't forget to unplug your cell phone charger after your phone has been charged or it will continue to draw power.

**Refrigeration** – close your fridge door quickly so it doesn't use extra power to get back to its optimal cooling level.

**Temperature control** – keep the room temperature between  $18^{\circ}\text{C}-22^{\circ}\text{C}$  – this is known as the "golden zone". Use extra clothes, blankets and hot water bottles to keep warm without using extra heaters.



Incandescent bulbs were replaced with compact fluorescent lamps in KwaZuu-Natal schools.

#### Electricity savings tips (continued)

#### Commercial tips

- → ask an energy services company to perform an electricity audit
- → install a building management system to automatically connect the lighting, and the heating, ventilation and air conditioning systems (HVAC)
- → keep doors closed between conditioned and unconditioned spaces use automatic doors, self-closing doors or air curtains etc
- → install efficient lighting systems
- → many companies and industries leave their lights on unnecessarily during the day/night. Lighting controls in buildings can make sure that energy is conserved during periods of low occupancy
- → make use of the services of lighting specialists when making choices on lighting system design
- → switch off equipment that is not used. They waste electricity and generate heat that has to be overcome by the HVAC system when cooling
- → enabling power save mode on computers can reduce their electricity consumption by around 40%
- → check insulation of cooling systems



#### Public confidence building and communication

The objective is to create communication platforms that are frank, transparent, honest and consistent to:

- → inform the South African public and our employees about the extent of the energy shortage and the reliability of supply situation and dispel misconceptions
- → set out the scenarios that could materialise if South Africans do not work together as a nation to address the problem
- → educate the public and our employees about their role in ensuring reliability of supply now and in the future
- → re-establish Eskom's reputation through the effective rollout of this communication strategy to prevent further reputational damage

#### Employee morale and engagement

Given the tremendous pressure that Eskom employees are currently under, this recovery initiative will focus on improving employee confidence and morale by:

- → educating our employees so that they have an understanding of the current issues
- → aligning and committing our employees to be part of the solution
- → equipping them with the necessary skills (training, education and the filling of key vacancies)
- → engaging with employees through initiatives such as road shows by the chief executive
- → mobilising the long-term (three to five years) human resources programme to equip our employees to deal with any major crisis the organisation may face

#### Planning, risk and resilience management

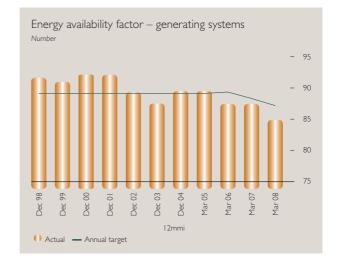
This stream will focus on:

- → standards and inputs needed for the planning processes
- → energy planning in various timescales
- → power delivery planning in various timescales
- → assessing vulnerabilities
- → building adaptive capacity
- → conducting stringent audits for business continuity

In addition to the six streams of the Eskom recovery programme, the following cross-cutting elements that impact the programme and the business overall were identified:

- → finance
- economic research and support
- → people and skills
- → procurement
- → legal regulation

The establishment of the Eskom recovery programme has started to contribute to the urgent need for system stability. Going forward, it is critical for all stakeholders to heed the call for savings. New capacity needs to be brought online urgently to stabilise the reserve margin to acceptable levels.





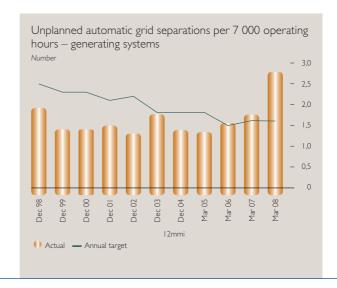
A recovery team is in place to address our system stability.

#### Generation plant performance

Measure	Description of measure	Unit of measure	Target 2008	Actual 2008	Actual 2007	Comments
Unit capability factor (UCF)	UCF measures the plant availability and provides an indication of how well the plant is operated and maintained	%	≥87,70	86,24	88,60	Not achieved, due to an increase in planned outages and higher-than-targeted UCLF
Energy availability factor (EAF)	EAF measures plant availability (UCF above), plus energy losses not under the control of plant management (external) and internal non-engineering constraints	%	≥87,00	84,85	87,50	Not achieved due to coal quality and coal shortage problems, as well as increased planned outages and higher-than-targeted UCLF (Note: the EAF is derived from the UCF reduced by an OCLF) of 1,39%)
Unplanned automatic grid separations (UAGS/7 000 hours)	UAGS measures the reliability of service provided to the electrical grid and the number of supply interruptions per operating period (7 000 hours on average)	number	≤1,60	2,80	1,76	Not achieved
Unplanned capability loss factor (UCLF)	UCLF monitors the progress in minimising outage times and power reductions resulting from equipment failure and other conditions of plant	%	≤4,20	5,13	4,34	Not achieved due to the significant increase in the load factor which has a strong correlation with UCLF



OCLF – other capability loss factor – factors not directly related to plant reliability.



#### Reasons for deviations from the targets

The increased growth in demand over recent years, combined with limited operational capacity, has resulted in a significant increase in the production required from existing power stations. In order to deliver on the continued demand, this increased production has, in many instances, led to plant components being stressed beyond their design operating parameters. This increased level of usage, combined with exceptionally wet conditions in January and February 2008, contributed significantly to a culmination of conditions that resulted in forced capacity losses.

#### Benchmarking Generation's performance

The increased pressure on the available power stations highlighted the need to determine whether or not the existing coal-fired stations are performing at world-class levels. A benchmark study of coal-fired plant in Eskom and plants in international databases was conducted over the period 1998 to 2006. Results show that over a period of nine years, Eskom generating plant has performed consistently and markedly better than their international counterparts. The only point of caution is that the Eskom UCF (availability) showed a significant drop in 2007.

Despite the decline in performance over the past two years, our coal-fired plant performance continues to be among the best in the world.

#### Generation technical recovery plan

Generation launched the UCLF (unplanned capability loss factor) recovery action in February 2008. The aim is to stabilise power station performance to an acceptable level by winter 2008, and a predictable and sustainable power supply by the end of 2008. More recently, the Minister of Public Enterprises indicated that Eskom should restrict the total level of forced outages to within 2 500MW (2 000MW from UCLF and 500MW from OCLF). This relates to an annual average UCLF performance of 5,1% across the system.

Eskom power stations have been performing well when compared to international practice.

#### Condition monitoring

Any piece of equipment ages with time and use. As equipment ages, it is more prone to breakdown and failure, which is obviously not desirable. If the breakdown modes of the equipment are well understood, there are certain signals and events that can be used to pro-actively determine when the plant is close to failure. An analogy of this is the use of cholesterol measurements to give early warning of heart disease. Condition monitoring is the process of monitoring a parameter, or number of parameters, for equipment and to then use this information to indicate the condition or "health" of that item. Condition-monitoring information is used to identify a significant change that points to a possible failure which allows Eskom to take pro-active, preventative maintenance steps to prevent a breakdown.

The UCLF recovery strategy is therefore focused on addressing a multitude of factors, both skills and plant related. The following plant focus areas have been identified within which these issues are being addressed:

- → Coal plant (focus on wet coal handling)
- → Boiler plant (focus on boiler tube failures)
- → Generator and other electrical systems
- → Turbine and related plant
- → Ash removal systems

The current plant performance recovery initiative will extend over many years. In order to minimise negative customer impact, only the most critical issues can be dealt with in the short term, while many others will be blended into the normal maintenance cycle over years to come. Any limitation on us achieving the minimum level of required maintenance will provide a severe setback to the recovery programme and lead to unpredictable plant performance. For now, the outlook for unplanned outages



The average age of plant in the transmission network is 3 I years, calling for high levels of maintenance.

remains high, although these are being managed on an ongoing basis to reduce customer impact. The overall level will only show sustainable improvement as the above interventions show significant progress.

Refer to www.eskom.co.za/annreport08/013 for more details on the UCLF recovery strategy.



Apollo substation in Gauteng.

#### Transmission system performance

Measure	Description of measure (and unit)	Target 2008	Actual 2008 (include load shedding)	Actual 2008 (exclude load shedding)	Actual 2007 Comments
Number of interruptions	Interruptions affecting the continuity of supply	≤36	49	48	28 Not achieved. A significant deterioration from last year and worst performance since 2002. See comments below
Number of system minutes lost	Total number of system minutes lost (for incidents of less than one system minute)	≤3,90	3,56	3,56	3,67 Results within target, although the number of interruptions increased
Number of major incidents	Records number of incidents with a severity greater than one system minute				Not achieved
	<ul><li>severity degree-one</li><li>(≥1, but less than 10)</li></ul>	≤I	5	5	I The five major incidents of degree-one severity were the result of equipment failure
	<ul><li>severity degree-two</li><li>(≥10, but less than 100)</li></ul>	0	0	0	
	- severity degree-three (≥100)	0	1	0	The degree-three incident was the result of load shedding
Number of line faults	Number of transmission line faults per 100km	≤2,2	2,31	2,31	2,43 Not achieved, although this is an improvement from last year's performance



#### Comments on Transmission's system performance

Transmission's performance was significantly impacted by the high number of interruptions experienced during the financial year. This is Transmission's worst performance since 2002. Equipment failure contributed significantly to the poor major incident performance. Various preventative and corrective actions have since been identified to address the poor interruption performance.

#### Benchmarking Transmission's performance

Transmission is actively involved in the International Transmission Operations and Maintenance Study (ITOMS™) which compares performance and identifies best transmission industry practices worldwide. Benchmarking Transmission's performance against other similar utilities has proved to be challenging, since transmission businesses differ a lot in terms of network characteristics and processes and, therefore, performance levels vary as well. The end result is that benchmarking is nearly impossible.

Refer to www.eskom.co.za/annreport08/014 for more details on the major incidents.

# System minutes for incidents less than one system minute - 7 - 6 - 5 - 4 - 3 - 2 - 1 0 Actual January - March 2005 Target (12mmi)

#### Transmission maintenance and refurbishment

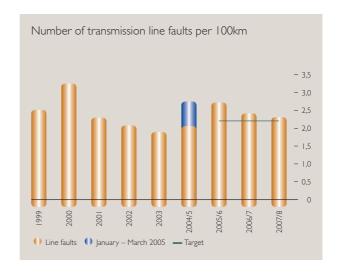
The average age of plant in the transmission network is 31 years. The oldest substations and lines are 52 years old. This calls for a high level of network plant and equipment maintenance and also refurbishment and replacement of plant that has reached the end of its useful life.

Transmission completed 94,7% of all planned and unplanned maintenance work for the year (2007: 95,6%). The main reasons for not completing all maintenance were skills shortages, delays in delivery of spares and outage constraints. The delays were mostly in the Western Cape, Southern Cape and KwaZulu-Natal.

During 2008 the following major refurbishment projects were carried out:

- → upgrading of insulation on the west and southern Cape coastal substations and lines
- → refurbishment of the Apollo converter substation
- → refurbishment of 400kV shunt reactors
- → refurbishment of power system protection schemes

Refer to www.eskom.co.za/annreport08/015 for details of transformer conditioning monitoring research.





Conductor theft, energy theft and bad weather affected the distribution infrastructure.

#### Distribution system performance

As the prior year performance and targets did not include major load shedding events, the current year performance has been adjusted and disclosed separately for analysis and comparative purposes.

#### Distribution network interruption measures

Measure	Description of measure (and unit)	Target 2008 (exclude load shedding)	Actual 2008 (exclude load shedding)	Actual 2008 (include load shedding)	Actual 2007 (include load shedding)	Comments
Distribution supply loss index (DSLI)	Transformer unavailability index (minutes per month)	≤ 5,10	10,36	31,50	9,10	
Reticulation supply loss index (RSLI)	Total transformer unavailability index (hours per annum)	≤ 1,55	2,24	3,39	1,95	Con sampling d
Reticulation supply loss index (RSLI)	Unplanned transformer unavailability index (hours per annum)	≤ 1,10	1,68	2,82	1,33	See combined explanation below for DSLI, RSLI, SAIFI and SAIDI
System average interruption frequency index (SAIFI)	Reliability of supply index (number per annum)	≤ 22,80	25,36	33,72	25,20	and 57 (12)
System average interruption duration index (SAIDI)	Availability of supply index (hours per annum)	≤ 42,30	55,51	73,70	51,40	

#### Comments regarding SAIDI, SAIFI, DSLI and RSLI

Performance has not improved since the previous year and the business plan target was not achieved due to a higher number of planned interruptions for maintenance and refurbishment and an increase in unplanned interruptions, caused by an increase in conductor theft, energy theft and bad weather. Load shedding also had a negative impact on operational performance.

#### Benchmarking Distribution's performance

Distribution has participated in benchmarking panels in North and South America. The network characteristics and operational processes/practices of the distributors in the benchmarking panels are not the same, which results in a wide range of performance levels.

Eskom's network interruption performance is dominated by the performance of our rural lines, which have historically been built on a least-cost basis. In this respect, Eskom's distribution networks differ significantly from those of other distribution companies that have areas of supply that include large cities and towns. Most rural lines in South Africa are long radial lines with very limited redundancy and back-feed capability. This significantly distorts any comparison to North American distributors in the benchmarking panel.

SAIDI performance in South America (2007) is between 3,5 hours and 90 hours per annum and SAIFI performance between 2,5 and 60 events per annum. Benchmarks for DSLI and RSLI do not exist.



#### Distribution quality of supply measures

Measure	Description of measure (and unit)	Target 2008	Actual 2008 (exclude load shedding)	Actual 2008 (include load shedding)	Actual 2007	Comments
Regulation <sup>1</sup>		≥97,00	96,20	96,20	99,00	Not achieved – deviations from nominal supply voltage at a few sites.
Unbalance <sup>2</sup>	Waveform quality of supply index (%)	≥94,00	95,20	95,20	99,50	Exceeded – the three phases of supply voltage are electrically balanced
Harmonics <sup>3</sup>		≥94,00	91,20	91,20	98,90	Not achieved – unable to avoid higher-order frequencies at a few sites
Type X dips <sup>4</sup>		≤51,00	29,70	29,70	30,50	5
Type S dips⁴	Disturbance quality	≤48,00	28,70	28,70	18,90	Exceeded – faults and breaker operations at the
Type T dips <sup>4</sup>	of supply index (%)	≤48,00	25,30	25,30	28,70	various voltage levels are under control
Type Z dips <sup>4</sup>		≤48,00	22,70	22,70	24,40	under control

 $Refer\ to\ www.eskom.co.za/ann report 08/016\ for\ more\ information\ on\ the\ distribution\ performance\ measures.$ 

#### Primary energy Coal

Eskom has long-term coal supply contracts with collieries to ensure a continual supply of coal to its power stations. All coal requirements above those of the long-term contracts are supplied through short- to medium-term contracts, which usually have a road or rail transport element associated with the purchase.

Coal procurement and coal stockpile management have been extremely difficult during the review period, with both coal production and quality issues negatively impacting the supplies to the power stations. Increased international demand for coal, by India and China, creates export opportunities for local suppliers

at international market prices. This resulted in increased pressure on both price and quality of contractual and marginal coal requirement. Below specification coal in turn leads to inefficient combustion and increased maintenance requirements.

Coal production and delivery were severely affected during January 2008 as the above factors, combined with wet conditions, led to capacity constraints.

Refer to www.eskom.co.za/annreport08/017 for research into the coal quality effect model.

Recovery plans have been agreed with suppliers to normalise the situation, despite the significant increase in production requirements due to growth in demand.

<sup>&</sup>lt;sup>4</sup> Disturbance quality reflects the ability to minimise faults and breaker operations at various voltage levels.



Regulation reflects the ability to control deviations from the nominal supply voltage contracted with customers.

<sup>&</sup>lt;sup>2</sup> Unbalance reflects the ability to keep the three phases of the supply voltage electrically balanced, that is, displaced by 120° relative to one another and the same magnitude.

<sup>&</sup>lt;sup>3</sup> Harmonics reflects the ability to avoid higher-order frequencies in the 50Hz supply voltage

The coal stockpile levels have shown a vast improvement since January 2008.

The increased dependency on road transport significantly impacted road infrastructure. Eskom is assisting with the repair of roads where necessary in order to facilitate coal transport and road safety. The transport of coal by rail has improved significantly compared to the previous year.

The increase in demand for electricity, combined with the constrained supply of coal, resulted in coal stockpile levels being significantly lower than targeted levels. Added to this, the abnormally high rainfall, and the resulting wet coal, caused coal handling issues both at the collieries and at the power stations. Coal with a high ash content and a high degree of fines turns to sludge when wet, causing blockages on conveyor belts and in the grinding mills, which restricts the flow of coal to the boilers.

#### Recovery plan - coal stockpiles

The focus is now on rebuilding coal stockpiles at the power stations to levels of at least 20 days by the winter of 2008. Eskom plans to secure an additional 45 million tons of coal over a two-year period to supply power stations with additional coal for their normal burn, as well as to rebuild the stockpile. By March 2008,

#### Performance – coal purchased and burned

Actual Actual Target Actual Target Target 2008 (million tons) 2008 2007 2007 2006 2006 113,6 125,3 119,1 Coal burned 122,2 115,3 112,1 129,7 117,4 120,1 111,7 Coal purchased 119,6 125,3

contracts had been concluded for 37 million tons. Eskom and the coal suppliers jointly committed to resolving production and delivery constraints.

#### Looking ahead - impact on Eskom's future coal supply

A detailed study is being conducted to ensure that Eskom's fuel supply agreements are appropriately positioned to ensure a sustainable coal supply at reasonable prices and of acceptable quality. At the same time, optimised and flexible transport solutions are being investigated.

Eskom is totally dependent on the South African coal mining industry to supply it with coal. The changes in the global market are placing Eskom under increasing risk in terms of securing future supplies from the local market, in which the production capacity has not kept pace with increases in both local and international demand. It is critical that local production be facilitated to ensure long-term security of supply for electricity production. (Refer to the market and industry overview on page 24.)



<sup>&</sup>lt;sup>1</sup> Pieces of coal less than 1 mm in diameter.

Water

Water used in the production of electricity

	Unit of measure	Actual 2008	Actual 2007
Water used at Eskom power stations (including Koeberg)	ML	322 666	313 064
Electricity produced (including hydro and nuclear)	GWh	239 108	232 443
Specific water consumption (excluding Camden and Grootvlei power stations)	L/kWh sent out (target 1,29)	1,32	1,35

Eskom largely uses freshwater resources from government water schemes. In the period under review, approximately 8 000ML of mine water was used at Tutuka and Lethabo power stations. We are implementing a mine water recovery project to use approximately 6ML/day of mine water at Duvha power station.

The increase in water usage was partially influenced by the quality of raw water received, the deteriorating thermal efficiency at some power stations and the considerable load generated at power stations that are not as water efficient as the modern wetcooled power stations.



Although the 2008 performance did not meet target, it has improved compared with the 2007 performance, even though production from wet-cooled stations exceeded planned levels. Water management studies have been commissioned with the aim of identifying improvement opportunities.

Increased demand for electricity is expected to result in higher water consumption over the next five years. Although the next generation of coal-fired power stations will be supercritical drycooled power stations, overall water consumption is expected to increase by about 14 million cubic metres per annum. This includes the use of water in the flue gas desulphurisation process.

Eskom continues to work with the Department of Water Affairs and Forestry (DWAF) to ensure the effective and efficient management of raw water supply infrastructure. This includes transfer schemes serving existing power stations, planning raw water supply infrastructure projects for new power stations and the timely and efficient processing and authorisation of water-use licence applications. We have secured our water supplies through long-term water supply and payment contracts with DWAF.

DWAF, through its project funding and implementation arm, Trans Caledon Tunnel Authority, is implementing the Vaal River Eastern Sub-system Augmentation Project. This was approved by the South African government to augment raw water from the Vaal Dam to supply Eskom and Sasol's growing water demands in Mpumalanga. The project is due to deliver water by September 2008.

Plans are also well advanced to augment water supplies by transferring surplus effluent return flows from the Crocodile River (West)/Marico water management area, to the Mokolo catchment in the Limpopo water management area. This will enhance water supply to the Matimba and Medupi power stations in the Lephalale area.

Refer to www.eskom.co.za/annreport08/018 for further information on water.



# Our next generation of power stations will use water much more efficiently.

#### Liquid fuels

Before 2008, Eskom operated only two gas-fired peaking stations. During 2007, two new open-cycle gas turbine (OCGT) stations were built and commissioned. The cost of electricity generated by the OCGTs is high due to fuel costs, so their use is ideally limited to peaking and emergency generation. However, with the power shortages in 2007/8, these plants were used much more than was budgeted. The two new OCGT stations used 318 million litres of diesel during the year.

Fuel procurement for the OCGT plant is particularly challenging because of uncertainty around the timing and extent of usage of the plant. With suppliers requiring long lead times for new orders of liquid fuel, it is particularly challenging to meet such production requirements, while at the same time maintaining economic stock levels.

The price of diesel fuel fluctuates with changes in the price of crude oil and the exchange rate. The effect of the increasing oil price combined with a weakening R/USD exchange rate has increased the cost of diesel by 60% during the financial year. The average cost per litre consumed has increased by 34% over the last year. Hedging opportunities for diesel fuel are being investigated.

	2008	2007	2006
Diesel usage (million litres)	345,9	11,3	25,3

#### Nuclear

Two government-authorised contracts for the supply of enriched uranium were negotiated and signed in 2004. These contracts, along with fuel-fabrication contracts concluded in 2002, ensure that Koeberg power station's nuclear fuel supplies are secured until the end of 2010. Commercial processes to secure supplies beyond 2010 are in an advanced stage.

#### Supply for the 2010 World Cup

An Eskom project team is working with the metro and municipal electricity departments to ensure the reliability of electricity supply to the stadiums, broadcasting centres, base camps and venues for the 2010 FIFA World Cup South Africa  $^{TM}$ .

Our process is comprehensive: besides checking equipment and facilities, we are also preparing simulation exercises to test readiness across all operations to prepare our teams for possible emergencies. Municipalities, through the AMEU – their



Lethabo power station in Vereeniging.

representative body – are co-operating with this planning and discussions are underway to form joint 2010 energy task teams with Eskom.

Eskom is also investigating the creation of dedicated 2010 electricity command centres to oversee regional delivery of power. We are working closely with the other members of team South Africa – government at national, regional and local levels, as well as representatives from the municipal and metro electricity departments; host cities; FIFA; the local organising committee; tourism authorities and the information and communication industries – to meet the demands of the main event and related events during the build-up.

FIFA and South Africa have stated that the 2010 FIFA World Cup South Africa™ will be an African celebration. As such, the event has received the support of the Southern African Power Pool (SAPP), who will contribute to powering 2010. The details of the SAPP contributions for the event are currently in discussion.

Eskom is concentrating its efforts on a combination of existing and new 2010-specific initiatives to improve the national power supply capacity. We are also continually reviewing the status of vital transmission and distribution networks across the country.

A successful 2010 FIFA World Cup South Africa™ also depends on a concerted national effort to use electricity more efficiently.



# Executing the build programme

# Introduction

Additional power stations, major power lines and substations are being constructed urgently to meet rising electricity demand in South Africa. The approved capacity expansion budget is R343 billion<sup>1</sup> up to 2013 and is expected to grow to more than a trillion rand by 2026. Ultimately Eskom will double its capacity to 80 000MW by 2026.

The budget, approved by the Eskom board and our shareholder, is designed to meet the challenges of electricity reliability and availability and is aligned with government's target of a 6% GDP growth between 2010 and 2014. We will now deliver an additional 16 304MW in generating capacity by 2017. Generation projects will take up 73% of the budget, with transmission investment accounting for another 13%. The rest of the budget will fund improvements to the distribution network and efforts to diversify our energy mix.

## Integrated strategic electricity planning

The integrated strategic electricity planning (ISEP) process provides energy and demand forecasting for up to 20 years into the future. As part of this process, data is gathered on supply- and demand-side costs and performances. Then the mix of these options and the timing of their use are optimised to meet the load forecast with suitable reliability, taking into account risks and assessment criteria.

The planning process provides economically and environmentally acceptable options for flexible and timely decision-making, considering Eskom and our shareholder's objectives and taking into account available energy reserves and renewable energy potential.

The criteria for assessing the quality of the plan include cost, flexibility, robustness, sustainability and implementation.

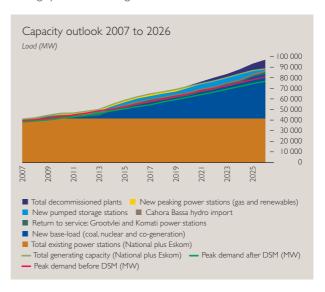
For further discussion of criteria, please see www.eskom.co.za/annreport08/019.

While the major energy source will remain coal in the foreseeable future, we plan to reduce coal's current approximately 90% share of the energy mix to below 70%

<sup>&</sup>lt;sup>1</sup> This is nominal rand, and based on 2007 financial assumptions.



by 2026. To achieve this, a much higher proportion of nuclear energy (currently 4%) is envisaged by 2026, while additional renewable energy options (about 2% by 2026) will also be pursued. Pumped-storage and gas-turbine power stations will be built to meet peak demand, while electricity imports from neighbouring countries (to a maximum of the reserve margin) will also be negotiated.



#### Investment portfolio

The investment portfolio target ranges are updated and discussed by the board on an annual basis and were revised in December 2007.

The approved generation energy mix is based on the current strategic drivers, the integrated strategic electricity plan (ISEP), and the results of portfolio modelling. The key assumptions and sensitivities under which these portfolios will change relate to the demand forecast and the fuel cost of the different baseload technologies. Should demand not grow at 4%, significantly less capacity will be required. Changes in any key assumptions will lead to a change in the portfolio targets.

Strategic drivers such as climate change mitigation, diversification and shareholder aspirations must be balanced and traded off against purely financial considerations. Eskom also faces environmental challenges and primary energy constraints in the face of global competitive markets and a shortage of skills.

Since the build programme started in 2005, we have added 2 582MW to our fleet.

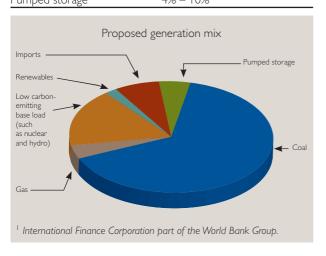
Based on committed projects, new options and investment strategy drivers, we recommend a portfolio that moves away from the least-cost option to incorporate a more "clean" and diversified portfolio that still reflects a reasonable "value at risk" and includes replacing existing coal-fired generation with clean coal technologies.

We are ensuring that not only are we complying with South African environmental, social and legal requirements, but also the Equator Principles, IFC<sup>1</sup> performance standards and taking into account the IFC Environmental Health and Safety (EHS) guidelines.

Refer to www.eskom.co.za/annreport08/020 for the strategic drivers taken into account when developing the portfolio.

The following portfolio ranges have been approved:

Generation mix	Target ranges
Coal-fired generation	<70%
Combined-cycle gas turbine	Only use for peak supply when
	needed
Low carbon-emitting base load	17% – 28%
(such as nuclear and hydro)	
Renewable energy	>2%
Imports	2% – 15%
Open-cycle gas turbine	Only use for peak supply when
	needed
Pumped storage	4% - 10%





The sod turning for the new Medupi power station in Lephalale on 14 August 2007.

#### Build programme highlights and lowlights

The Eskom build programme is on track to deliver the projects as planned. Since the programme started in 2005, an additional 2 582MW has been commissioned.

The formal opening of both Ankerlig and Gourikwa power stations took place in October 2007 at Ankerlig. In May 2007, Nersa granted Eskom the licence to build the first new coal-fired power station in more than 20 years – Medupi power station in Lephalale, Limpopo Province. An official sod turning took place on 14 August 2007. In October 2007, Hitachi Power Africa was awarded the R20 billion boiler contract and Alstom S&E the R13 billion turbine contracts. More than 50% of the combined value of the contracts will be procured locally. Terracing work was started in May 2007. An independent assessment of the degree to which the Medupi power station and the associated environmental and social assessment and management approaches comply with the Equator Principles was undertaken.

In December 2007, Eskom awarded contracts worth about R31,5 billion for its "Bravo Project", a coal-fired power station to be built at Emalahleni in Mpumalanga by 2017. Hitachi Power Africa was awarded the R18,5 billion boiler contract and Alstom S&E the R13 billion turbine contract. Terracing work started in April 2008.



The return to service of the three mothballed coal-fired power stations – Camden, Komati and Grootvlei – has progressed well. The original planned target date of end October 2011 for commercial operation of all 23 units (3 800MW installed capacity) will be achieved.

Work is also progressing well on Ingula, a pumped-storage scheme near Ladysmith, KwaZulu-Natal, with an installed capacity of 1 352MW. The station is planned to be fully operational by the end of 2013.

The Apollo substation refurbishment is on track for completion by June 2008 and will increase the availability and maintainability of the Cahora Bassa-Apollo HVDC interconnection.

A team of more than 2 500 engineering, project management and commercial resources, supplemented by 19 local and foreign engineering and project management companies who are contracted as partners over the next five to 10 years, is actively involved in the execution of the build programme.

The capital expenditure (capex) incurred from 2005 to date on these projects is:

	2005/6	2007	2008	Cumulative
	Rm	Rm	Rm	Rm
Actual capex	4 820	8 226	13 311	26 357

Refer to www.eskom.co.za/annreport08/021 for a summary of all current projects under construction.

Refer to www.eskom.co.za/annreport08/022 for details of the HVDC (high-voltage, direct current) research programme.

#### Building a coal-fired power station

The building of a coal-fired power station is a lengthy and complicated process, involving a large number of factors influencing the final decision. The construction alone could take eight to 10 years.

#### 1. Site selection

When it comes to deciding where to build a power station, the following factors (among others) are taken into account: availability and accessibility of coal and water, the ease with which the new station can be integrated into the national transmission network; environmental impacts of both the power station and the transmission lines; local area impacts, that is, the social and natural environmental impacts; and capital and operating costs.

#### 2. Awarding of contracts

The civil works, boiler, turbine, auxiliary plants, electrical and control and instrumentation contracts form part of the main contracts in terms of which the larger construction work is performed. Many smaller companies are involved as subcontractors.

#### 3. Site establishment

This phase deals with the provision of infrastructure for the main contractors to start work. Water and electrical supplies need to be installed, land levelled, roads built and construction offices established. The terrain needs to be fenced off.

#### 4. Construction

Construction starts with the setting out and digging of foundations. Although a number of areas are under construction at the same time, the main areas are the foundations of the boiler house, turbine hall, cooling towers and chimneys. From site establishment and civil construction to the point where the first boiler and turbine could be commissioned takes approximately four years. The units are commissioned between nine and 12 months apart.

#### 5. Commissioning

Auxiliary plant systems need to be commissioned first to provide the logistical support for boiler and turbine operation. These include water treatment, coal supply and ash handling, electrical supplies and the transmission network.

Safety checks and testing are done before any plant is commissioned. Plant areas commissioned are taken over by Eskom, although the contractor remains responsible for defects.



A team of more than
2 500 people is actively
driving the build programme.

#### Environmental impact assessments

The undertaking of environmental impact assessments (EIAs) plays a critical role in ensuring informed decision-making regarding Eskom's build programme. Most of Eskom's capacity expansion projects are listed activities in terms of legislation and, therefore, require an environmental authorisation before construction may start. This is obtained from the Department of Environmental Affairs and Tourism (DEAT). The EIA regulations require the assessment of alternatives, public participation, and for the public to be given the opportunity to appeal against decisions made by the authorities.

DEAT is assisting in fast-tracking the EIA studies of priority power-related projects, and is working on a guideline to identify and speed up the processes for strategically important developments.

#### Environmental impact assessment process

The environmental impact assessment process is informed and guided by the National Environmental Management Act, which prescribes that environmental management must place people and their needs at the forefront of its concern and serve their physical, psychological, developmental, cultural, and social interests equitably. Thus people's needs, concerns and issues cannot be disregarded or taken without due consideration during these processes. All stakeholders have the right to equal opportunity to raise their concerns and have them addressed. It is for this reason that time and money are normally regarded as secondary concerns in comparison to people and the environment. It is evident to all involved that, if not conducted properly, these processes have the ability to delay a project, result in litigation, and/or render a project unviable.

To secure an environmental authorisation, sufficient time and proper consultation with all major stakeholders and interested and affected parties are required. However, with the challenges facing the country, the time required is often a luxury we do not have and cannot afford. Thus, Eskom is continually under pressure to deliver the required infrastructure within constrained time frames. Eskom remains committed to quality EIAs and public engagement processes.

In South Africa, the undertaking of EIAs has been legislated as part of the project planning process. Eskom appoints independent (as defined in the legislation) consultants to undertake the EIA for our proposed build programme projects. Amendments are being made to the South African EIA-related legislation. Eskom has participated in the public-commenting process on the proposed amendments.

Link to Eskom ElAs: www.eskom.co.za/eias



The tunnel at the new Ingula pumped storage scheme near Ladysmith.

#### Land and rights

#### Highlights

We have embarked on numerous strategically important EIAs with regard to land and servitude acquisitions for new power stations, substations and power lines throughout the country. The majority of these projects were successfully completed, as they were well received by the communities and the affected authorities.

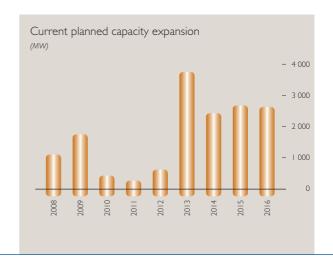
In most cases the public is committed to taking part, voicing its views and influencing the outcome of each EIA and servitude acquisition process. This year alone, 8 155 interested and affected parties throughout the country were consulted and 584 servitudes were acquired.

#### Lowlights

- → we regularly find that some stakeholders only begin participating late in the land or servitude acquisition process. It is frequently the case that the new perspectives and ideas require the review of decisions already made, setting back the process
- → people buy properties where the seller has failed to disclose that Eskom has an approved record of decision to install a power line over their properties. Resolving these issues often delays the servitude acquisition process

Refer to www.eskom.co.za/annreport08/023 for more details on the land and servitude acquisition process.





#### Looking forward

#### Current planned capacity expansion (MW)

This table indicates the calendar years when new generation capacity is planned to be commissioned.

MW	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Camden (coal-fired)	400									400
Grootvlei (coal-fired)	590	585								1 175
Komati (coal-fired)	120	240	310	285						955
Ankerlig (OCGT) <sup>2</sup>		740								740
Gourikwa (OCGT) <sup>2</sup>		296								296
Arnot (coal-fired) <sup>3</sup>	90	60	30							180
Medupi (coal-fired)					798	1 596	798	1 596		4 788
Bravo (coal-fired)						803	I 606	803	I 606	4818
Ingula (pumped-storage)						1 352				I 352
Lima (pumped-storage)								375	1 125	1 500
Wind farm (renewable)			100							100
Annual total MW	I 200	1 921	440	285	798	3 75 I	2 404	2 774	2 731	16 304

#### Co-generation programme

# Pilot national co-generation programme

Eskom is running a pilot national co-generation programme (PNCP) to source co-generation capacity from the market.

Co-generation involves the use of unused waste heat, power, or resources by private companies to generate electricity. For example, "biomass" is a fuel that consists of cuttings left over after harvesting sugar cane or other agricultural waste. It can be burned in boilers to create steam to drive turbines and thus, generate electricity.

In October 2007, organisations were invited to submit tenders to take part in co-generation with Eskom. The potential bidders in the programme were given two opportunities to comment on the power purchase agreement (PPA) that would be offered under this programme, and a final PPA was released to the bidders on 20 March 2008.

<sup>&</sup>lt;sup>3</sup> Capacity upgrade.



The closing date for bid submissions for the pilot programme was 30 May 2008, and contracts should be awarded before the end of September 2008. Eskom received a positive response from interested parties.

Refer to www.eskom.co.za/annreport08/024 for more detail about co-generation.

# Medium-term co-generation capacity project

While the PNCP process focused on procuring the maximum capacity in the shortest period of time, there are a number of third parties with potential generation projects that were not participating in the current co-generation process. To cater for these, the medium-term capacity project was proposed to access these potential generation projects, with a PPA for a term ending December 2018 and open to a wide variety of plant sizes and technologies. Eskom will consider proposals received up to 1 December 2008 and up to 3 000MW in size under this programme.

Refer to www.eskom.co.za/annreport08/025 for more detail about the medium-term co-generation project.

Return-to-service power station.

<sup>&</sup>lt;sup>2</sup> Open-cycle gas turbine.

In 2007, Eskom invited tenders for the private sector to take part in co-generation.

#### Nuclear

With our plans to double our generation capacity, investigations are under way to determine the feasibility of some of this capacity being conventional nuclear power plant.

A strategic decision has been taken to remain with the pressurised water reactor family of reactors — similar to that which is used at Koeberg, but of the most recent design. Negotiations have started with two potential vendors, Westinghouse in the USA for the API000 design and Areva in France for the EPR design. The nuclear licensing process is anticipated to start during 2008, once the vendor has been selected.

The EIA for the first of the proposed nuclear power stations is being conducted on five sites that were previously identified, namely, Brazil (near Kleinzee) and Schulpfontein (near Hondeklip Bay) on the Northern Cape west coast, Duynefontein (Koeberg) and Bantamsklip (near Pearly Beach, east of Gans Bay) on the Western Cape coast, and Thyspunt (near Oyster Bay, west of Cape St Francis) on the Eastern Cape coast. The first of the proposed nuclear power plants is expected to have a capacity of approximately 3 500MW.

A draft scoping report has been released for public comment. Public open days and key stakeholder workshops were held in February/March 2008 to discuss the outcomes of the scoping phase. The detailed impact assessment phase will culminate in a draft environmental impact report to be released for public comment later in 2008.

The nuclear programme is subject to affordability and resource capacity.

Refer to www.eskom.co.za/annreport08/026 for details of the PBMR development project.



The new 132kV yard at the Medupi power station site.

#### Other projects

Other projects being explored:

- → the DME is investigating the possibility of an independent power producer building a baseload (probably coal) station for completion before the new nuclear plant is in operation
- → possible gas projects in Mozambique and Namibia
- → the conversion of the current open-cycle gas turbines to closed-cycle gas turbines, which will increase capacity further
- → following recent developments relating to engineering, procurement, and construction (EPC) issues, the owner of the coal resource in Botswana is revising its plans to develop phase one of the Mmamabula Energy Project, including alternative configurations for the power station project

#### Primary energy for new build

Extensive work has been done to secure adequate coal supplies of suitable quality for the Medupi and Bravo power stations.

Eskom is finalising an agreement with Exxaro Coal to supply the coal needed for all six units of Medupi power station for the first 40 years of its life. The success of these arrangements is based on Eskom's sound working relationship with Exxaro's Grootegeluk mine, which already supplies about 15 million tons of coal a year to the nearby Matimba power station.



Anglo Coal's New Largo coal mine has been earmarked as the main coal supplier to Bravo and is to be supplemented from smaller Anglo blocks at Zondagsfontein. The initial stages of the contracting process include further technical studies to determine how best to extract the maximum energy from the source while remaining within the bounds of the design of the boilers. Bravo's boilers are identical to those being installed at Medupi.

A highlight for both of these projects is that these boilers are of supercritical design, meaning that they will use some 6% less coal per unit generated than any of Eskom's existing power stations. This is due to increased operating temperature and pressure that result in improved thermal efficiencies. This is Eskom's initial move into a new phase in the application of emission-reduction technology.

It is envisaged that the coal supply agreement for Medupi power station will be finalised in 2008, and that for Project Bravo in the first half of 2009.

#### Underground coal gasification research

The underground coal gasification (UCG) pilot plant celebrated its first birthday on 20 January 2008. During the first year of operation, it produced more than 13 million cubic metres of gas, or enough to supply the heating and cooking requirements of 330 medium-sized houses.

Extensive monitoring of the environmental impact of operations has indicated no significant effects, but monitoring will continue to ensure that this remains the case.

While the output of the plant is presently fairly modest (100kW of electricity), the engineering, procurement, and construction of a demonstration plant are under way to increase the scale by some forty-fold. This will see sufficient gas produced for co-firing into Majuba power station's coal boilers and will prove the first gas production module.

The engineering, procurement, and construction of the demonstration plant are already under way, with plans to produce 70 000Nm³/h by mid-2009. Following approvals, production will proceed to 125 000Nm³/h by the end of 2009 and with approvals again to 625 000Nm³/h by the end of 2010. This gas will be co-fired with coal at the existing Majuba power station, until approvals are received for a new 350MW UCG-integrated gasification combined-cycle (IGCC) ultra-high-efficiency power station, which could potentially be commissioned in the 2012 timeframe.

In parallel with the research and development phases, a motivation is being compiled for a new 2 400MW commercial power station, which will be proposed to Eskom and stakeholders.

An EIA has also been commissioned for this new concept. It is proposed that the new power station shares gas with the existing Majuba power station, so as to maintain UCG gas production flexibility.

Eskom's Corporate Services division is developing this project with UCG technology experts, Ergo Exergy Technologies Inc. (Canada), who are providing their proprietary eUCG technology.



Eskom's underground coal gasification demonstration plant in the foreground.

Refer to www.eskom.co.za/annreport08/027 for more detail on the underground coal gasification research.



Underground coal gasification shows great potential for the future.

# Research

#### Performance

The Eskom research and innovation department (ERID) provides scientific and technical advice, research and consulting, analysis, detailed design as well as strategic technical planning services and direction.

The actual research expenditure was R156 million (2007: R203 million) while the expenditure on demonstration plants amounted to R93 million for the year, compared to R121 million in 2007.

#### Stakeholder comment:

Technology alone is not enough to solve future global energy challenges. Innovations in power production, delivery and utilisation can minimise the impact of everincreasing demands for electricity. The Electric Power Research Institute's (EPRI) technology innovation programme establishes the framework for developing future technologies, looking inside and outside the power industry to advance its capabilities. Collaboration with scientists, engineers and companies worldwide, including Eskom, helps ensure that the industry will have the best technology to meet the energy demands of societies worldwide.



Clark W Gellings, PE Vice President – Technology Electric Power Research Institute



Additional units are being built at Gourikwa power station.

#### Forward-looking commitments

By working closely with the operational units, ERID is able to understand the organisational challenges and to pro-actively respond to find both short- and long-term solutions.

Given the current Eskom challenges, it was agreed that for the coming year, resources would be focused on:

- → generation capacity, asset management and plant performance
- → transmission capacity, asset management and plant performance
- → distribution asset management and plant performance
- → demand-side management and energy efficiency
- → coal quality and coal combustion
- → renewable energy sources
- → climate change
- → safety, health, social and environment
- → accelerated development of the underground coal gasification project
- → clean coal technologies
- → HVDC (high voltage direct current lines)

Refer to www.eskom.co.za/annreport08/028 for further details of research activities.



# Responding to climate change and limiting the impact on the environment

## Climate change

#### Looking forward

Eskom's climate change strategy contains our commitment to reduce our greenhouse gas emissions. It also spells out how we understand the impacts of climate change on our business and people and how we pro-actively manage these impacts. The strategy has been summarised into Eskom's six-point plan on climate change. The elements of this plan are:

- Diversification of the generation mix to lower carbon-emitting technologies
- Energy efficiency measures to reduce demand and greenhouse gas and other emissions
- 3. Adaptation to the negative impacts of climate change
- 4. Innovation through research, demonstration and development
- 5. *Investment* through carbon market mechanisms
- 6. Progress through advocacy, partnerships and collaboration

#### Diversification of the energy mix

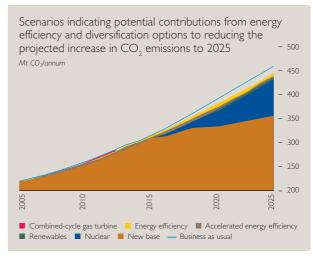
Every electricity generation technology has both positive and negative aspects. We acknowledge that there is no "silver bullet" and that we need access to all available options to make significant cuts in greenhouse gas emissions in the longer term.

Although the amount of  $CO_2$  that we emit will increase in the short to medium term, we are committed to assessing options to retard that rate of increase and, ultimately, begin to decrease it. Our intent, therefore, is to reduce our relative  $CO_2$  (Mt  $CO_2$ /MWh), footprint until 2025 and, thereafter, to continually reduce absolute emissions in support of national and global targets. This will be done by investing in lower carbonemitting technologies as these technologies become available and meet the feasibility requirements.

Our capital expansion plan provides a significant opportunity to change our energy mix and this can be achieved by increasing the nuclear, gas, renewables and clean coal components. Plans include increasing the renewables component to at least I 600MW by 2025. Clean coal technologies are already being applied to the coal-fired power stations under construction.

In the longer term, our existing power stations will reach the end of their lives and be replaced with more advanced and less carbon-emitting technologies, further changing our energy mix and carbon intensity.

We have modelled the potential contribution of demandand supply-side initiatives to the future reduction of  $\rm CO_2$  emissions. A possible future scenario up to 2025 is illustrated in the figure below. With electricity supply growing at a potential 4,4% per annum and traditional coal-fired technologies remaining at a high percentage of the electricity generation mix (approximately 90%),  $\rm CO_2$  emissions from electricity generation would more than double over the next 20 years. Through the implementation of several energy efficiency and diversification options, this increase can be limited. The potential contribution of the energy efficiency and diversification options, considered in this scenario, is indicated by the different coloured "wedges" in the graph below. These options show how we would retard the rate of emissions growth from the "business as usual" line to the new emissions base line should we realise all the wedges.



Note that the technical and financial viability of these options is continually being re-assessed.



Eskom plans to increase the renewables component to at least 1 600MW by 2025.

We continue to model scenarios based on technology choices to determine the most optimal way of reducing emissions. This work will continue in the next year and will continue to inform our diversification strategy.

Refer to www.eskom.co.za/annreport08/029 where we detail  ${\rm CO_2}$  emissions scenarios from 2025 to 2050.

#### Energy-efficiency measures

The primary short-term focus is on energy-efficiency measures, since they can be implemented quickly and produce measurable reductions. We have continued with the internal energy-efficiency programme to save a billion kilowatt-hours. We also work with our consumers to reduce their demand through our demand-side management programme. The short-term target for this nationwide programme is to save 3 000MW by 2012 and 8 000MW by 2025. In reality this equates to about two of our large coal-fired power stations.

## Adaptation to the negative impacts of climate change

We accept that global initiatives to reduce  $\mathrm{CO}_2$  emissions will take many decades. As such the negative impacts of climate change will become a reality to which we must adapt in order to sustain our business. Adaptation risks in South Africa include an increased number and severity of droughts and floods, human settlement and thus infrastructure movements. Short-term adaptation measures include dry-cooling in our new power stations, which can reduce water consumption by approximately 90%. The trade-off is an efficiency loss and, as a result, an increase in  $\mathrm{CO}_2$  emissions. Medium- to long-term considerations include improving the resilience of our infrastructure and staff, by incorporating adaptation issues into long-term planning and risk mitigation strategies. Over the next year we will develop our adaptation strategy. This will be done with input from local and international experts.



The proposed concentrating solar thermal technology to be used for the Upington area.

# Innovation through research, demonstration and development

Research is the key platform for the development and deployment of new carbon-reducing technologies that will result in reductions in greenhouse gas emissions in the long term. Eskom has a proud record of cutting-edge research and development. A number of years ago, we anticipated the need for lower carbon technologies suited to South African conditions. We then initiated projects capitalising on our inherent strengths, building local capacity and associated industries optimised for local conditions. Eskom has and is participating in a number of exciting pilot projects that will achieve this aim:

- → an underground coal gasification pilot study that can improve efficiency, reduce environmental impacts and possibly provide a mechanism for the sequestration of CO<sub>2</sub>
- → a "System Johansson" gasifier biomass pilot for smallscale applications
- → a 100MW concentrating solar thermal plant which may overcome the barrier of intermittency and generate a local industry
- → hosting the development plant for the pebble-bed modular reactor project, which incorporates modular nuclear technology



#### Concentrating solar power research

If feasibility studies provide satisfactory results in assessing the new technology, we will establish a 100MW pilot concentrating solar power (CSP) plant in the Northern Cape Province. An environmental impact assessment was completed and a positive environmental authorisation obtained from the Department of Environmental Affairs and Tourism in September 2007, while the project feasibility assessment was finalised in November last year.



The technology has the potential to be used as a peaking, mid-merit or baseload plant and therefore has significant potential to be expanded as a renewable energy source in our generation mix.

We are developing technology road maps to underpin these technology choices – the coal roadmap has been completed. Roadmaps on other clean technologies are also being developed to guide our research and optimise our resources.

# Investment through carbon market mechanisms

We support the carbon market and we are keen to see policy certainty after 2012 for a long-term global carbon market. The carbon market is an essential mechanism to level the playing field by making technologies more accessible and, in turn, inviting sustainable investment into developing countries. We are participating in the clean development mechanism (CDM) (refer page 74) and view it as a good vehicle to bridge some of the cost gaps, as well as for the wide-scale deployment of low carbon-emitting technologies. We are also investigating the application of programmatic CDM in our demand-side management portfolio. This allows for a programme of activities to be registered, in this way reducing costs and time taken for approval. The credits

obtained from these DSM activities will be earmarked for further DSM activities, continuing to promote energy efficiency.

Eskom uses a shadow price for carbon to evaluate all investment decisions. Over the next year we will be peer-reviewing our post-2012 strategy. This details different scenarios of the future climate change regime and provides valuable insight into how our climate change strategy should evolve.



At no other time in recent memory has the electricity utilities industry faced such tremendous challenges. Balancing a social mandate to extend and enhance access of power to marginal and rural communities while at the same time wage a business savvy fight against climate change is no easy feat. Furthermore, nobody would argue against the fact that electricity is the lifeblood of economic growth and yet almost all of us would also agree that this essential service can no longer be produced and consumed in the same way as it has been for the last century.

So, what's the good news? Eskom has been a driver of cutting-edge thinking on these challenges while moving the debates into the business opportunity space. As a member of the World Business Council for Sustainable Development, a business coalition of some 200 leading companies that share a commitment to the principles of sustainable development via economic growth, ecological balance and social progress, they have joined forces with 10 other electricity utility companies and developed a concrete understanding of the sustainability challenge facing the sector while identifying urgent needs required to power the 21st century.

Bjorn Stigson is the president of the World Business Council for Sustainable Development.



Eskom uses a shadow price for carbon to evaluate all investment decisions.

#### Progress through advocacy, partnerships and collaboration

Our response to climate change supports government's activities. We are active members of the National Committee on Climate Change (NCCC) and participate in the long-term mitigation scenario process. Internationally, Eskom interfaces with leading global organisations that address aspects such as emissions trading, policy directions, post-2012 scenarios, ground-breaking research and business collaboration.

Organisations include the World Business Council for Sustainable Development (WBCSD), the International Emissions Trading Association (IETA), Combating Climate Change (3C), the Global Roundtable on Climate Change (GROCC), Carbon Sequestration Leadership Forum (CSLF), Coal Industry Advisory Board (CIAB), Electric Power Research Institute (EPRI), International Energy Agency (IEA), the International Chamber of Commerce (ICC) and the World Economic Forum (WEF).

We are confident that we have made and will continue to make significant progress in meeting the challenge of climate change. Opportunities and risks have been identified and are being managed pro-actively.

We are also currently developing a "climate change intent", which will set some key parameters for our aspiration to reduce our relative  ${\rm CO}_2$  emissions until 2025, and thereafter continually reduce emissions in absolute terms. These parameters will be in support of national and global efforts in this area.

#### Stakeholder comment

How does a coal-based electricity utility plan for a carbon-constrained future? Clearly, with electricity supply accounting for about 40% of South Africa's emissions, the challenge of mitigation cannot be met without Eskom – but addressing electricity alone will not be enough.

Planning should take seriously the information from the long-term mitigation scenarios (LTMS). How should Eskom set clear targets to reduce GHG emissions, monitor progress and report publicly? What will change when there is a price on carbon?

LTMS identified wedges in three broad categories for the electricity sector – renewables, nuclear and cleaner coal. With significant public investment in R&D and demonstration going into the latter two, significantly greater effort will be needed on renewables.



The pressurised water reactors at Koeberg nuclear station will also be used at the possible new nuclear stations.

#### Stakeholder comment (continued)

That needs to start right now, with significant investment in options like solar, wind and other technologies. Five years from now, we should have the choice whether the next power plant should be a coal-fired "six-pack" or from renewables. Research should investigate the institutional arrangements, human capacity development, risk sharing, distributed generation systems and storage options. Solar thermal electricity deserves particular attention, notably concentrating solar plant (CSP) with 60% plus availability – investigating the feasibility and bankability of CSP projects.

In its research process, Eskom needs to shift from its culture of insisting that research results are confidential, to greater transparency, publishing results and opening them to independent peer review.

Climate change is a long-term challenge that needs urgent action, now. Research and development must help Eskom face the challenge of charting a path to a low- or zero-carbon electricity sector.

Harald Winkler is Associate Professor at the Energy Research Centre, UCT. He comments in his individual capacity.



#### Performance

#### Highlights

Our investment decision-making process integrates sustainability issues from the "idea" identification stage right through to build, and thereafter operation and maintenance. In the last year, we developed a shadow price for carbon to enable equitable evaluation of different technologies based on our carbon emissions. This was a positive step in support of our aspiration to diversify towards lower carbon-emitting technologies and ensures that longer-term issues are taken into consideration in decision-making. We have also completed a carbon trading strategy that looks at the management of carbon credits.

Renewable energy plays an important role in meeting our diversification aspirations. In the last year we decided to invest in a 100MW wind facility in the Western Cape which will consist of 50 turbines, each rated at 2MW. Subject to the necessary approvals being obtained, the plant could be in operation by 2010. Further decisions to increase the renewables component to at least 1 600MW by 2025 are under consideration.

With regard to "off-grid" applications, we started the national rollout of solar water heating and compact fluorescent lamp (CFL) programmes. The uptake of these can contribute greatly to the reduction in the country's carbon footprint by reducing the amount of electricity needed for water heating and lighting.

The two new coal-fired stations being built will be classified as supercritical plant, which will employ clean coal technologies. This means that the boilers operate at much higher temperatures than did the previous fleet of subcritical coal plant, resulting in higher efficiencies and therefore less coal burnt per unit of electricity generated. In addition, the pilot underground coal gasification plant allows for higher efficiencies and therefore lower carbon emissions.

#### Lowlights

There was an increase in the level of  ${\rm CO_2}$  emission from 208,9Mt (2007) to 223,6Mt<sup>1</sup> (2008) mainly due to the increased quantities of coal burnt and electricity produced, reduction in our average coal calorific value and an overall drop in thermal efficiency of our power stations.

#### Benchmarking

Eskom has been part of the WBCSD for a number of years. We co-chair the electric utilities sectoral project. This grouping includes 10 utilities from around the world. In the last year they compiled the "Powering a Sustainable Future" report on the policies and measures required to progress the climate change regime from a utilities' perspective. This was well received and has often been quoted by the executive secretary of the United Nations Framework Convention on Climate Change as the type of information they want to see from business. Eskom played a pivotal role in the development of this report.

Refer to www.eskom.co.za/annreport08/030 for a case study on the WBCSD.

# The clean development mechanism

The clean development mechanism (CDM) is one of three market mechanisms that have been introduced by the Kyoto Protocol to assist countries in reducing their emission reduction targets more cost effectively.

Refer to www.eskom.co.za/annreport08/031 for more details on the clean development mechanism.

#### Limiting the impact on the environment

Environmental performance is managed as an integral part of our governance structure, from the board sustainability committee, to the executive management committee (Exco) sustainability and safety subcommittee. Accountable environmental managers and environmental practitioners ensure the effective implementation of environmental management systems throughout our business.

The current focus on securing continuity of supply, executing the build programme and responding to climate change provides us with environmental opportunities. These include introduction of renewable technologies, expansion of our nuclear programme, identification and implementation of internal energy-efficiency projects, further expansion of water conservation programmes, and conservation of land as a biodiversity offset.

Through this commitment, our objective is to ensure continual improvement in our environmental performance by setting

<sup>&</sup>lt;sup>1</sup> Calculated annual figure is based on coal characteristics and coal-fired power station design parameters (excluding liquid fuels).



The two new coal-fired power stations will employ clean coal technologies.

environmental performance indicators and management systems and ensuring the use of balanced criteria in our decision-making processes. These commitments are set out in our safety, health and environment policy.

Our environmental commitment continues to be based on the efficient use of natural resources while controlling our activities that impact on the environment.

#### Performance

Environmental performance is co-ordinated at an organisational

level and an overall picture of environmental performance is maintained.

Refer to www.eskom.co.za/annreport08/032 for more details on the Eskom environmental liaison committee.

We continue to measure our performance against a number of environmental parameters. Four of the most significant of these are linked to targets set annually in the Eskom business plan. Alarms and standards are set and measured against these four measures as part of the operational health dashboard.

Key environmental performance indicators	Unit of measure	Target 2008	Actual 2008	Actual 2007	Result
Relative particulate emissions <sup>1,2</sup>	kg/MWh sent out	≤0,21	0,21	0,20	Achieved
Specific water consumption <sup>3</sup>	L/kWh sent out	≤1,29	1,32	1,35	Not achieved
Enhanced PreCare/MaxiCare environmental component	score	≥80,00	97,21	100,80	Exceeded
Reported legal contraventions per the operational health dashboard <sup>4</sup>	number	0	6	0	Not achieved

Over and above these indicators, performance against other significant environmental aspects of our operations is set out in the table below. The process of identifying our significant environmental aspects involves:

- → identifying the environmental aspects and impacts associated with our activities
- → determining the significance of the environmental impacts
- → determining the significance of the impacts on business
- → ranking these aspects

Other significant environmental indicators	Unit of measure	Target 2008	Actual 2008	Actual 2007	Result
CO <sub>2</sub>	Mt <sup>5</sup>	N/A	223,57	208,90	Increase
Radiation exposure, per annum	milliSieverts	≤0,25 <sup>6</sup>	0,0041	0,0034	Exceeded
SO <sub>2</sub>	kt <sup>5</sup>	N/A	1 950	I 876	Increase
$NO_x$	kt <sup>5</sup>	N/A	983,9	929,9	Increase
Total number of environmental legal contraventions <sup>7</sup>	number	N/A	46	50	Decrease
Ash recycled	%	N/A	7,0	6,3	Increase (positive)

<sup>&</sup>lt;sup>1</sup> Figures are calculated as a 12-month moving index.

(2) Eskom

<sup>&</sup>lt;sup>2</sup> Amount of ash emitted per unit of generated power sent out (excluding Camden and Grootvlei power stations – correlation tests on environmental indicators not yet completed).

<sup>&</sup>lt;sup>3</sup> Volume of water consumed per unit of power sent out by all generating stations (excluding Camden and Grootvlei power stations).

<sup>&</sup>lt;sup>4</sup> Under certain conditions, contraventions of environmental legislation are classified in terms of the Eskom operational health dashboard index. These include instances where censure was received from authorities, legal contraventions were not reported to government and internally, if it is a repeat legal contravention or where the contravention was not addressed adequately. Managing directors can escalate any significant contravention to Exco if deemed appropriate.

<sup>&</sup>lt;sup>5</sup> Calculated annual figures based on coal characteristics and power station design, but excludes gas-turbine power stations.

<sup>&</sup>lt;sup>6</sup> National Nuclear Regulator limit.

<sup>&</sup>lt;sup>7</sup> The reporting date of legal contraventions is based on its classification at the ELC. This may result in legal contraventions from one year being reported in the following year.

#### Air quality

The generation of electricity at Eskom's coal- and gas- (liquid fuel) fired power stations results, *inter alia*, in the release of combustion gases and particulate matter, which can affect local and regional air quality. The legislation governing air quality and atmospheric emissions is the National Environmental Management: Air Quality Act (39 of 2004) and the implementation plans detailed in the 2007 National Framework for Air Quality Management (11 September 2007).

Our approach to air quality considers the emission of particulates, sulphur dioxide ( $SO_2$ ), oxides of nitrogen ( $NO_x$ ), heavy metals, fugitive emissions, volatile organic compounds (VOCs) and greenhouse gases.

In the past, our focus was on reducing our particulate emissions significantly, with continual improvement over two decades. The current focus is on gaseous emissions. The bigger issues relate to climate change and ambient air quality and we recognise the need to control the emissions to the atmosphere emanating from our power stations. To this end, we take a pro-active stance in discussions of possible environmental impacts with DEAT, and comply with requirements as included in environmental authorisations issued by DEAT as an outcome of the EIAs for our future power stations.

#### Air quality research

We have been undertaking investigative ambient air quality monitoring and research on a regional scale since the late 1970s, using state-of-the-art equipment. The data is analysed and interpreted to assess air quality in terms of guidelines and standards, evaluate significant trends and determine the relative contributions of the various source groups to air quality degradation. Other applications include determining background concentrations for EIA purposes, performance testing of predictive air quality models, predicting long-term air quality trends for strategic planning purposes and defining research direction.

Refer to www.eskom.co.za/annreport08/033 for more details on air quality research.

#### Particulate emissions

The emission of particulates from power station stacks has been a focal point since the early 1980s. Significant reductions in the quantity of particulates emitted have been achieved through the use of technologies that enhance the efficiency of electrostatic precipitators, such as sulphur trioxide flue gas conditioning, skew flow technology and modern control systems, and through the retrofitting of pulse jet fabric filters.

The actual particulate emissions based on a 12-month moving index (12mmi) were 0,21kg/MWh sent out (2007:0,20kg/MWh) against a target of  $\leq$ 0,21kg/MWh sent out. Although the target set was achieved, there was no improvement when compared to the previous year as a result of an overall deterioration in power station plant performance, poorer coal quality and the running of the power stations to their limits in attempts to avoid load shedding. Poor coal quality has led to electrostatic precipitator problems at Duvha; ash plant technical problems at Kendal and failure of the SO3 plant at Matla.



Refer to www.eskom.co.za/annreport08/33a for more details on particulate emissions.



7% (2007: 6,3%) of coal ash produced was recycled.

#### Gaseous emissions

South African standards for emissions of  $SO_2$  and  $NO_x$  are being formulated and will be incorporated into DEAT's 2008 national framework for air quality management. Numerous removal technologies are available to reduce the quantities of these gases prior to their release, ranging from low  $NO_x$  boilers and clean coal technologies to flue gas desulphurisation (FGD) and flue gas denitrification. FGD and denitrification systems have not been installed at any of the current power stations. However, FGD will be installed for the proposed Project Bravo coal-fired power station in Mpumalanga.

	Unit of		
Gaseous emissions <sup>1</sup>	measure	2008	2007
Nitrous oxide (N <sub>2</sub> O)	kt	2,9	2,7
Carbon dioxide (CO <sub>2</sub> )	Mt	223,6	208,9
Sulphur dioxide (SO <sub>2</sub> )	kt	1 949,7	I 875,7
Nitrogen oxide (NO <sub>x</sub> ) as NO <sub>2</sub>	kt	983,9	929,9

We calculate and record on a monthly basis the annual amounts of oxides of nitrogen ( $NO_x$ ), sulphur dioxide ( $SO_2$ ) and carbon dioxide ( $CO_2$ ) emitted from power stations, based on the coal characteristics and power station design parameters. All coal-fired power stations are installing a continuous emissions monitoring system on one unit per power station.

#### Research into SO, reduction

A study is underway to identify alternative ways to reduce SO<sub>3</sub> emissions at coal-fired power stations. These include:

- → identification of coal beneficiation/processing options to reduce sulphur in the product for use in an Eskom plant on a site-specific basis
- → improved calorific value impacts on emissions
- → quantification of the reduction of contaminants associated with identified technology options
- peripheral or lifecycle impact on the environment due to the beneficiation options, for example, increased discard production
- → amounts of water that may be required for these processes



Eskom has partnered with Wessa on a very successful environmental education programme.

#### Ambient air quality monitoring and modelling

Eskom runs an ambient air quality monitoring and modelling programme at sites around the country to define general air quality and emissions associated with our operations.

Ambient air quality data gathered over 20 years has enabled extensive modelling of the dispersion of air emissions. Impact studies have been undertaken, including a wet and dry deposition monitoring programme, both within South Africa and in neighbouring countries.

The intention of our ambient air quality monitoring and modelling programme is to monitor ambient particulate,  $SO_2$  and  $NO_x$  concentrations on population agglomerations potentially affected by power station emissions, and at other sites deemed necessary in order to understand the current and future impact of Eskom's activities on ambient air quality.

Modelling of ambient particulate,  ${\rm SO_2}$  and  ${\rm NO_x}$  concentrations from Eskom power stations is carried out and compared with ambient measurements at appropriate sites



<sup>&</sup>lt;sup>1</sup> Calculated annual figures based on coal characteristics and power station design parameters, excluding Camden and Grootvlei and gas-turbine power stations

#### Ambient air quality

In October 2007, DEAT released a discussion document on the establishment of national standards for ambient air quality. Research has been initiated to compare both measured ambient air quality data and modelled data against the proposed standards. Monitored results from 2003 to 2006 will be analysed and assessed against DEAT's proposed standards. Impacts from all pollution sources on population densities are to be assessed and modelled.

Refer www.eskom.co.za/annreport08/034 for more detail on ambient air quality monitoring.

#### Looking forward

#### Air quality

Our approach to ensure continual improvement in atmospheric air quality management is guided by the following:

- → commitment to diversification of our dominant coal energy mix, including the use of cleaner coal technologies, nuclear and renewables
- → minimising adverse health impacts of atmospheric emissions
- → the identification and use of the best practicable environmental option to control emissions
- → the use of detailed cost-benefit analyses to balance the option to control emissions against environmental risks and other factors
- → source significance of emissions ranked on health impacts of the emissions, not just on the quantities
- → accommodation of the interests of Eskom's stakeholders by considering economic, social and environmental factors, as far as is reasonably practicable
- → taking into account national and international requirements, comparisons and trends
- → consideration of potential future legislative requirements
- → developing sustainable human resource skills and advanced technology
- → compliance with national legislation
- → the decision to adopt mitigation technologies based on scientific studies and on a case-by-case basis

Eskom participates in government's "Basa Njenjo Magoga" programme (the "Clean Fires Campaign") – a programme aimed at introducing an efficient way of lighting fires in urban areas and where low-level air emissions are high as a result of household fires.

#### Clean coal technology research

Eskom will continue its reliance on coal as its primary energy source for the foreseeable future, although it plans to reduce the coal component of its generating capacity to 70% within 20 years. Clean coal technologies that use coal for power generation in more environmentally acceptable and economically viable ways will form part of this mix.

A number of clean coal technologies exist now and are expected to be available over the next 20 years. Examples of these are supercritical pulverised fuel, coal beneficiation, subcritical and supercritical circulating fluidised-bed combustion (FBC), fluidised-bed gasification (FBG), integrated gasification combined cycle (IGCC), and underground coal gasification (UCG). All of these technologies have advantages and disadvantages that need to be understood. Clean coal technologies are thus part of the Eskom research programme that focuses on assessing the different technologies under local conditions.



IMW (thermal) pilot scale pulverised fuel combustion test facility and fluidised-bed combustion and gasification pilot test facility located at the Eskom Research and Innovation Centre in Johannesburg.

Refer to www.eskom.co.za/annreport08/035 for more detail on clean coal research.

Refer to www.eskom.co.za/annreport08/036 for more detail on heavy metals and fugitive emissions.



A study is underway to reduce  $SO_2$  emissions at coal-fired power stations.

#### Water usage

While water is a critical resource for Eskom, it is also a scarce resource in South Africa. Eskom consumes about 2% of the country's freshwater resources and this calls for continual improvement in performance. Refer to page 60 for more information about our use of water.

#### Compliance with environmental legislation

We have for many years had processes in place to ensure that non-compliance with legal requirements is identified, reported and investigated and that corrective and preventative measures are implemented.

During the year our internal audit exercise, at a selection of sites visited in the year, uncovered weaknesses in reporting processes and controls designed to ensure that all environmental legal contraventions were identified and reported to the environmental liaison committee. Issues identified relate to understanding and application of the corporate reporting procedures and identification of legal contraventions.

As a result of these findings, we have engaged an external service provider to assess the adequacy of reporting procedures and design and operation of controls and reporting processes at all significant sites. Any environmental legal contravention identified through this process will be recorded in the 2009 annual report.

For this reporting period, 46 (2007: 50) environmental legal contraventions were recorded.

Most of the environmental legal contraventions related to water events. For the financial year, 6 (2007: 0) legal contraventions were recorded in terms of the Eskom operational health dashboard. The significant increase in the number compared to the previous year is due to the inclusion of additional criteria related to repeated legal contraventions.

One was due to a letter of censure following the cutting of vegetation without the necessary permit. A further incident was related to a repeat of an event related to the non-compliance with conditions of authorisation for the construction of a I32kV power line. The significant increase in water-related contraventions was



The 8 000 hectare Ingula site is managed according to strict conservation principles.

as a result of higher-than-average rainfall, compounded by human error and equipment failure, resulting in unauthorised releases of water from our power stations. This resulted in four such repeat events.

Refer to www.eskom.co.za/annreport08/037 for more detail on the definition of a legal contravention.

#### **Biodiversity**

We have over 366 000km of power lines, operate 27 existing power stations and have four new power stations under construction, which means that our business footprint on biodiversity needs to be monitored and managed closely.

The significant threats in terms of biodiversity are managed and controlled through our partnerships with civil society to ensure best practice and specialist input. This includes the Endangered Wildlife Trust (EWT) for avian impacts; BirdLife South Africa and the Middelpunt Wetland Trust for the conservation of a sensitive wetland and associated biodiversity next to the new Ingula pumped-storage scheme; and the Wildlife and Environment Society of SA (WESSA) for broader environmental education programmes in the area of energy and sustainability.

Refer to www.eskom.co.za/annreport08/038 for more detail on Eskom's biodiversity partnerships.



#### Vulture enclosure research

The vulture enclosure research project, a partnership between Eskom and the Rhino and Lion Wildlife Conservation NPO, is an alternative method to study mitigation methodologies to prevent vultures and other birds from being electrocuted on power lines. The project is aimed at reducing bird electrocutions in the identified danger zones on pylons through the application of cost-effective equipment such as insulation covers and bird diverter methods.

The vulture enclosure will serve a dual purpose. Firstly, it will allow the rehabilitated vultures to recuperate before they are released back into the wild. Secondly, it will support research studies in vulture behaviour on the identified problem towers in order to prevent and limit the continual vulture electrocutions on power lines.



Refer to www.eskom.co.za/annreport08/039 for further information on vulture research.

#### Waste

As a generator, transmitter and distributor of electricity, our significant waste streams are ash (a by-product of the coal burned), oils and asbestos-containing materials. Management practices are in place to report on various waste streams, ranging from domestic waste, garden refuse, building rubble, metals and fluorescent tubes to health care waste. Metals, paper and printer cartridges are recycled where feasible.

#### Quantities of waste disposed of at registered waste sites

	Unit of		
	measure	2008	2007
Materials containing asbestos	tons	321,0	6 060,0
Polychlorinated biphenyls	tons	17,0	10,0
Volume of low-level radioactive waste (Koeberg), (stored in steel drums)	$m^3$	181,8	86,2
Volume of intermediate-level radioactive waste (Koeberg), (stored in concrete drums)	$m^3$	26,8	36,0
Ash (approximate)	Mt	36,0	34,2

#### Polychlorinated biphenyls (PCBs)

In line with the Stockholm Convention, Eskom is committed to the phasing out of PCBs by 2025. We have implemented stringent management practices relating to PCBs. These cover the handling, disposal, storage, testing and labelling of PCB-contaminated equipment, the compiling of inventories and the development of phase-out plans that meet the requirements of the Stockholm Convention.

#### Ash

Of the approximately 36 million tons (2007: 34 million tons) of coal ash produced at the coal-fired power stations over the I2-month period, 7,0% (2007: 6,3%) was recycled. This recycled ash from Lethabo, Matla, Kendal and Majuba power stations is used in the production of cement.

The remaining ash is disposed of in ash dams and dumps next to our power stations. These are then rehabilitated to control fugitive dust.



Ash from several power stations is used in the production of cement.

#### Nuclear

The low- and intermediate-level radioactive waste from Koeberg power station is sealed in steel drums and concrete containers respectively. This waste is disposed of at the Vaalputs national radioactive waste repository. This is a near-surface disposal site for radioactive waste, licensed by the National Nuclear Regulator and operated by Necsa. All the spent fuel (high-level waste) from the power station is stored in the power station in fuel pools.

The increase in the disposal of intermediate-level radioactive waste was due to two shutdowns at the Koeberg nuclear power station for maintenance and refuelling of the reactor, whereas there is normally only one shutdown at Koeberg during the reporting year.

#### Looking forward

Eskom volunteered to participate in the Mpumalanga provincial waste reporting initiative. The outcome of this was the development of a hazardous waste management plan for Mpumalanga. Following this initiative, Eskom has committed itself to participating in DEAT's national rollout of the South African waste information system (SAWIS). Eskom has set a target of phasing out all asbestos-containing material by 2033.

Refer to www.eskom.co.za/annreport08/040 for further information about international agreements regarding PCBs and asbestos.

# Environmental expenditure

Funds were allocated for environmental capital and operational expenditures. These amounted to R1,3 billion on capital projects and R460 million on operational environmental activities (2007: R616 million capital and R362 million operational). The increase in capital expenditure is due to the capital expansion programme.

The largest component was on air quality management at coalfired power stations, water management, rehabilitation at coal mines and expenditure on environmental impact assessments for power stations, power line and substation construction projects, waste and sewage management, rehabilitation of land and control of vegetation.



All ash dams at power stations are rehabilitated.

#### Environmental management systems

Environmental management tools such as management systems, audits, monitoring and measurement, and ElAs are used to control our activities and work towards continual improvement.

Many parts of Eskom have received ISO 14001 standard certification, while the rest of the group undertakes audits and management reviews to ensure that the requirements of the standards are achieved.

Refer to www.eskom.co.za/annreport08/041 for details of divisions and subsidiaries who have achieved ISO 14001 certification.

Refer to www.eskom.co.za/annreport08/042 for details of Eskom's occupational health, safety and environment policy.



# Restoring Eskom's image and public confidence

#### Public confidence and image campaign

The reliability of supply issue has forced South Africans into an era of uncertainty, since a resource we have always taken for granted has become scarce. The electricity crisis has impacted heavily on public confidence in Eskom and the organisation's ability to deliver electricity on a sustained basis is being brought into question.

The impact of load shedding in the public space cannot be underestimated, changing the way people live and work almost overnight. Coupled with this uncertainty, there have been announcements about price increases that will affect not only residential customers, but also business and the economy. The full impact of the issue is starting to become clear to South Africans from all walks of life and the resultant anger and shock are completely understandable.

Eskom and government have communicated the national recovery plan, starting with the stabilisation phase, the power-rationing phase and the power-conservation phase. Coupled with these messages, Eskom has outlined the severity of the supply problem and the long timelines involved in bringing new power stations online. With this in mind, the role of the consumer becomes critical in managing the issue of demand.

Long term, a sustained behaviour change to a more energyefficient culture in South Africa is the ultimate objective of Eskom's communication. A partnership between government, Eskom, business and the South African public is the only way to address this complex issue.

Co-ordination efforts with government in terms of communication are ongoing to ensure synergy of messages in order to address confusion in the public domain. The communication is multi-pronged, with campaigns to educate the public about energy efficiency driven by government and, more recently, the private sector.

An integrated campaign will be launched to provide muchneeded educational content and provide a platform for South Africans to enter into a dialogue with Eskom. We have also bolstered our resources and systems to deal with media queries and the management of issues in the public space. Although the electrical supply system remains tight, power rationing has brought predictability to consumers and businesses, and the increased reserve margin has allowed Eskom the "space" to carry out crucial maintenance. With high-profile communication campaigns being launched, much-needed information and feedback will be forthcoming. Over time, Eskom will seek to rebuild public confidence and, once again, earn the trust of the South African public.

## Stakeholder engagement

The following strategic engagements have been established since the onset of the crisis in January 2008:

- → ministers, Eskom, the energy-intensive users group, metros, large municipalities and Business Unity South Africa have a bi-monthly meeting. The Minister of Public Enterprises chairs the meeting and the Ministers of Minerals and Energy and Provincial and Local Government are members
- → the supply availability co-ordinating committee was established
- → the national electricity response team, chaired by the department of Minerals and Energy, has been established. It includes representation from various bodies such as labour, government, Eskom and business
- → the chief executive briefs the cabinet and parliamentary portfolio committees regularly
- → a presidential joint working group has been formed
- → internally, Eskom has established the recovery programme that is chaired by the chief officer (system operations and planning)

Our plan is to continue with the implementation of the stakeholder engagement model which includes the following activities, inter alia:

- → facilitate pro-active and regular feedback sessions with the stakeholders to discuss the challenges facing the organisation, including proposed mitigating solutions. This will help to fill the information vacuum and prevent speculation
- → influence opinions and perceptions of stakeholders in support of Eskom's strategic priorities



Eskom has established a recovery plan that is driven at executive level.

- → optimise liaison between stakeholders and Eskom in an integrated manner across all divisions
- → establish strategic partnerships with key stakeholders with a view to strengthening relations
- → gather business intelligence and sensitise the organisation on issues that could potentially put the organisation at risk

#### Customer satisfaction

Eskom's efficiency is important to South Africa's economic prosperity, transformation and sustainable development. By monitoring customer satisfaction, we can plan pro-actively to ensure that we deliver the required quality of service at the appropriate time and price. We use a range of statistical perception surveys, conducted by an independent research organisation, to measure customers' satisfaction with the service delivered.

#### Customer service index

The customer service index combines the results of two customer service perception surveys (Enhanced MaxiCare and CustomerCare) and four internal customer service measures. The index score on 31 March 2008 was 82,11% (2007: 87,09%) against a target of 84,37%.

The weights and scales applied within the index categories are reviewed annually and, where required, aligned to emphasise management priorities and decisions aimed at maintaining or improving customer satisfaction.

#### Customer service index

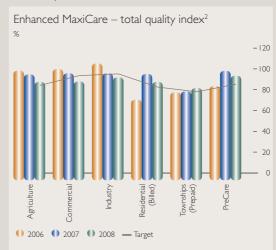
	Target 2008 %	Actual 2008 %	Actual 2007 %
External customer perception			
surveys:			
<ul> <li>Enhanced MaxiCare</li> </ul>	≥89,65	89,15	93,85
<ul><li>CustomerCare</li></ul>	≥79,50	82,53	83,47
Internal performance measures:			
- Restoration time	≥80,00	75,96	80,65
<ul> <li>Minor projects quotations</li> </ul>	≥89,00	82,00	88,00
<ul> <li>Minor projects connections</li> </ul>	≥89,00	83,00	91,00
<ul> <li>Contact centre service level</li> </ul>	≥80,00	75,00	82,00
Weighted customer service index	≥84,37	82,11	87,09



Energy-efficiency brochures.

#### Enhanced MaxiCare<sup>1</sup> – total quality index

The total quality index summarises the Enhanced MaxiCare results and gives a broad indication of the quality of service delivered (sampled from all customers). The importance and perceived performance of individual service aspects measured are taken into account.



- <sup>1</sup> Monthly survey where retail and newly electrified residential customers rate both importance and perceived performance on detailed service aspects where results are the total quality index percentage against importance.
- <sup>2</sup> Comparative years on the graph not adjusted for changes in weights and scales used in the current year.



#### CustomerCare<sup>1</sup>

The CustomerCare survey measures the satisfaction of customers who phoned the contact centre per week on a scale of one to 10, where 10 is excellent and one is very poor. The customer relationship management system tracks and escalates customer queries for resolution. Key improvements were also achieved as a result of management focus and the training and motivation of front-line staff.

Call volumes answered by contact centres during the 12-month window, increased to 3,66 million (2007: 3,21 million). Call volumes prior to load shedding were on average 16 500 calls per day. During load shedding this peaked to an average of 48 000 calls per day.

#### CustomerCare performance is summarised below:

	Target 2008 %	Actual 2008 %	Actual 2007 %
Contact centre service delivery	≥80,00	85,50	86,50
Follow-up service delivery	≥79,00	75,60	76,80
Overall service delivery	≥79,50	86,50	87,10
CustomerCare	≥79,50	82,53	83,47

#### Restoration time

Restoration time is the percentage of customer outages that were restored within 7,5 hours of being reported. This is measured from the time the power outage is logged on the system until power is restored.

Unplanned outage restoration times influence the customer's perception of Eskom's technical response. This indicator is a good measure of the commitment to customer service from the technical side of the business.

#### Minor project quotation and connection times

"Minor" describes the process followed by the project and does not reflect the amounts spent or the business impact. Under this process, Eskom connects about 35 000 billed and prepaid customers a year (excluding electrification projects and major customer projects).

The quotation indicator measures the percentage of quotations received by customers less than 30 days from the time the request was received. The connection indicator measures the percentage of connections made less than 90 days from the time the quote was accepted.

Minor project quotations and connections are key areas, as they are often the first impression the customer has of Eskom.

#### Contact centre service level

This is the percentage of calls answered (by an agent) within 30 seconds. The world benchmark for the first quartile<sup>2</sup> is in the range of 78% to 90% (previously: 80%).

#### Load shedding

Eskom anticipated achieving the current-year targets prior to the occurrence of load shedding events. Customer service index results were, therefore, impacted negatively by the capacity constraints, coupled with the following:

- → load shedding
- → pressure on customers to reduce demand
- → the implications of proposed higher tariffs
- → possible delays in processing applications
- → negative publicity portrayed via external media

<sup>&</sup>lt;sup>2</sup> The first quartile is a measure that represents the I 2-month moving average for customer sevice-level performance of comparable top-performing international utilities



<sup>1</sup> Monthly survey where customers who have phoned the Eskom contact centre are asked to rate the various aspects of their experience on a scale of 1 to 10.

Call volumes at the contact centres increased to 3,66 million — an average of 48 000 calls per day during load shedding.

These consequences, which cannot be ring-fenced separately from normal operations, have severely impacted customer perception measures in Enhanced MaxiCare. CustomerCare measures have not been affected since these measure customer perceptions related to specific service interventions, which may not be related to, or affected by, load shedding.

A customer service index turnaround strategy has been implemented to address the issues impacting the component measures of the customer service index. The expectations for the next financial year are also under review in order to accommodate the impact of the capacity constraints.

The following business initiatives and strategies will manage and assist customer service:

- → demand-side management initiatives
- → website development and upgrade
- → enhanced load shedding schedules and refined principles
- → review of load reduction allocations on fair and equitable basis nationally
- → interface with redistributors to combine load shedding schedules
- → contact centre capacity with additional resources
- → improved communication and media briefings
- → arrangements with specific larger customers to reduce load demand
- → considering customer and public recommendations via website
- → dedicated recovery team to provide dedicated support to the business
- → focus on communication and predictability of load shedding process

Refer to www.eskom.co.za/annreport08/043 for more information about the measuring of customer satisfaction.



Material used to educate customers about wise energy use.

#### EDI restructuring

In October 2006 Cabinet approved the proposal to create six regional electricity distributors (REDs).

These REDs are to be established as public entities, accountable to the Department of Minerals and Energy. Electricity Distribution Industry Holdings (Pty) Limited is implementing government's restructuring policy. The critical next steps include the finalisation of outstanding policy matters and the drafting of enabling legislation.

Eskom completed the ring-fencing of its operating units in the prior years, in preparation for the RED formation. Any further internal preparation is dependent on the resolution of national policy matters.

In order to minimise any risk to Eskom and the industry, we have identified, and made transparent, a number of key enablers; for example, compensation for transfer of assets and the impact on the Eskom credit rating. Through national and regional participative structures, Eskom is interacting with key stakeholders to assist with related matters where required.



#### Our people

World-class technology is essential, but it's not just a technical exercise – people, Eskom employees and contractors and their combined human capital assets, form the lifeblood of the organisation.

Reliable electricity supply in Eskom is dependent on many factors, but mainly on people with the necessary expertise to research and design global practices, provide leadership and enable strategies, processes, systems and practices in the various functional areas of the business.

Eskom is in an extremely challenging but exciting phase of its 85-year existence. We are in a growth phase where major capital expansion projects are being planned and implemented. At the same time, we have to maintain production and ensure its reliability and availability. This offers individuals an opportunity to embark on a rewarding career in Eskom.

A vast array of technologies – from renewable energies to nuclear, gas, hydro and coal-fired power stations – form part of the opportunities individuals will have to contribute to the business.

As such, the organisation is facing major challenges in terms of key-skills planning, attraction, development and retention – given that major build projects are happening simultaneously in South Africa and everyone is sourcing the same skills-sets.

Eskom will continue to develop its employee value proposition to ensure it remains an employer of choice.

The human resources function engages the organisation as functional experts and business partners to ensure the attainment of strategic objectives. An important role is to monitor and measure critical factors relating to people management. A human resources sustainability index (HRSI) was established some years ago, measuring relevant areas that are also contracted into leadership performance compacts.

The areas of measurement and measurement criteria are reviewed on an annual basis to ensure applicability. These can be summarised as employee satisfaction, employee competence, equity and employee health and wellness categories.

The HRSI score for the past year was 82,3% (2007: 83,4%) against a target of 80,0%. The performance figure is lower than the previous year mainly due to an increase in staff resignations, an increase in days to fill vacancies, aggravated by the current national skills shortage, and a more challenging disability target. However, the performance does indicate that our human resources interventions are largely relevant and generally meet the needs of our people and organisation.

Eskom is a constantly evolving organisation that provides the lifeblood of our economy. We need the right people for the right job, and the right time is now. Every effort is being made to ensure that we employ and retain the skills needed to ensure a reliable electricity supply for generations to come.

#### Skills

Eskom's manpower numbers show a net growth of 2 208 over the reporting period. A combination of internal development, internal promotions, learner pipelining, external recruitment and contracting constitute the skills resourcing strategy. National and international recruitment expos were held during the year. The initial international focus has been on South Africans living abroad.

Given Eskom's formidable new build programme, additional recruitment practitioners have been appointed and trained. Long-term skills requirements have been determined in terms of critical workforce segments as well as core, critical and scarce skills. The recruitment section on the Eskom website (www.eskom.co.za) has been improved considerably to make it easy for job seekers to find opportunities in our organisation.

An integral part of retaining current staff and recruiting new people is establishing Eskom as an employer of choice. Key activities in this regard were:

→ incentives: motivating people by looking at reward and recognition strategies. Where there is a shortage of core, critical or scarce skills, we will pay competitive salaries and fringe benefits and review the latest remuneration principles and practices



Eskom needs 1 431 core, critical and scarce skills for 2009 alone.

→ employee engagement: meaningful engagement through effective organisational communication and ensuring that people are given work that is challenging and motivating, while having a work/life balance

An annual performance bonus scheme is in place for all Eskom staff, excluding senior general managers and above. The scheme is governed by a predetermined set of rules and targets, which are approved annually by Exco. The actual performance of each employee is assessed at the end of the year and those employees who have achieved or exceeded their performance contracts are eligible to claim from the bonus pool relative to their performance, salary and grading.

The total bonus pool payable is determined by actual company performance relative to these targets. Performance measures include technical, people-related, customer, social and financial performance. Allocation of this bonus pool is based on division/ department and individual performance.

2 958 additional core, critical and scarce skills need to be recruited or developed cumulatively over the next five years to replace losses and cater for Eskom's new build programme.

# Cumulative projected additional core, critical and scarce skills requirements

2009	9 201	0 2011	2012	2013
Skills required (number) 1 43	7	2 2 054	2 465	2 958

Eskom is not unique: there is a general technical skills shortage in the global market. Given the global electricity expansion programmes, Eskom will continue to face a challenge in terms of skills. The likes of China and India are also competing for technical skills internationally.

We will continue international and national recruitment drives. However, resourcing options do not only include permanent employment. We are also seriously considering contracting in skills via agencies for specific projects. This also calls for more flexible remuneration packages.



We actively support the "take a girl child to work" initiative.

#### **Training interventions**

Training has always been a major focus area in Eskom – to such an extent that many outside organisations make use of our training facilities. We have 28 facilities with 244 training venues spread across South Africa, which can accommodate a maximum of 3 300 students. There are approximately 540 teaching staff with 153 instructors and in excess of 1 600 courses in Eskom's course catalogue.

These facilities, staff and programmes are used to support the development of new employees and of existing employees, in accordance with individual development plans, to ensure optimal performance in the work environment.

#### Eskom's total training investment per year

	Unit of measure	Actual 2008	Actual 2007
Total training costs	Rm	784,2	747,7

Furthermore, development plans have been established for critical and scarce skills to ensure appropriate succession management. Currently, for the purposes of knowledge transfer, we are also using the skills of highly experienced former and current employees. This includes involving the extremely valuable experience of Eskom pensioners in a formal mentorship programme.

Last year, Exco approved the implementation of an Eskom university. This resulted in the appointment of a university council consisting of managing directors and general managers. A chief learning officer was appointed as well as the university management team.



The university will co-ordinate and integrate all learning throughout Eskom, focusing on business needs, and will cater for all facets of the learning value chain, covering strategy and planning, learning design and development, learning delivery, learning administration, as well as learning operations, supported by a quality management process. Four faculties have already been created.

The key focus will be on engineers and artisans for the future. We have 5 368 learners in the pipeline - 85% of them studying in engineering and technical fields. Once they have completed their training they will be absorbed into the business as engineers or graduates-in-training.

The Eskom Learning Institution (ELI) drives artisan and technician training and development across Eskom. ELI's role has become increasingly important, as the skills challenge continues to mount. In response, ELI has embraced e-learning and formed learning partnerships with various organisations, independent individuals and learning providers.

ELI responds to immediate learning needs within functional areas and to strategic imperatives such as Eskom's commitment to Asgisa and, specifically, the need for accelerated skills development and transfer to drive Eskom's new build and maintenance programmes.

#### Focus on leadership

As part of continually improving our leadership echelons, a leadership direction and support unit was created. The unit focuses on

- → the accurate assessment of leadership performance
- → proper selection and placement of leaders in the organisation
- → assessment and development of leadership potential and capability
- → developing leadership talent in the organisation

During the 2007/08 year, I 592 managers and professionals were trained in the theory and application of Situational Leadership II. "Leading in Times of Crisis" e-learning material was developed and activated and a "Vision Dialogue Initiative" partly rolled out.

#### Diversity

Eskom continues to be a leader in driving employment equity, which has enabled us to achieve a staff complement that reflects South African diversity.

We will continue with the affirmative action drive, the promotion of women and the focus on employment equity for people living with disabilities, not because it is required of us by statute, but because we believe that it is the right thing to do. It is also a business imperative.

#### **Employment equity**

r - / 1 /			C	Group		Company	
Uni meas	t of sure	Target 2008	Actual 2008	Actual 2007	Actual 2008	Actual 2007	
Race:							
– Black <sup>1</sup> staff at managerial <sup>2</sup> level	%	61,1	65,9	62,5	66,4	63,0	
– Black staff at all levels	%	n/a	73,7	71,0	74,5	71,8	
Gender:							
– Women at managerial level	%	32,8	34,1	32,7	34,8	33,3	
– Women at all levels	%	n/a	27,5	26,0	28,2	26,5	
People with disabilities	%	2,9	3,1	2,7	3,3	2,8	
Internal promotions							
– Black staff at all levels	%	n/a	79, I	75,9	78,6	76,5	
– Women at all levels	%	n/a	36,0	35,9	37,7	36,8	

<sup>&</sup>lt;sup>1</sup> Black, Asian and coloured South Africans.

<sup>&</sup>lt;sup>2</sup> Managers, professionals and supervisors – CU to F band on the Paterson grading TASK grading 11 to 18 plus F Bands in Eskom.



We have 5 368 learners in the pipeline of whom 85% study technical fields.

#### Highlights

- → on 13 June 2007, in New York, Eskom was recognised by the Global Business Coalition (GBC), under the category "Counselling and Testing at the Workplace", for having one of the best models for the provision of voluntary counselling and testing (VCT) at the workplace and for having more than 50% of our employees knowing their HIV status
- → the HR Shared Services unit has been visited by other organisations in the past year to learn from Eskom's experiences with the implementation of the unit, highlighting Eskom as a successful case study
- → the occupational health and safety project commenced to establish occupational risk exposure profiles (OREPs) of employees within 12 high-risk job categories, such as live-line workers. We have started with performing risk assessments on all the 12 job categories. The next steps will be to confirm the man-job specifications, and to then review and conduct risk-based medical and psychological surveillance on all the employees within these job categories
- → no man-hours were lost due to industrial action at Eskom in the last year. Good communication is a feature of the industrial relations environment. There are direct lines of communication with managers and professionals and consultation in the bargaining unit through recognised trade unions. Cosatu called for a public service solidarity strike in support of the public services unions wage demands, but this had no impact on Eskom. Eskom concluded a two-year salary and conditions of service agreement with trade unions during 2007. The next round of negotiations begins in May 2009
- → the grading, assessment, and remuneration positioning project (GARP) was implemented with effect from I November 2007. GARP achieved the conversion of job evaluation in Eskom from the Paterson broadband system to the TASK (tuned assessment of skills and knowledge) system. This also involves a "close-to-market" approach in remuneration positioning

Refer to www.eskom.co.za/annreport08/044 for details of medical and health services.



Eskom's workforce remains highly committed during this challenging period.

#### Eskom staff turnover and age distribution

Company	Actual 2008	Actual 2007
Employees at start of year	30 746	29 697
Add: Recruitment	4 385	2 738
Less: Resignations	(1 370)	(1 050)
Deaths	(260)	(268)
Dismissals	(85)	(76)
Retirements	(447)	(309)
Other	(15)	14
Total employees at end of year	32 954	30 746
Employee turnover rate, %	6,9	5,9
Company	Actual 2008 %	Actual 2007 %
Age distribution of workforce –		
end of period		
	0,05	0,01
end of period	0,05 19,35	0,01 15,90
end of period 18 – 20 years	.,	- , -
end of period 18 – 20 years 20 – 29	19,35	15,90
end of period 18 – 20 years 20 – 29 30 – 39	19,35 25,60	15,90 24,20



#### Safety performance

We are committed to providing and maintaining a safe and healthy working environment for all our employees and contractors.

On this basis, the elimination of all safety-related incidents in Eskom operations remains a focal point of our safety improvement drive. Despite significant efforts, our occupational health and safety performance remains poor. Accidents still occur, affecting not only our employees and contractors, but also members of the public and their families. We deeply regret the tragic loss of life.

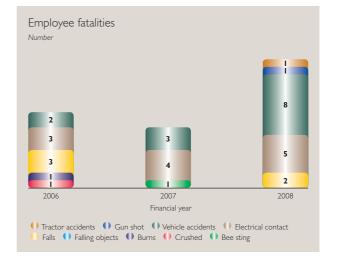
#### Safety performance

We did not meet our target of zero fatalities.

- → we lost 17 employees this financial year this was a major blow to the organisation. There were eight employee fatalities in 2007. Of the 17 fatalities, eight were attributed to motor vehicle accidents, five to electrical contacts, two to falls from heights, and one each to a gunshot and a tractor accident. Of the eight fatalities due to vehicle accidents, seven were caused by third parties
- → the build programme and normal maintenance challenges are putting a lot of pressure on staff and contractors. We also lost 12 contractors this financial year compared to 18 in 2007. Four of the fatalities were attributed to vehicle accidents, four to falls, two from falling objects, one to an electrical contact incident and one crushed by a foreign object
- → sadly, 42 members of the public died in 2008 (2007:41) with vehicle accidents and electrical contacts remaining the major causes. A massive public safety campaign is addressing this

This performance is totally unacceptable, and continued focus is required in terms of enhancing safety training and awareness, skills and competency, supervision and operational discipline.

Safety performance			
	Unit of	Actual	Actual
	measure	2008	2007
Employee safety			
Total fatalities	number	17	8
Electrical contact fatalities	number	5	4
Vehicle accident fatalities	number	8	3
Other fatalities	number	4	I
Lost-time incident rate, including occupational diseases	index	0,34	0,35
Electrical contact injuries	number	25	30
Contractor safety			
Total contractor fatalities	number	12	18
Electrical contact fatalities	number	1	I
Other fatalities	number	- 11	17
Public safety			
Total public fatalities	number	42	41
Electrical contact fatalities	number	32	27
Fatalities from other causes	number	10	14





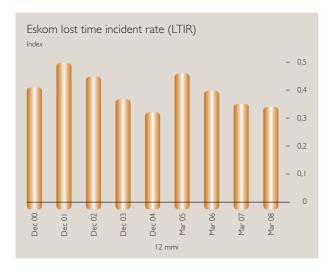
Eskom's safety performance was unacceptable and is being addressed as a key business focus area.

#### Eskom lost time incident rate (LTIR)

The progressive LTIR is a proportional representation of the occurrence of lost-time injuries over 12 months. During the external assurance over data integrity, issues regarding inconsistencies in the application of the corporate incident reporting and recording procedures, and inadequate processes and documentation for classification of lost-time injuries and identification of occupational diseases, were identified at a selection of sites.

In order to address this, we are ensuring that we follow reporting procedures and have adequate documentation in place. In addition, for clarification purposes and to address these findings, we have initiated a process of including the recent audit findings into the revised Eskom Corporate Procedure (document titled: "Safety Incident Management for the Effective Management of occupational diseases and injuries").

The provisional LTIR for the year is 0,34. A verification of the LTIR will be conducted by an external service provider to obtain a baseline as accurately as possible for 2007/08. The reported figure may be restated in the 2008/09 annual report pending the results of this external baseline assessment.





Safety is crucial in the period of our massive build programme.

# Incident investigation

The aim of incident investigations within Eskom is:

- → to establish the basic cause of the incident
- → to prevent recurrence by implementing corrective actions emanating from the investigation
- → to share lessons learnt from the incident

Given the high number of fatalities in Eskom this financial year, it is prudent to outline the process followed from the moment a fatality is reported. Once a fatality has been reported, the following process kicks in:

- → a fatality announcement is sent to all Eskom employees, contractors, Exco and the board within 48 hours
- → senior leaders within the affected division visit the scene of the accident and the family of the deceased
- → the business unit conducts the employer's investigation as per the objectives outlined above
- → the corporate occupational health and safety investigation follows to further enhance the business unit's investigation
- → once the investigations have been finalised, the lessons learnt are shared through case studies and intelligence briefings published on the intranet, and safety incident reports circulated within Eskom immediately after the fatality announcement



#### "Switched on to safety excellence"

The "Switched on to safety excellence" (SSE) programme was launched in June 2007. The programme addresses the key findings of a safety management review by an internationally recognised safety consultancy. The objectives of this three-year programme are to:

- → achieve a sustainable culture of excellence based on enhanced safety management by reinforcing teamwork and by increasing operational discipline and applying the skills learnt
- → customise and adapt the existing safety management systems and protocols focusing on best practice
- → equip leadership with the knowledge and tools to drive Eskom's safety culture transformation

In an effort to speed up change throughout the organisation, we implemented a behaviour-based safety observation tool. Senior leadership training, aimed at strategic and operational aspects of effectively managing safety, was completed. The outcome of the training is evident in increased leadership visibility and commitment, comprehensive safety improvement planning and the inclusion of safety key priorities in day-to-day line management responsibilities. In addition, a culture of zero tolerance for noncompliance is steadily developing.

The increased leadership commitment was demonstrated via national and regional work stoppages to reinforce the importance of safety – in particular, high risk activities. Leadership visibility and commitment will remain a key priority. This is essential during times of extreme work pressures, as is currently the case. No operating condition or urgency of service can justify endangering the life of anyone.

#### Contractor and construction management

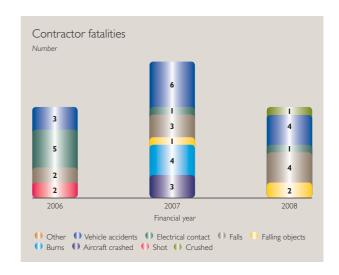
Eskom has established divisional contractor forums, partnering with contractors to address safety, health and environmental concerns. This has improved contractor health and safety and there appears to be a shift towards health and safety compliance. Strict controls are, nevertheless, required.

We are conducting research to determine the true causation of construction accidents to assist in pro-actively identifying mechanisms to curtail the number of contractor-related incidents.

#### Electrical and plant safety

The number of electrical contact fatalities increased from four to five, and electrical contact injuries decreased to 25 in comparison to the 30 reported in 2006/07. Electrical contact injuries involving contractor employees remain unchanged at one. Electrical related fatal incidents involving members of the public have sadly increased to 32 in comparison to the 27 reported last year.

In response to this poor performance, Eskom engaged the services of an international electrical specialist to evaluate electrical safety, as well as behavioural safety programmes. Changes were made to the Eskom electrical training material and standards to incorporate some of the recommendations made. Continued monitoring of the new training needs and compliance with the revised standards will be the focus for the next financial year.





Public safety remains a major focus area with widespread awareness campaigns.

#### Occupational hygiene

Approved inspection authority (AIA) verifications to evaluate occupational hygiene programmes were conducted at 11 power stations. An occupational hygiene laboratory was established at Eskom's research and innovation department (ERID) as part of the Eskom-approved inspection authority function. Plans to have comprehensive baseline and continual health risk assessments completed for the business remain a challenge, and will be the focus for the next financial year.

Refer to www.eskom.co.za/annreport08/045 for information about noise-induced hearing loss.

#### Vehicle safety

Vehicle safety remains an important focus area within Eskom due to the high number of fatalities. Two awareness campaigns and a work stoppage were initiated to reinforce adherence to road safety and change general driver behaviour. With this being one of our key risk areas, the focus for the coming year will be on enhancing general driver behaviour through our "fit for purpose" training interventions to equip our drivers with advanced and defensive driving skills. With the long distances travelled by Eskom employees, technologies available to assess driver fatigue are also being researched for implementation.

#### Public safety

Public safety remains a major focus area. Safety campaigns to increase public awareness were rolled out in various media (television, radio, advertisements and billboards) and included school visits and the handout of safety-related gifts. Promotional materials that carry an Eskom safety message were sent to our operations for distribution to members of the public.

In response to load shedding, Eskom has embarked on an awareness campaign aimed at the safe usage of alternative energy sources such as generators, natural gas and paraffin.

Refer to www.eskom.co.za/annreport08/046 for information about educational material created on the use of gas appliances and generators.



Promotional material on power alert and energy efficiency.

#### Nuclear safety performance

Eskom's nuclear safety performance as measured by an international safety index (INPO safety index) has shown improvement since mid-2006 and is currently below the median level.

The safety system performance has been maintained in the top quartile when measured against the latest information on pressurised water reactors of similar design.

Koeberg's performance is calculated monthly using the World Association of Nuclear Operators (WANO) performance indicator procedures. The results are benchmarked against the latest quarterly results from this body.

Eskom's Nuclear Safety Inspectorate group performs monthly and six-monthly nuclear safety reviews of the nuclear programme. These, coupled with the regular reviews performed by WANO, are part of our ongoing commitment to nuclear safety.



# Independent assurance report to Eskom Holdings Limited

Eskom Holdings Limited (Eskom) engaged KPMG Services (Pty) Limited to provide independent assurance over selected key sustainability performance information presented in the "business and sustainability performance review" section of the 2007/08 annual report (the report).

This report is made solely to Eskom in accordance with the terms of our engagement letter. Our work has been undertaken so that we might state to Eskom those matters we have been engaged to state in this report and for no other purpose. We do not accept or assume responsibility to anyone other than Eskom, for our work, for this report, or for the conclusions we have reached.

The objective of our independent assurance engagement and the applicable levels of assurance expressed regarding the selected 2007/08 business and sustainability performance information are detailed in the unqualified and qualified conclusion paragraphs on page 96.

The internally developed Eskom reporting standards, which are available on request from Eskom, and the Global Reporting Initiative G3 guidelines, were used as criteria for the assurance over the selected business and sustainability performance information.

Our engagement relates only to the selected 2007/08 business and sustainability performance information in the report and does not extend to any prior year performance information and disclosures or assertions relating to future performance plans/ strategies in the report or on the Eskom website. Further any reference to other external audits of business and sustainability-related policies, standards and procedures contained in the report has no bearing on KPMG's independent assurance engagement.

#### Responsibilities of directors

The directors of Eskom are responsible for the preparation and presentation of the report and the information and assertions contained within it, for determining the group's objectives in respect of the business and sustainability performance, including the identification of stakeholders and material issues, and for establishing and maintaining appropriate performance management and internal control systems from which the reported business and sustainability performance information is derived.

# Responsibility of the independent assurance provider

Our responsibility is to express our conclusions to Eskom based on our work performed. We conducted our work in accordance with the International Standard on Assurance Engagements 3000: Assurance Engagements other than Audits or Reviews of Historical Information. This standard requires, inter alia, that the assurance provider complies with the appropriate requirements of the International Federation of Accountants (IFAC) Code of Ethics for Professional Accountants such that their independence is not compromised and the assurance team members collectively possesses the necessary professional competencies.



We will continue international and local recruitment drives.

#### Summary of work performed

Our procedures were designed to gather sufficient appropriate evidence to provide reasonable and/or limited assurance on the selected 2007/08 business and sustainability performance information included in the scope of our engagement. Our procedures depend on our judgement, including our assessment of the risk of material misstatements of the information included in the scope of our engagement and our assessment of the internal controls relevant to the company's preparation and presentation of the selected 2007/08 business and sustainability performance information in the report.

Our work performed included:

- → interviews with management and senior executives at corporate and management at site level to assess the application of the GRI G3 principles and to obtain an understanding of the general control environment
- → testing of process and systems and review of documentation in place at corporate, head office and at site to generate, collate, aggregate, monitor and report the business and sustainability performance indicators for the year
- → visits to four sites including Koeberg (nuclear power station), Arnot (coal-fired power station), Duvha (coal-fired power station) and the Southern distribution region
- → desk top reviews including analytical reviews of other material sites

We believe that the evidence obtained from our work performed provides an appropriate basis for our conclusions. Where limited assurance is expressed, less assurance is obtained from our procedures than in a reasonable assurance engagement.



The Eskom Energy and Sustainability Programme, a partnership with Wessa, drives exciting schools projects.



## Independent assurance report to Eskom Holdings Limited continued

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#### Unqualified conclusions

Based on our work performed, in our opinion:

- We obtained reasonable assurance that the total number of employee and total number of contractor fatalities, is fairly stated in all material respects in accordance with the internally developed Eskom reporting standards (refer page 90);
- Nothing has come to our attention that causes us to believe that the reported performance information is not fairly stated in all material respects, in accordance with the internally developed Eskom reporting standards: (limited assurance) for the following performance indicators;

		Page
$\rightarrow$	total black economic empowerment expenditure company and group	40
$\rightarrow$	demand-side management savings	50
$\rightarrow$	unit capability factor, unplanned grid separations	53
$\rightarrow$	number of system minutes lost, number of major incidents	55
$\rightarrow$	system average interruption frequency index, system average interruption duration index	57
$\rightarrow$	coal purchased	59
$\rightarrow$	net specific water consumption	60
$\rightarrow$	capital expenditure on new build	64
$\rightarrow$	relative particulate emissions, emissions of carbon dioxide and sulphur dioxide	75
$\rightarrow$	volume of low level radioactive waste, volume of intermediate level radioactive waste	80
$\rightarrow$	employment equity including: race; gender;	

- 3. Nothing has come to our attention that causes us to believe that the qualitative disclosures relating to the continuity of supply (pages 46 to 57) and climate change (pages 70 to 74) are not fairly stated in all material respects (limited assurance).
- 4. Nothing has come to our attention that causes us to believe that management's assertions relating to the application of the Global Reporting Initiative G3 principles for sustainability reporting are not fairly stated in all material respects (page x (ten of the small pages) (limited assurance).

#### Qualified conclusions/disclaimer of opinion

Lost time incident rate (LTIR) including occupational diseases (page 90) and total number of environmental legal contraventions (page 77).

With respect to the lost time injury rate (LTIR) and the total number of environmental legal contraventions, our review identified process and control weaknesses that prevent complete, consistent and accurate reporting of the performance data in accordance with the internally developed Eskom reporting guidance, as discussed in the report on pages 91 and 79 respectively. As a result, based on our work performed, we are unable to form a conclusion on the LTIR and total number of environmental legal contraventions data reported.



disabilities

Eskom has demonstrated that sustainable development is key to its business.

#### Commentary

Without affecting our conclusions presented above, we draw attention to the following:

- I. Eskom has successfully applied the Global Reporting Initiative G3 principles (materiality, stakeholder inclusiveness, sustainability context, completeness, balance, comparability, accuracy and timeliness) to identify, manage and report its key sustainability risks and opportunities. Although in the current year the report does not indicate a G3 application level, Eskom has developed a road map to ensure alignment with best practice in sustainability reporting. In the coming year a more comprehensive stakeholder engagement process should be put in place to ensure all significant risks and opportunities are captured.
- 2. The findings from our review have been communicated to management and the audit committee. Eskom has demonstrated that sustainable development is key to its business and has already commenced on resolving issues. Reporting definitions and standards should be reviewed and clarified where necessary to allow for consistent reporting throughout the organisation.

KPMG Services (Pty) Limited

Per PD Naidoo Director

Johannesburg

25 June 2008

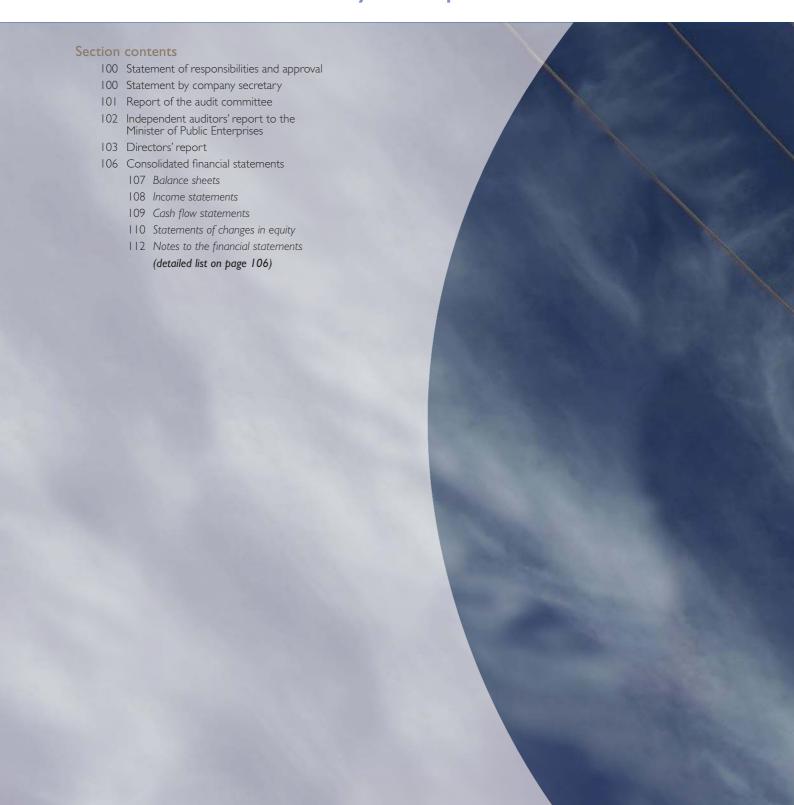


High-voltage power lines are strung in the Free State.



## Consolidated group annual financial statements

# Financial sustainability is imperative



Capital expenditure increased from R17 707 million in 2007 to R24 764 million in 2008.



### Statement of responsibilities and approval

The Public Finance Management Act requires the directors to ensure that Eskom Holdings Limited (Eskom) and the group keep full and proper records of their financial affairs. The financial statements should fairly present the state of affairs of Eskom and the group, its financial results, its performance against predetermined objectives and its financial position at the end of the year in terms of International Financial Reporting Standards.

The financial statements are the responsibility of the directors. The external auditors are responsible for independently auditing and reporting on the financial statements.

The financial statements of Eskom and the group have been prepared in terms of International Financial Reporting Standards and the Companies Act. These financial statements are based on appropriate accounting policies, supported by reasonable and prudent judgements and estimates and are prepared on the going-concern basis.

The directors have reviewed the group's cash flow forecast for the year ending 31 March 2009 and the five year forecast to 31 March 2013. In assessing this forecast cognisance was taken of the risks and challenges facing the group. In light of this review and the current financial position, the board is satisfied that the group has access to adequate resources to continue in operational existence for the foreseeable future based, *inter alia*, on the Nersa tariff increase and indicative shareholder support for additional funding.

To enable the directors to meet the above mentioned responsibilities, the Eskom board of directors sets standards and implements systems of internal control. The controls are designed to provide cost-effective assurance that assets are safeguarded, and that liabilities and working capital are efficiently managed. Policies, procedures, structures and approval frameworks provide

direction, accountability and division of responsibilities, and contain self-monitoring mechanisms. The controls throughout Eskom focus on those critical risk areas identified by operational risk management and confirmed by executive management. Both management and the corporate audit department closely monitor the controls, and actions are taken to correct deficiencies as they are identified.

Based on the information and explanations given by management and the corporate audit department and discussions held with the independent external auditors on the results of their audits, the directors are of the opinion that the internal accounting controls are adequate to ensure that the financial records may be relied upon for preparing the financial statements, and that accountability for assets and liabilities is maintained.

Nothing significant has come to the attention of the directors to indicate that any material breakdown has occurred in the functioning of these controls, procedures and systems during the year under review.

In the opinion of the directors, based on the information available to date, the financial statements fairly present the financial position of Eskom and the group at 31 March 2008 and the results of its operations and cash flow information for the year.

The financial statements of Eskom and the group for the year ended 31 March 2008 have been approved by the board of directors and signed on its behalf on 25 June 2008 by

Valli Moosa

Chairman

Jacob Maroga Chief executive

### Statement by company secretary

In terms of section 268G(d) of the Companies Act, 61 of 1973, I certify that the company has lodged with the Registrar of Companies all such returns as are required of a public company in terms of the Act, and that all such returns are true, correct and up to date.

M Adam

Company Secretary

25 June 2008



### Report of the audit committee

Report of the audit committee in terms of regulation 27.1 of the Public Finance Management Act, (1 of 1999), as amended

The audit committee reports that it has adopted appropriate formal terms of reference as its audit committee charter, and has regulated its affairs in compliance with this charter, and has discharged all of its responsibilities contained therein.

In the conduct of its duties, the audit committee has, *inter alia*, reviewed the following:

- → the effectiveness of the internal control systems
- → the risk areas of the entity's operations covered in the scope of internal and external audits
- → the adequacy, reliability and accuracy of financial information provided by management and other users of such information
- → accounting and auditing concerns identified as a result of internal and external audits
- → the entity's compliance with legal and regulatory provisions
- → the effectiveness of the corporate audit department
- → the activities of the corporate audit department, including its annual work programme, co-ordination with the external auditors, the reports of significant investigations and the responses of management to specific recommendations
- → the independence of and objectivity of the external auditors

The audit committee is of the opinion, based on the information and explanations given by management and the corporate audit department and discussions with the independent external auditors on the result of their audits, that the internal accounting controls are adequate to ensure that the financial records may be relied upon for preparing the financial statements, and accountability for assets and liabilities is maintained. Having considered the matters set out in section 270A(5) of the Companies Act as amended by the Company Law Amendment Act, the audit committee is satisfied with the independence and objectivity of the external auditors.

The audit committee notes the possible impact on the internal control environment of the following:

- → tight operating during a period of reduced reserve margin
- → immense pressure to execute the new build programme
- → management of electricity challenges
- → adverse stakeholder perceptions

This has increased the challenges and risks for the internal control environment. This is an area that is receiving attention and monitoring on an ongoing basis.

Nothing significant, other than reported in the directors' report, has come to the attention of the audit committee to indicate that any material breakdown in the functioning of these controls, procedures and systems has occurred during the year under review.

The audit committee has evaluated the financial statements of Eskom Holdings Limited and the group for the year ended 31 March 2008 and, based on the information provided to the audit committee, considers that they comply, in all material respects, with the requirements of the Companies Act, (61 of 1973), as amended, and the Public Finance Management Act, (1 of 1999), as amended, and International Financial Reporting Standards. The audit committee concurs with the board of directors and management that the adoption of the going-concern premise in the preparation of the financial statements is appropriate. The audit committee has therefore, at their meeting held on 25 June 2008, recommended the adoption of the financial statements by the board of directors.

JRD Modise

Chairman

25 June 2008



## Independent auditors' report to the Minister of Public Enterprises

#### Report on the financial statements

We have audited the accompanying annual financial statements and group annual financial statements of Eskom Holdings Limited (Eskom), which comprise pages 103 to 105 of the directors' report, the balance sheet and consolidated balance sheet as at 31 March 2008, the income statement and the consolidated income statement, statement of changes in equity and the consolidated statement of changes in equity, the cash flow statement and the consolidated cash flow statement for the year then ended, and a summary of significant accounting policies and other explanatory notes as set out on pages 106 to 203.

# Directors' responsibility for the financial statements

The company's directors are responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards, and in the manner required by the Public Finance Management Act, (I of 1999), and the Companies Act of South Africa. This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

#### Auditors' responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### **Opinion**

In our opinion, the financial statements present fairly, in all material respects, the financial position of the company and of the group as of 31 March 2008 and their financial performance and their cash flows for the year then ended in accordance with International Financial Reporting Standards, and in the manner required by the Public Finance Management Act, (1 of 1999), and the Companies Act of South Africa.

#### KPMG Inc

Adate

Director: Ahmed Jaffer Registered Auditor 25 June 2008

SizweNtsaluba VSP

Director: Suleman Lockhat

Registered Auditor 25 June 2008



## Directors' report

The directors are pleased to present their report for the year ending 31 March 2008.

#### Principal activities, state of affairs and business review

#### Principal activities

The principal activities of the Eskom group are described in the profile section.

#### State of affairs and business review

The operating profit for the year for the Eskom group, before the impact of embedded derivatives and net finance costs, was R3 215 million (2007: R6 452 million) and for the company R3 132 million (2007: R5 815 million) after taking into account

- → a dividend of R800 million (2007: R202 million) from a subsidiary is included in the net profit for the company (but eliminated for the group)
- → the change in the projected asset lives of coal-fired generation plant from 35 to 50 years impacted the profit by a favourable amount of R484 million
- → the increased amount spent on primary energy. The costs of coal and diesel increased from R13 040 million in 2007 to R18 314 million in 2008

The profit for the year for the Eskom group was R974 million (2007: R6 476 million) after taking into account the fair value loss on embedded derivatives of R143 million (2007: fair value gain of R4 305 million).

The profit for the year for the company was RI 333 million (2007: R6 030 million) after taking into account the fair value loss on embedded derivatives of R149 million (2007: fair value gain of R4 131 million).

The forward electricity price curve used to value the embedded derivatives was 27,5% for the 2008/9 year, 25% for the next three years, 18% for the 2012/13 year and CPI+2% thereafter. A sensitivity analysis for the embedded derivatives appears in note 3 to the annual financial statements.

Property, plant and equipment is disclosed in note 6 of the annual financial statements. An amount of R24 764 million (2007: R17 536 million) (includes interest capitalised) was spent on property, plant and equipment during the year. The funding of the capital expansion programme is discussed on page 39.

The electricity regulator granted a 14,2% increase for the 2008/9 year. During March 2008 we submitted to Nersa an application for a revision of the price increase for 2008/9 from 14,2% to a nominal 60% (53% real) in order for Eskom to recover the full primary energy costs and other operating costs. Nersa allowed an increase of 27,5% against the 60% requested by Eskom.

For more detailed information on the performance for the year, refer to the annual financial statements and to the business and sustainability performance review on pages 26 and 97.

In order to manage the current electricity capacity shortage situation more effectively, the board decided to rationalise the structure of Exco, details of which are to be found on page 22 and page 211 in the corporate governance report.

#### Share capital and shareholder

The government of the Republic of South Africa is the sole shareholder of Eskom Holdings Limited. The shareholder's representative is the Minister of Public Enterprises.

#### Dividends

No dividend was declared during the year under review after taking into account the resource impact of the future build programme, the current capital structure, and the dividend policy.

#### Financial instruments

The disclosure of financial instruments has been expanded significantly compared to previous years and is detailed in note 3 and notes 12 to 14 of the annual financial statements.

#### Going concern

The board has given particular attention to the assessment of the going concern of the group and is of the view that the group has access to adequate resources to continue in operational existence for the foreseeable future. For further information refer to page 100 in the statement of responsibility of directors.

#### **Directors**

Mr TS Gcabashe was a member of the board and chief executive, until 30 April 2007 and Mr PJ Maroga was appointed in his place from 1 May 2007. The board of directors and their details are discussed on page 14 and on page 208 in the corporate governance report.

#### Remuneration of directors and members of Exco

The remuneration of the directors and the executives who were members of Exco during the financial year, is disclosed in note 43 of the annual financial statements, on page 198.

#### Company secretary

The details of the company secretary and his declaration in terms of section 268G(d) of the Companies Act are disclosed in his statement on page 100.

#### **Auditors**

The statutory auditors for the forthcoming financial year will be appointed at the annual general meeting scheduled for 17 July 2008.



### Directors' report continued

Eskom's policy is, where possible, not to use the external auditors for non-audit services. In cases where the external auditors are to be used for non-audit services, the prior approval of the audit committee must be obtained.

#### Events subsequent to balance sheet date

Nersa announced on 18 June 2008 an additional increase in the electricity tariff of 13,3% for the year ending March 2009 which resulted in an 27,5% average increase year-on-year. Nersa also ruled that the price increase to "poor" residential customers be limited to 14.2%.

The fair value of embedded derivatives was calculated at 31 March 2008 based on the Nersa announcement of 18 June 2008 as well as the principle established in the previous determination of 20 December 2007 relating to the electricity prices reaching full economic levels. The forward electricity price curve used to value the embedded derivatives was 27,5% for the 2008/09 year, 25% for the next three years, 18% for the 2012/13 year and CPI+2% thereafter. A sensitivity analysis for the embedded derivatives appears in note 3 to the annual financial statements.

#### Subsidiaries, associates and joint venture companies

The investment of Eskom in subsidiaries and equity accounted investees is disclosed in note 8 and 9 in the annual financial statements.

#### Interests of directors and officers

Details of directors' and officers' interests in quasi shares and options are disclosed in note 43 in the annual financial statements. Refer to page 212 for Eskom's ethics policies and their application regarding interests in contracts.

#### Research and development activities

Research and development activities are discussed in the research blocks within each section of the business and sustainability performance review on page 26 to page 97.

#### Employee information

The Eskom group has increased its complement of employees from 32 674 to 35 404 during the year in an endeavour to address the skills shortage. The management of human resources is discussed in the business and sustainability performance review on page 86.

#### Safety

Safety remains a major area of concern for Eskom, as regrettably we have to report the deaths of 17 employees and 12 contract workers in the past year. Much work and effort has been put into safety awareness.

#### Environmental issues

Eskom's response to climate change and limiting the impact on the environment is discussed on page 70 in the business and sustainability performance review.

#### Political, religious and charitable donations

Eskom is committed to good corporate citizenship through its corporate social investment (CSI) initiatives. Eskom does not make donations and grants to political party activities, trade union activities or religious organisations unless it is a non-profit organisation and has an outreach programme that directly benefits the community, for example, Aids hospice. Refer also to page 45 in the business and sustainability performance review.

# Information required by the Public Finance Management Act

#### Performance in terms of the shareholder compact

The performance of Eskom against the shareholder compact key performance indicators is shown in the table on page 30 in the business and sustainability performance review.

The capital and financial efficiency targets in the compact were not met due to the significant increase in the cost of primary energy. This was mainly due to the increase in coal costs and the increased use of the open cycle gas turbines. Although the amount spent on capital was exceeded, two targets of the capital expansion section were not achieved. The operating efficiency and effectiveness targets were in many cases not met for the following reasons:

- → Generation experienced a reduction in energy availability, reflecting a decline in plant performance due to an increase in unit trips and increases of both planned and unplanned maintenance
- → equipment failure contributed to the many incidents on the transmission network
- → the distribution performance has not improved since the previous year and the business plan target was not achieved due to a higher number of planned interruptions for maintenance and refurbishment and an increase in unplanned interruptions, caused by an increase in conductor theft, energy theft and bad weather. Load shedding also had a negative impact on operational performance.

#### Losses through irregular or fruitless and wasteful expenditure

In terms of the materiality framework agreed with the shareholder, any losses due to criminal conduct or irregular or fruitless and wasteful expenditure, that individually (or collectively where items are closely-related) exceed R10 million, must be reported.



No material irregular or fruitless and wasteful expenditure has occured during the period.

#### Losses through criminal conduct - conductor theft

Losses due to conductor theft (including copper and cable) totalled R25 million (2007: R16 million), and involved I 832 incidents (2007: I 142 incidents).

Actions to combat conductor theft are managed by the Eskom conductor theft committee in collaboration with other affected state-owned enterprises and the police. The combined effort resulted in 520 arrests (2007: 372 arrests) and R5 million (2007: R2,7 million) was recovered during the year.

#### Losses through criminal conduct - fraud

No significant incidents of fraud occurred during the financial period. During the year an amount of R9,3 million was recovered relating to a fraud that was reported during the previous financial period.

#### Management of energy losses

Energy losses reflect the difference between the quantity of energy sent out from the power stations and the quantity metered as sold. Losses are categorised as technical or nontechnical in nature:

- → technical losses naturally occur when energy is transmitted through the network power lines depending on the type of power systems used and components being used
- → non-technical losses are the difference between total losses and technical losses. These are typically caused by
  - electricity theft, for example illegal connections and meterbypass
  - errors in technical losses calculation or estimation
  - data quality or errors that distort technical information

Actual losses compared to Nersa MYPD allowed losses are as follows:

Energy losses	2008 GWh	2007 GWh
Nersa MYPD allowance	21 428	21 401
Actual achieved	20 027	20 033

The distribution and transmission energy losses for 2008 totalled 12 195GWh (5,45% of the energy purchased) and 7 832GWh (3,1% of the energy purchased) respectively. In total the line losses decreased from 8,4% in 2007 to 8,0% in 2008.

We have also independently benchmarked the Eskom energy loss percentage against other international utilities.

Based on the 2007 information, Eskom compared favourably against the participating distribution utilities and the results were within the first quartile of the best performing distribution utilities. The Eskom result was within the international benchmarked parameters of 5,6% to 12,07%.

For internal evaluation purposes, we estimate distribution technical losses range between 50% and 60% of total losses. The actual percentage is influenced by factors such as load growth, network design, network ageing and illegal connections.

Eskom instituted the energy losses management programme to manage total losses from a holistic, integrated and best practice perspective. The implemented energy losses management programme has realised positive results. The level of energy losses has improved due to the increased interventions in the management of energy losses. These actual results achieved are better than the target energy losses allowed for by Nersa.

The programme incorporates the following key activities:

- → audit, measure and repair faulty customer meter installations
- → disconnect illegal connections and meter bypasses
- → ring-fence electrical networks to balance energy delivered
- → implement tested technologies to manage energy losses
- → improve data accuracy
- → stakeholder communication strategies
- → introduction of pricing penalties for customers at both transmission and distribution level who are in breach of contractual/grid code requirements

Refer to www.eskom.co.za/annreport08/048 for more detail of the investment in new technologies to reduce energy losses.



## Consolidated financial statements

for the year ended 31 March 2008

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Currency of financial statements
The financial statements are expressed in South African rand (R).

	March 2008	March 2007
The following are approximate values of R1,00 for selected currencies at:		
USD	0,12	0,14
GBP	0,06	0,07
EUR	0,08	0,10
CHF	0,12	0,17
JPY	12,25	16,14
The following are approximate values of 1 unit of the selected currencies to the rand:		
USD	8,13	7,29
GBP	16,16	14,35
EUR	12,85	9,75
CHF	8,17	6,01
JPY	0,08	0,06

Currency	Abbreviation
Euro	EUR
United States dollar	USD
Pound Sterling (United Kingdom)	GBP
Japanese yen	JPY
Swedish krona	SEK

Currency	Abbreviation
Swiss franc	CHF
Canadian dollar	CAD
Australian dollar	AUD
Norwegian krone	NOK



## Balance sheets

at 31 March 2008

		G	iroup	Co	ompany
			Restated		Restated
	Note	2008 Rm	2007 Rm	2008 Rm	2007 Rm
Assets					
Non-current assets	,	120 114	105 614	121 815	106 581
Property, plant and equipment Intangible assets	6 7	96 418 470	76 962 412	95 792 457	76 211 410
Investments in equity accounted investees	8	173	171	95	96
Investment in subsidiaries	9 10	2 505	2 5 5 7	2 341 2 585	2 358
Future fuel supplies Deferred tax assets	10	2 585	2 557	2 383	2 557
Investment in securities	12	5 882	15 674	6 136	15 115
Embedded derivatives  Derivatives held for rick management	12 12	10 447 3 538	6 882 2 412	10 447 3 538	6 882 2 412
Derivatives held for risk management Finance lease receivables	12	415	536	415	536
Trade and other receivables	12	180	4	9	4
Current assets		47 647	33 873	45 857	31 809
Loans to subsidiaries Deferred tax assets	9.1 11	_ 2	_	530	746
Inventories	17	3 929	3 637	3 628	3 499
Finance lease receivables	12	10	17	10	15
Trade and other receivables Taxation	12	5 433 50	4 760	5 332 50	4 566
Payments made in advance	19	4 256	597	4 197	524
Investment in securities	12	9 137	9 918	8 379	9 892
Financial trading assets Cash and cash equivalents	12 12	2 539 10 893	3 386 9 542	2 017	2 897 7 656
Embedded derivatives	12	2 266	1 804	2 260	1 803
Derivatives held for risk management	12	9 132	211	9 132	211
Non-current assets held-for-sale	20	3 420	3 825	_	-
Total assets		171 181	143 312	167 672	138 390
Equity		44.500	50.100	40.220	55 501
Capital and reserves attributable to equity holder of the company Minority interest		64 532 206	58 192 165	62 330	55 581
Total equity		64 738	58 357	62 330	55 581
Liabilities					
Non-current liabilities		72 915	61 080	72 451	60 875
Debt securities issued	12 12	39 788 I 480	34 561 1 194	39 788 I 224	34 561 1 063
Borrowings Embedded derivatives	12	5 077	908	5 077	908
Derivatives held for risk management	12	947	1 375	947	I 375
Deferred tax liabilities Deferred income	11 21	8 479 4 913	7 149 3 863	8 322 4 913	7 081
Retirement benefit obligations	22	5 409	5 035	5 286	4 922
Provisions	23	5 607	6 029	5 540	6 026
Finance lease liabilities Trade and other payables	12 12	539 676	546 420	678 676	656 420
Current liabilities	12	31 694	22 300	32 891	21 934
Amounts owing to subsidiaries	9.2	-	_	I 300	820
Trade and other payables	12	10 223	8 253	9 843	7 2 1 8
Payments received in advance Finance lease liabilities	26 12	I 328	851	1 281 36	815 28
Taxation		55	515	_	437
Debt securities issued	12 12	2 491	583 3 992	2 491	583
Borrowings Financial trading liabilities	12	6 920 4 087	3 701	7 465 4 087	4 164
Embedded derivatives	12	7	6	7	5
Derivatives held for risk management Deferred tax liabilities	12 11	1 475 3 152	587 2 214	1 475 3 300	587 2 213
Deferred tax liabilities Deferred income	21	269	193	269	193
Retirement benefit obligations	22	161	144	161	144
Provisions	23	1 517	1 257	1 176	1 026
Non-current liabilities held-for-sale  Total liabilities	20	1 834	1 575	105 342	92.000
		171 181	84 955		82 809
Total equity and liabilities		171 181	143 312	167 672	138 390

Refer to note 42.



## Income statements

for the year ended 31 March 2008

		(	Group	C	ompany
		2008	Restated <sup>1</sup> 2007	2008	Restated <sup>1</sup> 2007
	Note	Rm	Rm	Rm	Rm
Continuing operations					
Revenue	27	44 448	40 068	43 584	39 399
Other income	28	231	359	I 744	1 315
Net fair value loss on financial instruments, excluding embedded derivatives	29	(684)	(862)	(729)	(862)
Primary energy <sup>2</sup>		(18 314)	(13 040)	(18 314)	(13 040)
Employee benefit expense	30	(11 353)	(9 451)	(10 576)	(8 997)
Depreciation and amortisation expense	31	(4 284)	(4 709)	(4 118)	(4 597)
Net impairment (loss)/reversal	32	(446)	196	(440)	(50)
Other operating expenses	33	(6 383)	(6 109)	(8 019)	(7 353)
Operating profit before net fair value (loss)/gain on embedded derivatives and net finance cost		3 215	6 452	3 132	5 815
Net fair value (loss)/gain on embedded derivatives		(143)	4 305	(149)	4   3
Operating profit before net finance cost		3 072	10 757	2 983	9 946
Net finance cost		(1 788)	(1 348)	(2 004)	(1 509)
– Finance income	34	2 933	2 884	2 811	2 814
– Finance cost	35	(4 721)	(4 232)	(4 815)	(4 323)
Share of profit of equity accounted investees	8	30	41	_	_
Profit before tax		1314	9 450	979	8 437
Income tax expense	36	205	(2 5 1 2)	354	(2 407)
Profit for the year from continuing operations		1 519	6 938	I 333	6 030
Discontinued operations					
Loss for the year from discontinued operations	20	(545)	(462)	_	_
Profit for the year		974	6 476	I 333	6 030
Attributable to:					
Equity holder of the company		932	6 481	I 333	6 030
Minority interest		42	(5)	-	_
		974	6 476	I 333	6 030

Refer to note 42.

<sup>2</sup> Primary energy relates to the acquisition of coal, uranium, water, gas and diesel that are used in the generation of electricity.



## Cash flow statements

for the year ended 31 March 2008

		G	Group	Со	mpany
			Restated <sup>1</sup>		Restated <sup>1</sup>
		2008	2007	2008	2007
	Note	Rm	Rm	Rm	Rm
Cash flows from operating activities					
Cash generated from operations	37	7 371	15 666	6 960	14 187
Net cash flows from financial trading assets		I 204	8 175	I 204	8 175
Net cash flows from financial trading liabilities		65	(8 285)	65	(8 285)
Net cash flows from derivative instruments		(347)	(79)	(347)	(79)
Income taxes paid		(638)	(1 523)	(417)	(1 377)
Net cash from operating activities		7 655	13 954	7 465	12 621
Cash flows from investing activities					
Proceeds from disposal of property, plant and equipment		235	188	145	151
Proceeds from disposal of investment in equity accounted					
investees		_	9	_	_
Expenditure on property, plant and equipment		(24 037)	(17 362)	(23 891)	(17 088)
Expenditure on intangible assets		(221)	(171)	(208)	(168)
Expenditure on future fuel supplies		(658)	(382)	(658)	(382)
(Investment in)/repayment from associates, joint ventures and					(
subsidiary companies		(11)	(6)	17	(200)
Cash inflow on acquisition of subsidiary			26		_
Non-current trade and other receivables		(176)	47	(5)	8
Decrease/(increase) in finance lease receivables		128	95	126	(8)
Loans granted to related parties — subsidiaries		_	_	216	I 565
Non-current assets and liabilities held-for-sale		131	211	_	_
Dividends received		31	17	800	202
Increase in long-term trade and other payables		256	420	256	420
Net cash used in investing activities		(24 322)	(16 908)	(23 202)	(15 500)
Cash flows from financing activities			12 (22	.=	12 (22
Debt raised		16 831	13 633	17 060	13 633
Debt securities issued		11 327	12 197	11 327	12 197
Borrowings		5 504	1 436	5 733	1 436
Debt repaid		(9 092)	(5 166)	(9 073)	(5 166)
Debt securities issued		(6 414)	(2 032)	(6 414)	(2 032)
Borrowings		(2 678)	(3 134)	(2 659)	(3 134)
Decrease/(increase) in investment in securities		10 326	(5 980)	10 215	(4 942)
Increase in amounts owing to subsidiaries			_	480	79
(Decrease)/increase in finance lease liabilities		(2)	(4)	30	52
Interest received		3 109	1 951	2 939	1 909
Interest paid		(3 154)	(2 167)	(3 248)	(2 095)
Net cash from financing activities		18 018	2 267	18 403	3 470
Net increase/(decrease) in cash and cash equivalents		1 351	(687)	2 666	591
Cash and cash equivalents at beginning of the year		9 542	10 229	7 656	7 065
Cash and cash equivalents at end of the year	12.1	10 893	9 542	10 322	7 656



Refer to note 42.

## Statements of changes in equity

for the year ended 31 March 2008

			Attrib	utable to (	equity hold	er of the c	ompany			
		Issued capital <sup>1</sup>	Cash flow hedge reserve <sup>2</sup>	Available- for-sale reserve <sup>3</sup>	Unrealised fair value reserve <sup>4</sup>	Insurance reserve <sup>5</sup>	Accumu- lated profit <sup>6</sup>	Total	Minority interest	Total equity
	Note	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm
Group										
Balance at 31 March 2006		_	(175)	112	_	66	50 196	50 199	172	50 371
<ul> <li>Prior year adjustment</li> </ul>		_	_	_	_	_	2 150	2 150	_	2 150
<ul> <li>Deferred tax thereon</li> </ul>			_	_	_	_	(624)	(624)	_	(624)
Restated balance at 31 March 2006		_	(175)	112	_	66	51 722	51 725	172	51 897
Available-for-sale financial assets										
<ul> <li>Net change in fair value</li> </ul>		_	10	(263)	_	_	_	(253)	(6)	(259)
<ul> <li>Net amount transferred to profit</li> </ul>										
or loss		_	_	61	_	_	_	61	_	61
<ul> <li>Deferred tax</li> </ul>		_	_	59	_	_	_	59	_	59
Cash flow hedges										
– Effective portion of changes			F.0.2					F00		500
in fair value		_	502	_	_	_	_	502	_	502
- Deferred tax thereon		_	(402)	_	_	_	_	(402)	_	(402)
- Net amount transferred to initial			10					10		10
carrying amount of hedged items	42	_	19	_	_	_	6 481	19 6 481	_ (E)	19 6 476
Restated profit for the year	42	_	_	_	_	_	6 401	6 401	(5)	64/6
Other movements on minority interest				_			_		4	4
Transfer from accumulated profit to									'	'
non-distributable reserve		_	_	_	(562)	_	562	_	_	_
Restated balance at 31 March 2007		_	(46)	(31)	(562)	66	58 765	58 192	165	58 357
Available-for-sale financial assets			(1-)	( )	()					
<ul> <li>Net change in fair value</li> </ul>		_	_	(153)	(1)	_	_	(154)	_	(154)
<ul><li>Deferred tax thereon</li></ul>		_	_	43	_	_	_	43	_	43
Cash flow hedges										
– Effective portion of changes in										
fair value		_	8 182	_	_	_	_	8 182	_	8 182
- Deferred tax thereon		_	(2 669)	_	_	_	_	(2 669)	_	(2 669)
- Net amount transferred to initial			, ,					, ,		, ,
carrying amount of hedged items		_	(8)	_	_	_	_	(8)	_	(8)
Profit for the year		_	_	_	_	_	932	932	42	974
Other movements on minority										
interest		_	_	-	_	_	_	_	(1)	(1)
Deferred tax change in tax rate		_	10	4	_	-	_	14	_	14
Transfer from accumulated profit to										
non-distributable reserve		_			78	20	(98)			_
Balance at 31 March 2008		-	5 469	(137)	(485)	86	59 599	64 532	206	64 738



No dividend has been proposed.

<sup>&</sup>lt;sup>6</sup> Accumulated profit is the amount of profit retained in the business after tax. This amount includes cumulative effects of embedded derivatives of R7 629 million (2007: R7 772 million) in the group and R7 623 million (2007: R7 772 million) in the company.



<sup>&</sup>lt;sup>1</sup> Nominal amount.

<sup>&</sup>lt;sup>2</sup> The cash flow hedge reserve comprises the effective portion of the cumulative net change in the fair value of cash flow hedging instruments (comprising forward exchange contracts and the cross-currency swap) related to hedged transactions that have not yet occurred. The cross-currency swap hedges foreign exchange rate risk of the future interest payments and the principal repayment on a euro-denominated loan.

<sup>&</sup>lt;sup>3</sup> The available-for-sale reserve comprises the cumulative net change in the fair value of available-for-sale financial assets until the investments are derecognised.

<sup>&</sup>lt;sup>4</sup> The cumulative net change in the fair value of derivatives that have not been designated as cash flow hedging instruments is recognised in the income statement. The unrealised portion of the net change in fair value is not distributable and has been reallocated from a distributable reserve (accumulated profit) to a non-distributable reserve.

<sup>&</sup>lt;sup>5</sup> The insurance reserve is a contingency reserve created in terms of the Short-term Insurance Act, 1998.

### Notes to the financial statements

for the year ended 31 March 2008

#### I. General information

Eskom Holdings Limited (Eskom), a public company and holding company of the group, is incorporated and domiciled in the Republic of South Africa. Eskom is a vertically integrated operation that generates, transmits and distributes electricity to industrial, mining, commercial, agricultural, redistributors and residential customers locally and to international customers in southern Africa. The nature of the businesses of the significant operating subsidiaries is set out in note 9.

#### 2. Summary of significant accounting policies

The principal accounting policies applied in the preparation of these separate and consolidated financial statements are set out below. These policies have been consistently applied to all years presented, unless otherwise stated.

#### 2.1 Basis of preparation

The consolidated financial statements of Eskom (the company) at and for the year ended 31 March 2008 comprise the company and its subsidiaries (together referred to as the group) and the group's interest in associates and jointly controlled entities. The separate and consolidated financial statements have been prepared in accordance with the Companies Act, 61 of 1973, and International Financial Reporting Standards (IFRS).

The separate and consolidated financial statements are prepared on the historical basis except for the following financial instruments which are measured at fair value:

- → derivative financial instruments
- → financial instruments at fair value through profit or loss
- → available-for-sale financial assets

The preparation of financial statements in conformity with IFRS requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expense. Actual results may differ from these estimates. The estimates are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimates are revised. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements, are disclosed in note 4.

#### Changes in accounting policies and comparability

The group has adopted certain new and amended International Financial Reporting Standards which were effective for the group for financial years beginning on or after I April 2007. There was no change in the accounting policies as a result of these new standards. The effects of adopting these standards are discussed in note 42.

## Standards, interpretations and amendments to published standards that are not yet effective

The following new standards, amendments and interpretations to existing standards have been published that are applicable in future accounting periods but have not been adopted early by the group:

## IAS I (amendment), Presentation of financial statements (effective I January 2009)

The amendment requires that all non-owner changes in equity (comprehensive income) be presented either in one statement of comprehensive income or in two statements (a separate income statement and a statement of comprehensive income). Components of comprehensive income may not be presented in the statement of changes in equity.

It also requires that a balance sheet is presented at the beginning of the earliest comparative period in a complete set of financial statements when the entity applies an accounting policy retrospectively or makes a retrospective restatement. The entity has to disclose income tax relating to each component of other comprehensive income, and disclose reclassification adjustments relating to components of other comprehensive income.

Other main changes to IAS I require disclosure of income tax relating to each component of other comprehensive income and reclassification adjustments relating to components of other comprehensive income.

The group still needs to determine which disclosure option for comprehensive income it will follow, but is not expecting the impact on the financial statements to be significant.

## IAS 23 (amendment), Borrowing costs (effective 1 January 2009)

The amendment to the standard requires an entity to capitalise borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset (one that takes a substantial period of time to get ready for use) as part of the cost of that asset. The option of immediately expensing those borrowing costs will be removed. This amendment will not have an impact on the group's financial statements as Eskom currently capitalises borrowing costs on qualifying assets.

## IAS 27 (amendment), Consolidated and separate financial statements (effective 1 July 2009)

In accordance with IAS 27 amendments, acquisitions of additional non-controlling equity interests in subsidiaries have to be accounted for as equity transactions. Disposals of equity interests while retaining control are also accounted for as equity transactions. When control of an investee is lost, the resulting gain or loss relating to the transaction will be recognised in profit or loss.



It has always been the group's accounting policy to treat all acquisitions of additional interests in subsidiaries, as well as disposals of interests in subsidiaries, as equity transactions. The group will, however, change its accounting policy relating to the loss of control when an equity interest is retained. In future, when control is lost, through sale or otherwise, the resulting gain or loss recognised in profit or loss will include any remeasurement to fair value of the retained equity interest.

The amendments to IAS 27 also require that losses (including negative other comprehensive income as detailed in the revised IAS 1) have to be allocated to the non-controlling interest even if doing so causes the non-controlling interest to be in a deficit position. The group will, in future, change its accounting policies on the allocation of losses to noncontrolling interests. In the past, losses were allocated only until the non-controlling interests had a zero balance.

#### IAS 32 (amendment), Financial instruments: Presentation and IAS I (amendment), Presentation of financial statements (effective I January 2009)

IAS 32 requires certain puttable instruments that meet the definition of a financial liability to be classified as equity if, and only if, they meet the required conditions. These amendments will not have any impact on the group's financial statements.

#### IFRS 2 (amendment), Share-based payment (effective I January 2009)

The amendments apply to equity-settled share-based payment transactions and clarify what are vesting and nonvesting conditions.

Vesting conditions are now limited to service conditions (as defined in the current IFRS 2) and performance conditions. Non-vesting conditions are conditions that do not determine whether the entity receives the services that entitle the counterparty to a share-based payment. Nonvesting conditions are taken into account in measuring the grant date fair value and thereafter there is no true-up for differences between expected and actual outcomes.

These changes will have no impact on the group's financial statements as the treatment of "non-vesting" conditions is consistent with the group's current accounting policies.

#### IFRS 3 (revised), Business combinations (effective I July 2009)

IFRS 3 applies to all new business combinations that occur after I April 2010. The statement requires that all transaction costs be expensed and the contingent purchase consideration be recognised at fair value on acquisition date. For successive share purchases, any gain or loss for the difference between the fair value and the carrying amount of the previously held equity interest in the acquiree will have to be recognised in profit and loss.

These amendments are not expected to have a significant impact on the group's financial statements.

#### IFRS 8, Operating segments (effective I January 2009)

IFRS 8 specifies how an entity should report information about its operating segments in the annual financial statements. It also sets out requirements for related disclosures about products and services, geographical areas and major customers. The group is still determining the impact of the statement on its financial statements.

#### IFRIC 12, Service concession arrangements (effective I January 2008)

IFRIC 12 gives guidance on the accounting by operators for public-to-private concession arrangements. This interpretation is relevant to Eskom subsidiaries outside of South Africa. The group will implement this interpretation from I April 2008. The impact of this interpretation is being determined.

#### IFRIC 13, Customer loyalty programmes (effective I July 2008)

IFRIC 13 will be adopted for the first time for the financial reporting period ending 31 March 2010. IFRIC 13 addresses accounting by entities that grant loyalty award credits to customers who buy goods or services. Eskom implemented a loyalty programme on a pilot basis to provide customers with incentives to pay their electricity accounts. Awards are supplied by a service provider and the awards can be redeemed for specified goods. As the programme is currently in a pilot phase, the impact of this statement on the group's financial statements is expected to be insignificant.

#### IFRIC 14 and IAS 19, The limit on a defined benefit asset, minimum funding requirements and their interaction (effective I January 2008)

This interpretation clarifies that the economic benefits from a defined benefit asset are available to an employer as a refund or a reduction in future contributions only when the employer has an unconditional right to realise the asset. An unconditional right would not exist if it is contingent on the approval of a third party, such as the benefit fund's trustees.

This interpretation confirms Eskom's current accounting treatment as it does not account for its portion of the defined benefit assets in its financial statements.

The following standards, amendments and interpretations were effective for the year ended 31 March 2008, but were not relevant to the group's operations:

- → IFRIC 8, Scope of IFRS 2
- → IFRIC II, Group and treasury share transactions



for the year ended 31 March 2008

## 2. Summary of significant accounting policies (continued)

#### 2.2 Consolidation

#### Investment in subsidiary companies

Subsidiaries are all entities (including special-purpose entities) over which the group has the power to govern the financial and operating policies to obtain benefits from the activities of the entity. The existence and effect of potential voting rights that are currently exercisable or convertible are considered when assessing whether the group controls another entity. Subsidiaries are fully consolidated from the date on which control is transferred to the group. They are de-consolidated from the date on which control ceases.

#### **Business combinations**

The purchase method of accounting is used to account for the acquisition of subsidiaries by the group. The cost of an acquisition is measured as the fair value of the assets given, equity instruments issued and liabilities incurred or assumed at the date of exchange, plus costs directly attributable to the acquisition. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date, irrespective of the extent of any minority interest. The excess of the cost of acquisition over the fair value of the group's share of the identifiable net assets acquired is recorded as goodwill. If the cost of acquisition is less than the fair value of the net assets of the subsidiary acquired, the difference is recognised directly in the income statement.

Intercompany transactions, balances and unrealised gains on transactions between group companies are eliminated. Unrealised losses are also eliminated, but are considered an impairment indicator of the asset transferred. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the

#### Transactions with minority interests

The group applies a policy of treating transactions with minority interests as transactions with parties external to the group. Disposals to minority interests result in gains and losses for the group that are recorded in the income statement. Purchases from minority interests result in goodwill, being the difference between any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary.

#### Investment in equity accounted investees

Associates are all entities over which the group has significant influence but no control, generally linked to a shareholding of between 20% and 50% of the voting rights.

Joint ventures are contractual arrangements whereby two or more parties undertake an economic activity that is subject to joint control. Investments in associates and joint ventures are accounted for at cost less impairment losses in the separate financial statements of Eskom. These investments are accounted for using the equity method of accounting and are initially recognised at cost in the financial statements of the group. The group's investment in associates and joint ventures includes goodwill (net of any accumulated impairment loss) identified on acquisition.

The group's share of its associates and joint ventures post-acquisition profits or losses is recognised in the income statement, and its share of post-acquisition movement in reserves is recognised in reserves. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. When the group's share of losses in an associate or joint venture equals or exceeds its interest in the associate or joint venture, including any other unsecurable receivables, the group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate or joint venture.

Unrealised gains on transactions between the group and its associates or joint ventures are eliminated to the extent of the group's interest in the associates or joint ventures. Unrealised losses are also eliminated, unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates or joint ventures have been changed where necessary to ensure consistency with the policies adopted by the group.

#### 2.3 Segment reporting

A business segment is a group of assets and operations engaged in providing products or services that are subject to risks and returns that are different from those of other business segments. A geographical segment is engaged in providing, within a particular economic environment, products or services that are subject to risks and returns that are different from those segments operating in other economic environments.

#### Primary reporting format – business segments

The group is organised into the following business segments:

- → Generation division
- → Transmission division
- → Distribution division
- → Key Sales and Customer Services (Ksacs) division<sup>1</sup>
- → Other

#### Secondary reporting format – geographical segments

The group's business segments operate in two geographical areas, local and international.

<sup>&</sup>lt;sup>1</sup> Ksacs will be reported as part of the Transmission division in future.



#### 2.4 Foreign currency translation

#### Functional and presentation currency

Items included in the financial statements of each of the group's entities are measured using the currency of the primary economic environment in which the entity operates (functional currency). The consolidated financial statements are presented in rand (rounded to the nearest million), which is the company's functional and presentation currency.

#### Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss, except when recognised in equity for qualifying cash flow hedges.

Changes in the fair value of monetary securities denominated in foreign currency classified as available-forsale are analysed between translation differences resulting from changes in the amortised cost of the security, and other changes in the carrying amount of the security. Translation differences relating to changes in the amortised cost are recognised in profit or loss, and other changes in the carrying amount are recognised in equity.

Translation differences on non-monetary financial assets are reported as part of the fair value gain or loss. Translation differences on non-monetary financial assets and liabilities such as equities held at fair value through profit or loss are recognised in profit or loss as part of the fair value gain or loss. Translation differences on non-monetary financial assets such as equities classified as available-for-sale are included in the available-for-sale reserve in equity.

Foreign loans are initially recognised at the exchange spot rate prevailing at transaction date and are translated at spot at every reporting date. The exchange differences resulting from the mark to spot on foreign loans, except foreign loans accounted for in terms of cash flow hedge accounting, are recognised in profit or loss.

#### Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to rand at exchange rates at the reporting date. The income and expenses of foreign operations, excluding foreign operations in hyperinflationary economies, are translated to rand at exchange rates at the dates of the transactions. The group does not have any foreign operations in hyperinflationary economies.

Foreign currency differences are recognised directly in equity.

#### 2.5 Property, plant and equipment Owned assets

Land and buildings comprise mainly offices, power stations, substations, workshops and related buildings.

Property, plant and equipment is stated at cost less accumulated depreciation and impairment losses. Cost includes:

- → any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management
- → the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, the obligation for which an entity incurs either when the item is acquired or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period

Costs may also include transfers from equity of any gains/ losses on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the group and the cost of the item can be measured reliably. The carrying amount of the replaced part is derecognised. All other repairs and maintenance are charged to the income statement during the financial period in which they are incurred.



for the year ended 31 March 2008

## 2. Summary of significant accounting policies (continued)

#### 2.5 Property, plant and equipment (continued)

#### Owned assets (continued)

Works under construction are stated at cost which includes cost of materials and direct labour and any costs incurred in bringing it to its present location and condition. Materials used in the construction of property, plant and equipment are stated at weighted average cost.

Land is not depreciated. Depreciation on other assets is calculated using the straight-line method to allocate their cost to their residual values over their estimated useful lives, as follows:

	Years
Buildings and facilities	10 to 40
Plant – Generation	6 to 50
- Transmission	5 to 40
<ul><li>Distribution</li></ul>	10 to 35
-Test, telecommunication and other plant	3 to 20
Equipment and vehicles	l to 10

The residual values and useful lives of assets are reviewed, and adjusted if appropriate, at each balance sheet date.

Where parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Gains and losses on disposals are determined by comparing proceeds with the carrying amount. These gains and losses are included in the profit or loss within *other income*.

#### 2.6 Intangible assets

#### Goodwill

Goodwill represents the excess of the cost of an acquisition over the fair value of the group's share of the net identifiable assets of the acquired subsidiary/associate/joint venture at the date of acquisition. Goodwill on acquisition of subsidiaries is included in *intangible assets*. Goodwill on acquisition of associates and joint ventures is included in *investment in equity accounted investees* and is tested for impairment as part of the overall balance. Separately recognised goodwill is tested annually for impairment and carried at cost less accumulated impairment losses. Impairment losses on goodwill are not reversed. Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

Goodwill is allocated to cash-generating units for the purpose of impairment testing. The allocation is made to those cash-generating units or groups of cash-generating units that are expected to benefit from the business combination in which the goodwill arose. The group allocates goodwill to each business segment in each country in which it operates.

#### Licences

Licences are shown at historical cost. Licences have a finite useful life and are carried at cost less accumulated amortisation and impairment losses. Amortisation is calculated using the straight-line method to allocate the cost of licences over their estimated useful life of three years.

#### Computer software

Acquired computer software licences are capitalised on the basis of the costs incurred to acquire and bring to use the specific software. These costs are amortised over their estimated useful lives (not exceeding three years). If software is integral to the functionality of related equipment, then it is capitalised as part of the equipment.

Costs associated with developing or maintaining computer software programmes are recognised as an expense as incurred. Costs that are directly associated with the development of identifiable and unique software products controlled by the group and that will probably generate economic benefits exceeding costs beyond one year are recognised as intangible assets. Costs include the employee costs incurred as a result of developing software and an appropriate portion of relevant overheads.

#### Rights

Rights consist mainly of servitudes and rights of way under power lines. Rights are not depreciated as they have an indefinite useful life. A servitude right is granted to Eskom for an indefinite period. The life of the servitude will remain in force as long as the transmission or distribution line is used to transmit electricity.

A servitude will only become impaired if the line to which the servitude is linked is derecognised. In practice a derecognised line will be refurbished or replaced by a new line. The likelihood of the impairment of a servitude right is remote.

#### Research and development

Research expenditure is recognised as an expense as incurred. Costs incurred on development projects (relating to the design and testing of new or improved products) are recognised as intangible assets when the following criteria are fulfilled:

- → it is technically feasible to complete the intangible asset so that it will be available for use or sale
- → management intends to complete the intangible asset and use or sell it
- → there is an ability to use or sell the intangible asset
- → it can be demonstrated how the intangible asset will generate probable future economic benefits
- → adequate technical, financial and other resources to complete the development and to use or sell the intangible asset are available
- → the expenditure attributable to the intangible asset during its development can be measured reliably



Other development expenditure that does not meet these criteria is recognised as an expense as incurred. Development costs previously recognised as an expense are not recognised as an asset in a subsequent period. Capitalised development costs are recorded as intangible assets and amortised from the point at which the asset is ready for use on a straight-line basis over its useful life.

#### 2.7 Capitalisation of borrowing costs

Borrowing costs attributable to the construction of qualifying assets are capitalised as part of the cost of these assets over the period of construction to the extent that the assets are financed by borrowings. The capitalisation rate applied is the weighted average of the borrowing costs applicable to the borrowings of the entities in the group.

#### 2.8 Leases

A lease is an agreement whereby the lessor conveys to the lessee, in return for a payment, or series of payments, the right to use an asset for an agreed period of time.

#### Finance leases - where the group is the lessee

The group leases certain property, plant and equipment or other assets. Leases of property, plant and equipment or other assets where the group has substantially all the risks and rewards of ownership are classified as finance leases. Finance leases are capitalised at the lease's commencement at the lower of the fair value of the leased asset and the present value of the minimum lease payments.

Each lease payment is allocated between the liability and finance charges so as to achieve a constant rate on the finance balance outstanding. The corresponding rental obligations, net of finance charges, are included in other current and non-current liabilities. The interest element of the finance cost is charged to the income statement over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The property, plant and equipment or other assets acquired under finance leases are depreciated or amortised over the shorter of the useful life of the asset and the lease term.

Finance lease liabilities are derecognised in accordance with the derecognition requirements for financial liabilities (refer note 2.10). Derivatives embedded in leases are accounted for in accordance with the requirements for embedded derivatives (refer note 2.10).

Cost plus coal contracts are treated as finance leases where the group is the lessee.

#### Finance leases - where the group is the lessor

When property, plant and equipment or other assets are leased out under a finance lease, the present value of the lease payments is recognised as a receivable. The difference

between the gross receivable and the present value of the receivable is recognised as unearned finance income.

Lease income is recognised over the term of the lease using the net investment method, which reflects a constant periodic rate of return.

Finance lease receivables are assessed for impairment and derecognised in accordance with the requirements for financial assets (refer note 2.10). Derivatives embedded in leases are accounted for in accordance with the requirements for embedded derivatives (refer note 2.10).

Premium power supplies are treated as finance leases where the group is the lessor.

#### Fair value

The fair value of finance lease receivables and finance lease liabilities is determined by discounting the future cash flows with respect to the finance lease at the current market-related interest rate.

#### **Operating leases**

Leases where substantially all of the risks and rewards of ownership are not transferred to the group are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to profit or loss on a straight-line basis over the period of the lease.

Leases where substantially all of the risks and rewards of ownership are not transferred to the lessee (ie the group is the lessor) are classified as operating leases. Payments received under operating leases are recognised in profit or loss on a straight-line basis over the period of the lease.

#### Impairment of non-financial assets

Assets that have an indefinite useful life, for example land, are not subject to amortisation or depreciation and are tested annually for impairment. Assets that are subject to amortisation or depreciation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units). Non-financial assets other than goodwill that suffered an impairment are reviewed for possible reversal of the impairment at each reporting date.



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## 2. Summary of significant accounting policies (continued)

#### 2.10 Financial instruments

#### Non-derivative financial instruments

#### Recognition and measurement of financial assets

Non-derivative financial assets comprise investments in short-term negotiable securities, trading assets, investment securities, trade and other receivables, loans receivable and cash and cash equivalents.

Loans receivable consist of finance provided to employees of the group, mainly for the purchase of immovable fixed property.

Cash and cash equivalents comprise balances with local and international banks, monies in call accounts, short-term assets and bank overdrafts. Cash equivalents include money market assets with an original maturity of less than 90 days.

Where relevant, non-derivative financial assets are recognised on the date of commitment to purchase (trade date). Financial assets are derecognised when substantially all the risks and rewards of ownership have been transferred. Realised gains and losses on derecognition are determined using the weighted average method.

Non-derivative financial assets are recognised initially at fair value plus any directly attributable transaction costs except for financial assets at fair value through profit or loss. Directly attributable transaction costs related to financial assets at fair value through profit or loss are recognised in profit or loss on initial recognition when incurred. Subsequent to initial recognition, non-derivative financial assets are measured per asset category (as stated below). The appropriate classification of the financial asset is determined at the time of purchase.

When entering into a transaction, the financial instrument is recognised initially at the transaction price which is the best indicator of fair value. Where fair value of the financial instrument is different from the transaction price, a day one gain or loss may arise. The day one gain or loss is immediately recognised in profit or loss (except for embedded derivatives), provided that the fair value has been determined based on market-observable data.

The appropriate classification of the financial asset is determined at the time of the commitment to purchase.

#### Held-to-maturity investments

Held-to-maturity investments are non-derivative financial assets with fixed or determinable payments and fixed maturity that management has both the ability and intent to hold to maturity.

Subsequent to initial recognition, held-to-maturity investments are measured at amortised cost using the effective interest rate method, less any accumulated impairment losses.

The amortised cost of a financial asset is the amount at which the financial asset is measured at initial recognition minus principal payments, plus or minus the cumulative amortisation using the effective interest rate method and minus any reduction for impairment or uncollectibility.

The effective interest rate is the rate that discounts the estimated future cash receipts of the financial asset exactly to its net carrying amount.

#### Financial assets at fair value through profit or loss

An instrument is classified at fair value through profit or loss if it is held for trading or is designated as such upon initial recognition. An instrument may only be designated at fair value through profit or loss when certain criteria are met. The group has not elected to designate financial assets at fair value through profit or loss.

A financial asset is classified as held-for-trading if it is:

- → acquired for the purpose of selling it in the short term
- → part of a portfolio of identified financial instruments that is managed together and for which there is evidence of a recent pattern of short-term profit taking
- → a derivative instrument

Subsequent to initial recognition, changes in the fair value of these financial assets are recognised in profit or loss.

#### Loans and receivables

The trade and other receivables of the group are classified as loans and receivables. Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market, other than:

- → those that management intends to sell immediately or in the short term, which are classified as held-fortrading
- → those that upon initial recognition are designated as available-for-sale, and
- → those for which the group may not recover substantially all of its initial investment, other than because of credit deterioration, which shall be classified as available-forsale

Subsequent to initial recognition, loans and receivables are measured at amortised cost using the effective interest rate method, less any accumulated impairment losses.

#### Available-for-sale assets

Available-for-sale financial assets are those that are designated as such or do not qualify to be classified as at fair value through profit or loss, held-to-maturity or loans and receivables.

Subsequent to initial recognition, available-for-sale financial assets are measured at fair value and changes therein, other than impairment losses and foreign exchange gains and losses (for monetary items), are recognised directly in equity. When the asset is derecognised, the cumulative gain or loss in equity is transferred to profit or loss.



#### Fair value

The fair values of trading assets, available-for-sale assets and assets carried at amortised cost are based on quoted bid prices. For assets that are not quoted in an active market, valuation techniques are used. Where pricing models are used, inputs are based on market-related measures at the balance sheet date. Where discounted cash flow techniques are used, estimated future cash flows are based on management's best estimates and the discount rate is a market-related rate for a financial asset with similar terms and conditions at the balance sheet date.

The fair value of trade and other receivables is estimated as the present value of future cash flows, discounted at the market rate of interest at the reporting date.

#### **Impairment**

A review for impairment indicators is carried out at each financial year end to determine whether there is any objective evidence that a financial asset is impaired. A financial asset is considered to be impaired if objective evidence indicates that one or more events have had a negative effect on the estimated future cash flows of that asset. In the case of equity securities classified as availablefor-sale, a significant or prolonged decline in the fair value of the security below its cost is considered to be an indicator that the securities are impaired.

An impairment loss in respect of a financial asset measured at amortised cost is calculated as the difference between its carrying amount, and the present value of the estimated future cash flows discounted at the original effective interest rate. An impairment loss in respect of an availablefor-sale financial asset is calculated by reference to its fair

Individually significant financial assets are tested for impairment on an individual basis. The remaining financial assets are assessed collectively in groups that share similar credit risk characteristics.

All impairment losses are recognised in profit or loss. In the case of available-for-sale financial assets, the cumulative loss – measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognised in profit or loss is removed from equity and recognised in profit or loss.

An impairment loss is reversed if the reversal can be related objectively to an event occurring after the impairment loss was recognised. For financial assets carried at amortised cost and available-for-sale financial assets that are debt securities, the reversal is recognised in profit or loss. For available-for-sale financial assets that are equity securities, a subsequent increase in fair value is recognised directly in equity.

Where an asset has been impaired, the carrying amount of the asset is reduced through an allowance account.

#### Recognition and measurement of financial liabilities

Non-derivative financial liabilities comprise short-term negotiable securities, trading liabilities, long-term securities and trade and other payables.

Non-derivative financial liabilities are recognised initially at fair value plus any directly attributable transaction costs except for financial liabilities at fair value through profit or loss. Directly attributable transaction costs related to liabilities recognised at fair value through profit or loss are recognised in profit or loss on initial recognition when incurred. Subsequent to initial recognition, non-derivative financial liabilities are measured at amortised cost or fair value as per the relevant liability category (as described

Where relevant, non-derivative financial liabilities are recognised on the date of commitment (trade date) and are derecognised when the obligation expires, is discharged or cancelled. Realised gains and losses are determined using the weighted-average method.

#### Financial liabilities at fair value through profit or loss

An instrument is classified at fair value through profit or loss if it is held for trading or is designated as such upon initial recognition. An instrument may only be designated at fair value through profit or loss when certain criteria are met. The group has not elected to designate financial liabilities at fair value through profit or loss.

A financial liability is classified as held for trading if it is:

- → incurred principally for the purpose of selling or repurchasing it in the near term
- → part of a portfolio of identified financial instruments that is managed together and for which there is evidence of a recent pattern of short-term profit taking, or
- → a derivative instrument

Subsequent to initial recognition, financial liabilities at fair value through profit or loss continue to be measured at fair value.

#### Financial liabilities at amortised cost

Financial liabilities that are not held for trading are classified as financial liabilities at amortised cost. Debt securities issued, including foreign loans, that are not held-for-trading are classified as held at amortised cost. Subsequent to initial recognition, these liabilities are measured at amortised cost using the effective interest rate method. The trade and other payables of the group are classified as financial liabilities at amortised cost.



for the year ended 31 March 2008

## 2. Summary of significant accounting policies (continued)

#### 2.10 Financial instruments (continued)

#### Fair value

The fair value of trading liabilities is based on quoted offer prices. For liabilities that are not quoted in an active market, valuation techniques are used. Where pricing models are used, inputs are based on market-related measures at the balance sheet date. Where discounted cash flow techniques are used, estimated future cash flows are based on management's best estimates and the discount rate is a market-related rate for a financial liability with similar terms and conditions at the balance sheet date.

#### Financial guarantees

Financial guarantees are contracts that require the group to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the terms of a debt instrument.

Financial guarantee liabilities are initially recognised at fair value, and the initial fair value is amortised over the life of the financial guarantee. The guarantee liability is subsequently carried at the higher of this amortised cost and the present value of any expected payment (when a payment under the guarantee has become probable). Financial guarantees are included within other liabilities.

#### Fair value

Financial guarantees are valued initially by taking into account discounted future cash flows adjusted according to the probability of occurrence of the trigger event. The resultant guarantee is raised as a liability, with the costs being charged to the income statement. The unprovided portion is disclosed as a contingent liability. As a result of using discounted cash flows, interest rate risk may arise due to the possibility of the actual yields on assets being different from the rates assumed in the discounting process.

#### Derivative financial instruments and hedging activities

A derivative is a financial instrument whose value changes in response to an underlying variable, requires little or no initial investment and is settled at a future date. All derivatives are classified as held-for-trading instruments, unless they meet the criteria for hedge accounting and have been designated for purposes of applying hedge accounting. Derivatives are initially recognised at fair value and re-measured subsequently at fair value. Fair values are obtained from quoted market prices, discounted cash flow models and options pricing models which consider current market and contractual prices for the underlying instruments as well as the time value of money.

All derivative instruments of the group (except those used for cash flow hedging) are carried as trading assets when the fair value is positive and as trading liabilities when the fair value is negative and there is no off-setting. Realised and unrealised gains and losses are recognised in profit or loss.

#### Hedge accounting

The method of recognising the resulting gain or loss on the derivative depends on whether the derivative is designated as a hedging instrument and, if so, the nature of the item being hedged. Derivatives can be designated as either:

- → hedges of the fair value of recognised liabilities and assets (fair value hedge)
- → hedges of a particular risk associated with a recognised liability and assets or a highly probable forecast transaction (cash flow hedge) or
- → hedges of a net investment in a foreign operation (net investment hedge)

The group applies only cash flow hedge accounting. The group documents, at the inception of the transaction, the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedging transactions. The group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in off-setting changes in fair values or cash flows of hedged items.

Movements on the hedging reserve in shareholders' equity are shown in the statement of changes in equity. The full fair value of a hedging derivative is classified as a noncurrent asset or liability when the remaining period of the hedged item is more than 12 months; it is classified as a current asset or liability when the remaining period of the hedged item is less than 12 months. Trading derivatives are classified as current assets or liabilities.

#### Cash flow hedges

The effective portion of changes in the fair value of derivatives that is designated and qualifies as cash flow hedges is recognised in equity. The gain or loss relating to the ineffective portion and the forward points portion which is not designated (as part of the hedge) is recognised immediately in profit or loss in net fair value gains/losses.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting and when the hedged item has been recognised, any cumulative gain or loss existing in equity at that time remains in equity and is transferred to profit or loss when the forecast transaction is ultimately recognised in profit or loss. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to profit or loss in net fair value loss on other derivatives.

#### Economic hedging

Certain derivative instruments do not qualify for hedge accounting and are used for economic hedging. Changes in the fair value of these derivative instruments are recognised in profit or loss in *net fair value gains/losses*.



#### Repurchase and resale agreements

Securities sold subject to repurchase agreements are retained in the financial statements as financial assets. The liability to the counterparty is included under other liabilities as unsettled deals1.

Securities purchased under agreements to resell are recorded as trading assets and are included in cash and cash equivalents.

The difference between the sale and repurchase price or purchase and resale price is treated as interest accrued over the life of the repurchase or resale agreement using the effective-yield method.

#### Embedded derivatives

An embedded derivative is a component of a hybrid (combined) instrument that also includes a non-derivative host contract, with the effect that some of the cash flows of the combined instrument vary in a way similar to those of a standalone derivative. An embedded derivative causes some or all of the cash flows that otherwise would be required by the contract to be modified according to a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, or other variable. The hybrid contract is the entire contract and the host contract is the main body of the contract excluding the embedded derivative.

An embedded derivative is separated from the host contract and accounted for as a derivative if:

- → the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract
- → a separate instrument with the same terms as the embedded derivative would meet the definition of a
- → the combined instrument is not measured at fair value with changes in fair value recognised in profit or loss

The determination of the host contract of an electricity contract (which includes an embedded derivative) is based on the standard electricity tariff specified in the contract, and where no standard tariff is specified, the tariff that would normally apply to such a customer.

Embedded derivatives are disclosed separately from derivatives held for risk management. The changes in fair value are included in net fair value gain or loss on embedded derivatives in profit or loss. The impact of the fair value gains or losses is taken into account in the calculation of current and deferred taxation.

Embedded derivatives that are not separated are effectively accounted for as part of the hybrid instrument.

#### Fair value

Non-option based derivatives are separated on terms that result in a fair value at the date of inception of zero. Optionbased derivatives are separated on the terms stated in the contracts and will not necessarily have a fair value equal to zero at the initial recognition of the embedded derivative, resulting in day one gains. These day one gains or losses are spread equally over the period of the agreement. The fair value will depend on the strike price at inception.

The valuation at inception is adjusted for cash flows since inception. The value of the embedded derivatives which involve a foreign currency is first determined by calculating the future cash flows and then discounting the cash flows by using the relevant interest rate curve, and only then is the net present value of the cash flows converted at the relevant rand/foreign currency spot rate to the reporting currency.

The determination of the host contract of an electricity contract is based on the standard electricity tariff specified in the contract and, where no standard tariff is specified, the tariff that would normally apply to such a customer.

The fair value of the embedded derivative is determined on the basis of its terms and conditions. If this is not possible, then the value of the embedded derivative is determined by fair valuing the whole contract and deducting from it the fair value of the host contract.

Where there is no active market for the embedded derivatives, valuation techniques are used to ascertain their fair values. Financial models were developed incorporating valuation methods, formulae and assumptions. The valuation methods include the following:

- → swaps electricity tariff is swapped for a commodity in a foreign currency
- → forwards electricity tariff or other revenue or expenditure is based on a foreign currency
- → options electricity tariff or other revenue is based on an embedded derivative floor or cap on foreign consumer or production price indices or interest rates. The Monte Carlo simulation technique is used to produce various cap and floor strike prices

The more important assumptions, which include the following, are obtained either with reference to the contractual provisions of the relevant contracts or from independent market sources where appropriate:

- → spot and forward commodity prices
- → spot and forward foreign currency exchange rates
- → spot and forward interest rates
- → forecast sales volumes
- → spot and forward consumer and foreign production price indices
- → spot and forward electricity prices

Unsettled deals are transactions to which Eskom is legally bound but due to market convention the cash flows happen after trade date



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## 2. Summary of significant accounting policies (continued)

#### 2.11 Inventories

#### Coal, maintenance spares and consumables

Inventories are stated at the lower of cost and net realisable value. Cost is determined on the weighted average basis and includes expenditure incurred in acquiring inventories, production and conversion costs and other costs in bringing inventory to present location and condition.

#### Nuclear fuel

Nuclear fuel is stated at the lower of cost and net realisable value. Cost is determined on the first-in first-out basis and includes borrowing costs. Nuclear fuel consists of raw materials, fabricated fuel assemblies and fuel in reactors.

Net realisable value is the estimated selling price in the ordinary course of business, less applicable variable selling expenses. Costs of inventories include the transfer from equity of any gains/losses on qualifying cash flow hedges relating to purchases of raw materials.

#### 2.12 Share capital

Ordinary shares are classified as equity.

#### 2.13 Income tax

Income tax expense comprises current and deferred tax. Income tax expense is recognised in profit or loss except to the extent that it relates to items recognised directly in equity, in which case it is recognised in equity.

Current tax is expected tax payable on the taxable income for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

#### 2.14 Deferred tax

Deferred tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that, at the time of the transaction, affects neither accounting nor taxable profit or loss. However, deferred tax is provided in respect of the temporary differences arising on the assets and provisions created in respect of decommissioning and nuclear waste management and closure, pollution control and rehabilitation. Deferred tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the balance sheet date and are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled.

Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised. Deferred tax assets are reviewed at each balance sheet date and reversed if it is no longer probable that the related tax benefits will be realised.

Deferred tax is provided on temporary differences arising on investments in subsidiaries and associates, except where the timing of the reversal of the temporary difference is controlled by the group and it is probable that the temporary difference will not reverse in the foreseeable future.

#### 2.15 Future fuel supplies

#### Coal

Non-refundable advances to suppliers, together with related borrowing costs thereon, are deferred and amortised against the cost of coal supplied on the basis of the estimated life of the asset procured by the suppliers.

Repayable advances to suppliers are capitalised, and the interest earned thereon is credited to interest income and repaid in terms of the agreements.

#### Nuclear

Fuel assemblies in the process of fabrication are stated at cost. Hedge accounting is applied to foreign exchange contracts, with the effective portion being capitalised during the fabrication period. Advance payments in terms of agreements are capitalised.

#### 2.16 Payments received in advance

Payments received in advance consist mainly of upfront capital contributions for the construction of assets and funding for electrification. These amounts are accounted for as deferred income when the asset is placed in commercial operation.

#### 2.17 Deferred income

#### Cross-border leases

Income realised on cross-border lease transactions is deferred. This income is recognised over the period that Eskom is exposed to the risk on the contract.

#### Grants

Government grants received relating to the creation of electrification assets are included in non-current liabilities as deferred income, and are credited to the income statement on a straight-line basis over the expected useful lives of the related assets.

#### Capital contributions received from customers

Contributions paid in advance by electricity customers relating to the construction of regular distribution and transmission assets (with a standard supply) are credited to the income statement on a straight-line basis over the expected useful lives of the related assets when these assets have been placed in commercial operation.

#### 2.18 Insurance reserve

A full contingency reserve of 10% of net premium income is maintained in Escap Limited in terms of the Short-term Insurance Act, 53 of 1998.



#### 2.19 Employee benefits

The group recognises a liability and an expense for leave as the leave is of a long-term nature. An actuarial valuation is done on an annual basis for occasional and service leave. The accrued liabilities are determined by valuing all future leave expected to be taken and payments expected to be made in respect of benefits up to the valuation date. Allowance has been made in the calculations for the assumed benefit options employees will exercise, as well as salary increases and investment returns up to the date the benefit is received. All actuarial gains and losses and past service costs are recognised immediately in the income statement. The present values of the benefit are determined by using the yield of long dated corporate bonds (or government bonds where high quality corporate bonds are not available).

#### Pension obligations

Retirement benefits are provided for employees through the Eskom Pension and Provident Fund. Contributions to the fund are based on a percentage of pensionable emoluments and are expensed in the period in which they are incurred.

#### Other post-retirement obligations

The liability for post-retirement medical aid is the present value of the obligation by using long dated corporate bonds (or government bonds if high quality corporate bonds are not available) which have maturities similar to the liability. Provision is made by accounting, through the income statement, for the estimated cost over the expected period to retirement of the employees. The cost to the employer, in the form of employer contributions, is determined by using the projected unit credit method, with actuarial valuations being carried out at each balance sheet date. Actuarial gains and losses are expensed to the income statement immediately. No deferred recognition mechanism is applied.

The entitlement to these benefits is usually conditional on the employee remaining in service up to retirement. All employees qualify for post-retirement medical aid, except for external employees appointed on or after 1 June 2003 at a managerial level.

#### Share-based compensation

Eskom has granted cash-settled share-based instruments to eligible employees. The liability for the services received from the employees in exchange for the share-based (phantom shares) payments is recognised at fair value over the vesting period of the instruments. In compliance with IFRS 2, the liability for the service is remeasured at each balance sheet date to its fair value and all changes are recognised in the income statement. The fair value of the liability is determined using the residual valuation model.

#### Annual and performance bonuses

The group recognises a liability for annual and performance bonuses. Annual bonuses are accrued on a proportionate basis. A provision for performance bonus is raised on the estimated amount payable in terms of the incentive scheme which is based on the employee's performance in the applicable year.

#### 2.20 Provisions

Provisions are recognised when the group has a present legal or constructive obligation as a result of a past event, when it is probable that an outflow of resources will be required to settle the obligation and when the amount can be reliably estimated. Provisions are not recognised for future operating losses.

If the effect is material, provisions are determined by discounting the expected future cash flows that reflect current market assessments of the time value of money and, where appropriate, the risks specific to the liability.

The provisions below are restated on an annual basis to reflect changes in measurement that result from changes in the estimated timing or amount of the outflow of resources embodying economic benefits required to settle the obligation, or a change in discount rate, which shall be accounted for as follows:

- → changes in the liability shall be added to, or deducted from, the cost of the related asset in the current
- → the amount deducted from the cost of the asset shall not exceed its carrying amount. The excess shall be recognised in profit or loss
- → any additions to the cost of an asset shall be reviewed in terms of the normal impairment principles

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognised as a finance cost.

#### Decommissioning and nuclear waste management

#### Nuclear and other generation plant

A provision is raised for the estimated decommissioning cost of nuclear and other generation plant and capitalised to the cost of nuclear or other generation plant when it is commissioned. The estimated cost of decommissioning at the end of the productive life of plant is based on engineering estimates and reports from independent experts. Decommissioning costs capitalised to the cost of nuclear or other generation plant is written off on a straightline basis over the estimated useful life of the plant.



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## 2. Summary of significant accounting policies (continued)

#### 2.20 Provisions (continued)

### Decommissioning and nuclear waste

#### management (continued)

Spent nuclear fuel

A provision is raised, over the life of the plant, for the management of spent nuclear fuel assemblies and radioactive waste. The charge to the income statement is based on the latest available cost information and is included in *primary energy*.

The provisions are restated on an annual basis to reflect the changes in the time value of money. The impact of the change in the time value of money on the provision is reflected in the income statement under finance cost.

#### Closure, pollution control and rehabilitation

Expenditure on property, plant and equipment for pollution control is capitalised and depreciated over the useful lives of the assets. The cost of current ongoing programmes to prevent and control pollution and to rehabilitate the environment is charged to the income statement as incurred, unless a present legal or constructive obligation exists to recognise such expenditure, in which case a provision is created based on the best estimates available.

Provision is made for the estimated cost of closure, pollution control and rehabilitation during and at the end of the life of the mines where a constructive obligation exists to pay coal suppliers. Closure, pollution control and rehabilitation costs capitalised to future fuel are written off over the estimated useful life of the power station.

#### 2.21 Revenue recognition

Revenue comprises the fair value of the consideration received or receivable for the sale of goods and services in the ordinary course of the group's activities. Revenue is shown, net of value added tax, estimated returns, rebates and discounts.

The group recognises revenue when the amount of revenue can be reliably measured, it is probable that future economic benefits will flow to the entity and specific criteria have been met for each of the group's activities as described below. The amount of revenue is not considered to be reliably measured until all contingencies relating to the sale have been resolved. The group bases its estimates on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

Revenue is recognised as follows:

#### Sale of goods

Sale of goods is recognised when significant risks and rewards of ownership have passed and the collectibility of the related receivables is reasonably assured.

Electricity revenue is recognised when electricity is consumed by the customer:

#### Sale of services

Sale of services is recognised in the accounting period in which the services are rendered, by reference to the completion of the specific transaction assessed on the basis of the actual service provided as a proportion of the total services to be provided.

#### Other revenue

Other revenue is recognised when the significant risks and rewards of ownership are transferred to the buyer and the amount of revenue can be measured reliably.

#### 2.22 Finance income

Finance income comprises interest receivable on loans, advances, trade and finance lease receivables and income from investment in securities. Finance income is recognised as it accrues in profit or loss, using the effective interest rate method.

#### 2.23 Finance cost

Finance cost comprises interest payable on finance lease payables, borrowings, debt securities issued and interest resulting from the unwinding of discount on liabilities and provisions. All borrowings costs are recognised in profit or loss using the effective interest rate method.

#### 2.24 Dividend income

Dividend income is recognised when the right to receive payment is established.

#### 2.25 Dividend distribution

Dividend distribution to the shareholder is recognised as a liability in the financial statements of the group in the period in which the dividends are approved by the shareholder.

#### 2.26 Non-current assets and liabilities held-for-sale

Assets and liabilities which meet the definition of held-forsale under IFRS 5 are stated at the lower of their carrying amount and fair value less costs to sell if their carrying amount is recovered principally through a sale transaction rather than through continuing use.



#### 3. Financial risk management

Information about the group's exposure to risks, its objectives, policies and processes for measuring and managing such risks, as well as quantitative disclosure, is discussed in this note. The management of capital is also discussed.

The group has an integrated risk management framework. The group's approach to risk management is based on risk governance structures, risk management policies, risk identification, measurement and reporting. Three types of risks are reported as part of the risk profile, namely operational, strategic and business continuity risks. Operational risks are events, hazards, variances or opportunities which could influence the achievement of Eskom's compliance and operational objectives. For Eskom a strategic risk is a significant unexpected or unpredictable change or outcome beyond what was factored into the organisation's strategy and business model which could have an impact on the group's performance. Business continuity risks are those events, hazards, variances and opportunities which could influence the continuity of Eskom. One of the key risks for Eskom, identified both under the operational and strategic risk categories, is the financial sustainability of Eskom. The financial risks, as defined by IFRS 7, and the management thereof, form part of this key risk area. For more information on risk, refer to page 211 in the corporate governance report and page 28 in the business sustainability and performance review.

The board of directors (the board) has delegated the management of enterprise-wide risk to the risk management committee which operates through various subcommittees. One of the committee's objectives is to ensure that the group is not unduly exposed to financial and market risks. Most of the financial risks arising from financial instruments are managed in the centralised treasury function of the group, except for instruments such as trade and lease receivables and trade and lease payables which are managed by the other divisions and subsidiaries.

The group's exposure to risk, its objectives, policies and processes for managing the risk and the methods used to measure it have been consistently applied in the years presented, unless otherwise stated.

The exposure of the centralised treasury function to the major financial risks is unique to its activities and therefore different to those of the divisions and subsidiaries within the Eskom group. A distinction is therefore made between the treasury department and other divisions and subsidiaries in the group in respect of financial risk management where relevant.

The group has exposure to the following risks as a result of its financial instruments:

- → credit risk (refer note 3.1)
- → market risk (refer note 3.2)
- → liquidity risk (refer note 3.3)

#### 3.1 Credit risk

Credit risk is the risk of financial loss to the group if a customer or other counterparty (including government and financial institutions) to a financial instrument fails to meet its contractual obligations. Credit risk arises primarily from the sale of goods and services in the ordinary course of business and the centralised treasury activities. Credit risk includes counterparty risk and delivery or settlement

Counterparty risk is the risk that a counterparty is unable to meet its financial and/or contractual obligations during the period of a transaction. Delivery or settlement risk is the risk that a counterparty does not deliver on its contractual commitment on maturity date (including the settlement of money and delivery of securities).

#### 3.1.1 Management of credit risk

#### Financial instruments managed by the treasury function

Credit risk arises from cash and cash equivalents, investment in securities and deposits made with counterparties. Processes are in place to identify, measure, monitor, control and report credit risk. The objective of Eskom's credit risk management framework is firstly to protect cash and investments and, secondly to project and maximise the rate of return of financial market investments.

#### Responsibility and governance

The treasury credit risk committee, a subcommittee of the risk management committee, manages counterparty credit risk which arises from the treasury activities in the financial markets. This committee is chaired by the finance director and reports on a quarterly basis to the risk management committee. The activities of the committee are guided by terms of reference that are updated and approved by the risk management committee.

The terms of reference set out the minimum acceptable standards to be adhered to by those responsible for credit-related transactions within the treasury department. The terms of reference are aligned to the Exco credit risk governance standards and are supplemented by appropriate policies and procedures.

The committee:

- → assesses the credit quality of counterparties and types of instruments used
- → approves credit limits
- → facilitates and manages the issuing of financial guarantees by the group
- → ensures that transactions with counterparties are supported by trading agreements, where applicable
- → approves methodologies used for the management of counterparty exposure

The senior credit risk adviser in the risk assessment division provides feedback on all treasury credit risk-related matters to the treasury management, finance director, treasury credit risk committee and risk management committee.



for the year ended 31 March 2008

#### 3. Financial risk management (continued)

- 3.1 Credit risk (continued)
- 3.1.1 Management of credit risk (continued)

Financial instruments managed by the treasury function (continued)

Responsibility and governance (continued)

The management of credit risk is governed by the following policies:

- → trading in financial instruments is conducted and entered into with selected counterparties after credit limits have been authorised. Individual risk limits are set based on internal and external ratings in line with limits set by the board. All credit limits are approved by the treasury credit risk committee. The use of credit limits is regularly monitored
- → only banks and financial institutions with an independent minimum rating of A1 are accepted. If there are no independent ratings, the credit quality of the counterparty is assessed, taking into account its financial position, past experience and other factors
- → All exposures are mark-to-market. Transaction or closeout netting takes place in accordance with the terms and conditions of the underlying trading agreements
- → minimum credit-rating requirements for financial institutions are maintained to assess the risk categories by rating class and to ascertain the probability of default inherent in each rating class
- → approved concentration risk parameters and collateral management procedures are in place

Concentration of credit risk is managed by setting credit risk limits at a counterparty-specific level. Concentration credit risk limits are used as second tier limits in relation to counterparty credit limits. Counterparty-specific exposure is monitored against a set concentration of credit risk limit in relation to the total credit risk exposure to all counterparties.

#### Credit risk measurement, monitoring and reporting

Risk is measured by determining a default probability per counterparty (expressed through an internal risk rating) which is then applied to the market value of the investment placed to determine the capital at risk.

The treasury department's policies and practices are designed to preserve the independence and integrity of decision-making and ensure credit risks are accurately assessed, properly approved, continually monitored and actively managed.

Aggregate credit exposure, hold-limit exceptions and risk profile changes are reported to Exco and the risk management committee on a quarterly basis. There is regular detailed reporting of limit utilisation, limit breaches and customer concentrations to ensure these are appropriately managed and monitored.

Impairment assessments are performed to evaluate the credit risk exposure. The assessments focus on the following areas:

- → significant financial difficulty of the issuer or counterparty
- → high probability of bankruptcy
- → breach of contract

Financial instruments managed by other divisions and subsidiaries

#### (a) Electricity receivables

Eskom supplies electricity to customers in its licensed areas of supply. A large proportion of the residential customers are on a prepaid basis.

Eskom's exposure to credit risk is influenced by the individual characteristics of each customer. In monitoring credit risk, customers are grouped according to their credit characteristics, including whether they are large or small power users, geographic location, ageing profile, security (deposits and guarantees) held and payment history.

The main classes of electricity receivables are international, local large and local small power users.

Electricity supply agreements are entered into with key international customers who comprise utility companies and governments of neighbouring countries. These customers are not required to provide any security unless they default on their payment terms.

Key large power users comprise mainly South African commercial, industrial and mining customers. Some key large power users are not required to provide any security if they have an acceptable credit rating from an approved rating agency. New customers are required to provide security equivalent to the value of three months' estimated consumption. Existing customers are required to provide security to the value of three months' consumption if they default on their payment terms

Non-key customers (other than large power users and small power users) are required to provide security equivalent to between one to three months' consumption at the commencement of the supply agreement. The level of security is reviewed when a customer defaults on their payment obligation or requires additional electricity supply capacity in which case they are required to either provide security or increase their existing security to an amount equivalent to between one to three months' of recent consumption before supply will commence. Redistributors were not required to provide any security and are currently re-evaluated based on their payment history to determine if any security is necessary.

Payment terms vary between customer classes

- → key international customers 10 to 45 days
- → key and other large power users individually negotiated up to a maximum of I5 days
- → small power users 30 days

Interest is charged on balances in arrears.

The group has well-established credit control procedures that monitor activity on customer accounts and allow for remedial action should the customer not comply with payment terms. These procedures include



an internal collection process, follow up of the customer either telephonically or in person, negotiations of mutually acceptable payment arrangements and the issue of a notice of disconnection of supply and letters of demand. Non-payment will result in disconnection of supply and the customer's account being closed. The legal collection process is pursued thereafter.

The decision to impair overdue amounts is assessed on the probability of recovery based on the customer's credit risk profile.

Progress on the collection process is reviewed on a regular basis and if it is evident that the amount will not be recovered, it is recommended for write-off in terms of the Eskom delegation of authority. The process of recovery continues unless it is confirmed that there is no prospect of recovery or the costs of such action will exceed the benefits to be derived. Amounts written off are determined after taking into account the value of the security held.

The total cumulative provision for impairment for electricity receivables at 31 March 2008 was R1,78 billion (2007: R1,33 billion). Refer note 3.1.2(a). A substantial portion relates to outstanding debt in problematic areas such as Soweto. The collection of revenue from small power users in Soweto remains a challenge. The enhancement of credit control strategies and monitoring of payment levels in this area continue to receive management attention. The payment levels from these customers, expressed as a percentage of billed revenue, decreased to 20% (2007: 24%).

Eskom is currently testing the strategy of secured split metering and debt recovery via prepayment as a key approach to minimise the risk of non-collection in these areas. Significant stakeholder and political support at local and national government level is required to ensure the successful rollout of this new strategy going

In addition, the following strategies are currently in operation and are largely successful in other high risk areas of non-paying customers. These include:

- → disconnections
- → conversion to prepayment
- → increased internal debt management capacity
- → use of debt collectors
- → payment arrangements
- → focus on early identification and letters of demand
- → increased securities
- → efficient internal process, for example, system automation of credit and collections such as automated notices and letters of demand

The provision for impairment relating to international customers of R127 million (2007: R16 million) arises as a result of an interpretation dispute regarding contractual obligations with two of Eskom's large customers which are currently being resolved at executive level.

#### (b) Other trade receivables

Eskom Enterprises provides plant lifecycle support, plant maintenance work, network protection and measurement mainly to Eskom. Credit exposure is managed, amongst others, by setting credit limits which are reviewed and approved by management on a regular basis. Ongoing credit evaluations are performed on the financial position of debtors. Interest is charged on balances in arrears. In the event of default, a collection process is initiated. Impairment is considered on an individual account basis. Debtors are considered to be impaired when alternative collection methods to recover outstanding debt have failed.

#### (c) Other receivables

Other receivables include recoverable work, employee debtors, inter-company balances and sundry debtors.

Recoverable work is mainly project work carried out by Eskom on behalf of external parties. The projects include repairing damaged power lines, moving of power lines or underground cables and engineeringrelated work.

#### (d) Finance lease receivables

Finance lease receivables mainly comprise premium power supply contracts. The supply of electricity to customers may be either in the form of standard or premium power supply.

A standard supply is the least-cost technically acceptable solution as defined in the Distribution Network Code whereas the premium power supply is where the customer's requirement exceeds the specifications of a standard supply. Premium supply customers may already have a standard supply from Eskom but wish to reserve dedicated additional equipment to provide a backup supply. This is achieved through the installation of dedicated premium supply equipment for which the customer is required to pay the full capital costs.

Connection charges for premium supply contracts can be repayable on a monthly basis over a maximum period of 25 years.

The premium supply contracts have been identified as arrangements that contain a lease in terms of IFRIC 4 Determining whether an arrangement contains a lease. In terms of IAS 17 Leases, these arrangements give rise to finance leases with Eskom as the lessor.

The credit risk exposure resulting from premium supply contracts is managed in a similar manner as for the standard supply contracts with these customers. Security is required from customers for premium supply assets which covers irrecoverable costs in the event of the early termination of the supply contract. Premium supply customers have maintained a good payment history with Eskom over the years. The standard payment terms are also applicable to the connection charge relating to the premium supply equipment which is billed monthly to the customer.



for the year ended 31 March 2008

#### 3. Financial risk management (continued)

#### 3.1 Credit risk (continued)

#### 3.1.1 Management of credit risk (continued)

Financial instruments managed by other divisions and subsidiaries (continued)

#### (e) Insurance activities

Escap Limited (Escap), a 100% subsidiary of Eskom, acts as the primary insurer for the group. It insures the accident and health, engineering, liability, motor, property, transportation and miscellaneous classes of the short-term insurance business. It also insures motor vehicles in terms of Eskom's employee vehicle allowance scheme.

Escap insures the group up to agreed limits per risks whereafter the risks are covered by the reinsurance market.

#### Reinsurers

The creditworthiness of reinsurers is regularly assessed by the Escap risk management committee, especially prior to finalisation of any contract. Minimum credit ratings and credit limits per counterparty are set. The major reinsurers used during the financial year had market security ratings of A- or higher (based on Standard and Poor's ratings). There has not been any write-off of debt from reinsurers in the last three years.

#### (f) Non-current assets held-for-sale

Credit risk from financial assets relating to discontinued operations are discussed below. Refer to note 20 for further information on non-current assets held-for-

#### Loans receivable

Home and personal loans are made available to employees of the group. Credit risk policies are in place which require various criteria to be met prior to the approval of a loan. These criteria include the valuation of property, affordability and credit history of the employee.

The amounts advanced are secured by first mortgages over the property purchased and are repayable over an average period of 26 years. The risk of default by the employee is reduced as the monthly instalments are deducted from the employee's salary. Employees who are no longer in the employ of the group are required to arrange for a monthly debit order to settle the monthly instalment. Loans are not extended where the purchase price of the property exceeds its open market value. The weighted average loan

amount as a percentage of the total home loan book at 31 March 2008 was 0,01% (2007: 0,01%).

In the event of default the debtor is notified verbally and in writing. If payment has not been received for a period exceeding three months, a process to foreclose on the loan is initiated and the property is sold by public auction or repossessed. Should the property be sold by public auction, a reserve value is set that takes into account the value of the property, arrear rates and taxes, legal costs and commissions payable. If the reserve value is not achieved, the property is repossessed and is held for resale. These assets are disclosed as non-current assets held-for-sale.

Eskom Finance Company (Pty) Limited (EFC) entered into a securitisation arrangement with Nqaba Finance I (Pty) Limited (Nqaba), a special-purpose entity. The securitising of the home loan book converted the loan assets into marketable securities traded on the South African Bond Exchange. The special-purpose entity is consolidated in the annual financial statements of the EFC group. In terms of a preference share agreement entered into between the two companies, EFC is entitled to the profits of Nqaba with the condition that should Nqaba incur losses, the risk thereof would lie with EFC.

EFC provides a first-loss credit enhancement loan equal to 2% of the notes in issue which bears interest at 30% per annum. At 31 March 2008 the loan was R39 million (2007: R32 million). As servicer of Nqaba, EFC earns a servicing fee equal to 0,35% of the quarterly outstanding loan book balance. EFC is the preferential shareholder of Nqaba which entitles it to all the residual profits (residual cash after priority payments). At the end of the financial year, the net asset value of Nqaba was R20 million (2007: R19 million).

#### Other receivables

The group provides information technology services to local and national governmental departments. A credit policy is in place which requires that credit profiles are established before conducting business with a customer and credit limits are set. No security is required from customers. Payment terms are set at 30 days. In the event of default, a collection process is initiated. Impairment is considered on an individual-account basis. Accounts are considered to be impaired when alternative collection methods to recover outstanding debt have failed. Interest is charged on impaired receivables.



#### 3.1.2 Credit exposure

The carrying amount of financial assets represents the maximum credit exposure at the reporting date (refer note 12). The following table represents an analysis per credit rating level (as determined by rating agencies) of the credit risk of financial assets, except for embedded derivatives and trade and other receivables.

	Inves	stment in secur	rities	Financial	Cash and	Derivatives	Lease
	Held to	Loans and	Available-	trading	cash	held for risk	receivables
	maturity	receivables	for-sale	assets		management	
	Rm	Rm	Rm	Rm	Rm	Rm	Rm
	INII	IXIII	1311	1411	IXIII	IVII	IXIII
2008							
Group			1 40 4				
AAA	_	_	I 424	_	_	_	_
AA+	_	_	_	_	_	_	
AA	_	_	-	-	_	_	2
AA-	_	_	-	_	_	-	-
A+	_	_	_	_	_	_	_
A   +	865	2 697	9 289	I 970	9 754	11 425	2
ΑI	_	1	457	168	I 062	I 245	9
A2	_	_	_	46	_	_	_
В	_	_	_	5	_	_	_
Unrated	_	285	1	350	77	_	412
Officied	045		<u> </u>			12.470	
	865	2 983	11 171	2 539	10 893	12 670	425
Company							
AAA			I 424				
AA+	_	_	1 727	_	_	_	_
AA	_	_	_	_	_	_	2
	_	_	_	_	_	_	
AA-	_	_	_	_	_	_	_
A+	-			-	-	-	_
Al+	865	2 697	9 070	I 840	9 260	11 425	2
Al	_	I	457	107	I 062	I 245	9
Unrated	_		<u> </u>	70		<u> </u>	412
					10 200		
	865	2 698	10 952	2 017	10 322	12 670	425
2007	865	2 698	10 952	2017	10 322	12 6/0	425
2007	865	2 698	10 952	2017	10 322	12 6/0	425
Group	865	2 698		2017	10 322		425
Group AAA	865	2 698 	2 220	2017	10 322	29	425
Group AAA AA+	865	2 698 - -		2017	10 322 - -	29 299	_ _ _
Group AAA AA+ AA		2 698 - - -		2017	10 322 - - -	29 299 81	<b>425</b> 3
Group AAA AA+ AA AA-		2 698 - - - -		2017		29 299 81 11	_ _ _
Group AAA AA+ AA AA- A+	- - - - -	- - - -	2 220 - - - -	- - - -	- - - - -	29 299 81 11 85	- - 3 - -
Group AAA AA+ AA AA-	3 395	- - - - - 5 263		- - - - - 2 777	8 438	29 299 81 11	_ _ _
Group AAA AA+ AA AA- A+	- - - - -	- - - -	2 220 - - - -	- - - - 2 777 326	- - - - -	29 299 81 11 85	- - 3 - -
Group AAA AA+ AA AA- A+ AI+	- - - - - 3 395	- - - - - 5 263	2 220 - - - - - 13 565	- - - - - 2 777	- - - - - 8 438	29 299 81 11 85 2 099	- - 3 - - 2
Group AAA AA+ AA AA- A+ AI+ AI	- - - - - 3 395	- - - - - 5 263	2 220 - - - - - 13 565 663	- - - - 2 777 326	- - - - - 8 438	29 299 81 11 85 2 099	- - 3 - - 2 9
Group AAA AA+ AA AA- A+ AI+ AI A2 B	- - - - - 3 395	- - - - 5 263 298 - -	2 220 - - - - 13 565 663 - -	- - - 2 777 326 52 4	- - - - 8 438 I 042	29 299 81 11 85 2 099	- - 3 - - 2 9 -
Group AAA AA+ AA AA- A+ AI+ AI A2	- - - - 3 395 50 - -	- - - - 5 263 298 - - -	2 220 - - - - 13 565 663 - - 27	- - - - 2 777 326 52 4 227	- - - - 8 438 I 042 - - - 62	29 299 81 11 85 2 099 19 -	- - 3 - - 2 9 - - 539
Group AAA AA+ AA AA- A+ AI+ AI A2 B	- - - - - 3 395	- - - - 5 263 298 - -	2 220 - - - - 13 565 663 - -	- - - 2 777 326 52 4	- - - - 8 438 I 042	29 299 81 11 85 2 099	- - 3 - - 2 9 -
Group AAA AA+ AA AA- A+ AI+ AI A2 B Unrated	- - - - 3 395 50 - -	- - - - 5 263 298 - - -	2 220 - - - - 13 565 663 - - 27	- - - - 2 777 326 52 4 227	- - - - 8 438 I 042 - - - 62	29 299 81 11 85 2 099 19 -	- - 3 - - 2 9 - - 539
Group AAA AA+ AA AA- A+ AI+ AI A2 B	- - - - 3 395 50 - -	- - - - 5 263 298 - - -	2 220 - - - - 13 565 663 - - 27	- - - - 2 777 326 52 4 227	- - - - 8 438 I 042 - - - 62	29 299 81 11 85 2 099 19 -	- - 3 - - 2 9 - - 539
Group AAA AA+ AA AA- A+ AI+ AI A2 B Unrated  Company AAA	- - - - 3 395 50 - -	- - - - 5 263 298 - - -	2 220 - - - 13 565 663 - - 27 16 475	- - - - 2 777 326 52 4 227	- - - - 8 438 I 042 - - - 62	29 299 81 11 85 2 099 19 - - 2 623	- - 3 - - 2 9 - - 539
Group AAA AA+ AA AA- A+ AI+ AI A2 B Unrated  Company AAA AA+	- - - - 3 395 50 - -	- - - - 5 263 298 - - -	2 220 - - - 13 565 663 - - 27 16 475	- - - - 2 777 326 52 4 227	- - - - 8 438 I 042 - - - 62	29 299 81 11 85 2 099 19 - - 2 623	- - 3 - 2 9 - - 539 553
Group AAA AA+ AA AA- A+ AI+ AI A2 B Unrated  Company AAA AA+ AA	- - - - 3 395 50 - -	- - - - 5 263 298 - - -	2 220 - - - 13 565 663 - - 27 16 475	- - - - 2 777 326 52 4 227	- - - - 8 438 I 042 - - - 62	29 299 81 11 85 2 099 19 - - 2 623	- - 3 - - 2 9 - - 539
Group AAA AA+ AA AA- A+ AI+ AI A2 B Unrated  Company AAA AA+ AAA AA-	- - - - 3 395 50 - -	- - - - 5 263 298 - - -	2 220 - - - 13 565 663 - - 27 16 475	- - - - 2 777 326 52 4 227	- - - - 8 438 I 042 - - - 62	29 299 81 11 85 2 099 19 - - 2 623	- - 3 - 2 9 - - 539 553
Group AAA AA+ AA AA- A+ AI+ AI A2 B Unrated  Company AAA AA+ AA+ AA- AA+ AA- A++	- - - 3 395 50 - - - 3 445	- - - 5 263 298 - - 111 5 672	2 220 - - - 13 565 663 - 27 16 475 2 220 - - -	- - 2 777 326 52 4 227 3 386	- - 8 438 I 042 - 62 9 542	29 299 81 11 85 2 099 19 - - 2 623	- - 3 - - 2 9 - - 539 553
Group AAA AA+ AA AA- A+ AI+ AI A2 B Unrated  Company AAA AA+ AAA AA+ AA AA+ AA AA- A+ AI+	- - - 3 395 50 - - - 3 445	- - - 5 263 298 - - 111 5 672	2 220 - - - 13 565 663 - - 27 16 475 2 220 - - - - 13 084	- - - 2 777 326 52 4 227 3 386	- - - 8 438 I 042 - - 62 9 542	29 299 81 11 85 2 099 19 - - - 2 623 2 623	- - 3 - 2 9 - - 539 553
Group AAA AA+ AA AA- A+ AI+ AI A2 B Unrated  Company AAA AA+ AAA AA+ AA AA+ AA AA- A+ AI+ AI	3 395 50 3 395 50 50	- - - 5 263 298 - - 111 5 672	2 220 - - - 13 565 663 - 27 16 475 2 220 - - - 13 084 663	- - - 2 777 326 52 4 227 3 386	- - - 8 438 I 042 - - 62 9 542 - - - - - - 6 6 6 I I I 042	29 299 81 11 85 2 099 19 - - - 2 623 29 299 81 11 85 2 099 19	- - 3 - 2 9 - 539 553
Group AAA AA+ AA AA- A+ AI+ AI A2 B Unrated  Company AAA AA+ AAA AA+ AA AA+ AA AA- A+ AI+	- - - 3 395 50 - - - 3 445	- - - 5 263 298 - - 111 5 672	2 220 - - - 13 565 663 - 27 16 475 2 220 - - - 13 084 663 	2 777 326 52 4 227 3 386	- - - 8 438 I 042 - - 62 9 542 - - - - - 6 6 1 I I 042 3	29 299 81 11 85 2 099 19 - - 2 623 29 299 81 11 85 2 099 19 -	- - 3 - - 2 9 - - 539 553
Group AAA AA+ AA AA- A+ AI+ AI A2 B Unrated  Company AAA AA+ AAA AA+ AA AA+ AA AA- A+ AI+ AI	3 395 50 3 395 50 50	- - - 5 263 298 - - 111 5 672	2 220 - - - 13 565 663 - 27 16 475 2 220 - - - 13 084 663	- - - 2 777 326 52 4 227 3 386	- - - 8 438 I 042 - - 62 9 542 - - - - - - 6 6 6 I I I 042	29 299 81 11 85 2 099 19 - - - 2 623 29 299 81 11 85 2 099 19	- - 3 - 2 9 - 539 553

No credit limits were exceeded during the reporting period, nor does management expect any losses from non-performance by these counterparties.



for the year ended 31 March 2008

#### 3. Financial risk management (continued)

#### 3.1 Credit risk (continued)

#### 3.1.2 Credit exposure (continued)

Contractor (contained)		Group		C	Company	
	Note	2008 Rm	2007 Rm	2008 Rm	2007 Rm	
The maximum exposure to credit risk for trade and other receivables per class was as follows:						
Electricity receivables		4 022	3 938	4 022	3 938	
International		249	331	249	331	
Local large power users		3 095	3 117	3 095	3 1 1 7	
Local small power users		661	465	661	465	
Service delivery framework <sup>1</sup>		17	25	17	25	
Other trade receivables		155	158		_	
International		28	53	-	_	
Local		127	105	_	_	
Other receivables		I 436	668	1 319	632	
Recoverable work		77	58	77	58	
Employee debtors		54	38	50	38	
Inter-company debtors		-	_	659	456	
Reinsurance debtors		185	12	-	_	
Concession debtors		389	310	-	_	
Sundry debtors		731	250	533	80	
Total trade and other receivables	16	5 613	4 764	5 341	4 570	
The analysis per credit rating level of the credit risk of trade and other receivables was as follows:						
AI+		51	51	51	51	
Al		20	24	20	24	
Unrated		5 542	4 689	5 270	4 495	
		5 613	4 764	5 341	4 570	
The maximum exposure to credit risk for non-current assets held-for-sale was as follows:						
Trade and other receivables	20	259	336			
Loans receivable	20	2 415	2 347			
		2 674	2 683			

<sup>&</sup>lt;sup>1</sup> Negotiated agreement with stakeholders in residential areas which is a specific initiative aimed at resolving the non-payment of accounts.



## (a) Electricity receivables 2008

## Group and company

	Carrying						Impaired <sup>2</sup>					
	amount	Not past due		Days	oast due		Not past due		Days pa	ast due		
	Rm	Rm	0-15 Rm	16-45 Rm	46-75 Rm	>75 Rm	Rm	0-15 Rm	16-45 Rm	46-75 Rm	>75 Rm	
Individually assessed for impairment												
International	249	112	_	_	2	1	87	_	_	_	47	
Gross	376	112	_	_	2	1	87	_	3	3	168	
Impairment	(127)	_	_	_	_	_	_	_	(3)	(3)	(121)	
Local large power users	3 095	3 021	43	18	2	8	3	_	_	_	_	
Gross	3 106	3 021	43	18	2	8	3	1	2	-	8	
Impairment	(11)	_	_	_	_	-	_	(1)	(2)	_	(8)	
	Carrying amount						Not past due	С	ays past du	e		
	Rm						Rm	0-30 Rm	31-60 Rm	>60 Rm		
Collectively assessed for impairment Local small power												
users	661						256	58	16	331		
Gross	I 763						344	100	57	I 262		
Impairment	(1 102)						(88)	(42)	(41)	(931)		
Service delivery framework	17						_	ı	_	16		
Gross	552						6	3	3	540		
Impairment	(535)						(6)	(2)	(3)	(524)		
Total carrying amount	4 022											

<sup>&</sup>lt;sup>2</sup> Impaired receivables are receivables for which the group determines that it is probable that it will be unable to collect all amounts due in accordance with the contractual payment terms.



<sup>&</sup>lt;sup>1</sup> Receivables past due but not impaired are receivables where contractual payment terms are past due but the group believes that impairment is not required on the basis of the level of security or collateral available and the stage of collection of amounts owed to the group.

for the year ended 31 March 2008

## 3. Financial risk management (continued)

- 3.1 Credit risk (continued)
- 3.1.2 Credit exposure (continued)
  - (a) Electricity receivables (continued)

2007

Group and company

	Carrying amount	Not	Not in	Not impaired Days past due			Not		Impa Days pa		
	Rm	past due Rm	0-15 Rm	16-45 Rm	46-75 Rm	>75 Rm	past due Rm	0-15 Rm	16-45 Rm	46-75 Rm	>75 Rm
Individually assessed for impairment											
International	331	191	6	_	_	89	4	5	_	2	34
Gross	347	191	6	_	_	89	4	5	_	2	50
Impairment	(16)	_	_	_	_	_	_	_	_	_	(16)
Local large											
power users	3 1 1 7	3 03 1	14	53	4	5	_	5	3	<u> </u>	<u> </u>
Gross	3 130	3 03 I	14	53	4	5	_	6	4	I	12
Impairment	(13)	_				_	_	(1)	(1)		(11)
	Carrying amount						Not past due		Days past du	е	
	Rm						Rm	0-30 Rm	31-60 Rm	>60 Rm	
Collectively assessed for impairment Local small power	445						2//	40	22	120	
users	465						266	49 70	22 46	128	
Gross Impairment	(783)						280			852	
Service delivery	(703)						(14)	(21)	(24)	(724)	
framework	25						3	1	_	21	
Gross	543						5	3	3	532	
Impairment	(518)						(2)	(2)	(3)	(511)	
Total carrying amount	3 938										

Electricity receivables include an amount of R39 million (2007: R11 million) which relates to receivables that were renegotiated. These electricity receivables would have been past due had their terms not been renegotiated. Interest is charged on all arrear debts and in 2008 R102 million (2007: R68 million) was charged to profit or loss.

<sup>&</sup>lt;sup>1</sup> Receivables with renegotiated terms are receivables that have been restructured due to the deterioration in the customer's financial position and where the group has made concessions that it would not otherwise consider.



## (b) Other trade receivables

## 2008 Group

Group											
	Carrying amount	Not past due		Not in Days	npaired past due		Not past due		Impa Days pa	ired ast due	
	Rm	Rm	0-30 Rm	31-60 Rm	61-90 Rm	>90 Rm		0-30 Rm	31-60 Rm	61-90 Rm	>90 Rm
Individually assessed for impairment											
International	28	13	10	_	3	2	_	_	_	_	_
Gross Impairment	28 -	13	10 -	_ _	3 –	2 –	-	_		_ _	-
Local	127	73	46	3	2	3	_	-	-	_	_
Gross Impairment	147 (20)	73 -	46 -	3 –	2 _	3	_ _	- -	_ _	_ _	20 (20)
Total carrying amount	155										
2007 Group Individually assessed for impairment											
International	53	19	13	6	4	9	1	_	1	_	_
Gross Impairment	69 (16)	19	13 -	6 -	4	9	I  -	4 (4)	3 (2)	3 (3)	7 (7)
Local	105	16	11	3	2	42	_	I	2	14	14
Gross Impairment	109 (4)	16	  -	3 –	2 –	42 -	_ _	  -	2	14 -	18 (4)
Total carrying amount	158										

## (c) Other receivables

Other receivables comprise mainly debtors for which there are no specific repayment terms.

	Gr	oup	Com	oany
	2008 Rm	2007 Rm	2008 Rm	2007 Rm
Recoverable work	77	58	77	58
Gross	137	118	137	118
Impairment	(60)	(60)	(60)	(60)
Employee debtors	54	38	50	38
Gross Impairment	55 (I)	38	51 (I)	38
Inter-company debtors	_		659	456
Gross	_	_	659	456
Impairment				_
Reinsurance debtors	185	12	_	
Gross Impairment	185	12	_	_
Concession debtors	389	310	_	
Gross Impairment	389 -	310	_ _	_ _
Sundry debtors	731	250	533	80
Gross	752	373	554	108
Impairment	(21)	(123)	(21)	(28)
Total carrying amount	I 436	668	1319	632

Factors considered for impairment per class include:



<sup>→</sup> recoverable work – debt outstanding for two years with no success in recovering from the government

<sup>ightarrow</sup> sundry and employee debtors – long-outstanding debt handed over to debt collectors

for the year ended 31 March 2008

## 3. Financial risk management (continued)

- 3.1 Credit risk (continued)
- 3.1.2 Credit exposure (continued)
  - (d) Non-current assets held-for-sale 2008

	Carrying amount	Not past due	[	Not impaired Days past due	>/0		Not past due		Impaired Days past due	>/0
	Rm	Rm	0-30 Rm	31-60 Rm	>60 Rm		Rm	0-30 Rm	31-60 Rm	>60 Rm
Individually assessed for impairment										
Trade and other receivables	259	77	19	2	7	1	105	34	7	8
Gross Impairment	(50)	77	19 _	2	7		109 (4)	34	9 (2)	52 (44)
	Carrying					J	Not past due		Days past due	(11)
	Rm						Rm	0-30 Rm	31-60 Rm	>60 Rm
Collectively assessed for impairment										
Loans receivable	2 415						2 334	15	8	58
Home loans Impairment	2 425						2 335	17 (2)	9 (I)	64 (6)
Total carrying amount	2 674						(1)	(2)	(1)	(0)
2007	2 07 1									
	Carrying			Not impaired			Not		Impaired	
	amount	Not	[	Days past due			past due		Days past due	
		past due	0-30 Rm	31-60 Rm	>60 Rm			0-30 Rm	31-60 Rm	>60 Rm
Individually assessed for impairment										
Trade and other receivables	336	211	16	9	30	1	66	<u>2</u> 15	1	1
Gross Impairment	383 (47)	211	16 -	9	30		66	(13)	 (10)	25 (24)
	Carrying amount					_	Not past due		Days past due	
	Rm						Rm	0-30 Rm	31-60 Rm	>60 Rm
Collectively assessed for impairment										
Loans receivable	2 347						2 252	13	5	77
Home loans Impairment	2 359 (12)						2 254 (2)	15 (2)	6 (I)	84 (7)
Total carrying amount	2 683						(-/	(-)	(.)	('/]



		Group	C	Company			
	2008 Rm	2007 Rm	2008 Rm	2007 Rm			
(e) Security relating to amounts receivable  The security held against trade and other receivables for the group companies comprises guarantees and deposits. The estimate of the fair value of the security held is as follows:  Electricity receivables	2 149	2 075	2 149	2 075			
International Local large power users Local small power users Service delivery framework Other trade receivables	- I 526 623 - -	-   495   576   4	- I 526 623 - -	-   495   576   4			
International Local Other receivables Recoverable work Employee debtors Inter-company debtors	2 2 - -	10 8 - -	2 2 - -	10 8 -			
Sundry debtors Total	2 151	2 086	2 151	2 085			
The total amount of the security above includes R1 525 million (2007: R1 495 million) relating to electricity receivables (international and large power users) which were not impaired and R2 million (2007: R10 million) to other trade receivables that were not impaired.  Non-current assets held-for-sale  Loans receivable secured by mortgage loans	2 279	2 298					
(f) Allowance for impairment  The movement in the allowance for impairment in respect of trade and other receivables during the year was as follows:							
Balance at beginning of the year Impairment loss recognised (net of reversals) Write offs	(1 533) (621) 277	(1 434) (265) 166	(1 418) (712) 273	(1 272) (309) 163			
Balance at end of the year	(1 877)	(1 533)	(1 857)	(1418)			

Eskom establishes an allowance for impairment that represents its estimate of incurred losses in respect of trade and other receivables. This allowance consists of a specific loss component that relates to individually exposures, and a collective loss component established for groups of similar customers in respect of losses that have been incurred but not yet identified.

## (g) Financial guarantees issued

The group's maximum exposure as a result of financial guarantees issued was R2 382 million (2007: R2 543 million) and R2 371 million (2007: R2 544 million) for the company. Refer note 38.1 for more information on financial guarantees issued.



for the year ended 31 March 2008

#### 3. Financial risk management (continued)

#### 3.2 Market risk

Market risk is the risk that the fair value or future cash flows of financial instruments will fluctuate because of changes in foreign exchange rates, commodity prices and interest rates.

A significant part of the market risk encountered arises from financial instruments that are managed centrally within the treasury function of the group or from contracts containing embedded derivatives.

The objective of the group's market risk management policy is to protect and enhance the balance sheet and income statement by managing and controlling market risk exposures and to optimise the funding of business operations and facilitate capital expansion.

#### Financial instruments managed by the treasury function

The treasury department is responsible for managing market risk within the risk management framework approved by Exco and the board. The overall authority for the management of market risks within the treasury department is vested in the asset and liability committee (Alco) and the credit risk committee. Measurement and reporting occurs on a daily and/or monthly basis and is performed by an independent section within the treasury department. Financial derivatives are used to manage market risk.

## Financial instruments managed by other divisions and subsidiaries

Market risk arises mainly from changes in foreign exchange rates and to a limited extent from changes in commodity prices and equity prices. The divisions and subsidiaries are responsible for identifying the exposure arising from these risks. They liaise with the centralised treasury function to hedge (economic and cash flow hedges) these exposures appropriately on their behalf.

## Embedded derivatives

Eskom has entered into a number of agreements to supply electricity to electricity intensive industries where the revenue from these contracts is based on commodity prices and foreign currency rates (mainly USD) or foreign production price indices. This gives rise to embedded derivatives that require separation as a result of the different characteristics of the embedded derivative and the host contract. The contractual periods vary from one year up to a maximum of 25 years.

The net impact on the income statement of changes in the fair value of the embedded derivatives for the group is a fair value loss of R143 million (2007: fair value gain R4 305 million) and a fair value loss of R149 million (2007: fair value gain R4 131 million) for the company. At 31 March 2008, the embedded derivative assets amounted to R12 713 million (2007: R8 686 million) for the group and R12 707 million (2007: R8 685 million) for the company. The embedded derivative liabilities at 31 March 2008 were R5 084 million (2007: R914 million) for the group and R5 084 million (2007: R913 million) for the company.

The valuation methods and inputs are discussed in the accounting policies (note 2.10, page 121) and the valuation assumptions are disclosed under critical accounting estimates and judgements (note 4, page 147). Risks arising from these contracts are discussed under the relevant risk areas as follows:

- → currency risk (note 3.2.1, page 137)
- → commodity risk (note 3.2.2, page 140)
- → interest rate risk (note 3.2.3, page 140)
- → other risks (note 3.2.5, page 142)

Electricity contracts that contain embedded derivatives are considered for economic hedging. Hedging in respect of commodity risk and foreign currency exposure resulting from these embedded derivatives takes place on a short-term basis up to a maximum of five years. The South African Reserve Bank currently allows Eskom to hedge commodity price risk up to a maximum of five years with a foreign or local party.

## Non-current assets held-for-sale

Market risks in respect of loans receivable arise from changes in interest rates and market prices. Market risk is monitored and analysed through the treasury department and reported to the EFC finance committee. A strategy aimed at protecting the EFC group from changes in market risk that may have a negative impact on earnings has been implemented. Funds to finance operations are raised over the short term, usually for periods between three to six months, but not exceeding one year. This enables the pricing of assets to be matched with changes in the pricing of liabilities. The cost of funding is based on prevailing conditions in the South African money market. Rates charged on outstanding loan receivables are based on movements in the South African Reserve Bank repurchase rate.



## 3.2.1 Currency risk

Currency risk arises primarily from purchasing imported goods and services directly from overseas or indirectly via local suppliers, foreign sales and foreign borrowings. The group is exposed to foreign exchange risk arising from future commercial transactions and recognised assets and liabilities that are denominated in a currency other than the functional currency of the group. All transactions in excess of R50 000 are hedged (ie, economic or cash flow hedges). Currency exposure is identified by the business and hedged by the central treasury department. All hedging activities are conducted in, and managed by the treasury department. Hedging instruments consist principally of forward exchange contracts, most of which have a maturity of less than one year from the reporting date, but which are rolled over at maturity when necessary. The group also uses currency swaps. The hedging instrument is entered into once the exposure is firm and ascertainable.

The major exposure to foreign currency risk at 31 March, based on notional amounts, was as follows (in million):

	EUR	USD	GBP	JPY	SEK	CHF	CAD	NOK
2008								
Group								
Assets								
Investment in securities	37	_	-	_	-	-	_	_
Embedded derivatives	_	8	_	_	_	-	_	_
Trade and other receivables  Liabilities	4	29	_	_	_	_	_	_
Debt securities issued	(500)	_	_	_	_	_	_	_
Borrowings	(109)	_	_	_	_	_	_	_
Embedded derivatives		(1)	_	_	_	_	_	_
Trade and other payables	(91)	(19)	(2)	(229)	(46)	(2)	_	_
Gross balance sheet exposure	(659)	17	(2)	(229)	(46)	(2)	-	-
Estimated forecast sales	_	105	_	_	-	-	_	_
Estimated forecast purchases <sup>2</sup>	(3 222)	(270)	(30)	(6 207)	(355)	(10)	(6)	_
Gross exposure	(3 881)	(148)	(32)	(6 436)	(401)	(12)	(6)	_
Derivatives held for risk management	4 112	249	45	6 63 1	394	14	П	_
Derivatives held for risk management	(196)	51	(10)	(36)	(10)	_	(1)	_
Other exposures covered by company <sup>3</sup>	(30)	(29)	(1)	(160)				_
Net exposure	5	123 <sup>4</sup>	2	(1)	(17)5	2	4	_
Company								
Assets	27							
Investment in securities Embedded derivatives	37	- 8	_	_	_	_	_	_
Trade and other receivables	4	8 29	_		_	_	_	_
Liabilities	7	27	_	_	_	_	_	_
Debt securities issued	(500)	_	_	_	_	_	_	_
Borrowings	(109)	_	_	_	_	_	_	_
Embedded derivatives	` _	(1)	_	_	_	-	-	_
Trade and other payables	(83)	(17)	(1)	(229)	(46)	(2)	_	_
Gross balance sheet exposure	(651)	19	(1)	(229)	(46)	(2)	-	_
Estimated forecast sales	_	105	_	_	_	-	-	_
Estimated forecast purchases <sup>2</sup>	(3 222)	(259)	(30)	(6 207)	(355)	(10)	(6)	_
Gross exposure	(3 873)	(135)	(31)	(6 436)	(401)	(12)	(6)	_
Derivatives held for risk management	4 104	236	43	6 63 1	394	13	11	_
Derivatives held for risk management	(196)	51	(10)	(36)	(10)		(1)	_
Group exposures covered by company	(35)	(40)	(3)	(160)		(1)	_	_
Net exposure	-	112 <sup>4</sup>	(1)	(1)	(17)5	_	4	_

<sup>&</sup>lt;sup>1</sup> Represents foreign denominated sales for the next 12 months.

<sup>&</sup>lt;sup>5</sup> Cover can only be taken on firm commitments where there is certainty of 90% take-up. Cover is taken out when orders are placed.



<sup>&</sup>lt;sup>2</sup> Represents future purchases contracted for.

<sup>&</sup>lt;sup>3</sup> Cover relates to exposure of a non-controlled wholly owned entity.

<sup>&</sup>lt;sup>4</sup> Cover relating to forecast sales of R105 million was taken out on 2 April 2008.

for the year ended 31 March 2008

## 3. Financial risk management (continued)

## 3.2 Market risk (continued)

## 3.2.1 Currency risk (continued)

	EUR	USD	GBP	JPY	SEK	CHF	CAD	NOK
2007								
Group								
Assets								
Investment in securities	113	_	_	_	_	_	_	_
Embedded derivatives	_	6	_	_	_	_	_	_
Trade and other receivables	_	27	_	_	_	_	_	_
Liabilities								
Debt securities issued	(500)	_	_	_	_	_	_	_
Borrowings	(113)	_	_	_	_	_	_	_
Embedded derivatives	_	(1)	_	_	_	_	_	_
Trade and other payables	(35)	(16)	(1)	(37)	(6)	(5)	_	_
Gross balance sheet exposure	(535)	16	(1)	(37)	(6)	(5)	_	_
Estimated forecast sales <sup>1</sup>	_	110	-	_	_	_	_	-
Estimated forecast purchases <sup>2</sup>	(520)	(190)	(11)	(1 233)	(448)	(8)	(2)	(5)
Gross exposure	(1 055)	(64)	(12)	(1 270)	(454)	(13)	(2)	(5)
Derivatives held for risk management	1 106	217	14	4 176	811	9	2	5
Derivatives held for risk management	(6)	(123)	(1)	(581)	(364)	_	_	_
Other exposures covered by company <sup>3</sup>	(45)	(23)	(1)	(2 325)	_	_	_	_
Net exposure		7	_	_	(7)	(4)	_	_
Company								
Assets								
Investment in securities	113	_	_	_	_	_	_	_
Embedded derivatives	_	6	_	_	_	_	_	_
Trade and other receivables	_	23	_	_	_	_	_	_
Liabilities								
Debt securities issued	(500)	_	_	_	_	_	_	_
Borrowings	(113)	_	_	_	_	_	_	_
Embedded derivatives	_	(1)	_	_	_	_	_	_
Trade and other payables	(34)	(12)	(1)	(37)	(6)	(3)	_	_
Gross balance sheet exposure	(534)	16	(1)	(37)	(6)	(3)	_	_
Estimated forecast sales	_	110	_	_	_	_	_	_
Estimated forecast purchases <sup>2</sup>	(520)	(190)	(11)	(1 233)	(448)	(8)	(2)	(5)
Gross exposure	(1 054)	(64)	(12)	(1 270)	(454)	(11)	(2)	(5)
Derivatives held for risk management	1 106	217	14	4 176	811	9	2	5
Derivatives held for risk management	(6)	(123)	(1)	(581)	(364)	_	_	_
Group exposures covered by company	(48)	(23)	(1)	(2 325)	_	(2)	_	_
		\ /	\ /	\ /		\ /		

<sup>&</sup>lt;sup>3</sup> Cover relates to exposure of a non-controlled wholly owned entity.



Represents foreign denominated sales for the next 12 months.

<sup>&</sup>lt;sup>2</sup> Represents future purchases contracted for.

The following significant exchange rates applied during the year (rand values for I unit of selected currencies):

				Averaş	ge rate	Reporting date mid-spot rate		
				2008	2007	2008	2007	
EUR				10,26	9,17	12,85	9,75	
USD				7,15	7,09	8,13	7,29	
GBP				14,38	13,52	16,16	14,35	
JPY				0,06	0,06	0,08	0,06	
SEK				1,09	0,99	1,37	1,04	
CHF				6,20	5,74	8,17	6,01	
CAD				6,96	6,23	7,92	6,33	
NOK				1,27	1,13	1,60	1,20	
AUD				6,22	5,44	7,41	5,92	

## Sensitivity analysis

The group is mainly exposed to euros and US dollars. The sensitivity analysis has been performed on the same basis as the prior year. The analysis assumes that all other variables, in particular interest rates, remain constant and are as follows:

prior year. The analysis assumes that an other variables, in particular interest rates, remain constant and are as follows:											
			Gr		Company						
	2008	2008	2007	2007	2008	2008	2007	2007			
	1%	1%	1%	1%	1%	1%	1%	1%			
						decrease					
	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm			
Profit or (loss), excluding embedded derivatives											
Total exposure	330	(330)	54	(54)	330	(330)	54	(54)			
Rand/Euro exposure	61	(61)	46	(46)	61	(61)	46	(46)			
Rand/US dollar exposure	19	(19)	2	(2)	19	(19)	2	(2)			
Equity, excluding embedded derivatives											
Total exposure	130	(130)	20	(20)	130	(130)	20	(20)			
Rand/Euro exposure	359	(359)	12	(12)	359	(359)	12	(12)			
Rand/US dollar exposure	4	(4)	5	(5)	4	(4)	5	(5)			
Profit or (loss) — embedded derivatives											
Rand/US dollar exposure	523	(512)	357	(346)	523	(512)	357	(346)			



for the year ended 31 March 2008

#### 3. Financial risk management (continued)

#### 3.2 Market risk (continued)

## 3.2.2 Commodity risk

The group is exposed to commodity risk where commodities are either used directly (eg, coal, liquid fuels) or indirectly as a component of plant, equipment or inventory (eg, aluminium, copper or steel). The revenue from certain customised pricing arrangements is linked to commodity prices.

The exposures are hedged economically by means of futures and/or options. Economic hedging is applied where it is practical (a relevant hedging instrument exists) based on the most optimal economic solution and in compliance with the South African Reserve Bank requirements.

The underlying exposure to commodity price risk could result in embedded derivatives. Where the embedded derivative is closely related to the host contract, the embedded derivative is not accounted for separately. Where the embedded derivatives are not closely related, the contracts have been valued and separately accounted for:

At year end only the customised pricing arrangements gave rise to commodity-linked aluminium embedded derivatives (refer note 3.2 on page 136).

#### Commodities used directly

Eskom purchases coal that is used in the generation of electricity from mines and is exposed to price and supply risks. It has entered into long-term supply agreements with mines to ensure the continual supply of coal. In the fixed price contracts the price escalation is fixed, whereas Eskom pays for all the operational costs of the collieries where the contracts are on a cost-plus basis. The contracts are monitored closely and managed to ensure costs are maintained within acceptable levels. All production requirements above those of the long-term contracts are supplied via short- to medium-term contracts which usually have a transport element included in the purchase price. Refer to page 58 for further information on coal.

There is also price-risk exposure in the long-term water supply agreements entered into with the Department of Water Affairs and Forestry (DWAF) where Eskom pays for a portion of the operational costs incurred by DWAF on certain of the water schemes. Refer to page 60 for further information on water.

Eskom is exposed to price risk on the diesel that is used for the generation of electricity at its open-cycle gas turbine power stations. The price of diesel is a function of the crude oil and USD exchange rates. Refer to page 61 for further information on diesel.

#### Commodities used indirectly

The exposure where commodities formed a part of plant, equipment or inventory was relatively small at year end, but will increase as the capital expansion programme progresses.

## Sensitivity analysis

The group is exposed mainly to changes in the aluminum price. The sensitivity analysis has been performed on the same basis as the prior year. The analysis assumes that all other variables remain constant and the possible impact on profit or loss is as follows:

	Group				Company				
	2008	2008	2007	2007	2008	2008	2007	2007	
	1%	1%	1%	1%	1%	1%	1%	1%	
	increase	decrease	increase	decrease	increase	decrease	increase	decrease	
	Rm								
Profit or (loss), excluding embedded derivatives									
Aluminium options	(58)	56	(58)	55	(58)	56	(58)	55	
Profit or (loss) — embedded derivatives									
Aluminium price	433	(433)	257	(257)	433	(433)	257	(257)	

The periods of the hedging instrument and that of the hedged item are not the same because of South African Reserve Bank regulations that limit the number of years which can be hedged.

#### 3.2.3 Interest rate risk

Interest rate risk is the risk that the group's financial condition may be adversely affected as a result of changes in interest rate levels, yield curves and spreads.

The group's interest rate risk arises mainly from short-term borrowings and the repricing of interest rate swaps and forward exchange contracts. Borrowings issued at variable rates expose the group to cash flow interest rate risk. Long-term borrowings issued at fixed rates expose the group to fair value interest rate risk. The group policy is to restrict the maximum effective portion of the external debt (excluding the trading portfolio which is managed within the constraints of the treasury policy and control manual) exposed to an interest rate reset within the next 12 month period to 40%.

## Sensitivity analysis

The group analyses its interest rate exposure on a dynamic basis by conducting a sensitivity analysis. This involves determining the impact on profit and loss of defined interest rate shifts. For each simulation, the same interest rate shift is used for all currencies.

The sensitivity analysis for interest rate risk assumes that all other variables, in particular foreign exchange rates, remain constant. The calculation excludes borrowing costs capitalised in terms of the group's accounting policy. The analysis has been performed on the same basis as the prior year.



The simulation is performed on a monthly basis to verify that the maximum loss potential is within the limit set by management. The results of the simulation are included in the table below.

Rand and United States dollar interest rates are used in determining the fair value of embedded derivatives. The sensitivity analysis below indicates the impact on profit or loss if these rates changed. The sensitivity analysis assumes that all other variables remain constant and has been prepared on the same basis as for the prior year.

		Gro	oup		Company				
	2008 +100 basis points Rm	2008 -100 basis points Rm	2007 +100 basis points Rm	2007 -100 basis points Rm	2008 +100 basis points Rm	2008 -100 basis points Rm	2007 +100 basis points Rm	2007 -100 basis points Rm	
Profit or (loss), excluding embedded derivatives	(F14)	400	(121)	1.40	(520)	705	(152)	102	
Rand interest rates  Profit or (loss) — embedded derivatives	(514)	690	(131)	160	(528)	705	(153)	183	
Rand interest rates	3 067	(3 455)	1 666	(1 889)	3 067	(3 455)	1 666	(1 889)	
US dollar interest rates	(2 961)	3 281	(1 742)	1 931	(2 961)	3 281	(1 742)	1 931	
Profit or (loss), non-current assets held-for-sale	(2)	2	(2)	2	_	-	_	_	

The group has elected not to hedge interest rate risk and there would therefore be no impact on equity.

Based on the various scenarios, the group manages its fair value interest rate risk by using fixed-to-floating interest rate swaps. Such interest rate swaps have the economic effect of converting borrowings from fixed rates to floating rates. Generally, the group raises short-term borrowings at fixed rates and swaps them into floating rates that are lower than those that would have been available had the group borrowed at floating rates directly. Under the interest rate swaps, the group agrees with counterparties to exchange, at specified intervals (primarily quarterly), the difference between fixed contract rates and floating-rate interest amounts calculated with reference to the agreed notional amounts.

#### Fixed and floating rate debt

The fixed and floating rate debt measured at the end of each month for the year under review was as follows:

	Group				Company			
	%	Floating %	%	Floating %	%	Floating %	%	Floating %
	2008	2008	2007	2007	2008	2008	2007	2007
Continuing operations	99	1	87	13	99	1	87	13
Non-current assets held-for-sale	22	78	32	68	_	_	_	_

## 3.2.4 Equity price risk

Equity price risk arises from listed shares held by Escap. Changes in the fair value of equity securities held by the group will fluctuate because of changes in market prices, caused by factors specific to the individual equity issuer, or factors affecting all similar equity securities traded on the market.

All the equity investments are listed on the JSE Limited (JSE). A 2% increase in the equity portfolio at the reporting date would have increased profit and loss by R7 million (2007: R7 million) after tax. An equal change in the opposite direction would have decreased profit or loss by the same amount. There will be no impact on equity. The analysis assumes that all other variables remain constant and is performed on the same basis as for the prior year.

Movements of financial assets and equity prices are monitored on a monthly basis and equity price changes are assessed against the JSE Shareholder Weighted Index as a benchmark.



for the year ended 31 March 2008

#### 3. Financial risk management (continued)

#### 3.2 Market risk (continued)

#### 3.2.5 Other price risk

Inflation price risk arises from embedded derivatives as discussed on page 136. The risk arises from movements in the US production price index and the South African consumer price index (CPI).

The following is the sensitivity analysis of the change in the value of the embedded derivatives (relating to customised pricing agreements) as a result of changes in the CPI or the United States PPI. This analysis has been performed on the same basis as the prior year. The analysis assumes that all other variables remain constant and the possible impact on profit or loss is as follows:

	Group					Company		
	2008	2008	2007	2007	2008	2008	2007	2007
	1%	1%	1%	1%	1%	1%	1%	1%
	increase	decrease	increase	decrease	increase	decrease	increase	decrease
	Rm							
Profit or (loss) – embedded derivatives								
South African CPI	(3 362)	3 030	(2 051)	I 837	(3 362)	3 030	(2 051)	I 837
United States PPI	(77)	72	(58)	41	(77)	72	(58)	41

#### 3.3 Liquidity risk

Liquidity risk is the risk that the group will not have sufficient financial resources to meet its obligations when they fall due, or will have to do so at excessive cost. This risk can arise from mismatches in the timing of cash flows from revenue and capital and operational outflows. Funding risk arises when the necessary liquidity to fund illiquid asset positions, such as building new electricity capacity, cannot be obtained at the expected terms and when required.

The objective of the group's liquidity and funding management is to ensure that all foreseeable operational, capital expansion and loan commitment expenditure can be met under both normal and stressed conditions. The group has adopted an overall balance sheet approach, which consolidates all sources and uses of liquidity, while aiming to maintain a balance between liquidity, profitability and interest rate considerations.

The management of consolidated liquidity and funding risk is centralised in the treasury department in accordance with practices and limits set by the Exco and the board. The group's liquidity and funding management process includes:

- → projecting cash flows and considering the cash required by the group and optimising the short-term liquidity requirements as well as the long-term funding
- → monitoring balance sheet liquidity ratios
- → maintaining a diverse range of funding sources with adequate back-up facilities
- → managing the concentration and profile of debt maturities
- → actively managing the funding risk by evaluating optimal entry points into the various markets per the official funding plan
- → maintaining liquidity and funding contingency plans

Eskom has an established corporate governance structure and process for managing the risks regarding guarantees and contingent liabilities. All significant guarantees issued by Eskom are approved by the board, and are managed on an ongoing basis through the quarterly meetings of the treasury credit risk committee, and by the risk management committee of the board.

The guarantees are administratively managed by the treasury department. Updated guarantee schedules are compiled every month, taking cognisance of any changed risk factors, and are submitted to each of the committees for consideration and action if necessary. Risk factors and assumptions affecting probability calculations are reassessed twice a year and presented to the above committees.

The concentration of risk is within acceptable limits. Eskom's guarantees are diverse and unlinked, such that a trigger event for any one guarantee is unlikely to precipitate a trigger event in respect of other guarantees.

Given that there would be forewarning of payments required in terms of the other guarantees, and considering the amounts of the guarantees, it is expected that Eskom will be able to raise the required liquidity to effect any required payments.



#### Primary source of funding and unused facilities

The primary sources to meet Eskom's liquidity requirements are revenue, cash inflows from maturing financial assets purchased, funds committed by government, as well as local and foreign debt issued in the market. To supplement these liquidity sources under stress conditions, overdraft facilities (for which there was no requirement to use), undrawn loan and financing facilities are in place

		G	iroup	Company		
	Currency	2008 m	2007 m	2008 m	2007 m	
Japan Bank for International Cooperation (JBIC)						
Untied facility	JPY	17 000	17 000	17 000	17 000	
Tied facility	JPY	30 000	30 000	30 000	30 000	
European Investment Bank	EUR	168	80	168	80	
General banking facilities	ZAR	1 000	1 000	1 000	1 000	
Government commitment	ZAR	60 000	_	60 000	_	

#### Key indicators used for liquidity management

#### Duration

Management has set minimum duration limits to help optimise returns for the group on its debt portfolio. Group policy is to ensure that the external debt portfolio (excluding the trade portfolio) has a minimum duration of five years, should it exceed R10 billion. The duration limits are independently monitored and reported to Alco on a monthly basis, and to Exco and the risk management committee on a quarterly basis.

The duration (a weighted average term to maturity measure based on future cash flows) of the debt measured at fair value for the year under review was as follows:

	G	roup	Co	Company	
	2008 Years	2007 Years	2008 Years	2007 Years	
Continuing operations	6,14	6,30	6,14	6,30	
Non-current assets held-for-sale	1,91	1,28	-	_	

## Liquid assets

Liquid assets are investments identified as having the potential to be quickly converted into cash. These investments include government bonds, negotiable certificates of deposit and floating rate notes as disclosed in investment in securities (refer note 12.2). The liquid assets were as follows:

	G	roup	Company		
	2008 Rm	2007 Rm	2008 Rm	2007 Rm	
Continuing operations	11 425	15 770	11 066	13 884	

#### Capital expenditure ratio

The capital expenditure ratio measures whether there are liquid funds available to invest in capital expenditure. The capital expenditure ratio for the period was as follows:

	Gi	oup	Co	mpany
	2008 %	2007 %	2008 %	2007 %
Continuing operations	31	80	31	73

The ratio is calculated as net cash from operations divided by capital expenditure (excluding finance cost capitalised) on property, plant and equipment and intangible assets.



for the year ended 31 March 2008

## 3. Financial risk management (continued)

## 3.3 Liquidity risk (continued)

## Contractual cash flows

The table below indicates the contractual undiscounted cash flows of the group's financial assets and liabilities (refer note 12) on the basis of their earliest possible contractual maturity. The undiscounted cash flows in respect of the group's financial assets are presented net of impairment losses and include estimates where there are no contractual repayment terms or the receivable is past due. The cash flows of the group's financial liabilities are indicated on a gross undiscounted basis. The cash flows for derivatives are presented as gross inflows and outflows even though physically they are settled simultaneously.

The table contains only cash flows relating to financial instruments and commitments (financial guarantees and loan commitments). It does not include future cash flows expected from the normal course of business and related commodity linked pricing agreements.

agreements.	Carrying	amount			Cash f	lows	
	Non-	Current	Nominal	0 to 3	4 to 12	I to 5	More than
	current		inflow/	months	months	years	5 years
			(outflow)				
	Rm	Rm	Rm	Rm	Rm	Rm	Rm
2008							
Group							
Financial assets							
Investment in securities	5 882	9 137	18 681	4 155	5 936	4 638	3 952
Derivatives held for risk management	3 538	9 132	9 02 1	6	1411	7 604	-
Finance lease receivables	415	10	1 082	16	48	251	767
Trade and other receivables	180	5 433	5 614	4 763	670	92	89
Financial trading assets	-	2 539	3 535	I 700	I 835	_	-
Cash and cash equivalents	-	10 893	10 893	10 893	-	_	_
	10 015	37 144	48 826	21 533	9 900	12 585	4 808
Financial liabilities							
Debt securities issued	(39 788)	(2 491)	(106 514)	(1 985)	(2 925)	(27 009)	(74 595)
Borrowings	(1 480)	(6 920)	(9 388)	(1 278)	(5 628)	(1 051)	(1 431)
Derivatives held for risk management	(947)	(1 475)	3 579	2 303	3 617	(2 341)	_
Finance lease liabilities	(539)	(9)	(1 973)	(29)	(80)	(398)	(1 466)
Trade and other payables	(676)	(10 223)	(10 899)	(7 786)	(2 437)	(635)	(41)
Financial trading liabilities	-	(4 087)	(5 381)	(2 887)	(740)	(403)	(1 351)
	(43 430)	(25 205)	(130 576)	(11 662)	(8 193)	(31 837)	(78 884)
Company							
Financial assets							
Investment in securities	6 136	8 379	18 177	3 397	5 936	4 892	3 952
Derivatives held for risk management	3 538	9 132	9 021	6	1 411	7 604	-
Finance lease receivables	415	10	I 082	16	48	251	767
Trade and other receivables	9	5 332	5 341	4 666	666	8	I
Financial trading assets	-	2 017	3 233	I 585	I 648	-	-
Cash and cash equivalents	-	10 322	10 322	10 322	_		
	10 098	35 192	47 176	19 992	9 709	12 755	4 720
Financial liabilities							
Debt securities issued	(39 788)	(2 491)	(106 514)	(1 985)	(2 925)	(27 009)	(74 595)
Borrowings	(1 224)	(7 465)	(9 677)	(1 823)	(5 628)	(795)	(1 431)
Derivatives held for risk management	(947)	(1 475)	3 579	2 303	3 617	(2 341)	_
Finance lease liabilities	(678)	(36)	(2 223)	(37)	(113)	(523)	(1 550)
Trade and other payables	(676)	(9 843)	(10 518)	(7 504)	(2 339)	(634)	(41)
Financial trading liabilities	_	(4 087)	(5 381)	(2 887)	(740)	(403)	(1 351)
	(43 313)	(25 397)	(130 734)	(11 933)	(8 128)	(31 705)	(78 968)



	Cai	rrying amou	nt		Cash f	lows	
	Non-	Current	Nominal	0 to 3	4 to 12	I to 5	More than
	current		inflow/	months	months	years	5 years
	Rm	Rm	(outflow) Rm	Rm	Rm	Rm	Rm
2007							
2007 Group							
Financial assets							
Investment in securities	15 674	9 9 1 8	30 333	6 788	5 529	13 960	4 056
	2 412	211	9 073	593	J JZ9	4 505	2 819
Derivatives held for risk management Finance lease receivables		17	1513	373	93		1 074
	536 4		4 765			346	1 0/4
Trade and other receivables	•	4 760		3 875	885	5	_
Financial trading assets	_	3 386	3 502	1 667	I 835	_	_
Cash and cash equivalents		9 542	9 542	9 542		-	7.040
	18 626	27 834	58 728	22 465	9 498	18 816	7 949
Financial liabilities		(=)	(		(2 = 2 2 )		//
Debt securities issued	(34 561)	(583)	(85 329)	(686)	(2 593)	(19 098)	(62 952)
Borrowings	(† 194)	(3 992)	(5 559)	(3 247)	(823)	(535)	(954)
Derivatives held for risk management	(1 375)	(587)	(8 122)	(669)	(1 547)	(4 829)	(1 077)
Finance lease liabilities	(546)	(4)	(2 072)	_	(102)	(404)	(1 566)
Trade and other payables	(420)	(8 253)	(8 673)	(6 073)	(2 180)	(405)	(15)
Financial trading liabilities		(3 701)	(5 280)	(3 536)	(1014)	(362)	(368)
	(38 096)	(17 120)	(115 035)	(14211)	(8 259)	(25 633)	(66 932)
Company							
Financial assets							
Investment in securities	15 115	9 892	29 811	6 792	5 503	13 893	3 623
Derivatives held for risk management	2 412	211	9 072	593	1 156	4 505	2819
Finance lease receivables	536	15	I 493	_	90	337	1 066
Trade and other receivables	4	4 566	4 571	4 02 1	545	4	1
Financial trading assets	_	2 897	3 013	1 178	1 835	_	_
Cash and cash equivalents	_	7 656	7 656	7 656	_	_	_
•	18 067	25 237	55 617	20 240	9 129	18 739	7 509
Financial liabilities							
Debt securities issued	(34 561)	(583)	(85 329)	(686)	(2 593)	(19 098)	(62 952)
Borrowings	(1 063)	(4 164)	(5 600)	(3 247)	(808)	(591)	(954)
Derivatives held for risk management	(1 375)	(587)	(8 122)	(669)	(1 547)	(4 829)	(1 077)
Finance lease liabilities	(656)	(28)	(2 263)	_	(139)	(501)	(1 623)
Trade and other payables	(420)	(7 218)	(7 638)	(6 369)	(849)	(405)	(15)
Financial trading liabilities	(120)	(3 701)	(5 280)	(3 536)	(1014)	(362)	(368)
	(38 075)	(16 281)	(114 232)	(14 507)	(6 950)	(25 786)	(66 989)
		\ /	\ /	\ /	\ /	` -/	\ /



for the year ended 31 March 2008

## 3. Financial risk management (continued)

## 3.3 Liquidity risk (continued)

	Ca	rrying amour	nt		Cash fl	ows	
	Non- current	Current	Nominal inflow/ (outflow)	0 to 3 months	4 to 12 months	I to 5 years	More than 5 years
	Rm	Rm	Rm	Rm	Rm	Rm	Rm
Non-current assets held-for-sale 2008 Financial assets							
Loans receivable	2 404	11	2 415	4	7	147	2 257
Finance lease receivables Trade and other receivables	3	27 259	30 259	7 259	20	3	-
Cash and cash equivalents	_	345	345	345	_	_	_
	2 407	642	3 049	615	27	150	2 257
Financial liabilities Debt securities issued Borrowings Trade and other payables	(1 372) (78) –	(23) (13) (236)	(1 395) (91) (236)	(23) (2) (236)	- (11) -	(1 372) (78)	- - -
	(1 450)	(272)	(1 722)	(261)	(11)	(1 450)	-
<b>2007</b> Financial assets							
Loans receivable	2 337	10 29	2 346 55	3	2 29	59	2 282
Finance lease receivables Trade and other receivables	26	336	336	336		26	_
Cash and cash equivalents	_	214	214	214	_	_	_
	2 363	589	2 951	553	31	85	2 282
Financial liabilities Debt securities issued Borrowings Trade and other payables	(1 031) (19) -	(15) (155) (212)	(1 045) (174) (212)	(14) (155) (212)		(247) (19) -	(784) - -
	(1 050)	(382)	(1 431)	(381)		(266)	(784)

#### 3.4 Capital management

Eskom manages accumulated profit and the hedging, fair value and insurance reserves as capital. The objective of capital management is to ensure that Eskom is sustainable over the long term. There were no changes to Eskom's approach to capital management during the financial year.

The major items that impact the equity of Eskom include the following:

- → revenue received from electricity sales (which is a function of price and sales volumes)
- → cost of funding the business
- → cost of operating the electricity business
- → cost of expanding the business to ensure that capacity growth is in line with electricity sales demand (funding and additional depreciation)
- → taxation
- → dividends

Eskom uses the Integrated Strategic Electricity Planning process which forecasts the growth in electricity demand for the long term and evaluates the alternative means to meet and manage that demand. This information flows into the planning process. The planning process will determine a forward electricity price curve which will be an indication of the size of the price increases which Eskom requires to be sustainable over the long term.

The tariff increases for the electricity business are subject to the process laid down by the National Energy Regulator of South Africa (Nersa). The current regulatory framework applicable to Eskom is a multi-year, incentive-based method of adjusting electricity prices.

The electricity business is currently in a major expansion phase. The funding of new generating, transmitting and other capacity is envisaged to be obtained from cash generated by the business, shareholder support and funds borrowed on the local and overseas markets. The adequacy of price increases allowed by the regulator and the level and timing of shareholder support are key factors in the sustainability of Eskom. Refer to page 35 for further information on electricity prices.

The debt to equity ratio plays an important role in the credit ratings given to Eskom which in turn influence the cost of funding. The debt to equity ratio including long-term provisions at 31 March 2008 for the group was 0,42 (2007: 0,27) and 0,46 (2007: 0,34) for the company. The government as the sole shareholder has the responsibility to ensure that the company is adequately capitalised to ensure continuity of supply and that the business is attractive to investors to enable Eskom to fund the expansion programme.

Eskom's policy is to fund the capital expansion programme through its own resources, shareholder support and borrowings. The shareholder support will be in the form of a dividend moratorium, direct shareholder capital injection and deeply subordinated long-term debt. Eskom believes it would be prudent not to declare dividends during this capital expansion period. A dividend moratorium is already in place.



## Critical accounting estimates and judgements

Estimates and judgements are evaluated continually and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The group makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

## (a) Embedded derivatives

Eskom has entered into a number of agreements to supply electricity to electricity intensive industries where the revenue from these contracts is linked to commodity prices and foreign currency rates (mainly USD) or foreign production price indices that give rise to embedded derivatives. Subsidiaries of Eskom Enterprises also entered into sales agreements where revenue is based on the US dollar, foreign production price indices and foreign interest rates that give rise to embedded derivatives.

#### Assumptions

The electricity price used in determining the fair value of the host contract is based on a recent arm's length transaction and the average change in electricity prices. The host contracts were fair valued by taking into account the ruling prices and the expected future electricity prices.

The spot electricity price is based on the latest price announced in terms of the tariff specified in the electricity sales agreement. The future electricity price is linked to the spot price of electricity and the change in the local consumer price index (CPI) plus an adjustment. Due to the lack of observable market information on electricity prices over the long term and the uncertainty as a result thereof, the price determinations by Nersa are taken as an indication of future electricity price expectations by the market.

The forward electricity price curve used to value embedded derivatives is 27,5% for the first year (2009 financial year), 25% for the next three years, 18% for the year thereafter and CPI+2% in subsequent years. This forward curve is based on the tariffs indicated by Nersa. This curve is significantly different to the previous curve used of CPI+1% for two years and CPI+2% thereafter.

Forecast sales volumes are based on the most likely future sales volumes which have been back-tested against historic

At inception a margin-based approach was used to determine the spot and forward consumer price indices.

The embedded derivatives have been divided into three categories:

- → commodity and/or foreign currency derivatives
- → foreign currency or interest rate derivatives
- → production price and foreign currency derivatives

Valuation assumptions

The following valuation assumptions for the future electricity price curve discussed above for the valuation of embedded derivatives at 31 March 2008 were used and are regarded as the best estimates by the board:

		Year ended 31 March					
Input	Unit	2008	20091	2010 <sup>1</sup>	2011	2012	20131
Aluminium	USD per ton	2 966	3 137	3 122	2 089	3 084	3 076
Rand/dollar	USD per rand	0,12	_	_	_	_	_
Rand interest rates	Continuous actual/365 days (%)	10,61	11,26	10,94	10,53	10,24	10,05
Dollar interest rates	Annual actual/360 days (%)	3,19	2,40	2,51	2,80	3,14	3,39
United States production price							
indices	Year-on-year (%)	8,99	2,09	2,03	2,34	2,80	2,47
South African							
consumer price indices	Year-on-year (%)	9,80	7,08	4,93	6,60	6,37	6,33

The approximate change in the value of embedded derivatives if one of the inputs is changed is disclosed in note 3.2 Financial risk management - market risk.



Forward curve based on financial years.

for the year ended 31 March 2008

#### 4. Critical accounting estimates and judgements (continued)

#### (b) Post-retirement medical benefits

The group provides for the cost of post-retirement medical benefits. The carrying amount of the provision would be an estimated R763 million (2007: R734 million) lower had the 8% medical inflation rate used in the valuation decreased by 1% and R951 million (2007: R922 million) higher had the medical inflation rate increased by 1%.

The principal actuarial assumptions used for actuarial valuation purposes were:

	2008	2007	2008	2007
Long-term interest rate before tax (%)	9,50	8,00	9,50	8,00
Long-term medical aid inflation (%)	8,00	6,50	8,00	6,50

Group

Company

#### (c) Occasional leave

Based on the current experience, only 5% of the leave is utilised. If the rate at which leave is taken is 10%, then the liability will increase by R37 million (2007: R22 million).

## (d) Decommissioning, mine closure and rehabilitation

Provision is made for the estimated decommissioning cost of nuclear and other generation plant and for the management of nuclear fuel assemblies and radioactive waste.

Provision is made for the estimated cost of closure, pollution control and rehabilitation and mine employee benefits at the end of the life of the mines, where a constructive and contractual obligation exists to pay coal suppliers.

The payment dates of total expected closure, pollution control and rehabilitation costs are uncertain, but are currently expected to be between 2010 and 2067. The provision has been discounted at 6,2% (2007: 4,6%).

The carrying amount of the provision would be an estimated R1 429 million (2007: R1 457 million) higher had the 6,2% real discount rate used in the calculation of the provision decreased by 1% and R1 021 million (2007: R1 081 million) lower had the 6,2% real discount rate increased by 1%.



#### **5**. Segment information

	Gener- ation	Trans- mission	Distri- bution	Ksacs	Other	Total	Elimi- nation	Group
Business segmentation	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm
2008								
Continuing operations								
Revenue								
External sales	_	_	26 096	17 488	6 0 1 6	49 600	(5 152)	44 448
Inter-segment sales	26 467	2 635	(13 134)	(15 968)	-	-	_	_
Total revenue	26 467	2 635	12 962	I 520	6 0 1 6	49 600	(5 152)	44 448
Result								
Segment results	(2016)	I 178	2 479	(769)	2 501	3 373	(301)	3 072
Finance income						3 210	(277)	2 933
Finance cost						(4 909)	188	(4 721)
Share of profit of equity accounted								
investees						30	-	30
Income tax expense						169	36	205
Profit for the year from continuing						I 873	(254)	1 519
operations  Discontinued operations						1 0/3	(354)	1 317
Loss for the year from discontinued								
operations						4	(549)	(545)
Profit for the year						I 877	(903)	974
Other information								
Segment assets	70 594	18 655	35 437	2 148	53 526	180 360	(66 666)	113 694
Investment in equity accounted							,	
investees	_	_	_	_	173	173	_	173
Non-current assets held-for-sale	_	_	_	_	3 644	3 644	(224)	3 420
Unallocated assets	_	_	_	_	56 145	56 145	(2 251)	53 894
Total assets	70 594	18 655	35 437	2 148	113 488	240 322	(69 141)	171 181
Segment liabilities	(41 973)	(8 073)	(16 556)	(2 697)	(27 245)	(96 544)	65 891	(30 653)
Non-current liabilities held-for-sale	_	_	_	_	(2 907)	(2 907)	I 073	(1 834)
Unallocated liabilities	-	-	-	-	(73 996)	(73 996)	40	(73 956)
Total liabilities	(41 973)	(8 073)	(16 556)	(2 697)	(104 148)	(173 447)	67 004	(106 443)
Capital expenditure (including interest								
capitalised)	15 265	3 485	5 559	I	783	25 093	(329)	24 764
Depreciation and amortisation	I 720	493	I 842	1	235	4 291	-	4 291
Impairment losses	_	7	260	160	80	507	-	507
Reversal of impairment losses	(3)	(4)	(3)	_	(51)	(61)	_	(61)



for the year ended 31 March 2008

## 5. Segment information (continued)

Business segmentation	Gener- ation Rm	Trans- mission Rm	Distri- bution Rm	Ksacs Rm	Other Rm	Total Rm	Elimi- nation Rm	Group Rm
2007								
Continuing operations								
Revenue								
External sales	_	_	23 585	15 859	5 260	44 704	(4 636)	40 068
Inter-segment sales	23 816	2 557	(11 987)	(14 386)	_	_	_	
Total revenue	23 816	2 557	11 598	I 473	5 260	44 704	(4 636)	40 068
Result								
Segment results	2 979	954	2 376	4 068	857	11 234	(477)	10 757
Finance income						3 107	(223)	2 884
Finance cost						(4 385)	153	(4 232)
Share of profit of equity accounted								
investees						41	_	41
Income tax expense						(2 707)	195	(2 512)
Profit for the year from continuing operations						7 290	(352)	6 938
Discontinued operations								
Loss for the year from discontinued								
operations						(36)	(426)	(462)
Profit for the year						7 254	(778)	6 476
Other information								
Segment assets	45 827	10 335	28 504	2 321	8 345	95 332	(5 689)	89 643
Investment in equity accounted					1.10	1.10	F-2	
investees	_	_	_	_	119	119	52	171
Non-current assets held-for-sale	_	_	_	_	4 016	4 016	(191)	3 825
Unallocated assets					49 673	49 673		49 673
Total assets	45 827	10 335	28 504	2 321	62 153	149 140	(5 828)	143 312
Segment liabilities	(10 065)	(647)	(8 947)	(402)	(9 591)	(29 652)	3 045	(26 607)
Non-current liabilities held-for-sale	_	_	_	_	(2 325)	(2 325)	750	(1 575)
Unallocated liabilities					(56 776)	(56 776)	3	(56 773)
Total liabilities	(10 065)	(647)	(8 947)	(402)	(68 692)	(88 753)	3 798	(84 955)
Capital expenditure (including	10.426		4 405	2		17 707		17 707
interest capitalised)	10 439	1 993	4 695	3	577	17 707	- (21)	17 707
Depreciation and amortisation	2 061	487	2 02 1	I	184	4 754	(31)	4 723
Impairment losses	- (7)	4	153	(7)	74	231	-	231
Reversal of impairment losses	(7)	(2)		(7)	(551)	(567)	140	(427)

## Nature of business of segments

**Generation** – generation of electricity.

Transmission - provide, operate and maintain a transmission network for transmitting bulk electricity.

Distribution – distribution of electricity to redistributors, small and large customers.

Ksacs – manage key large and international customer relationships and trading of energy.

Other – comprises corporate divisions and subsidiaries.

## Inter-segment electricity transfers

The inter-divisional electricity related transactions are linked to the regulatory approved time-of-use wholesale electricity pricing structure (WEPS) rates.



		Group
Geographical segmentation	2008 Rm	2007 Rm
The group's business segments operate in two main geographical areas, South Africa and outside		
South Africa. The home country of Eskom, which is the main operating company, is South Africa.		
The group's revenue is mainly within South Africa.		
Revenue		
South Africa	42 244	38 303
Outside South Africa	2 204	l 765
Total revenue	44 448	40 068
Revenue is allocated based on the country in which the customer is located after eliminating intercompany transactions.		
Analysis of revenue by category		
Sale of goods	43 521	39 344
Revenue from services	864	669
Other revenue	63	55
	44 448	40 068
Capital expenditure		
South Africa	24 672	17 673
Outside South Africa	92	34
	24 764	17 707
Capital expenditure is allocated based on where the assets are located.		
Total assets		
South Africa	169 930	142 067
Outside South Africa	I 078	I 074
	171 008	143 141
Investments in equity accounted investees	173	171
	171 181	143 312
Assets are allocated based on where the assets are located.		



for the year ended 31 March 2008

6. Property, plant and equipment 2008  Owned assets  Land	371 1 807 36 894 8 075 23 274 16 656 6 618 144 2 188 72 753 22 029 573 95 355
Owned assets         Land         400         -         400         371         -           Buildings and facilities         3 152         (1 301)         1 851         3 066         (1 259)           Plant - Generation         64 767         (27 873)         36 894         64 767         (27 873)           - Transmission         13 706         (5 631)         8 075         13 706         (5 631)           - Distribution         39 121         (15 847)         23 274         39 121         (15 847)           Regular distribution         26 301         (9 645)         16 656         26 301         (9 645)           Electrification         12 820         (6 202)         6 618         12 820         (6 202)           - Test, telecommunication and other plant         2 332         (1 391)         941         449         (305)           Equipment and vehicles         5 685         (3 208)         2 477         5 198         (3 010)           Total in commission         129 163         (55 251)         73 912         126 678         (53 925)           Works under construction         21 646         -         21 646         22 029         -           Construction materials         573         (296)	1 807 36 894 8 075 23 274 16 656 6 618 144 2 188 72 753 22 029 573
Land       400       -       400       371       -         Buildings and facilities       3 152       (1 301)       1 851       3 066       (1 259)         Plant - Generation       64 767       (27 873)       36 894       64 767       (27 873)         - Transmission       13 706       (5 631)       8 075       13 706       (5 631)         - Distribution       39 121       (15 847)       23 274       39 121       (15 847)         Regular distribution       26 301       (9 645)       16 656       26 301       (9 645)         Electrification       12 820       (6 202)       6 618       12 820       (6 202)         - Test, telecommunication and other plant       2 332       (1 391)       941       449       (305)         Equipment and vehicles       5 685       (3 208)       2 477       5 198       (3 010)         Total in commission       129 163       (55 251)       73 912       126 678       (53 925)         Works under construction       21 646       -       21 646       22 029       -         Construction materials       573       -       573       573       573       (296)         Plant       42       (35)	1 807 36 894 8 075 23 274 16 656 6 618 144 2 188 72 753 22 029 573
Buildings and facilities       3 152       (I 30I)       I 85I       3 066       (I 259)         Plant – Generation       64 767       (27 873)       36 894       64 767       (27 873)         – Transmission       13 706       (5 63I)       8 075       13 706       (5 63I)         – Distribution       39 12I       (15 847)       23 274       39 12I       (15 847)         Regular distribution       26 30I       (9 645)       16 656       26 30I       (9 645)         Electrification       12 820       (6 202)       6 618       12 820       (6 202)         – Test, telecommunication and other plant       2 332       (I 39I)       94I       449       (305)         Equipment and vehicles       5 685       (3 208)       2 477       5 198       (3 010)         Total in commission       129 163       (55 25I)       73 912       126 678       (53 925)         Works under construction       21 646       –       21 646       22 029       –         Construction materials       573       –       573       573       573       –         Mining assets       573       (296)       277       573       (296)         Plant       42       (3	1 807 36 894 8 075 23 274 16 656 6 618 144 2 188 72 753 22 029 573
Plant - Generation       64 767       (27 873)       36 894       64 767       (27 873)         - Transmission       13 706       (5 631)       8 075       13 706       (5 631)         - Distribution       39 121       (15 847)       23 274       39 121       (15 847)         Regular distribution       26 301       (9 645)       16 656       26 301       (9 645)         Electrification       12 820       (6 202)       6 618       12 820       (6 202)         - Test, telecommunication and other plant       2 332       (1 391)       941       449       (305)         Equipment and vehicles       5 685       (3 208)       2 477       5 198       (3 010)         Total in commission       129 163       (55 251)       73 912       126 678       (53 925)         Works under construction       21 646       -       21 646       22 029       -         Construction materials       573       -       573       573       -         Mining assets       573       (296)       277       573       (296)         Plant       42       (35)       7       12       (3)         Equipment and vehicles       16       (13)       3       249	36 894 8 075 23 274 16 656 6 618 144 2 188 72 753 22 029 573
- Transmission	8 075 23 274 16 656 6 618 144 2 188 72 753 22 029 573
- Distribution Regular distribution Electrification - Test, telecommunication and other plant Equipment and vehicles Total in commission Construction materials  Leased assets Mining assets Plant Equipment and vehicles  Total property, plant and equipment Distribution  Regular distribution 26 301	23 274 16 656 6 618 144 2 188 72 753 22 029 573
Regular distribution   Electrification   12 820   (6 202)   6 618   12 820   (6 202)    - Test, telecommunication and other plant   2 332   (1 391)   941   449   (305)    - Equipment and vehicles   5 685   (3 208)   2 477   5 198   (3 010)    - Total in commission   129 163   (55 251)   73 912   126 678   (53 925)    - Works under construction   21 646   - 21 646   22 029   -    - Construction materials   573   - 573   573   -    - Total ing assets   573   (296)   277   573   (296)    - Plant   42   (35)   7   12   (3)    - Equipment and vehicles   16   (13)   3   249   (98)    - Gall   G	16 656 6 618 144 2 188 72 753 22 029 573
Electrification       I2 820       (6 202)       6 618       I2 820       (6 202)         — Test, telecommunication and other plant       2 332       (1 391)       941       449       (305)         Equipment and vehicles       5 685       (3 208)       2 477       5 198       (3 010)         Total in commission       129 163       (55 251)       73 912       126 678       (53 925)         Works under construction       21 646       — 21 646       22 029       —         Construction materials       573       — 573       573       —         Mining assets       573       (296)       277       573       (296)         Plant       42       (35)       7       12       (3)         Equipment and vehicles       16       (13)       3       249       (98)         631       (344)       287       834       (397)         Total property, plant and equipment       152 013       (55 595)       96 418       150 114       (54 322)         2007       Owned assets         Land       312       —       312       281       —	6 618 144 2 188 72 753 22 029 573
- Test, telecommunication and other plant Equipment and vehicles  5 685 (3 208) 2 477 5 198 (3 010)  Total in commission  129 163 (55 251) 73 912 126 678 (53 925)  Works under construction  21 646 - 21 646 22 029 -  Construction materials  573 - 573 573 -  151 382 (55 251) 96 131 149 280 (53 925)  Leased assets  Mining assets  Mining assets  Plant  42 (35) 7 12 (3)  Equipment and vehicles  16 (13) 3 249 (98)  631 (344) 287 834 (397)  Total property, plant and equipment  152 013 (55 595) 96 418 150 114 (54 322)  2007  Owned assets  Land  312 - 312 281 -	144 2 188 72 753 22 029 573
Equipment and vehicles       5 685       (3 208)       2 477       5 198       (3 010)         Total in commission       129 163       (55 251)       73 912       126 678       (53 925)         Works under construction       21 646       —       21 646       22 029       —         Construction materials       573       —       573       573       573       —         Leased assets         Mining assets       573       (296)       277       573       (296)         Plant       42       (35)       7       12       (3)         Equipment and vehicles       16       (13)       3       249       (98)         631       (344)       287       834       (397)         Total property, plant and equipment       152 013       (55 595)       96 418       150 114       (54 322)         2007       Owned assets         Land       312       —       312       281       —	2 188 72 753 22 029 573
Total in commission    129 163	72 753 22 029 573
Works under construction       21 646       -       21 646       22 029       -         Construction materials       573       -       573       573       -         Leased assets         Mining assets       573       (296)       277       573       (296)         Plant       42       (35)       7       12       (3)         Equipment and vehicles       16       (13)       3       249       (98)         631       (344)       287       834       (397)         Total property, plant and equipment         152 013       (55 595)       96 418       150 114       (54 322)         2007         Owned assets         Land       312       -       312       281       -	22 029 573
Construction materials       573       —       573       573       —         Leased assets         Mining assets       573       (296)       277       573       (296)         Plant       42       (35)       7       12       (3)         Equipment and vehicles       16       (13)       3       249       (98)         631       (344)       287       834       (397)         Total property, plant and equipment         152 013       (55 595)       96 418       150 114       (54 322)         Owned assets         Land       312       —       312       281       —	573
Second State	
Leased assets       Mining assets         Mining assets       573       (296)       277       573       (296)         Plant       42       (35)       7       12       (3)         Equipment and vehicles       16       (13)       3       249       (98)         631       (344)       287       834       (397)         Total property, plant and equipment       152 013       (55 595)       96 418       150 114       (54 322)         2007         Owned assets         Land       312       -       312       281       -	75 555
Mining assets       573       (296)       277       573       (296)         Plant       42       (35)       7       12       (3)         Equipment and vehicles       16       (13)       3       249       (98)         631       (344)       287       834       (397)         Total property, plant and equipment       152 013       (55 595)       96 418       150 114       (54 322)         2007         Owned assets         Land       312       -       312       281       -	
Plant       42       (35)       7       12       (3)         Equipment and vehicles       16       (13)       3       249       (98)         631       (344)       287       834       (397)         Total property, plant and equipment       152 013       (55 595)       96 418       150 114       (54 322)         2007         Owned assets         Land       312       -       312       281       -	277
Equipment and vehicles     I6     (I3)     3     249     (98)       631     (344)     287     834     (397)       Total property, plant and equipment       152 013     (55 595)     96 418     150 114     (54 322)       Owned assets       Land     312     -     312     281     -	9
631 (344) 287 834 (397)       Total property, plant and equipment     152 013 (55 595) 96 418 150 114 (54 322)       2007     Owned assets       Land     312 - 312 281 -	151
Total property, plant and equipment  152 013 (55 595) 96 418 150 114 (54 322)  2007  Owned assets  Land  312 - 312 281 -	437
2007  Owned assets  Land  312 - 312 281 -	95 792
Owned assets           Land         312         -         312         281         -	
Land 312 - 312 281 -	
	281
	1 606
Plant – Generation 56 732 (26 779) 29 953 56 732 (26 779)	29 953
- Transmission 12 520 (5 222) 7 298 12 520 (5 222)	7 298
- Distribution 35 048 (14 309) 20 739 35 048 (14 309)	20 739
Regular distribution 23 271 (8 614) 14 657 23 271 (8 614)	14 657
Electrification     1   777   (5 695)   6 082   1   777   (5 695)	6 082
-Test, telecommunication and other plant 2 191 (1 370) 821 437 (284)	153
Equipment and vehicles 5 048 (2 966) 2 082 4 664 (2 786)	I 878
Total in commission 114 820 (51 933) 62 887 112 513 (50 605)	61 908
Works under construction 13 428 – 13 428 13 562 –	13 562
Construction materials 331 - 331 -	331
128 579 (51 933) 76 646 126 406 (50 605)	75 801
Leased assets	
Mining assets 573 (281) 292 573 (281)	292
Plant 42 (32) 10 12 (2)	10
Equipment and vehicles 27 (13) 14 197 (89)	
642 (326) 316 782 (372)	108
Total property, plant and equipment 129 221 (52 259) 76 962 127 188 (50 977)	



	Carrying value beginning of year	Additions and transfers <sup>1</sup> Rm	to non-	Change in rate of decommis- sioning provision and cost estimate Rm	Disposals Rm	Impair- ment losses	Reversal of impair- ment losses	Depre- ciation	Carrying value end of year
	1 (11)	1 111	1 411	1 111	1 411	1 411	1 311		1 (11)
2008 Group									
Owned assets									
Land	312	102	_	_	(14)	_	_	_	400
Buildings and facilities	I 682	278	(9)	_	(29)	(1)	_	(70)	1 851
Plant	58 811	14 977	(22)	(801)	(98)	(9)	43	(3 717)	69 184
Equipment and vehicles	2 082	929	(5)	-	(20)	_	-	(509)	2 477
Works under construction	13 428	8 234	(16)	_	_	_	-	-	21 646
Construction materials	331	242							573
	76 646	24 762	(52)	(801)	(161)	(10)	43	(4 296)	96 131
Leased assets									
Mining assets	292	-	-	_	_	_	_	(15)	277
Plant	10	_	_	_	_	_	_	(3)	7
Equipment and vehicles	14	2						(13)	3
	316	2						(31)	287
Total property, plant and equipment	76 962	24 764	(52)	(801)	(161)	(10)	43	(4 327)	96 418
Company									
Owned assets									
Land	281	95	_	_	(5)	_	-	-	371
Buildings and facilities	I 606	274	-	_	(6)	(1)	_	(66)	I 807
Plant	58 143	14 679	-	(801)	(40)	(6)	4	(3 592)	68 387
Equipment and vehicles	1 878	808	-	-	(19)	-	-	(479)	2 188
Works under construction	13 562 331	8 467 242	-	_	_	_	_	_	22 029
Construction materials				(001)	(70)	(7)		- (4.127)	573
	75 801	24 565		(801)	(70)	(7)	4	(4 137)	95 355
Leased assets	202							(1.5)	^==
Mining assets Plant	292 10	_	_	-	-	-	-	(15)	277 9
Equipment and vehicles	108	- 53		_	_		_	(I) (I0)	151
Equipment and venicles	410	53							437
T	410	33			_			(26)	43/
Total property, plant and equipment	76 211	24 618	_	(801)	(70)	(7)	4	(4 163)	95 792

Included in additions and transfers are borrowing costs capitalised of R727 million (2007: R174 million) for company and group.



for the year ended 31 March 2008

			G	Group Co		mpany
		Note	2008 Rm	2007 Rm	2008 Rm	2007 Rm
6.	Property, plant and equipment (continued)  Borrowing costs are capitalised at a weighted average rate of 8,30% (2007: 8%). The amounts capitalised during the year were:  Details of land and buildings are available for examination at the registered offices of the respective businesses.		727	174	727	174
	Included in generation plant are assets leased to an international party and leased back under cross-border lease agreements with a carrying value of		3 553	4 098	3 553	4 098
	The cross-border lease transactions comprise primary lease terms of 17,8 and 21 years as well as renewable lease terms of 14,8 and 12 years respectively. The renewal leases will be at specified rentals on terms similar to the primary leases. Options at the end of the primary lease terms are either to purchase the rights of the lessor over the assets at a predetermined fixed price, or to return the assets to the lessor at no cost but on condition that the lessor may require that the renewal lease be exercised. At the end of the renewal period the assets will return to Eskom. The present value of lease and leaseback obligations was settled in full at the commencement of the transactions. These assets are included in the category owned assets.					
	Leased assets include arrangements that contain finance leases in terms of IFRIC 4.					
	The carrying values of assets no longer accounted for as property, plant and equipment in terms of the application of IFRIC 4 are		640	733	640	649
	Change in useful life of generating plant  During the accounting period, management reassessed its estimates in respect of the useful life of certain generating plant from 35 to 50 years. Included in the income statement for the period is a decrease in depreciation of R484 million to reflect the change in estimated useful life.					
	The total depreciation charge for property, plant and equipment is disclosed in the profit or loss in the following categories:		4 327	4717	4 163	4 606
	Depreciation and amortisation expense Primary energy	31	4 320 7	4 703 14	4 I56 7	4 592 14



		Cost	Group Accumulated amortisation and impairment losses Rm	Carrying value Rm	Cost	Company Accumulated amortisation and impairment losses Rm	Carrying value Rm
7.	Intangible assets 2008 Rights	512	(222)	290	511	(221)	290
	Computer software	1 814	(1 634)	180	1 789	(1 622)	167
	Total	2 326	(1 856)	470	2 300	(1 843)	457
	2007		(1.000)		2000	(1.0.10)	
	Rights	404	(221)	183	404	(221)	183
	Computer software	l 635	(1 406)	229	l 626	(1 399)	227
	Total	2 039	(1 627)	412	2 030	(1 620)	410
			Carrying value	Additions	Transfer to	Amortisation	Carrying
			value beginning	and transfers	non-current assets		value end
			of year		held-for-sale		of year
	Reconciliation of movements		Rm	Rm	Rm	Rm	Rm
	2008						
	Group						
	Rights <sup>1</sup>		183	107	_	-	290
	Computer software <sup>2</sup>		229	114		(163)	180
	Total		412	221	_	(163)	470
	Company						
	Rights <sup>1</sup>		183	107	-	_	290
	Computer software <sup>2</sup>		227	101	_	(161)	167
	Total		410	208	_	(161)	457

Amortisation of intangible assets in the group of R163 million (2007: R180 million) and the company of R161 million (2007: R179 million) is included in note 31 in the income statement.

## Impairment test for rights

Rights consist mainly of servitudes and rights of way under power lines. Rights are not depreciated as they have an indefinite life. A servitude right is granted to Eskom for an indefinite period. The life of the servitude will remain in force as long as the transmission or distribution line is used to transmit electricity.

A servitude will only become impaired if the line to which the servitude is linked is derecognised. In practice a derecognised line will be refurbished or replaced with a new line. The likelihood of the impairment of a servitude right is remote.



<sup>&</sup>lt;sup>1</sup> Rights are disclosed at cost of purchase.

<sup>&</sup>lt;sup>2</sup> Computer software is disclosed at cost of purchase, including costs incurred in modifying the software.

for the year ended 31 March 2008

			(	Group	Co	ompany
		Note	2008 Rm	2007 Rm	2008 Rm	2007 Rm
8.	Investments in equity accounted investees Investment in associates Investment in joint ventures	8.I 8.2	- 173 173	12 159 171	- 95 95	95 96
8.1	Investment in associates Balance at beginning of the year Share of profit <sup>1</sup> Provision for impairment Transfer to subsidiary Transfer to non-current assets held-for-sale Disposal of investment Balance at end of the year Directors' valuation <sup>2</sup>	32	12   (12)   -   (1)   -	72 25 - (29) (47) (9) 12	  -  (1)  -  -  -  -	5 - (4) - - 1

Investments in the company are accounted for at cost, while the share of profits since acquisition is accounted for in the group. The group's share of the results of its principal associates, all of which are unlisted, and its share of the assets (including goodwill and liabilities) are as follows:

Name	Country of incorporation	Assets Rm	Liabilities Rm	Revenues Rm	Profit Rm	% interest held
Group 2008 Directly held						
<ul> <li>Uitenhage Electricity Supply</li> <li>Company (Pty) Limited<sup>3</sup></li> <li>Western Power Corridor</li> </ul>	South Africa	17	(11)	61	-	33
(Pty) Limited	Botswana	-	-	-	-	20
Indirectly held  - Elgas SARL <sup>4,5</sup> - Global Electricity Services	Mozambique	-	-	-	-	-
Company <sup>5</sup> – Ash Resources (Pty) Limited <sup>4,6</sup>	Libya South Africa	-	-	-	-	_ 25
- Asir Nesources (1 ty) Limited	30uu i Airica		(11)	61	<u>_</u>	_ 23
2007						
<ul> <li>Directly held</li> <li>PN Energy Services (Pty) Limited<sup>7</sup></li> <li>Uitenhage Electricity Supply</li> </ul>	South Africa	_	_	_	6	50
Company (Pty) Limited <sup>3, 4</sup> – Western Power Corridor	South Africa	22	(11)	51	_	33
(Pty) Limited	Botswana	1	_	_	_	20
Indirectly held  - Elgas SARL <sup>4,5</sup> - Global Electricity Services	Mozambique	4	(4)	_	_	25
Company <sup>5</sup>	Libya	_	_	_	_	49
<ul> <li>Ash Resources (Pty) Limited<sup>4,6</sup></li> <li>Umeme Limited<sup>4,8</sup></li> </ul>	South Africa Uganda	_	_	_	10 9	25 —
	<u> </u>	27	(15)	51	25	

Where the above entities' financial year ends differ from that of Eskom, financial information has been obtained from published information or management accounts as appropriate.



<sup>&</sup>lt;sup>1</sup> Share of profit is after tax.

<sup>&</sup>lt;sup>2</sup> Includes investments classified as non-current assets held-for-sale.

<sup>&</sup>lt;sup>3</sup> Year end is 30 June.

<sup>&</sup>lt;sup>4</sup> Year end is 31 December.

<sup>&</sup>lt;sup>5</sup> The investment was disposed of during the 2008 financial year.

 $<sup>^{\</sup>rm 6}$  Transferred to non-current assets held-for-sale.

<sup>&</sup>lt;sup>7</sup> PN Energy Services (Pty) Limited was an associate for the period | April 2006 to | 6 March 2007 and became a subsidiary on | 17 March 2007.

<sup>8</sup> Umeme Limited was sold during the 2007 financial year.

				Group	Co	ompany
		Note	2008 Rm	2007 Rm	2008 Rm	2007 Rm
8.2	Investment in joint ventures					
	Balance at beginning of the year		159	142	95	95
	Share of profit		30	16	_	_
	Acquisition		- 11	6	_	_
	Provision for impairment	32	_	(1)	_	_
	Dividends received		(15)	Ī	_	_
	Transferred to non-current assets held-for-sale		(6)	(9)	_	_
	Other movements		(6)	4	_	_
	Balance at end of the year		173	159	95	95
	Directors' valuation <sup>2</sup>		173	168	146	136

Investments in the company are accounted for at cost, while the share of profits since acquisition is accounted for in the group. The group's share of the results of its principal joint ventures, all of which are unlisted, and its share of the assets (including goodwill and liabilities) are as follows:

Name	Non- current assets Rm	Current assets Rm	Non- current liabilities Rm	Current liabilities Rm	Profit Rm	Interest held %
Group						
2008						
Directly held						
<ul> <li>Motraco – Mozambique Transmission</li> </ul>						
Company SARL	292	95	(172)	(62)	10	33
Indirectly held						
-Trans Africa Projects (Pty) Limited <sup>3</sup>	1	47	_	(39)	(4)	50
-Trans Africa Projects Limited (Mauritius) <sup>3</sup>	-	-	-	-	-	50
<ul> <li>EON~Solutions Africa (Pty) Limited⁴</li> </ul>	_	_	-	_	5	50
-Transpoint (Pty) Limited	_	_	-	_	-	50
<ul> <li>Clinker Supplies (Pty) Limited<sup>5</sup></li> </ul>	-				19	50
	293	142	(172)	(101)	30	
2007						
Directly held						
– Motraco – Mozambique Transmission						
Company SARL	237	91	(156)	(36)	10	33
Indirectly held						
-Trans Africa Projects (Pty) Limited <sup>3</sup>	1	38	_	(28)	2	50
-Trans Africa Projects Limited (Mauritius) <sup>3</sup>	_	_	_		_	50
– EON~Solutions Africa (Pty) Limited	_	_	_	_	3	50
- Transpoint (Pty) Limited	_	_	_	_	_	50
- Clinker Supplies (Pty) Limited	_	_	_	_	I	50
11 \ //	238	129	(156)	(64)	16	



Share of profit is after tax.

<sup>&</sup>lt;sup>2</sup> Includes investments classified as non-current assets held-for-sale.

<sup>&</sup>lt;sup>3</sup> Year end is 31 December.

Investment was disposed of during the 2008 financial year.
 Transfer to non-current assets held-for-sale.

for the year ended 31 March 2008

				Group	C	ompany
			2008 Rm	2007 Rm	2008 Rm	200° Rn
Investment in subsidiaries Shares at cost Indebtedness Provision for impairment					388 I 953 –	38 I 97
Total interest in subsidiaries					2 341	2 35
Directors' valuation   Aggregate attributable after tax	k profits of subsidiary companies		492	1 251	4 326	4 66
Name	Main business	Country of incorp- oration	Issued/ stated share capital	Interest held	Invest- ment at cost	Indebted ne
			R	%	Rm	R
2008						
Directly held  - Eskom Finance Company (Pty) Limited  - Escap Limited	Finance (employee housing loans)	South Africa South Africa Isle of Man	4 000 379 500 000	100 100	380	
<ul> <li>Gallium Insurance</li> <li>Company Limited<sup>3</sup></li> </ul>	Insurance	isie oi Man	4 000 000	100	4	
<ul> <li>Eskom Enterprises</li> <li>(Pty) Limited</li> </ul>	Non-regulated electricity supply industry activities and electricity supply and related services outside South Africa	South Africa	99 000	100	2	Ι9
<ul><li>– PN Energy Services (Pty) Limited</li></ul>	Maintenance of electrical and telecommunication distribution network	South Africa	1 500 000	100	4	
-The Natal Navigation Collieries & Estate Company Limited	Property rental	South Africa	I 542 850	100	2	
Indirectly held  - Golang Coal (Pty) Limited  - Eskom Enterprises Global West Africa <sup>3,5</sup>	Coal exports Operations management	South Africa Nigeria	I 000 I00	67 100	_ _	
<ul> <li>Eskom Energie</li> <li>Manantali SA<sup>3,5</sup></li> </ul>	Energy supply	Mali	1 000	100	-	
<ul> <li>Eskom Uganda Limited<sup>3,5</sup></li> <li>Pebble Bed Modular Reactor (Pty) Limited<sup>6</sup></li> </ul>	Operations management Reactor driven generation project	Uganda South Africa	100 100	100 100	- -	
Technology Services     International (Pty) Limited	Technical consulting	South Africa	100	100	-	
<ul> <li>Rotek Industries (Pty)</li> <li>Limited</li> </ul>	Maintenance and services	South Africa	4 000	100	-	
<ul> <li>Rosherville Properties</li> <li>(Pty) Limited</li> </ul>	Properties	South Africa	I	100	-	
<ul> <li>Broadband Infraco</li> <li>(Pty) Limited<sup>6,7</sup></li> </ul>	Broadband services	South Africa	1	-	-	
<ul><li>Roshcon (Pty) Limited</li><li>Airborne Laser</li><li>Solutions (Pty) Limited</li></ul>	Construction Aerial surveying technologies	South Africa South Africa	l I	100	-	
– Amazing Amanzi (Pty) Limited	Low-energy utility devices	South Africa	100	70	_	
<ul> <li>Mountain Communications</li> <li>(Pty) Limited<sup>3</sup></li> </ul>		Lesotho	I 646	_	_	
- Lusemfwa Hydro Power Company <sup>3,5</sup>	Operations and maintenance services	Zambia	1 825	51	_	
<ul> <li>arivia.kom (Pty) Limited<sup>8,9</sup></li> <li>South Dunes Coal Terminal (Pty) Limited</li> </ul>	Information technology services Coal exports	South Africa South Africa	1 709 616 4 000	59 50	-	
(i cy) Littliced				_	388	19



Name	Main business	Country of incorp- oration	Issued/ stated share capital	Interest held	Invest- ment at cost	Indebted- ness
		Oration	R	%	Rm	Rm
2007						
Directly held  - Eskom Finance Company	Finance (employee	South Africa	4 000	100	2	_
(Pty) Limited – Escap Limited – Gallium Insurance	housing loans) Insurance Insurance	South Africa Isle of Man	379 500 000 4 000 000	100 100	380 4	_
Company Limited <sup>3</sup> – Eskom Enterprises (Pty) Limited	Non-regulated electricity supply industry activities and electricity supply and related services outside	South Africa	99 000	100	2	I 970 <sup>4</sup>
– PN Energy Services (Pty) Limited	South Africa Maintenance of electrical and telecommunication distribution network	South Africa	1 500 000	100	4	_
-The Natal Navigation Collieries & Estate Company Limited	Property rental	South Africa	I 542 850	100	2	-
Indirectly held						
– Golang Coal (Pty) Limited – Eskom Enterprises	Coal exports Operations management	South Africa Nigeria	1 000 100	67 100		_
Global West <sup>'</sup> Africa <sup>3,5</sup> – Eskom Energie  Manantali SA <sup>3,5</sup>	Energy supply	Mali	1 000	100	_	_
– Eskom Uganda Limited <sup>3, 5</sup> – Pebble Bed Modular Reactor (Pty) Limited <sup>6</sup>	Operations management Reactor driven generation project	Uganda South Africa	100 100	100 100	_ _	
Technology Services International (Pty) Limited	Technical consulting	South Africa	100	100	_	-
- Rotek Industries (Pty) Limited	Maintenance and services	South Africa	4 000	100	-	_
Rosherville Properties     (Pty) Limited	Properties	South Africa	1	100	_	_
- Broadband Infraco (Pty) Limited <sup>6,7</sup>	Broadband services	South Africa	1	100	_	_
Roshcon (Pty) Limited     Airborne Laser Solutions     (Pty) Limited	Construction Aerial surveying technologies	South Africa South Africa	 	100		
- Amazing Amanzi (Pty) Limited	Low-energy utility devices	South Africa	100	70	-	_
<ul> <li>Mountain Communications</li> <li>(Pty) Limited<sup>3</sup></li> </ul>	Telecommunication	Lesotho	I 646	71	_	_
- Lusemfwa Hydro  Power Company <sup>3,5</sup>	Operations and maintenance services	Zambia	I 825	51	_	_
<ul> <li>arivia.kom (Pty) Limited<sup>8,9</sup></li> <li>South Dunes Coal Terminal (Pty) Limited</li> </ul>	Information technology services	South Africa South Africa	1 709 616 4 000	59 50	_ _	
(1 ty) Littlited				-	388	l 970



 $<sup>^{\</sup>rm I}$  Includes investments classified as non-current assets held-for-sale.

<sup>&</sup>lt;sup>2</sup> Nominal value.

<sup>&</sup>lt;sup>3</sup> Issued/stated capital in foreign currency.
<sup>4</sup> The equity loan to Eskom Enterprises (Pty) Limited of R1 953 million (2007: R1 970 million) has been subordinated to the extent of R108 million (2007: R258 million). The loan is interest free. <sup>5</sup> Year end is 31 December.

<sup>&</sup>lt;sup>6</sup> Pebble Bed Modular Reactor (Pty) Limited and Broadband Infraco (Pty) Limited are not considered to be controlled by Eskom Enterprises and therefore no longer consolidated.

7 Broadband Infraco (Pty) Limited and Mountain Communications (Pty) Limited were disposed of during the year.

8 The subsidiaries of arivia.kom (Pty) Limited have not been disclosed.

<sup>&</sup>lt;sup>9</sup> arivia.kom (Pty) Limited is classified as non-current assets and liabilities held-for-sale (refer to note 20).

for the year ended 31 March 2008

		Com	pany
		2008 Rm	2007 Rm
<b>9.</b> 9.1	Investment in subsidiaries (continued) Loans to subsidiaries		
	Eskom Finance Company (Pty) Limited	530	740
	Interest receivable	_	6
		530	746
	Loans to subsidiaries accrue interest at an average market-related rate of 12% (2007: 9%) with a maturity of two months from balance sheet date.		
9.2	Amounts owing to subsidiaries		
	Eskom Finance Company (Pty) Limited	106	43
	Eskom Enterprises (Pty) Limited	1 176	763
	Interest payable	18	14
		1 300	820

Amounts owing to subsidiaries accrue interest at a market-related average rate of 12% (2007: 9%) with a maturity between one and eight months from balance sheet date. Included are current accounts totalling R292 million (2007: R296 million) that accrue interest at variable rates.

		C	Group	Co	Company		
		2008 Rm	2007 Rm	2008 Rm	2007 Rm		
10.	Future fuel supplies						
	Coal	2 543	2513	2 543	2513		
	Balance at beginning of the year	2 513	2 613	2 513	2 613		
	Additions	298	134	298	134		
	Amortised during the year <sup>1</sup>	(268)	(234)	(268)	(234)		
	Nuclear	42	44	42	44		
	Balance at beginning of the year	44	44	44	44		
	Additions	360	248	360	248		
	Amortised during the year <sup>1</sup>	(3)	(3)	(3)	(3)		
	Transfer from equity	(8)	19	(8)	19		
	Transfer to inventories	(351)	(264)	(351)	(264)		
	Total	2 585	2 557	2 585	2 557		

<sup>&</sup>lt;sup>1</sup> Amortisation of future fuel is included in primary energy in the income statement.



	G	Group	Company		
	2008 Rm	2007 Rm	2008 Rm	2007 Rm	
Deferred tax					
Deferred tax assets					
Balance at beginning of the year	5	125	_	_	
Transfer from/(to) income statement	41	(70)	_	_	
Transfer to non-current assets held-for-sale	_	(51)	_	_	
Transfer to deferred tax liability	(38)	_	_	_	
Other	_	1	-	_	
	8	5	-	_	
Non-current	6	4	_	_	
Current	2	I	-	_	
	8	5	-	_	
Deferred tax liabilities					
Balance at beginning of the year	(9 363)	(7 345)	(9 294)	(7 097)	
Prior year adjustment	_	(624)	_	(624)	
Change in tax rate – to statement of changes in equity	14	_	14	_	
Transfer to/(from) income statement	292	(1 048)	284	(1 229)	
Transfer from statement of changes in equity	(2 626)	(343)	(2 626)	(343)	
Transfer from deferred tax asset	38	_	_	_	
Other	14	(3)	-	(1)	
	(11 631)	(9 363)	(11 622)	(9 294)	
Non-current	(8 479)	(7 149)	(8 322)	(7 081)	
Current	(3 152)	(2 214)	(3 300)	(2 213)	
	(11 631)	(9 363)	(11 622)	(9 294)	
Comprising:					
Deferred tax assets					
Property, plant and equipment	(7)	(18)	_	_	
Provisions	54	8	-	_	
Other	(39)	15	_	_	
	8	5	-	_	
Deferred tax liabilities					
Property, plant and equipment	(12 400)	(11 274)	(12 267)	(11 153)	
Inventories	(399)	(262)	(399)	(262)	
Provisions	3 969	3 605	3 904	3 536	
Tax losses	948	6	942	(2.252)	
Embedded derivatives	(2 136)	(2 253)	(2 134)	(2 253)	
Other	(1 613)	815	(1 668)	838	
	(11 631)	(9 363)	(11 622)	(9 294)	
Unused tax losses available for set-off against future income	3 385	21	3 364	_	



for the year ended 31 March 2008

## 12. Financial instruments

## Accounting classifications and fair values

The classification of each class of financial assets and liabilities, and their fair values are as follows:

		Held-for- trading	Held-to- maturity	Loans and receivables	Available- for-sale	Liabilities at amortised cost	Other assets and liabilities <sup>1</sup>	Total carrying amount	Fair value
	Note	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm
2008									
Group									
Financial assets									
Non-current		518	100	2 552	3 410	_	13 882	20 462	20 526
Investment in securities	12.2	_	100	2 372	3 410	_	-	5 882	5 946
Embedded derivatives	13.1	_	_	_	-	_	10 447	10 447	10 447
Derivatives held for risk management	14	518	_	_	_	_	3 020	3 538	3 538
Finance lease receivables <sup>2</sup>	15	_	_	_	_	_	415	415	415
Trade and other receivables <sup>2</sup>	16	_	_	180	_	_	-	180	180
Current		4 177	765	16 839	7 761	_	9 868	39 410	39 410
Finance lease receivables	15	_	_	_	_	_	10	10	10
Trade and other receivables <sup>2</sup>	16	_	_	5 433	_	_	-	5 433	5 433
Investment in securities	12.2	_	765	611	7 761	_	-	9 137	9 137
Financial trading assets	12.3	2 539	_	_	_	_	-	2 539	2 539
Embedded derivatives	13.1	_	_	_	_	_	2 266	2 266	2 266
Derivatives held for risk management	14	I 540	_	_	_	_	7 592	9 132	9 132
Cash and cash equivalents	12.1	98	_	10 795	_	_	-	10 893	10 893
Financial liabilities									
Non-current		947	_	-	_	41 944	5 616	48 507	48 240
Debt securities issued	12.4	_	_	_	_	39 788	_	39 788	39 254
Borrowings	12.5	_	_	_	_	I 480	-	I 480	1 661
Embedded derivatives	13.2	_	_	_	_	_	5 077	5 077	5 077
Derivatives held for risk management	14	947	_	_	_	_	_	947	1 033
Finance lease liabilities <sup>2</sup>	24	_	_	_	_	_	539	539	539
Trade and other payables <sup>2</sup>	25	_	_	_	_	676	-	676	676
Current		5 143	-	_	_	19 634	435	25 212	24  3
Trade and other payables <sup>2</sup>	25	_	_	_	_	10 223	-	10 223	10 223
Finance lease liabilities <sup>2</sup>	24	_	_	_	_	_	9	9	9
Debt securities issued	12.4	_	_	_	_	2 491	-	2 491	I 635
Borrowings	12.5	_	_	_	_	6 920	-	6 920	6 782
Financial trading liabilities	12.3	4 087	_	_	-	-	-	4 087	4 087
Embedded derivatives	13.2	_	_	_	-	-	7	7	6
Derivatives held for risk management	14	I 056	-	-	-	-	419	I 475	I 389



		Held-for- trading	Held-to- maturity	Loans and receivables	Available- for-sale	Liabilities at amortised	Other assets and liabilities <sup>1</sup>	Total carrying amount	Fair value
	Note	Rm	Rm	Rm	Rm	cost Rm	Rm	Rm	Rm
2008									
Company									
Financial assets									
Non-current		518	100	2 096	3 949	_	13 882	20 545	20 609
Investment in securities	12.2	_	100	2 087	3 949	_	_	6 136	6 200
Embedded derivatives	13.1	_	_	_	_	_	10 447	10 447	10 447
Derivatives held for risk management	14	518	_	_	_	_	3 020	3 538	3 538
Finance lease receivables <sup>2</sup>	15	_	_	_	_	_	415	415	415
Trade and other receivables <sup>2</sup>	16	_	_	9	_	_	-	9	9
Current		3 655	765	16 167	7 003	_	9 862	37 452	37 452
Finance lease receivables <sup>2</sup>	15	_	_	_	_	_	10	10	10
Trade and other receivables <sup>2</sup>	16	_	_	5 332	_	_	-	5 332	5 332
Investment in securities	12.2	_	765	611	7 003	_	-	8 379	8 379
Financial trading assets	12.3	2 017	_	_	_	_	-	2 017	2 017
Embedded derivatives	13.1	_	_	_	_	_	2 260	2 260	2 260
Derivatives held for risk management	14	I 540	_	_	_	_	7 592	9 132	9 132
Cash and cash equivalents	12.1	98	_	10 224	_	_	-	10 322	10 322
Financial liabilities									
Non-current		947	_	_	_	41 688	5 755	48 390	48 038
Debt securities issued	12.4	_	_	_	_	39 788	-	39 788	39 254
Borrowings	12.5	_	_	_	_	I 224	-	1 224	I 406
Embedded derivatives	13.2	_	_	_	_	_	5 077	5 077	5 077
Derivatives held for risk management	14	947	_	_	_	_	-	947	947
Finance lease liabilities <sup>2</sup>	24	_	_	_	_	_	678	678	678
Trade and other payables <sup>2</sup>	25	_	_	_	_	676	_	676	676
Current		5 143	_	_	_	19 799	462	25 404	24 408
Trade and other payables <sup>2</sup>	25	_	_	_	_	9 843	-	9 843	9 843
Finance lease liabilities <sup>2</sup>	24	_	_	_	_	_	36	36	36
Debt securities issued	12.4	_	_	_	_	2 491	-	2 491	I 635
Borrowings	12.5	_	_	_	_	7 465	-	7 465	7 326
Financial trading liabilities	12.3	4 087	_	_	_	_	_	4 087	4 087
Embedded derivatives	13.2	_	_	_	_	_	7	7	6
Derivatives held for risk management	14	I 056	-	_	_	-	419	I 475	I 475

Include finance lease receivables and payables, embedded derivatives and derivatives used for cash flow hedges.
 The carrying amount of these financial instruments approximates their fair values. The discounting effects of such amounts are not expected to be material.



for the year ended 31 March 2008

## 12. Financial instruments (continued)

Accounting classifications and fair values (continued)

		Held-for- trading	Held-to- maturity	Loans and receivables	Available- for-sale	Liabilities at amortised	Other assets and	Total carrying amount	Fair value
	Note	Rm	Rm	Rm	Rm	cost Rm	liabilities <sup>1</sup> Rm	Rm	Rm
2007									
Group									
Financial assets									
Non-current		1216	850	3 264	11 564	_	8 6 1 4	25 508	25 594
Investment in securities	12.2	_	850	3 260	11 564	_	_	15 674	15 760
Embedded derivatives	13.1	_	_	_	_	_	6 882	6 882	6 882
Derivatives held for risk management	14	1 216	_	_	_	_	1 196	2 412	2 412
Finance lease receivables <sup>2</sup>	15	_	_	_	_	_	536	536	536
Trade and other receivables <sup>2</sup>	16	_	_	4	_	_	_	4	4
Current		5 332	2 595	14 761	5 091	_	l 859	29 638	29 627
Finance lease receivables <sup>2</sup>	15	_	_	_	_	_	17	17	17
Trade and other receivables <sup>2</sup>	16	_	_	4 760	_	_	_	4 760	4 760
Investment in securities	12.2	_	2 595	2 412	4911	_	_	9 9 1 8	9 907
Financial trading assets	12.3	3 386	_	_	_	_	_	3 386	3 386
Embedded derivatives	13.1	_	_	_	_	_	I 804	1 804	1 804
Derivatives held for risk management	14	173	_	_	_	_	38	211	211
Cash and cash equivalents	12.1	1 773	_	7 589	180	_	_	9 542	9 542
Financial liabilities									
Non-current		I 375	_	_	_	36 175	I 454	39 004	44 253
Debt securities issued	12.4	_	_	_	_	34 561	_	34 561	39 760
Borrowings	12.5	_	_	_	_	1 194	_	1 194	1 244
Embedded derivatives	13.2	_	_	_	_	_	908	908	908
Derivatives held for risk management	14	1 375	_	_	_	_	_	1 375	1 375
Finance lease liabilities <sup>2</sup>	24	_	_	_	_	_	546	546	546
Trade and other payables <sup>2</sup>	25	_	_	_	_	420	_	420	420
Current		4 288	_	_	_	12 828	10	17 126	17 128
Trade and other payables <sup>2</sup>	25	_	_	_	_	8 253	_	8 253	8 253
Finance lease liabilities <sup>2</sup>	24	_	_	_	_	_	4	4	4
Debt securities issued	12.4	_	_	_	_	583	_	583	585
Borrowings	12.5	_	_	_	_	3 992	_	3 992	3 992
Financial trading liabilities	12.3	3 701	_	_	_	_	_	3 701	3 701
Embedded derivatives	13.2	_	_	_	_	_	6	6	6
Derivatives held for risk management	14	587	_	_	_	_	_	587	587



		Held-for- trading	Held-to- maturity	Loans and receivables	Available- for-sale	Liabilities at amortised cost	Other assets and liabilities <sup>1</sup>	Total carrying amount	Fair value
	Note	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm
2007									
Company									
Financial assets									
Non-current		1 216	850	3 186	11 083		8 6 1 4	24 949	25 035
Investment in securities	12.2	_	850	3 182	11 083	_	-	15 115	15 201
Embedded derivatives	13.1	_	_	_	_	_	6 882	6 882	6 882
Derivatives held for risk management	14	1216	_	_	_	_	1 196	2 412	2 412
Finance lease receivables <sup>2</sup>	15	_	_	_	_	_	536	536	536
Trade and other receivables <sup>2</sup>	16	_	_	4	_	_	-	4	4
Current		4 843	2 595	12 681	5 065	_	I 856	27 040	27 029
Finance lease receivables <sup>2</sup>	15	_	_	_	_	_	15	15	15
Trade and other receivables <sup>2</sup>	16	_	_	4 566	_	_	-	4 566	4 566
Investment in securities	12.2	_	2 595	2412	4 885	_	-	9 892	9 881
Financial trading assets	12.3	2 897	_	_	_	_	-	2 897	2 897
Embedded derivatives	13.1	_	_	_	_	_	I 803	1 803	1 803
Derivatives held for risk management	14	173	_	_	_	_	38	211	211
Cash and cash equivalents	12.1	I 773	_	5 703	180	_	_	7 656	7 656
Financial liabilities									
Non-current		I 375	_	_	_	36 044	I 564	38 983	44 232
Debt securities issued	12.4	_	_	_	_	34 561	_	34 561	39 760
Borrowings	12.5	_	_	_	_	1 063	_	1 063	1113
Embedded derivatives	13.2	_	_	_	_	_	908	908	908
Derivatives held for risk management	14	I 375	_	_	_	_	_	1 375	1 375
Finance lease liabilities <sup>2</sup>	24	_	_	_	_	_	656	656	656
Trade and other payables <sup>2</sup>	25	_	_	_	_	420	_	420	420
Current		4 288	_	_	_	11 965	33	16 286	16 288
Trade and other payables <sup>2</sup>	25	_	_	_	_	7 2 1 8	_	7 2 1 8	7 2 1 8
Finance lease liabilities <sup>2</sup>	24	_	_	_	_	_	28	28	28
Debt securities issued	12.4	_	_	_	_	583	_	583	585
Borrowings	12.5	_	_	_	_	4   64	_	4 164	4 164
Financial trading liabilities	12.3	3 701	_	_	_	_	_	3 701	3 701
Embedded derivatives	13.2	_	_	_	_	_	5	5	5
Derivatives held for risk management	14	587			_		_	587	587

The carrying amount of these financial instruments approximates their fair values. The discounting effects of such amounts are not expected to be material.



<sup>&</sup>lt;sup>1</sup> Include finance lease receivables and payables, embedded derivatives and derivatives used for cash flow hedges.

for the year ended 31 March 2008

	12.	Financial	instruments	(continued)
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1 2.	rmanciai instruments (co	·											
			Group				Company						
		Carrying	Fair	Carrying	Fair	Carrying	Fair	Carrying	Fair				
		value	value	value	value	value	value	value	value				
		2008	2008	2007	2007	2008	2008	2007	2007				
		Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm				
		IXIII	IXIII	IXIII	IXIII	IXIII	IXIII	IVIII	IXIII				
12.1	Cash and cash equivalents												
	Bank balances	I 207	I 207	2 573	2 573	848	848	687	687				
	Unsettled deals	277	277	477	477	277	277	477	477				
	Fixed deposits	9311	9 3 1 1	4 539	4 539	9 099	9 099	4 539	4 539				
	Negotiable certificates of												
	deposit	98	98	739	739	98	98	739	739				
	Other money market												
	securities	_	_	1214	1214	_	_	1214	1214				
		10 893	10 893	9 542	9 542	10 322	10 322	7 656	7 656				
	Made up as follows:	10 893	10 893	9 542	9 542	10 322	10 322	7 656	7 656				
	Held for trading	98	98	1 773	1 773	98	98	1 773	1 773				
	Loans and receivables	10 795	10 795	7 589	7 589	10 224	10 224	5 703	5 703				
	Available-for-sale	-	_	180	180	_	-	180	180				
12.2	Investment in securities												
12.2		865	971	2 445	2 441	865	861	3 445	2 441				
	Held-to-maturity Floating rate notes	761	861 765	3 445	3 44 1	761	765	3 342	3 441				
	Preference shares	104	96	103	94	104	96	103	94				
	Maturity analysis	865	861	3 445	3 441	865	861	3 445	3 441				
	Non-current	100	96	850	846	100	96	850	846				
	Current	765	765	2 595	2 595	765	765	2 595	2 595				
	Loans and receivables	2 983	3 051	5 672	5 751	2 698	2 766	5 594	5 673				
	Preference share	2 170	2 238	2 154	2 233	2 170	2 238	2 154	2 233				
	Foreign fixed deposits	472	475	1 107	1 107	472	475	1 107	1 107				
	Fixed deposits	56	53	2 333	2 333	56	53	2 333	2 333				
	Loan to Richards Bay												
	Coal Terminal .	222	222	59	59	_	_	_	_				
	Other	63	63	19	19	_	_		_				
	Maturity analysis	2 983	3 051	5 672	5 751	2 698	2 766	5 594	5 673				
	Non-current	2 372	2 440	3 260	3 350	2 087	2 155	3 182	3 272				
	Current	611	611	2 412	2 40 I	611	611	2 412	2 401				
	Available-for-sale financial												
	assets	11 171	11 171	16 475	16 475	10 952	10 952	15 968	15 968				
	Government bonds	I 424	I 424	2 220	2 220	I 424	I 424	2 220	2 220				
	Negotiable certificates of			1 4 0 4 0	4010								
	deposit	757	757	4 2 1 9	4 2 1 9	-		3 201	3 201				
	Floating rate notes	8 989	8 989	10 009	10 009	9 528	9 528	10 546	10 546				
	Other Maturity and ris	11.171		27	27	10 952	10 952						
	Maturity analysis	3 410	3 410	16 475	16 475	3 949	3 949	15 968	15 968				
	Non-current Current	7 761	7 761	4 911	4 9 1 1	7 003	7 003	11 083 4 885	11 083 4 885				
	Total investment in securities	15 019	15 083	25 592	25 667	14 515	14 579	25 007	25 082				
	Non-current	5 882	5 946	15 674	15 760	6 136	6 200	15 115	15 201				
	Current	9 137	9 137	9918	9 907	8 379	8 379	9 892	9 88 1				

## **Encumbered** assets

Eskom has concluded sale and repurchase transactions of commercial paper, comprising Eskom bonds and government bonds, with approved counterparties. Application of trade date and accounting resulted in the continued recognition of this commercial paper even though legal title has passed from Eskom to the counterparty. At year end, Eskom has sold, and is committed to repurchase commercial paper after year end with a fair value of RI 997 million (2007: RI 387 million). Of this amount, RI 825 million (2007: RI 312 million) relates to government securities and RI72 million (2007: R75 million) relates to Eskom bonds.

No impairment loss was recognised on the held-to-maturity, loans and receivables and available-for-sale investment in securities.



			Gr	oup			Com	npany	
		Carrying value 2008 Rm	Fair value 2008 Rm	Carrying value 2007 Rm	Fair value 2007 Rm	Carrying value 2008 Rm	Fair value 2008 Rm	Carrying value 2007 Rm	Fair value 2007 Rm
12.3	Financial trading assets								
12.5	and liabilities								
	Trading assets								
	Negotiable certificates of								
	deposit	I 024	I 024	2 623	2 623	1 024	I 024	2 623	2 623
	Repurchase agreements	127	127	4	4	127	127	4	4
	Other money market								
	securities	866	866	270	270	866	866	270	270
	Listed shares	522	522	489	489	_	_	_	
		2 539	2 539	3 386	3 386	2 017	2 017	2 897	2 897
	Trading liabilities								
	Eskom bonds	658	658	446	446	658	658	446	446
	Short-sold government								
	bonds	140	140	54	54	140	140	54	54
	Commercial paper issued	3 165	3 165	3 181	3 181	3 165	3 165	3 181	3 181
	Repurchase agreements	124	124	20	20	124	124	20	20
		4 087	4 087	3 70 I	3 701	4 087	4 087	3 701	3 701
12.4	Debt securities issued	42 279	40 889	35 144	40 345	42 279	40 889	35 144	40 345
	Eskom bonds	32 703	30 667	27 219	30 120	32 703	30 667	27 219	30 120
	Electrification participation								
	notes	1 351	1 418	I 467	1 597	1 351	1 418	I 467	1 597
	Promissory notes	117	161	100	165	117	161	100	165
	Eurorand zero coupon								
	bonds	I 664	2 865	471	3 742	I 664	2 865	1 471	3 742
	Foreign bonds	6 444	5 778	4 887	4 72 1	6 444	5 778	4 887	4 72 1
	Maturity analysis	42 279	40 889	35 144	40 345	42 279	40 889	35 144	40 345
	Non-current	39 788	39 254	34 561	39 760	39 788	39 254	34 561	39 760
	Current	2 491	I 635	583	585	2 491	I 635	583	585

Included in total debt securities issued is an amount of R794 million (2007: R1 338 million) that relates to bonds held by related parties in the form of state entities. Bonds are bearer instruments and it is therefore unknown whether the initial counterparty still holds the bonds.



for the year ended 31 March 2008

### 12. Financial instruments (continued)

12.4 Debt securities issued (continued)

Terms and debt repayment schedule

			G	roup		Company			
	Currency	Security	Interest	Interest	Nominal	Nominal	Maturity	Carry	ing value
			rate	rate	2000	2007		2000	2007
		Number	2008 %	2007 %	2008 Rm	2007 Rm	Date	2008 Rm	2007 Rm
		TAUTIDE	/6	70	IXIII	1111	Date	IXIII	IXIII
Eskom bonds								32 703	27 219
	ZAR	E154	_	9,19	_	36	Nov 2007	-	38
	ZAR	E155	_	13,50	_	73	Nov 2007	-	77
	ZAR	E157	13,44	14,25	210	230	Nov 2008	224	241
	ZAR	E159	12,58	12,58	88	92	Sep 2008	89	92
	ZAR	E160	14,59	14,59	80	79	Nov 2009	80	83
	ZAR	E168	_	14,50	_	8 279	Jun 2008	-	8 277
	ZAR	E170	10,15	10,51	10 992	8 667	Aug 2020	13 687	10 570
	ZAR	ES08	14,47	_	I 335	_	Jun 2008	I 376	_
	ZAR	ES09	14,8	_	1 909	_	Jun 2008	1 903	_
	ZAR	ES26	8,46	7,85	6 227	415	Apr 2026	6 120	415
	ZAR	ES33	8,14	7,99	9 865	7 820	Sep 2033	9 224	7 426
Electrification									
participation notes	ZAR	EPN	18,85	17,40	950	995	Apr 2010	1 351	1 467
Promissory notes								117	100
	ZAR	PN04	16,03	16,03	90	90	Aug 2012	50	43
	ZAR	PN05	16,10	16,10	60	60	Aug 2013	28	24
	ZAR	PN06	16,13	16,13	60	60	Aug 2014	24	21
	ZAR	PN07	15,34	15,34	20	20	Aug 2020	3	3
	ZAR	PN08	15,08	15,08	20	20	Aug 2021	3	2
	ZAR	PN09	14,80	14,80	35	35	Aug 2022	5	4
	ZAR	PNIO	14,61	14,61	35	35	Aug 2023	4	3
Eurorand zero									
coupon bonds								I 664	<u> </u>
	ZAR	n/a	13,92	13,94	2 000	2 000	Dec 2018	493	432
	ZAR	n/a	_	13,35	_	2 000	Aug 2027	_	157
	ZAR	n/a	13,35	_	2 000	_	Dec 2027	178	-
	ZAR	n/a	_	11,89	_	6 000	Aug 2027	-	467
	ZAR	n/a	13,35	_	6 000	_	Dec 2027	529	-
	ZAR	n/a	11,88	13,35	7 500	7 500	Dec 2032	464	415
Foreign loans	EUR	n/a	4,00	4,00	500	500	Mar 2013	6 444	4 887
Total								42 279	35 144



			Group				Company			
		Carrying value 2008 Rm	Fair value 2008 Rm	Carrying value 2007 Rm	Fair value 2007 Rm	Carrying value 2008 Rm	Fair value 2008 Rm	Carrying value 2007 Rm	Fair value 2007 Rm	
12.5	Borrowings	8 400	8 443	5 186	5 236	8 689	8 732	5 227	5 277	
	Direct placings	1	1	133	135	1	I	133	135	
	Export credit facilities	1 371	I 406	1 062	1114	I 37I	I 406	1 062	1114	
	Commercial paper	5 433	5 441	837	833	5 982	5 990	1 024	1 020	
	Overdraft	52	52	36	36	52	52	36	36	
	Unsettled deals	I 283	I 283	2 972	2 972	I 283	I 283	2 972	2 972	
	Foreign loans	11	11	61	61	_	_	_	_	
	Rand loans	249	249	85	85	_	_	_	_	
	Maturity analysis	8 400	8 443	5 186	5 236	8 689	8 732	5 227	5 277	
	Non-current	I 480	1 661	1 194	1 244	I 224	I 406	1 063	1 113	
	Current	6 920	6 782	3 992	3 992	7 465	7 326	4 164	4 164	

#### Terms and debt repayment schedule

	Currency	Interest rate	Nominal	Maturity	Group		Carrying value  Company	
		%	Rm	Date	2008 Rm	2007 Rm	2008 Rm	2007 Rm
Direct placings					1	133	1	133
	ZAR	14,05	22	Oct 2007	-	10	_	10
	ZAR	14,30	100	Aug 2007	-	122	_	122
	ZAR	5,00		Sep 2011	1	1	1	
Export credit facilities	EUR	n/a	n/a	n/a	1 371	I 062	I 37I	1 062
Commercial paper					5 433	837	5 982	1 024
	ZAR	9,06	415	May 2007	_	404	_	404
	ZAR	9,25	192	Aug 2007	-	_	_	187
	ZAR	8,24	403	Oct 2007	-	433	_	433
	ZAR	11,31	522	Apr 2008	518	_	518	_
	ZAR	11,51	225	Jul 2008	216	-	216	-
	ZAR	12,14	5 177	Jan 2009	4 699	-	4 699	-
	ZAR	11,99	586	Feb 2009	_	_	549	_
Overdraft					52	36	52	36
Unsettled deals					I 283	2 972	I 283	2 972
Foreign Ioans					- 11	61	-	_
Rand Ioans					249	85	_	_
Total					8 400	5 186	8 689	5 227

### 12.6 Collateral obtained

During the period Eskom has called upon security deposits and guarantees from customers who have defaulted on their accounts. The carrying amount of the security deposits and guarantees which were called upon is R1 million (2007: R6 million).

Eskom has bought commercial paper from approved counterparties and has committed to sell this commercial paper back to the counterparties in the following financial year: Although Eskom has legal title to the commercial paper at year end, it has not been recognised on the balance sheet due to the application of trade date accounting. This has also resulted in the recognition of a loan receivable with a fair value of RI 000 million (2007: RI30 million) at year end. Of this amount, R570 million (2007: R67 million) relates to government securities and R430 million (2007: R63 million) to Eskom bonds. The total loan receivable is secured by commercial paper of an equivalent fair value.

### 12.8 Collateral placed

Eskom has provided collateral security in the form of letters of credit from banks in respect of the cross border lease transactions. Assets to the value of R2 I 51 million (2007: R2 I 54 million) (included under loans and receivable) and R503 million (2007: R526 million) (derivatives held for risk management) have been pledged to the letter of credit providers. The collateral has been provided to hedge the beneficiary against its exposure to the loss of its remaining investment in the cross-border leases and the cost of replacing the transaction in the event of cancellation or default. The calculation of the beneficiary's exposure is influenced by pledge'd securities in the form of US treasury notes which are marked to market semi-annually. The exposure amount was adjusted accordingly.



		Current	Non-	current	Total	Total
		l year	I to 5 years	After 5 years	non-current	
		Rm	Rm	Rm	Rm	Rm
13.	Embedded derivatives					
13.1	Embedded derivative assets					
	2008					
	Group			. =		
	Commodity and/or foreign currency Foreign currency or interest rate	2 252	5 853	4 594	10 447	12 699 6
	Production price indices and foreign currency	8	_	_	_	8
	,	2 266	5 853	4 594	10 447	12 713
	Company					
	Commodity and/or foreign currency	2 252	5 853	4 594	10 447	12 699
	Production price indices and foreign currency	8				8
		2 260	5 853	4 594	10 447	12 707
	2007					
	Group	1 000	4.70.4	2 122	. 0.7	0 ( ( 7
	Commodity and/or foreign currency Foreign currency or interest rate	1 800	4 734	2 133	6 867 –	8 667 I
	Production price indices and foreign currency	3	13	2	15	18
		I 804	4 747	2 135	6 882	8 686
	Company					
	Commodity and/or foreign currency	1 800	4 734	2 133	6 867	8 667
	Production price indices and foreign currency	1 803	4 747	2 135	6 882	8 685
		1 003	4 /4/	2 133	0 002	0 003
13.2	Embedded derivative liabilities					
	2008					
	Group		(1,000)	(2.057)	(4.027)	(4.027)
	Commodity and/or foreign currency Foreign currency or interest rate	_	(1 080)	(2 957)	(4 037)	(4 037)
	Production price indices and foreign currency	(7)	(149)	(891)	(1 040)	(1 047)
		(7)	(1 229)	(3 848)	(5 077)	(5 084)
	Company					
	Commodity and/or foreign currency	_	(1 080)	(2 957)	(4 037)	(4 037)
	Production price indices and foreign currency	(7)	(149)	(891)	(1 040)	(1 047)
		(7)	(1 229)	(3 848)	(5 077)	(5 084)
	2007					
	Group					
	Commodity and/or foreign currency Foreign currency or interest rate	_ (I)	_	_	_	_ (I)
	Production price indices and foreign currency	(5)	(83)	(825)	(908)	(913)
		(6)	(83)	` ′	(908)	(914)
	Company			/	. ,	
	Commodity and/or foreign currency	_	_	_	_	_
	Production price indices and foreign currency	(5)	(83)		(908)	(913)
		(5)	(83)	(825)	(908)	(913)



		Assets Rm	Liabilities Rm	Notional amount Rm
14.	Derivatives held for risk management			
	Group and company  Derivatives held for economic hedging Foreign exchange derivatives  - Swaps  - Foreign exchange contracts Interest rate derivatives  - Forward rate agreements  - Swaps  - Options (purchased)  Commoditiy derivatives – aluminium options Derivatives held for cash flow hedging	2 058 2 045 517 1 528 10 3 7 -	(2 003) (55) - (55) (4) (1) (3) - (1 944)	23 085 8 675 519 8 156 5 942 3 709 2 233 — 8 468
	Cash flow hedges  – Foreign exchange contracts  – Cross currency swap	7 592 3 020	(419) (419) –	35 704 32 029 3 675
	Total derivatives held for risk management  Maturity analysis:  Derivatives held for economic hedging  Non-current  Current	2 058 518 1 540	(2 422) (2 003) (947) (1 056)	
	Derivatives held for cash flow hedging Non-current Current 2007 Group and company	3 020 7 592	(419) - (419)	
	Derivatives held for economic hedging Foreign exchange derivatives  - Swaps  - Foreign exchange contracts Interest rate derivatives  - Forward rate agreements  - Swaps  - Options (purchased) Commoditiy derivatives – aluminium options Derivatives held for cash flow hedging	1 389 674 526 148 506 - 506 - 209	(1 962) (69) (13) (56) (771) (1) (714) (56) (1 122)	38 033 6 273 546 5 727 19 640 2 750 15 190 1 700
	Cash flow hedges  - Foreign exchange contracts  - Cross currency swap	1 234 38 1 196	_ _ _	5 465 I 790 3 675
	Total derivatives held for risk management  Maturity analysis:  Derivatives held for economic hedging  Non-current  Current  Derivatives held for cash flow hedging  Non-current  Current	2 623  1 389 1 216 173 1 234 1 196 38	(1 962) (1 962) (1 375) (587) — — —	

The hedging practices and accounting treatment are disclosed in note 2.10 in the accounting policies (refer to page 120).

The group uses forward exchange contracts and cross-currency swaps for cash flow hedging. The foreign exchange contracts are used to hedge the changes in the cash flows resulting from the purchase of services and goods denominated mainly in US dollars, euros and yen. The cross-currency swap is used to hedge the currency risk arising from the fixed rate bonds (denominated in euros) issued by the group. Only the changes in cash flows attributable to movements in the spot exchange rates are hedged.

The net fair value of the forward exchange contracts at 31 March 2008 was R7 173 million (2007: R38 million). The net fair value of the cross-currency swap at 31 March 2008 was R3 021 million (2007: R1 203 million). There was no ineffectiveness' recognised in the income statement that arises from cash flow hedges for the year (2007: nil). There were no transactions for which cash flow hedge accounting had to be ceased in the current or comparative financial years as a result of highly probable cash flows no longer being expected to occur.



for the year ended 31 March 2008

### 14. Derivatives held for risk management (continued)

### Cash flow hedges

The following table indicates the periods in which the cash flows of derivatives designated as cash flow hedges are expected to occur.

		Discounted cash flows	0 to 3 months	4 to 12 months	l to 5 years	More than 5 years
	Rm	Rm	Rm	Rm	Rm	Rm
2008						
Group						
Cross-currency swaps						
Assets	6 382	6 382	_	_	_	6 382
Liabilities	(3 363)	(3 363)	_	_	_	(3 363)
Forward exchange contracts	, ,	, ,				, ,
Assets	7 592	7 592	2 452	5 140	_	_
Liabilities	(419)	(419)	(417)	(2)	_	_
	10 192	10 192	2 035	5 138	_	3 019
Company						
Cross-currency swaps						
Assets	6 382	6 382	_	_	_	6 382
Liabilities	(3 363)	(3 363)	_	_	_	(3 363)
Forward exchange contracts	,	, ,				,
Assets	7 592	7 592	2 452	5 140	_	_
Liabilities	(419)	(419)	(417)	(2)	_	_
	10 192	10 192	2 035	5 138	_	3 019
2007						
Group						
Cross-currency swaps						
Assets	4812	4812	_	_	_	4812
Liabilities	(3 617)		_	_	_	(3 617)
Forward exchange contracts	,	,				,
Assets	39	39	30	9	_	_
Liabilities	_	_	_	_	_	_
		I 234	30	9	_	1 195
Company		. 20.		<u> </u>		
Cross-currency swaps	4812	4812	_	_	_	4812
Assets	(3 617)		_	_	_	(3 617)
Liabilities	(3 017)	(5017)	_			(3 017)
Forward exchange contracts						
Assets	39	39	30	9	_	_
Liabilities	- J	_	_	_	_	_
Liabilities						
	l 234	I 234	30	9	_	1 195



The following table indicates the periods in which the cash flows of highly probable forecast transactions (cross-currency swaps and forward exchange contracts) are expected to occur. Gains or losses recognised in the hedging reserve in equity are recognised in the income statement in the periods during which the hedged forecast transaction affects the income statement.

the income statement in the periods during wil	Carrying	Discounted cash flows	0 to 3 months Rm	4 to 12 months Rm	I to 5 years Rm	More than 5 years Rm
2008						
Group						
Cross currency swaps						
Assets	6 382	6 382	-	-	-	6 382
Liabilities	(3 363)	(3 363)	-	-	-	(3 363)
Forward exchange contracts						
Assets	_	_	_	-	-	-
Liabilities	(416)	(416)			(194)	(222)
	2 603	2 603	_		(194)	2 797
Company						
Cross currency swaps						
Assets	6 382	6 382	_	_	_	6 382
Liabilities	(3 363)	(3 363)	_	_	_	(3 363)
Forward exchange contracts						
Assets	_	_	_	_	-	_
Liabilities	(416)	(416)	_	_	(194)	(222)
	2 603	2 603	_	_	(194)	2 797
2007						
Group						
Cross currency swaps						
Assets	4812	4812	_	_	_	4812
Liabilities	(3 617)	(3 617)	_	_	_	(3 617)
Forward exchange contracts	, ,	, ,				, ,
Assets	1	-		_	_	_
Liabilities	(182)	(182)	_	_	(80)	(102)
	1014	1014		_	(80)	1 093
Company					. ,	
Cross currency swaps						
Assets	4812	4812	_	_	_	4812
Liabilities	(3 617)		_	_	_	(3 617)
Forward exchange contracts	,	, ,				. /
Assets	1	1	1	_	_	_
Liabilities	(182)	(182)			(80)	(102)
	1014	1014	I		(80)	I 093



for the year ended 31 March 2008

			C	Group	Co	mpany
			2008	2007	2008	2007
		Note	Rm	Rm	Rm	Rm
15.	Finance lease receivables					
	Gross receivables from related parties		_	_	_	_
	Other gross receivables		1 082	1 513	1 082	I 493
	Total gross receivables		I 082	1 513	I 082	I 493
	Unearned finance income		(657)	(951)	(657)	(942)
	Impairment		_	(9)	_	
	Present value of minimum lease payments		425	553	425	551
	Maturity analysis of gross receivables from finance leases					
	– Due within one year		64	93	64	90
	– Due between two and five years		251	346	251	337
	– Due after five years		767	1 074	767	1 066
			1 082	1513	1 082	I 493
	Future finance charges Provision for impairment		(657)	(951)	(657)	(942)
	Provision for impairment		425	(9) 553	425	551
	Maturity analysis of net investment in finance leases		723		723	331
	Current					
	– Due within one year		10	17	10	15
	Non-current		415	536	415	536
	– Due between two and five years		51	55	51	52
	– Due after five years		364	490	364	484
	– Provision for impairment		_	(9)	-	_
			425	553	425	551
	The finance lease receivables are raised in terms of IFRIC 4.					
	Average implicit rate, %		13	13	13	13
16.	Trade and other receivables					
	Trade and other receivables		5 972	5 446	5 797	5 268
	Other receivables		1518	851	1 401	720
			7 490	6 297	7 198	5 988
	Provision for impairment of trade and other receivables	3.1.2 (e)	(1 877)	(1 533)	(1 857)	(1418)
			5 613	4 764	5 341	4 570
	Maturity analysis		5 613	4 764	5 341	4 570
	Non-current		180	4	9	4
	Current		5 433	4 760	5 332	4 566
17.	Inventories					
	Coal		708	1 039	708	1 039
	Nuclear fuel		1 015	951	1 015	951
	Maintenance spares and consumables		2 206	I 647	I 905	1 509
			3 929	3 637	3 628	3 499

The group reversed R7 million of a previous inventory write-down (2007: Rnil). The amount reversed has been included in *net impairment* (*loss*)/*reversal* in the income statement (refer note 32).



			Group	Company	
		2008 Rm	2007 Rm	2008 Rm	2007 Rm
18.	Share capital Authorised				
	I 000 ordinary shares of RI each	1	1	1	I
	Issued I ordinary share of RI	1	I	1	ı
	In terms of the memorandum and articles of association the unissued share capital is under the control of the government of the Republic of South Africa, represented by the Department of Public Enterprises, as the sole shareholder.				
19.	Payments made in advance				
	Payments made in advance	4 256	597	4 197	524

Payments made in advance to suppliers are primarily to reserve manufacturing capacity for the future construction of assets and for future goods and services. These amounts will be used as partial settlement towards the future amounts payable to the suppliers. There is no contractual right to receive a refund in cash or another financial instrument from the suppliers. In the event of default or non-performance, there are performance bonds in place that can be used to recover outstanding payments made in advance.

### 20. Non-current assets and liabilities held-for-sale

A discontinued operation is a component which has been disposed of or is classified as held-for-sale and it represents a separate major line of business or geographical area of operations, or is part of a single coordinated plan to dispose of a separate major line of business or geographical area of operations.

#### Directly held subsidiary - Eskom Finance Company (Pty) Limited

The assets and liabilities of Eskom Finance Company (Pty) Limited have been presented as held-for-sale following the approval of the Eskom board of directors on 16 September 2004 to sell Eskom Finance Company (Pty) Limited. The transaction was expected to be completed by 31 March 2007 and was included under non-current assets and liabilities held-for-sale in the 2007 financial year. However, owing to events and circumstances beyond Eskom's control, the sale transaction has been delayed. The transaction is now expected to be completed by 31 March 2009.

### Indirectly held subsidiaries, associates and joint ventures

The investments in arivia.kom (Pty) Limited (arivia), Lusemfwa Hydro Power Company Limited (Lusemfwa), TAS – a division of Roshcon (Proprietary) Limited, Ash Resources (Proprietary) Limited, Clinker Supplies (Proprietary) Limited and the assets of Airborne Laser solutions (Pty) Limited and Ernerweb, a division of Eskom Enterprises (Proprietary) Limited, meet the requirements of IFRS 5 to be classified as non-current assets held-for-sale, as pre-emptive rights by the other shareholders are expected to be exercised in most instances, while a tender process is considered to be at an advanced stage for the remaining instances. The sale transactions are all expected to be concluded prior to 31 March 2009.

Mountain Communications (Pty) Limited (MKC) and the assets to be sold to Broadband Infraco (Pty) Limited were classified as non-current assets held for sale. These were disposed of during 2008.



<sup>&</sup>lt;sup>1</sup> Nominal value.

for the year ended 31 March 2008

### **20.** Non-current assets and liabilities held-for-sale (continued)

A consolidated analysis of the results of these discontinued operations, and the result recognised on the remeasurement of assets is as follows:

is as follows.		Group
	2008 Rm	2007 Rm
Income statement		
Revenue	1 861	I 633
Other income	4	59
Employee benefit expense	(849)	(727)
Net impairment (loss)/reversal	(6)	3
Depreciation and amortisation expense	(63)	(85)
Loss on disposal of investment	(143)	_
Other operating expenses	(822)	(1 020)
Less: inter-company eliminations	(656)	(533)
Operating profit before net finance cost	(674)	(670)
Net finance costs	195	196
– Finance income	345	277
– Finance cost	(150)	(81)
Loss before tax	(479)	(474)
Income tax expense	(66)	12
Loss for the year from discontinued operations	(545)	(462)

			200	8			2007
	Eskom Finance Company	Mountain Communi- cations	arivia.kom	Other el	Inter- company iminations	Total	Total
	Rm	Rm	Rm	Rm	Rm	Rm	Rm
Finance income							_
Cash and cash equivalents	330	4	12	-	(10)	336	268
Interest earned on finance leases	_	_	14	_	(5)	9	9
	330	4	26	_	(15)	345	277
Finance cost							
Cash and cash equivalents	(251)	(15)	(3)	-	122	(147)	(79)
Interest paid on finance leases	_	_	(3)	_	-	(3)	(2)
	(251)	(15)	(6)	-	122	(150)	(81)
Net gains and losses on							
financial instruments							
Net loss on financial assets		(0)				(2)	
held for trading	_	(2)	_	_	-	(2)	_
Foreign currency translation differences income	_	(5)	_	_	_	(5)	_
	_	(7)	_	_	_	(7)	_



			20	008			2007
		Eskom	arivia.kom	Other	Inter-	Total	Total
		Finance			company		
		Company			eliminations		
		Rm	Rm	Rm	Rm	Rm	Rm
20.	Non-current assets and liabilities						
	held-for-sale (continued)						
	Balance sheet						
	Assets	0.417	212	122	•	2 770	2 22 4
	Non-current assets	2 417	212	133	8	2 770	3 226
	Property, plant and equipment	8	129	101	42	280	708
	Intangible assets	2	-	-	-	2	22
	Investment in equity accounting investees	_	-	32	-	32	43
	Loans receivable	2 404	-	-	-	2 404	2 337
	Finance lease receivables	_	37	-	(34)	3	26
	Deferred income tax	3	46	_	_	49	90
	Current assets	236	623	23	(232)	650	599
	Trade and other receivables	6	347	- 11	(105)	259	336
	Inventories	_	-	8	-	8	_
	Loans receivable	11	-	-	-	11	10
	Cash and cash equivalents	219	228	4	(106)	345	214
	Finance lease receivables	_	48	_	(21)	27	29
	Non-current assets held-for-sale	_	_	_	_	_	10
	Total assets	2 653	835	156	(224)	3 420	3 825
	Liabilities						
	Non-current liabilities	1911	31	59	(539)	I 462	1116
	Debt securities issued	1911	_	_	(539)	I 372	1 031
	Borrowings	_	31	47	_	78	19
	Deferred tax liabilities	_	_	12	_	12	_
	Provisions	_	_	_	_	_	66
	Current liabilities	564	317	25	(534)	372	459
	Loans from holding company	530	_	_	(530)	_	
	Trade and other payables	8	210	22	(4)	236	212
	Debt securities issued	23			_	23	15
	Borrowings	_	11	2	_	13	155
	Provisions	3	96	- I	_	100	77
	Total liabilities	2 475	348	84	(1 073)	I 834	
		24/3	346	04	(1 0/3)	1 034	I 575
	Cash flow statement					.=.	
	Operating cash flows	250	45	177	_	472	60
	Investing cash flows	21	(54)	(48)	-	(81)	182
	Financing cash flows	(187)		30		(157)	(1 734)
	Total cash flows	84	(9)	159	_	234	(1 492)



for the year ended 31 March 2008

### 20. Non-current assets and liabilities held-for-sale (continued)

### Accounting classifications and fair values

The classification of each class of financial assets and liabilities for all discontinued operations, and their fair values are:

	Held	Held-to-	Loans and	Available-	Liabilities at	Other	Total	Fair
	for	maturity	receivables	for-sale	amortised	assets and	carrying	value
	trading		_		cost	liabilities <sup>1</sup>	amount	
	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm
2008								
Financial assets								
Non-current assets	_	_	2 404	_	_	3	2 407	2 401
Loans receivable	_	_	2 404	_	_	_	2 404	2 398
Finance lease receivables	_	_	_	_	_	3	3	3
Current	345	_	270	_	_	27	642	642
Loans receivable	_	_	Ш	_	_	_	П	П
Trade and other receivables	_	_	259	_	_	_	259	259
Cash and cash equivalents	345	_		_	_	_	345	345
Finance lease receivables	_	_	_	_	_	27	27	27
Timarice rease receivables								
Total financial assets	345		2 674			30	3 049	3 043
Financial liabilities								
Non-current	_	_	_	_	I 450	_	I 450	I 450
Debt securities issued	_	_	_	_	I 372	_	I 372	I 372
Borrowings	_	_	_	_	78	_	78	78
Current	_	_	_	_	272	_	272	272
Trade and other payables	_	_	_	_	236	_	236	236
Debt securities issued	_	_	_	_	23	_	23	23
Borrowings	_	_	_	_	13	_	13	13
Total financial liabilities	_	_	_	-	I 722	_	l 722	l 722
2007								
Financial assets								
			2 337			27	2 2/2	2 363
Non-current assets Loans receivable	_		2 337			<u> 26</u>	2 363	2 337
	_							
Finance lease receivables	214	_	744		_	26 29	26	26
Current	214		346				589	589
Trade and other receivables	_	_	336	_	_	_	336	336
Loans receivable	214	_	10	_	_	_	10	10
Cash and cash equivalents	214	_	_	_	_	-	214	214
Finance lease receivables						29	29	29
Total financial assets	214	_	2 683	_	_	55	2 952	2 952
Financial liabilities								
Non-current	_	_	_	_	1 050	_	1 050	1 050
Debt securities issued	_	_	_	_	1 031	_	1 031	1 031
Borrowings	_	_	_	_	19	_	19	19
Current	_	_	_	_	382	_	382	382
Trade and other payables	_	_	_	_	212	_	212	212
Debt securities issued	_	_	_	_	15	_	15	15
Borrowings	_	_	_	_	155	_	155	155
Total financial liabilities								
iolai tinanciai iiadilities		_	_	_	I 432	_	I 432	1 432

<sup>&</sup>lt;sup>1</sup> Include finance lease receivables and derivatives used for cash flow hedges.



	Gr	oup
	2008 Rm	2007 Rm
Finance lease receivables		
Gross receivables from other parties	_	_
Other gross receivables	33	62
Total gross receivables	33	62
Unearned finance income	(3)	(7)
Present value of minimum lease payments	30	55
Maturity analysis of gross receivables from finance leases		
– Due within one year	30	34
– Due between two and five years	3	28
	33	62
Unearned finance income	(3)	(7)
	30	55
Maturity analysis of net investment in finance leases		
Current		
– Due within one year	27	29
Non-current		
<ul> <li>Due between two and five years</li> </ul>	3	26
	30	55

			(	Group	Со	mpany
		Note	2008 Rm	2007 Rm	2008 Rm	2007 Rm
21.	Deferred income					
	Cross-border lease		44	69	44	69
	Government grant		3 821	3 116	3 821	3 116
	Capital contributions received from customers		1317	871	1 317	871
			5 182	4 056	5 182	4 056
	Maturity analysis		5 182	4 056	5 182	4 056
	Non-current		4 913	3 863	4 913	3 863
	Current		269	193	269	193
	Reconciliation of movement					
	Balance at beginning of the year		4 056	3 101	4 056	3 101
	Additions during the year		I 386	1 177	I 386	1 177
	Income recognised during the year		(260)	(222)	( 260)	(222)
	Balance at end of the year		5 182	4 056	5 182	4 056
	The total charge for the group and company of R260 million (2007: R222 million) is disclosed in the profit or loss in the following categories:					
	Depreciation and amortisation expense	31	(199)	(174)	(199)	(174)
	Other income	28	(24)	(28)	(24)	(28)
	Other revenue		(37)	(20)	(37)	(20)
			(260)	(222)	(260)	(222)

### Cross-border lease

The deferred income arises from benefits realised through cross-border lease transactions over certain generating plant (refer to note 6). The present value of the lease and leaseback commitments was settled in full on commencement of the transactions and a profit resulted.

The government's transitional electrification programmes are managed by Eskom on behalf of the Department of Minerals and Energy (DME). The funding for the electrification of homes is provided by the DME. Eskom retains ownership of and responsibility for the electrification assets created upon conclusion of the agreement.

### Capital contributions received from customers

Contributions relating to the construction of electricity network assets are paid in advance by electricity customers.



			Group	Co	Company	
		2008	2007	2008	2007	
	Note	Rm	Rm	Rm	Rm	
2. Retirement benefit obligations						
Post-retirement medical benefits	22.2	5 562	5 173	5 447	5 065	
Gratuities	22.3	8	6	_		
		5 570	5 179	5 447	5 066	
Maturity analysis		5 570	5 179	5 447	5 066	
Non-current		5 409	5 035	5 286	4 922	
Current		161	144	161	144	
The charge to the profit or loss is disclosed in the following categories:						
Pension benefits	22.1	873	640	809	609	
Post-retirement medical benefits	22.2	536	498	527	488	
Gratuities	22.3	3	2	_	_	
		1 412	1 140	I 336	I 097	
2.1 Pension benefits						
The amounts recognised in the profit or loss are as follows:						
Contributions	30	873	640	809	609	
The total charge is included in employee benefit expense in the profit or loss.	·					
The net benefit liability or asset at the balance sheet date is no accounted for in the financial statements. The rules of the Eskom Pension and Provident Fund state that any deficit on the valuation	ı					
of the fund will be funded by increases in future contributions or reductions in benefits. If there is a substantial surplus on the	; !					
valuation of the fund, future contributions may be decreased or benefits may be improved as determined by the trustees of the fund.						
The Eskom Pension and Provident Fund is registered in terms of the Pension Funds Act, 1956 as amended. All employees are members of the fund. Contributions comprise 20,8% of	;					
pensionable emoluments of which members pay 7,3%. The assets of the fund are held separately from those of the group in respect of funds under the control of the trustees.	;					
The fund was actuarially valued on the solvency basis or 31 March 2008 (previous valuation at 31 March 2007).	ı					
The actuarial present value of retirement benefits at 31 March 2008 was R45 818 million (2007: R42 267 million) while the fair value of the fund's assets was R53 096 million	,					
(2007: R49 970 million).	•					
The principal actuarial assumptions used were as follows:						
Long-term interest rate before tax (%)		9,8	8,0	9,8	8,0	
Future salary increases (%)		7,5	5,5	7,5	5,5	
Future pension increases (%)		6,0	4,0	6,0	4,0	
Pensioner mortality		PA (90)	PA (90)	PA (90)	PA (90)	
		less I year	less I year	less I year	less I year	



				•	_	
				Group	Со	mpany
			2008	2007	2008	2007
		Note	Rm	Rm	Rm	Rm
22.2	Post-retirement medical benefits					
	The group has anticipated expenditure in terms of continued	d				
	contributions to medical aid subscriptions in respect o					
	employees that retire. The estimated present value of the					
	anticipated expenditure for both in-service and retired members	S				
	was calculated by independent actuaries.  Present value of unfunded obligations		5 562	5 173	5 447	5 065
	Unrecognised actuarial losses		3 362	5 1/5	J 777	2 002
			5 562		Г 447	5 065
	Liability in the balance sheet		3 362	5 173	5 447	3 063
	The amounts recognised in the profit or loss are as follows:					
	Current service cost		200	216	191	206
	Finance cost		387	368	387	368
	Net actuarial gain recognised for the year		(51)	(86)	(51)	(86)
			536	498	527	488
	The total charge is disclosed in the profit or loss in the					
	following categories:					
	Employee benefit expense	30	149	130	140	120
	Finance cost	35	387	368	387	368
			536	498	527	488
	Movement in the liability recognised in the balance sheet					
	Balance at beginning of the year		5 173	4 825	5 065	4716
	Total expense charged in profit or loss		536	498	527	488
	Contributions paid		(147)	(150)	(145)	(139)
	Balance at end of the year		5 562	5 173	5 447	5 065

Refer to note 4(b) for the sensitivity analysis, and principal actuarial assumptions used.



				Group	C	ompany
		Note	2008 Rm	2007 Rm	2008 Rm	2007 Rm
<b>22.</b> 22.3	Retirement benefit obligations (continued) Gratuities The estimated cost of gratuities was accounted for over the potential working life of the employees based on the assessment by independent actuaries, which took into account the probability of employees remaining in Eskom's employ. During 2004, the liability was paid out to employees. The amounts recognised in profit or loss are as follows:					
	Current service cost		3	2	-	_
	Finance cost		3	2		
	The total charge is disclosed in the profit or loss in the following category:  Employee benefit expense	30	3	2	-	
	Movement in the liability recognised in the balance sheet Balance at beginning of the year Total expense charged to profit or loss Payments made Balance at end of the year		6 3 (1)	23 2 (19) 6	  -  (1)	2 - (l)



			Mine- related closure, pollution control and chabilitation	Leave pay	Annual and per- formance bonus	Other	Total
		Rm	Rm	Rm	Rm	Rm	Rm
23.	Provisions Group						
	Balance at beginning of the year	4 476	1 085	491	853	381	7 286
	Provision for the year	509	85	112	797	I 232	2 735
	Interest cost	694	150	_	_	_	844
	Write back of provision	(1 367)	(240)	-	_	(435)	(2 042)
	Expenditure incurred	(406)	_	(26)	(898)	(369)	(1 699)
	Balance at end of the year	3 906	1 080	577	752	809	7 124
	Less: short-term portion	_	-	(22)	(751)	(744)	(1 517)
	Non-current portion	3 906	I 080	555	1	65	5 607
	Company						
	Balance at beginning of the year	4 476	1 085	461	813	217	7 052
	Provision for the year	509	85	100	748	1 064	2 506
	Interest cost	694	150	_	_	_	844
	Write back of provision	(1 367)	(240)	-	_	(435)	(2 042)
	Expenditure incurred	(406)	_	(17)	(868)	(353)	(1 644)
	Balance at end of the year	3 906	1 080	544	693	493	6716
	Less: short-term portion	_	_	-	(693)	(483)	(1 176)
	Non-current portion	3 906	1 080	544	-	10	5 540

### Power station-related environmental restoration

Provision is made for the estimated decommissioning cost of nuclear and other generation plant and for the management of nuclear fuel assemblies and radioactive waste.

The payment dates of total expected future decommissioning costs are uncertain, but are currently expected to be between 2010 and 2047 (coal stations) and 2021 and 2035 (nuclear).

The provision for the estimated decommissioning and waste management cost of nuclear plant has been discounted at 6,2% (2007: 4,6%).

The payment dates of total expected future spent fuel costs are uncertain, but the majority of the payments are currently expected to be made between 2021 and 2030. The provision for the estimated spent fuel cost has been discounted at 6,2% (2007: 4,6%). Refer to note 4(d) for the sensitivity analysis.

### Mine-related closure, pollution control and rehabilitation of coal mines

Provision is made for the estimated cost of closure, pollution control and rehabilitation and mine employee benefits at the end of the life of the mines, where a constructive and contractual obligation exists to pay coal suppliers.

The payment dates of total expected closure, pollution control and rehabilitation costs are uncertain, but are currently expected to be between 2010 and 2067. The provision has been discounted at 6,2% (2007: 4,6%).

The leave provision includes occasional and service leave and is valued at remuneration rate for leave taken and basic rate of pay for leave sold. The remuneration and basic rate is based on current salaries and take into account the probability of leave sold and other factors. Refer to note 4(c) for the sensitivity analysis.

The principal actuarial assumptions used were as follows:

	Group		Company	
	2008	2007	2008	2007
Long-term investment returns (%)	9,8	8,0	9,8	8,0
Long-term general price inflation (%)	6,0	4,0	6,0	4,0
Salary increases (%)	7,5	5,5	7,5	5,5

The assumptions made in respect of resignation, death and retirement rates are the same as for the post-retirement medical aid liability.

#### Annual and performance bonus

The annual bonus equals one month's salary. The performance bonus is based on the performance of the company and employees.



			Group	C	ompany
		2008 Rm	2007 Rm	2008 Rm	2007 Rm
24.	Finance lease liabilities				
	Gross finance lease liabilities to subsidiaries	_	_	252	191
	Other gross finance lease liabilities	1 971	2 072	l 971	2 072
	Gross finance lease liabilities	I 971	2 072	2 223	2 263
	Future finance charges on finance leases	(1 423)	(1 522)	(1 509)	(1 579)
	Present value of finance lease liabilities	548	550	714	684
	Maturity analysis of gross lease liability				
	– Due within one year	109	102	150	139
	– Due between two and five years	398	404	523	501
	– Due after five years	I 464	I 566	1 550	I 623
		1 971	2 072	2 223	2 263
	Future finance charges	(1 423)	(1 522)	(1 509)	(1 579)
		548	550	714	684
	Maturity analysis of net lease liability				
	Current				
	– Due within one year	9	4	36	28
	Non-current	539	546	678	656
	– Due between two and five years	81	25	102	91
	– Due after five years	458	521	576	565
		548	550	714	684
	The finance lease liabilities are raised in				
	terms of IFRIC 4.				
	Average implicit interest rate or incremental	19	10	18	10
	borrowing rate (%)	19	19	18	18
25.	Trade and other payables	7 775	( 020	7.024	F 207
	Trade and other payables	7 775	6 029	7 934	5 386
	Accruals	2 317	l 957 687	l 778 807	1 565
	Deposits	807			687
	Mark 11	10 899	8 673	10 519	7 638
	Maturity analysis Non-current	10 899	8 673	10 519	7 638 420
	Current	676 10 223	420 8 253	676 9 843	7 218
	Non-current trade and other payables consist mainly	10 223	0 233	7 043	/ 210
	of retention payables that are payable after 12 months.				
26.	Payments received in advance				
	Upfront capital contributions	1 080	723	1 080	723
	Grant funding	135	28	135	28
	Other	113	100	66	64
		I 328	851	1 281	815



			C	Group	Co	Company	
			2008	2007	2008	2007	
		Note	Rm	Rm	Rm	Rm	
27.	Revenue						
	Electricity revenue		43 521	39 344	43 521	39 344	
	Other, excluding electricity revenue		927	724	63	55	
			44 448	40 068	43 584	39 399	
28.	Other income						
	Insurance proceeds		3	207	292	599	
	Management fee income		33	_	472	391	
	Deferred income recognised	21	24	28	24	28	
	Net surplus on disposal of property, plant and equipment		74	42	75	47	
	Net profit on disposal of shares		-	32	-	-	
	Operating lease income Dividend income		81 16	33 17	81 800	48 202	
	Dividend income		231	359	l 744	1 315	
			231	337	1 / 44	1 313	
29.	Net fair value loss on financial instruments						
	Net gain on financial assets held for trading		375	512	330	512	
	Net loss on financial liabilities held for trading		(326)	(622)	(326)	(622)	
	Net loss on financial liabilities measured at amortised cost		(237)	(18)	(237)	(18)	
	Change in fair value of derivatives held for risk management (economic hedges)		(496)	(734)	(496)	(734)	
			(684)	(862)	(729)	(862)	
	Fundamental Communication		,	,	,		
30.	Employee benefit expense Salaries and other staff costs		10 120	8 506	9 419	8 104	
	Share-based payments		16 120	6	16	6	
	Pension benefits	22.1	873	640	809	609	
	Post-retirement medical aid benefits	22.2	149	130	140	120	
	Gratuities	22.3	3	2	_	_	
	Direct training and development		192	167	192	158	
			11 353	9 45 1	10 576	8 997	
	Number of employees		35 404	32 674	32 954	30 746	
31.	Depreciation and amortisation expense						
	Depreciation of property, plant and equipment	6	4 320	4 703	4 156	4 592	
	Amortisation of intangible assets	7	163	180	161	179	
	Deferred income recognised (government grant						
	on electrification)	21	(199)	(174)	(199)	(174)	
			4 284	4 709	4 1 1 8	4 597	



				Group	Со	Company		
			2008	2007	2008	2007		
		Note	Rm	Rm	Rm	Rm		
32.	Net impairment (loss)/reversal							
	Impairment of property, plant and equipment	6	(10)	(4)	(7)	(4)		
	Reversal of impairment on finance lease receivables		9	_	_	_		
	Reversal of impairment of property, plant and equipment	6	43	416	4	39		
	Reversal of impairment of investment in subsidiaries		_	_	_	140		
	Impairment of investment in equity accounted investees	8	(12)	(1)	(1)	_		
	Reversal of write-down of inventory	17	7	_	7	_		
	Write-down of inventory		(2)	(7)	(2)	(1)		
	Impairment of trade and other receivables		(483)	(219)	(443)	(225)		
	Reversal of impairment of housing and other loans		2	11	2			
			(446)	196	(440)	(50)		
33.	Other operating expenses							
	Managerial, technical and other fees		1 177	839	1 162	895		
	Research and development		71	225	67	202		
	Operating lease expense		118	153	110	151		
	Auditors' remuneration		52	39	40	33		
	Repairs and maintenance, transport and other expenses		4 965	4 853	6 640	6 072		
			6 383	6 109	8 019	7 353		
34.	Finance income <sup>1</sup>							
	Held-to-maturity investments		211	309	211	309		
	Loans and receivables		I 306	995	I 206	975		
	Interest income		1 198	822	I 098	802		
	Exchange differences		108	173	108	173		
	Available-for-sale financial assets		I 383	1 504	I 246	I 337		
	Interest received from subsidiaries		_	_	123	117		
	Interest earned on finance lease receivables		33	76	25	76		
			2 933	2 884	2811	2814		
35.	Finance cost							
	Debt securities issued		3 587	3 325	3 587	3 325		
	Interest expense		3 584	3 325	3 584	3 325		
	Exchange differences		I 550	1 138	I 550	1 138		
	Cash flow hedges recycled to profit or loss		(1 547)	(1 138)	(1 547)	(1 138)		
	Borrowings		532	169	439	106		
	Interest expense		208	163	115	100		
	Exchange differences		324	6	324	6		
	Amounts capitalised to property, plant and equipment	6	(727)	(174)	(727)	(174)		
	Unwinding of discount on provisions		1 231	814	1 231	814		
	<ul> <li>Post-retirement medical benefit</li> </ul>	22.2	387	368	387	368		
	- Provisions	23	844	446	844	446		
	Interest paid to subsidiaries		_	_	173	140		
	Interest paid on finance leases		98	98	112	112		
			4 72 1	4 232	4 815	4 323		

<sup>&</sup>lt;sup>1</sup> Finance income includes preference dividends of R229 million (2007: R181 million) for both the group and the company.



			Group		Co	mpany
			2008	2007	2008	2007
		Note	Rm	Rm	Rm	Rm
36.	Income tax expense					
	Current tax		128	I 394	(70)	1 178
	- Current year		201	l 244	_	1 044
	- (Over)/underprovision in prior years		(73)	150	(70)	134
	Deferred tax	11	(333)	1118	(284)	1 229
	<ul> <li>Originating and reversal of temporary differences for</li> </ul>					
	the current year		838	1 283	890	l 394
	-Tax losses		(942)	-	(942)	-
	- Change in tax rate		(308)		(306)	
	Over/(under) provision in prior years		79	(165)	74	(165)
	Total income tax (income)/expense in income statement		(205)	2512	(354)	2 407
	Tax losses		3 364	-	3 364	_
	Reconciliation of effective tax rate		%	%	%	%
	Taxation as a percentage of profit before tax		(15,58)	26,58	(36,13)	28,53
	Taxation effect of		0.00	2.07	22.02	271
	Exempt income Expenses not deductible for tax purposes		8,98 (4,91)	3,86 (3,67)	32,83 (4,62)	2,6 l (2,70)
	Other		5,81	1,83	8,11	0,67
	Controlled foreign operations income		(0,02)	0,19	(1,90)	(0,48)
	Change in tax rate		23,35	-	31,35	(0, 10)
	Foreign tax rate differential		(0,11)	(0,01)	_	_
	Discontinuing operations		12,13		_	_
	Prior year adjustment		(0,65)	0,22	(0,64)	0,37
	Standard tax rate		29	29	29	29
	Deferred tax rate		28	29	28	29
<b>37.</b>	Cash generated from operations					
	Profit before taxation		1314	9 450	979	8 437
	Adjustments for:		8 595	4   34	7 780	4 023
	Depreciation and amortisation expense		4 284	4 709	4 1 1 8	4 597
	Depreciation expense – primary energy Net impairment losses		7 446	(196)	7 440	14 50
	Net surplus on disposal of property, plant and equipment		(74)	(42)	(75)	(47)
	Net movement in provisions		(1 002)	146	(1 186)	324
	Increase in deferred income		1 325	1 129	1 325	1 129
	Amortisation of future fuel		279	218	279	218
	Other non-cash items		(40)	523	(11)	(86)
	Finance income		(2 933)	(2 884)	(2 811)	(2814)
	Finance cost		4 72 1	4 232	4 815	4 323
	Dividends received		(16)	(17)	(800)	(202)
	Net fair value loss/(gain) on financial instruments		827	(3 443)	878	(3 269)
	Share of profit of associates and joint ventures		(30)	(41)	- 001	(214)
	Change in decommissioning interest rate		801	(214)	801	(214)
	Changes in weeking capital		9 909 (2 538)	13 584 2 082	8 759 (1 799)	12 460 1 727
	Changes in working capital Inventories		(2 336)	301	227	23
	Trade and other receivables		(1 153)	49	(1 207)	(301)
	Payments made in advance		(3 659)	(597)	(3 673)	(524)
	Trade and other payables		1 733	1 478	2 388	1714
	Payments received in advance		477	851	466	815
			7 371	15 666	6 960	14 187



			Group	Со	mpany
		2008 Rm	2007 Rm	2008 Rm	2007 Rm
38.	Guarantees and contingent liabilities				
30.	Eskom issues guarantees for strategic and business purposes to facilitate other business transactions.				
38. I	Financial guarantees				
(a)	Long-term debt raised by Motraco Mozambique Transmission Company SARL (Motraco), a private joint venture company between Eskom, Electricidade de Mocambique and Swaziland Electricity Board, owns transmission lines connecting the South African, Mozambican and Swaziland national grids to establish a secure source of electrical power for the Mozal aluminium smelter in Maputo, Mozambique.				
	Eskom has guaranteed the long-term debt raised by Motraco. At 31 March 2008 the outstanding amount was USD38 million (2007: USD47 million), which translates into R311 million (2007: R341 million). The loans mature on 6 September 2019. The guarantee would be triggered if Motraco were unable to meet its obligations in terms of the long-term debt.				
	The risk of default resulting from the political risk in Mozambique is mitigated through a guarantee arranged with an established international insurance company, which specialises in facilitating investments in high risk, low income countries.				
	The risk-adjusted credit exposure of Motraco is calculated by applying a rating agency's annual default probabilities. Applying the default probability of 0,23% (2007: 0,25%), the combined financial liability in respect of these guarantees is calculated as R1 million at 31 March 2008 (2007: R1 million). This amount has been raised as a provision in the current year, and is included in <i>other provisions</i> as disclosed in note 23.				
	The default probability trend into the future is seen to be positive, and changes in variables will not have a significant impact on the income statement.				
	No payments have been made in terms of these guarantees since their inception in 1999.				
	A contingent liability is disclosed for the unprovided portion of the guarantee.	310	340	310	340
(b)	Letters of credit for the cross-border lease transactions				
	Eskom has provided collateral security in the form of letters of credit from banks in respect of the cross-border lease transactions (refer to note 6). The collateral security has been provided to hedge the beneficiary against its exposure to the loss of its remaining investment in the cross-border leases and the cost of replacing the transactions in the market if the lease and leaseback transactions are cancelled.				
	Eskom is ultimately responsible for meeting any potential losses to the banks that may arise should a cancellation event occur. A cancellation event will occur if there is an event of default, an event of loss of the asset, or economic obsolescence of the asset.				
	The calculation of the beneficiary's exposure is influenced by pledged securities in the form of US treasury notes that are marked-to-market semi-annually. The exposure amount is adjusted accordingly.				
	Eskom has guaranteed the payment and facility-related obligations of a special purpose company, established as part of the cross-border lease structures, in favour of all parties to whom the company has such obligations in terms of the lease and leaseback operative documents.				
	In terms of the cross-border lease, Eskom's potential liability of USD283 million has been fully collateralised, with USD419 million having been deposited with the providers of letters of credit.				
	At 31 March 2008 the amount guaranteed was USD240 million (2007: USD283 million) which, at the year-end exchange rate, translates to	I 947	2 068	I 947	2 068



			Group	Company		
		2008 Rm	2007 Rm	2008 Rm	2007 Rm	
(c)	EFC loans to Eskom group employees					
(c)	EFC loans to Eskom group employees  Eskom Finance Company (Pty) Limited (EFC) has granted loans (secured by mortgage bonds on the properties) to employees of the Eskom group. Eskom group companies have issued guarantees to EFC to the extent to which the loan values of employees exceed the current value of the mortgage security. At 31 March 2008 the guaranteed amounts were R125 million (2007: R135 million) for the group and R114 million (2007: R123 million) for the company.  Historically EFC has absorbed any losses incurred, and has not called up any guarantee payments. Eskom's guarantee exposure is therefore governed by the default probability of EFC, which is influenced by the risk of significant fluctuations in interest rates that might cause employees to default on their repayments.  The risk adjusted credit exposure of EFC is calculated by applying a rating agency's annual default probabilities. The default probability for the unsecured portion of the EFC loan book (representing 13% of the loan book) is calculated at 26% (2007: 26%), while the secured portion of the loan book (87% of the loan book) is calculated at 0,52% (2007: 0,54%). Applying the combined default probability, the financial liability in respect of this guarantee is calculated at R6 million at 31 March 2008 (2007: R6 million). This amount has been raised as a provision in Eskom in the current year, and is included in other provisions as disclosed in note 23.					
	Changes in variables will not have a significant impact on the income statement.					
	The unprovided portion, disclosed as a contingent liability for the company and the group, amounted to	119	129	108	117	
	Summary of financial guarantees					
	Unprovided portion	2 376	2 537	2 365	2 525	
	Amounts provided in other provisions	6	6	6	6	
20.2	Total financial guarantees	2 382	2 543	2 371	2 531	
38.2	Other guarantees					
(a)	Guarantees to the DME for the rehabilitation of land disturbed by mining  The Department of Minerals and Energy (DME) requires Eskom to guarantee that it will stand good for the pollution control costs and part of the estimated closure and rehabilitation costs for the collieries with which Eskom has cost plus coal supply contracts. The guarantee amount is calculated as if the collieries were to close immediately. The guarantee required by the DME is R444 million (2007: R443 million).					
	At the same time, Eskom has raised its provision for the estimated pollution control, closure and rehabilitation costs at the end of the life of the collieries, discounted back to 2008. Details of these provisions are included in note 23.					
	A contingent liability disclosed for the unprovided portion of the required DME guarantees at the end of the year amounted to	96	69	96	69	
(b)	Eskom Pension and Provident Fund					
	Eskom has indemnified the Eskom Pension and Provident Fund against any loss resulting from negligence, dishonesty or fraud by the fund's officers or trustees.					



			Group	Company	
		2008	2007	2008	2007
		Rm	Rm	Rm	Rm
38.	Guarantees and contingent liabilities (continued)				
38.2	Other guarantees (continued)				
(c)	Eskom Enterprises performance bonds				
	Eskom Enterprises (Pty) Limited has performance bonds totalling				
	R54 million (2007: R69 million) with respect to various contracts. The probability of having to pay out in terms of the performance bonds				
	is calculated after assessing the likelihood of meeting the contract				
	deliverables. Probable future payments are then discounted and the				
	amount raised as a liability.				
	The project management processes in place confirm that all but one				
	of the contracts should meet the project deliverables. As a result of				
	this contractual dispute, the R33 million (2007: R37 million) performance bond for this contract has a high probability of being called up. The full				
	amount has been raised as a provision in the current year and is included				
	in other provisions as disclosed in note 23.				
	Eskom Enterprises (Pty) Limited has not been required to make any				
	previous performance bond payments.				
	The balance disclosed as a contingent liability amounted to	21	32	_	_
(d)	Conflict of interest guarantee				
	A subsidiary of Eskom Enterprises (Pty) Limited issued a conflict of interest guarantee to a customer, that restricts Eskom Enterprises from				
	trading outside a specific area in Mali. There is currently no possibility of				
	Eskom Enterprises trading outside the specified area.	63	52	_	_
(e)	Rental guarantees				
	Some Eskom Enterprises group companies issued rental guarantees to				
	various property owners to guarantee the rental on the properties they				
20.2	occupy. The guarantees have various dates of expiry.	8	10	_	_
38.3	3				
(a)	Legal claims				
	Legal claims are in process against Eskom as a result of contractual disputes with various procurement parties. On the basis of the evidence				
	available it appears that no obligation is present and the claims are				
	therefore disclosed as a contingent liability.	95	80	95	80
(b)	Pledges				
	South Dunes Coal Terminal (Pty) Limited signed a loan agreement				
	with Investec Bank for the funding of the Richards Bay Coal Terminal				
	Phase V expansion project. All rights, title and interest in and to the loan to Richards Bay Coal Terminal, the South Dunes Coal Terminal				
	(Pty) Limited Throughput Agreement Rights and Entitlement and				
	certain other accounts are pledged as security for the loan. The loan				
	facility, disclosed as a contingent liability, amounts to	475	475	-	_
(c)	Subordinated loan				
	The loan from Eskom Enterprises (Pty) Limited to Transpoint (Pty)				
	Limited has been subordinated to creditors of the company. This amount is included in trade and other receivables.	62	17		_
	is included in trade and other receivables.	02	17	_	



		(	Group	Comp		
		2008	2007	2008	2007	
		Rm	Rm	Rm	Rm	
39.	Commitments					
39.1	Capital expenditure					
	Estimated capital expenditure	260 890	217 034	258 482	215 327	
	Contracted	91 248	12 869	91 008	12 513	
	Approved, not yet contracted for	169 642	204 165	167 474	202 814	
	The expenditure is expected to be incurred as follows:	260 890	217 034	258 482	215 327	
	Due within one year	39 195	20 141	38 716	19 457	
	Due between two and five years	172 324	149 326	170 395	148 303	
	Due after five years	49 371	47 567	49 371	47 567	
	This expenditure will be financed from shareholder support, debt and internally generated funds. The Minister of Finance, in his 2008/09 National Budget speech, announced support to the amount of R60 billion, for which terms and conditions are still to be finalised. Please refer to the funding strategy on page 39 for further information.					
39.2	Operating leases					
	Group as lessee					
	The future minimum lease payments payable under non-cancellable					
	operating leases are as follows:	166	173	153	144	
	Due within one year	88	74	81	59	
	Due between two and five years	73	99	67	85	
	Due after five years	5	_	5	_	
	Group as lessor					
	The future minimum lease payments receivable under non-cancellable					
	operating leases are as follows:	510	607	510	607	
	Due within one year	50	39	50	39	
	Due between two and five years	188	158	188	158	
	Due after five years	272	410	272	410	
39.3	Supply of water					
	Eskom has entered into long-term agreements with the Department of Water Affairs and Forestry to reimburse the department for the cost incurred in supplying water to Eskom. This cost is regarded as part of <i>primary energy</i> in the income statement.					
39.4	Coal					
	Eskom has entered into long-term agreements with suppliers for coal purchases. The annual cost of coal is regarded as part of <i>primary energy</i> in the income statement.					



for the year ended 31 March 2008

		G	roup	Com	pany
		2008 Rm	2007 Rm	2008 Rm	2007 Rm
40.	Related-party transactions				
	The group is 100% controlled by its shareholder, the government,				
	represented by the Department of Public Enterprises.				
	Eskom (and its subsidiaries) constitute a Schedule 2 public entity in				
	terms of the Public Finance Management Act. The related party disclosure is required in terms of IAS 24, Related Parties Disclosures and				
	the specific guidance given by the South African Institute of Chartered				
	Accountants.				
	The related parties of Eskom consist mainly of government				
	departments, state-owned enterprises, subsidiaries of Eskom and				
	other public entities in the national sphere of government, as well as key management personnel of Eskom or its shareholder and close				
	family members of these related parties. The list of public entities in				
	the national sphere of government was provided by National Treasury				
	on its website <u>www.treasury.gov.za</u> . It also provided the names of				
	subsidiaries of public entities.				
	The comparative information has been based on the list of public entities and their subsidiaries effective at 31 March 2007.				
	In addition related parties comprise associate and joint venture				
	companies of the group and post-retirement benefit plans for the benefit of employees.				
	The following transactions were carried out with related parties:				
40. I	Sales of goods and services				
	Shareholder, including government departments	340	251	204	196
	State-owned enterprises in the national government sphere	1 022	925	1 012	914
	Eskom subsidiaries		_	1 619	1 212
	Eskom associates	4	6	4	6
	Joint ventures in which Eskom is a partner	884	744 I 926	884	744
	Goods and services are sold to related parties on an arm's length basis	2 250	1 926	3 723	3 072
	at market-related prices.				
40.2	Government grant funding for electrification				
	Department of Minerals and Energy	899	789	899	789
40.3	Purchases of goods and services				
	Shareholder, including government departments	(480)	(358)	(434)	(358)
	State-owned enterprises in the national government sphere	(303)	(285)	(271)	(259)
	Eskom subsidiaries	_	_	(5 546)	(5 622)
	Eskom associates	_	(50)	-	(50)
	Joint ventures in which Eskom is a partner	-	(10)	-	(10)
	Eskom Pension and Provident Fund (contributions)	(873)	(640)	(809)	(609)
		(1 656)	(1 343)	(7 060)	(6 908)

Goods and services are bought from related parties on an arm's length basis at market-related prices.



			Group	Company		
		2008 Rm	2007 Rm	2008 Rm	2007 Rm	
40.4	State-owned enterprises in the national government sphere Assets are sold to related parties on an arm's length basis at	417	_	_	_	
	market-related prices.					
40.5	Purchases of property/other assets Eskom subsidiaries Assets are purchased from related parties on an arm's length	_	_	-	(11)	
	basis at market-related prices.					
40.6	Finance income					
	Shareholder, including government departments	16	I	1	1	
	State-owned enterprises in the national government sphere	I	8	1	8	
	Eskom subsidiaries		9	123	117	
40.7	Finance cost	17	7	125	120	
10.7	State-owned enterprises in the national government sphere	(90)	(55)	(29)	(55)	
	Eskom subsidiaries	_	_	(173)	(140)	
		(90)	(55)	(202)	(195)	
40.8	Lease income					
	State-owned enterprises in the national government sphere	34	26	34	26	
	Eskom subsidiaries		_	9	14	
		34	26	43	40	
40.9	Lease expenses					
	Eskom subsidiaries		_	_	(19)	
40.10	Finance lease finance cost					
	Eskom subsidiaries	_	_	(14)	(14)	
40.11	Year-end balances arising from transactions Receivables and amounts owned by related parties					
	Shareholder, including government departments	54	30	32	14	
	State-owned enterprises in the national government sphere	84	75	72	74	
	Eskom subsidiaries	_		I 187	1114	
	Eskom associates	240	174	240	174	
	Joint ventures in which Eskom is a partner	240 378	164 270	1 531	164 1 367	
		3/8	2/0	1 331	1 30/	



for the year ended 31 March 2008

	Gı	oup	Con	npany
	2008 Rm	2007 Rm	2008 Rm	2007 Rm
40. Related-party transactions (continued)				
40.12 Provision for impairment losses				
State-owned enterprises in the national government sphere	(60)	(60)	(60)	(60)
Joint ventures in which Eskom is a partner	(101)	_	(101)	
	(161)	(60)	(161)	(60)
40.13 Guarantees				
State-owned enterprises in the national government sphere	5	5	5	5
The guarantees are in favour of Eskom for future or unpaid electricity consumption accounts.				
40.14 Payables to related parties				
Shareholder, including government departments	(858)	(701)	(858)	(63)
State-owned enterprises in the national government sphere	(385)	(94)	(385)	(93)
Eskom subsidiaries	` _		(3 245)	(2 094)
Eskom Pension and Provident Fund	(32)	_	_	_
	(1 275)	(795)	(4 488)	(2 250)
Purchase transactions with related parties are at an arm's length basis with payment terms of 30 days from invoice date.				
40.15 Advance payment				
Eskom subsidiaries	_	_	_	(21)
The advance payments relate to a building that has been purchased and not transferred to a subsidiary company in the group.				
40.16 Indirect transactions – balance sheet assets at nominal value				
Eskom subsidiaries	_	_	539	539
Government bonds	1012	l 766	1012	1 766
	1 012	l 766	1 551	2 305

Interest payable on financial market instruments is in accordance with normal market practice.

### 41. Events after the balance sheet date

On 18 June 2008 Nersa announced an additional increase in the electricity tariff of 13,3% for the year ending 31 March 2009 which resulted in a 27,5% average increase year-on-year. Nersa also ruled that the price increase to *poor* residential customers be limited to 14,2%.

The fair value of embedded derivates at 31 March 2008 was calculated based on the Nersa announcement of 18 June 2008 as well as the principles established in the pervious determination of 20 December 2007. The forward electricity price curve used to value the embedded derivatives was 27,5% for the 2009 year, 25% for the next three years, 18% for the 2013 year and CPI+2 thereafter.



#### 42. Restatement of comparatives

#### New and revised statements and interpretations

Eskom has implemented the following new and revised statements and interpretations for the year ended 31 March 2008:

- IFRS 7, Financial Instruments: Disclosures
- Complementary amendment to IAS 1, Presentation of financial statements capital disclosures

The implementation of IFRS 7 did not result in a change in accounting policy as IFRS 7 affected the disclosure of financial instruments.

The following new and revised statements and interpretations were implemented during the financial year, but had no impact on the financial statements.

- IFRIC 8, Scope of IFRS 2
- IFRIC 9, Reassessment of embedded derivatives
- IFRIC 10, Interim financial reporting and impairment
- IFRIC 11, Group and treasury share transactions

#### Correction to embedded derivatives

In assessing the inputs used in the valuation of embedded derivatives, it was discovered that a value added taxation portion was incorrectly included in the tariff used to determine the host contract at inception. The annual financial statements for the comparative period have been restated to correct this error.

The effect of the restatement to correct embedded derivatives and the reallocations as a result of the implementation of the new and revised statements and interpretations on the comparative financial statements are indicated below.

		Group					Company			
		Previously reported	Prior year adjust- ment	Adjust- ments	Restated	Previously reported	Prior year adjust- ment	Adjust- ments	Restated	
	Note	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm	
Balance sheet		22.240	(58)	2 961	25 143	22.060	(58)	2 507	24 509	

Balance sheet									
Non-current assets		22 240	(58)	2 961	25 143	22 060	(58)	2 507	24 509
Investment in associates		12	_	(12)	_	1	_	(1)	_
Investment in joint ventures		159	_	(159)	_	95	_	(95)	_
Investments in equity accounted investees		_	_	171	171	_	_	96	96
Deferred tax assets	а	5	_	(1)	4	_	_	_	_
Available-for-sale financial assets		11 121	_	(11 121)	_	11 121	_	(11 121)	_
Financial assets at amortised cost		2 702	_	(2 702)	_	2 702	_	(2 702)	_
Investment in securities		-	_	15 674	15 674	_	_	15 115	15 115
Embedded derivatives	b	6 940	(58)	_	6 882	6 940	(58)	_	6 882
Derivatives held for risk management	С	1 196	_	1 216	2 412	1 196	_	1216	2 412
Trade and other receivables		110	_	(106)	4	5	_	(1)	4
Current assets		33 563	220	(3 565)	30 218	30 649	220	(2 574)	28 295
Loans to subsidiaries		-	_	_	_	740	_	6	746
Deferred tax assets		-	_	1	1	_	_	_	_
Trade and other receivables		5 388	_	(628)	4 760	5 102	_	(536)	4 566
Payments made in advance		-	_	597	597	-	_	524	524
Available-for-sale financial assets		4 846	_	(4 846)	_	4 846	_	(4 846)	_
Financial assets at amortised									
cost		6918	_	(6 9 1 8)	_	6918	-	(6 918)	_
Investment in securities		-	_	9918	9 9 1 8	_	-	9 892	9 892
Financial trading assets	d	3 392	-	(6)	3 386	2 903	_	(6)	2 897
Cash and cash equivalents		10 534	-	(992)	9 542	7 656	-	_	7 656
Embedded derivatives	b	I 584	220	-	1 804	1 583	220	_	1 803
Derivatives held for risk									
management	С	901	_	(690)	211	901	_	(690)	211
Total assets		55 803	162	(604)	55 361	52 709	162	(67)	52 804



for the year ended 31 March 2008

				Gro	oup	Company				
			Previously reported	Prior year adjust-	Adjust- ments	Restated	Previously reported	Prior year adjust-	Adjust- ments	Restated
		Note	Rm	ment Rm	Rm	Rm	Rm	ment Rm	Rm	Rm
42.	Restatement of comparatives	(continu	ued)							
	Balance sheet (continued)									
	Equity									
	Capital and reserves attributable									
	to equity holder of the company		56 809	1 548	_	58 357	54 033	1 548	_	55 581
	Liabilities		44.400	(1.070)	2 277	45 (07	44210	(1.070)	2 277	45 400
	Non-current liabilities		44 409	(1 079)	2 277	45 607	44 210	(1 079)	2 277	45 408
	Debt securities issued		_	-	34 561	34 561	-	-	34 561	34 561
	Borrowings		33 060	-	(31 866)	1 194	32 929	-	(31 866)	1 063
	Embedded derivatives	е	2 619	(1711)	_	908	2 6 1 9	(1711)	-	908
	Deferred tax liabilities	f	8 730	632	(2 213)	7 149	8 662	632	(2 213)	7 081
	Derivatives held for risk									
	management	g	_	-	I 375	1 375	-	-	I 375	1 375
	Trade and other payables		_	-	420	420	_	_	420	420
	Current liabilities		24 288	(307)	(2 344)	21 637	23 976	(307)	(2 344)	21 235
	Amounts owing to subsidiaries		_	-	-	_	993	_	(173)	820
	Trade and other payables		9 653	_	(1 400)	8 253	8 596	_	(1 378)	7 2 1 8
	Payments received in advance		-	_	851	851	_	_	815	815
	Debt securities issued		_	-	583	583	_	-	583	583

(3 403)

(1375)

2214

193

(537)

(604)

(1)

(6)

3 992

3 701

6

587

193

2214

1 257

I 575

127 176

7 380

3 707

1 962

1 026

122 219

312

(307)

162

(3216)

(1375)

2 2 1 3

193

(67)

(6)

4 164

3 701

5

587

193

I 026

122 314

2 2 1 3

Group

Company

Changes to descriptions of line items on the balance sheet were as follows:

h

е

g

# NotePrevious descriptionNew descriptionaDeferred income taxDeferred tax assetsbDerivative financial assets – embedded derivativesEmbedded derivativescDerivative financial assets – other derivativesDerivatives held for risk management

7 395

3 707

1 962

1 258

2 1 1 2

127 618

313

(307)

162

Other financial assets at fair value through profit or loss Financial trading assets

Derivative financial liabilities – embedded derivatives Embedded derivatives

Deferred income tax Deferred tax liabilities

Derivative financial liabilities – other derivatives Derivatives held for risk management

Other financial liabilities at fair value through profit or loss Financial trading liabilities



Borrowings

management

**Provisions** 

d

e f

g

Financial trading liabilities

Embedded derivatives

Deferred tax liabilities Deferred income

Non-current assets held-for-sale

Total equity and liabilities

Derivatives held for risk

	Group					Company			
	Previously	Prior	• Adjust-	Restated	Previously	Prior	Adjust-	Restated	
	reported	year	ments	restated	reported	year	ments	restated	
		adjust-				adjust-			
	Rm	ment Rm	Rm	Rm	Rm	ment Rm	Rm	Rm	
Income statement									
Continuing operations									
Revenue	40 068	_	_	40 068	39 399	_	_	39 399	
Other income	501	_	(142)	359	1418	_	(103)	1 315	
Net fair value gain on embedded	4 275	20		4 205	4.101	20		4 121	
derivatives Net fair value loss on other	4 275	30	_	4 305	4 101	30	_	4   3	
derivatives	(613)	_	613	_	(613)	_	613	_	
Net fair value loss on financial									
instruments	- (12.040)	_	(862)	(862)	- (12.040)	_	(862)	(862)	
Primary energy	(13 040)	_	_	(13 040)	(13 040) (8 997)	_	_	(13 040)	
Employee benefit expense  Depreciation and amortisation expense	(9 451) (4 709)	_	_	(9 451) (4 709)	(8 997)	_	_	(8 997) (4 597)	
Net impairment reversal/(loss)	198	_	(2)	196	(50)	_	_	(50)	
Other operating expenses	(6 264)	_	155	(6 109)	(7 467)	_	114	(7 353)	
Operating profit before net	(* = * ·)			(5 . 5 . )	(			(. 222)	
finance cost	10 965	30	(238)	10 757	10 154	30	(238)	9 946	
Net finance cost	(1 548)		200	(1 348)	(1 747)		238	(1 509)	
<ul><li>Finance income</li></ul>	2 748	-	136	2 884	2 640	-	174	2814	
<ul><li>Finance cost</li></ul>	(4 296)	_	64	(4 232)	(4 387)	_	64	(4 323)	
Share of profit of equity accounted investees	41	_	_	41	_	_	_	_	
Profit before tax	9 458	30	(38)	9 450	8 407	30	_	8 437	
Income tax expense	(2 504)	(8)	_	(2 5 1 2)	(2 399)	(8)	_	(2 407)	
Profit for the year from continuing operations	6 954	22	(38)	6 938	6 008	22	_	6 030	
Discontinued operations									
Loss for the year from discontinued									
operations	(500)		38	(462)			_		
Profit for the year	6 454	22		6 476	6 008	22		6 030	
Attributable to:	6 454	22	_	6 476	6 008	22	_	6 030	
Equity holder of the company	6 459	22	-	6 481	6 008	22	_	6 030	
Minority interest	(5)	_	_	(5)	_	_	_	_	
Statement of changes in equity	50 371	1 526		51 897	48 049	I 526		49 575	
Balance at 1 April 2006 Restatement of opening balance	6 438	22	_	6 460	5 984	22	_	6 006	
<ul> <li>Profit for the year</li> </ul>	6 454	30		6 484	6 008	30		6 038	
- Effect of deferred tax thereon		(8)	_	(8)	0 000	(8)	_	(8)	
- Other movements	(16)	-	_	(16)	(24)	-	_	(24)	
Restated opening balance	56 809	I 548	_	58 357	54 033	1 548	_	55 581	
Cash flow statement									
Cash flows from operating activities	13 281	_	673	13 954	13 386	_	(765)	12 621	
Cash flows from investing activities	(14 104)	_	(2 804)	(16 908)	(14 382)	_	(1118)	(15 500)	
Cash flows from financing activities	1 128	_	1 139	2 267	I 587	_	I 883	3 470	
Net increase/(decrease) in									
cash and cash equivalents	305	_	(992)	(687)	591	_	_	591	
Cash and cash equivalents at beginning of the year	10 229	_	_	10 229	7 065	_	_	7 065	
Cash and cash equivalents at end of the year	10 534	_	(992)	9 542	7 656	_	_	7 656	
			(* / _)	, , , , , ,	, 555			. 330	



for the year ended 31 March 2008

#### 43. Directors' remuneration<sup>1</sup>

### Remuneration philosophy

Eskom links management remuneration to the performance of the organisation and an individual's contribution. Market factors are also crucial as reward and remuneration must be kept at levels that will assist us in retaining key leadership skills. Basic salary is augmented by short- and long-term incentives.

International and local benchmarks are considered to ensure executive packages are aligned with those offered by companies of similar stature to Eskom. We aim to remunerate in line with the median of the market with the objective of recruiting and retaining the best management team to lead our business.

#### Remuneration committee

The human resources, remuneration and ethics committee helps the board to apply policy relating to the remuneration of directors and executives as set by our shareholder. The policy also covers the nomination of executives for senior positions and conditions of service. Refer to page 210.

The committee enhances business performance by:

- → approving, guiding and influencing key human resources policies and strategies
- → monitoring compliance with the Employment Equity Act
- → guiding strategies to achieve equity in Eskom
- → approving the principles governing reward and incentive schemes

#### Non-executive directors

Remuneration of non-executive directors is benchmarked against the norms for companies of similar size and is in line with guidelines issued by the shareholder. Remuneration proposals from the human resources, remuneration and ethics committee are forwarded to the board. The board then makes recommendations to the shareholder.

As from December 2006 non-executive directors' fees changed from an honorarium to a fixed monthly fee following a review under guidelines issued by the shareholder. In addition to the fees directors are reimbursed for out-of-pocket expenses incurred in fulfilling their duties.

### Chief executive, finance director and divisional managing directors

The committee makes recommendations to the board concerning the remuneration of the chief executive, and approves the remuneration of the finance director and divisional managing directors. The remuneration of divisional managing directors is considered in accordance with a framework approved by the shareholder. The board recommendation on the remuneration of the chief executive has to be approved by the shareholder.

Factors influencing the remuneration of the chief executive, finance director and divisional managing directors include level of skill, experience, contribution to organisational performance and success of the group. Remuneration includes a basic package and short-and long-term incentives.

Every year, the human resources, remuneration and ethics committee reviews the structure of these packages to ensure an appropriate balance between fixed and variable remuneration and short- and long-term incentives and rewards.

The finance director and divisional managing directors have permanent employment contracts based on Eskom's standard conditions of service. Six months' notice is required.

The chief executive is on a fixed-term contract approved by the board and the shareholder.

### Remuneration structure

The remuneration of the chief executive, finance director and divisional managing directors includes the following components:

#### Guaranteed amount

They receive a guaranteed pay package with remuneration based on cost to company. This comprises a fixed-cash portion, compulsory benefits (medical aid, life cover and pension) and optional benefits (motor vehicle benefits). The guaranteed amount is increased annually to keep remuneration in line with the market.

### Short-term incentives

These reward the achievement of individual predetermined performance objectives and targets as set by the chief executive in performance contracts with each divisional managing director and the finance director. The human resources, remuneration and ethics committee approves the targets set for the chief executive.

The short-term incentive scheme is calculated as a percentage of pensionable earnings.

### Long-term incentives.

These are designed to attract, retain and reward the chief executive, finance director and divisional managing directors for meeting the organisational objectives set by the shareholder. A market-benchmarked long-term incentive scheme and a deferred bonus scheme, effective I April 2005, have been approved.

#### Long-term incentive scheme

A number of notional performance shares (award performance shares) were awarded to the chief executive, finance director and divisional managing directors on I April 2005, 2006 and 2007. Performance shares are given a value at the date of grant, based on the fair value of Eskom Holdings Limited at that date.

Includes the remuneration of divisional managing directors who are senior executives (managers) and not directors of Eskom in terms of the PFMA.



The board has set performance conditions in line with the Eskom business plan and shareholder compact over a three-year performance period. Performance covers financial and non-financial targets in areas such as capacity, cost of electricity, people, environmental factors, customer service and quality of supply, with an agreed weighting in each category.

Awards only vest if, and to the extent that, these targets are met. Potential vesting percentages range from 0% to 100%. A threshold and a stretch target are set for each measure, with an expected (on target) vesting of 50%.

Performance parameters are complemented by a set of "gatekeeper conditions". If gatekeeper requirements are not met, the board, at its discretion may adjust the vesting percentages even though targets have been met.

The following gatekeeper conditions trigger a review of vesting percentages:

- → the level of disabling injury incident rate is greater than 0,45
- → the sustainability committee gives an unfavourable safety report
- → Eskom's audited annual financial statements show a trading loss
- → the auditors qualify Eskom's annual financial statements
- → a significant PFMA contravention occurs.

The vesting period for award performance shares is three years from the date of grant. At the end of that period, the human resource, remuneration and ethics committee decides the amounts to be paid in line with:

- → the percentage of award performance shares that vest, based on the performance conditions achieved
- → the value of the award performance shares based on the fair value of Eskom at the end of the vesting period

In addition to the performance conditions, vesting of award performance shares is dependent on the scheme participant remaining in Eskom's employment throughout the vesting period. The award lapses if employment ceases during the vesting period (other than for permitted reasons).

#### Deferred bonus scheme

Each year, Eskom offers bonus shares to the chief executive, finance director and divisional managing directors. These notional shares are given a value in line with Eskom's fair value at grant date. Participants have the right to accept a certain number of bonus shares in lieu of payment of a percentage of their annual bonus after tax. Eskom determines the value of the bonus shares (again based on the fair value of Eskom) at the end of the three-year performance period. Participants then receive a matching amount equal to the value of the bonus shares at the end of the performance period in addition to the value of the accepted bonus shares.

If employment ceases (other than for permitted reasons) during the performance period, only the value (without any matching award) of the bonus shares which were originally accepted by the participant will be paid. Payment is made on termination of employment.

### Share awards - vested

Award performance shares awarded on I April 2005 vested on 31 March 2008 with a vesting rate, due to achievement of nonfinancial performance conditions over the three year period, of 39%. The cash value of the vested shares is payable in June 2008 at

Deferred bonus shares taken up at 1 April 2005 have now become fully vested and have qualified for the one for one share match on 31 March 2008 in terms of the scheme. These shares are valued at RI, 20 per share. The remuneration value of the bonus shares thus comprise R0,20 per share (related to the uplift in value) plus R1,20 per share related to the matching share.

Name	Award performance shares vesting on 31 March 2008	Award performance shares vested on 31 March 2008 at the rate of 39 %	Award performance shares payable in June 2008 at R1,20 per share	Deferred bonus shares vested on 31 March 2008	Deferred bonus shares payable in June 2008	
	Number	Number	R	Number	R	
BA Dames	I 423 800	555 282	666 338	44 135	61 789	
JA Dladla	I 277 438	498 201	597 841	_	_	
SJ Lennon	1 368 568	533 742	640 490	177 914	249 080	
ME Letlape	1 293 204	504 350	605 220	150 000	210 000	
PJ Maroga	1 456 081	567 872	681 446	-	_	
EN Matya	l 579 408	615 969	739 162	200 000	280 000	
B Nqwababa	I 450 728	565 784	678 941	-	_	
MM Ntsokolo	1 419 600	553 644	664 373	188 097	263 336	
Other <sup>2</sup>	4 030 012	l 571 706	I 886 047	260 113	364 160	

#### Share awards - vesting

Current estimated values of the award performance shares are R1,20 per share for the 2006 (vesting 31 March 2009) and R1,20 per share for the 2007 (vesting 31 March 2010) awards. The performance share value excludes the impact of performance conditions over the applicable three-year performance periods. The values estimated for the 2006 and 2007 bonus shares are R1,20 per share.



for the year ended 31 March 2008

### **43. Directors' remuneration** (continued)

Shares awarded on I April 2007 and I April 2006 are as follows:

Name	Award performance shares vesting on 31 March 2010 Number	Deferred bonus shares vesting on 31 March 2010 <sup>1</sup> Number	Award performance shares vesting on 31 March 2009 Number	Deferred bonus shares vesting on 31 March 2009 <sup>1</sup> Number
BA Dames	2 815 977	_	2 307 513	_
JA Dladla	2 390 585	_	2 298 044	115 060
SJ Lennon	2 282 233	_	2 395 441	126 319
EL Johnson	2 037 090	134 724	_	_
ME Letlape	2 187 611	_	2 284 488	100 000
PJ Maroga	4 194 009	_	2 548 617	130 610
EN Matya	_	_	2 790 076	_
B Nqwababa	3 203 692	_	2 609 782	_
A Noah	2 037 090	_	_	_
MM Ntsokolo	2 699 823	154 286	2 553 784	142 279
Other <sup>2</sup>	6 775 653	146 074	8 634 986	371 547
	30 623 763	435 084	28 422 731	985 815

The long-term incentive and deferred bonus schemes are share-based payments in terms of IFRS 2.

The discounted cash flow methodology has been adopted in valuing Eskom. This methodology is based on the anticipated future cash flows of the business. As from 2007, the future forecast cash flows were adjusted to reflect the change in the rate of return on assets, which is recovered in the tariff, from a nominal to real as advised by Nersa.

The future forecast cash flows to be discounted are the free cash flows (the cash available from the business after all internal funding requirements to maintain a required rate of growth have been met). Free cash flows are defined as the cash available to all providers of finance (shareholders and lenders to the company).

The appropriateness of shareholder value as currently derived is under review.



Number of shares purchased by the individual as an investment in the deferred bonus scheme.
Relates to senior general managers.

### The details of the schemes were as follows:

	Ovvs.				
Details	Long-term	Deferred	Long-term	Deferred	
	incentive plan	bonus plan	incentive plan	bonus plan	
Date of grant	I April 2007	I April 2007	I April 2006	006 I April 2006	
Number granted	30 623 763	435 084	35 459 803	1 104 103	
Contractual life	3 years	3 years	3 years	3 years	
Vesting conditions	Variable vesting depending on the achievement of non- market performance conditions	Three-year service period	Variable vesting depending on the achievement of non- market performance conditions	Three-year service period	
Method of settlement	Cash	Cash	Cash	Cash	
Estimated fair value of instruments granted (R)	1,20	1,20	0,64	0,64	
Expected attrition of employee (%)	0	0	0	0	
Expected outcome of performance conditions (%)	52,13	Not applicable	41,11	Not applicable	
Valuation model	Residual value model	Residual value model	Residual value model	Residual value model	
Reconciliation of share movements	31 March 2008	31 March 2008	31 March 2007	31 March 2007	
Number of shares:					
Outstanding at beginning of year	55 964 972	2 288 366	20 505 169	1 184 263	
Granted during the year	30 623 763	435 084	35 459 803	1 104 103	
Forfeited during the year	_	-	_	_	
Settled during the year	(12 243 375)	(282 292)	_	_	
Expired during the year	_	-	_	_	
Outstanding at end of year	74 345 360	2 441 158	55 964 972	2 288 366	
Carrying amount of liability (R'000)	21 544	2 847	8 250	1 122	
Intrinsic value of liabilities relating to vested rights (R'000)	21 544	2 847	8 250	1 122	



for the year ended 31 March 2008

### **43. Directors' remuneration** (continued)

The following schedule set out the emoluments due to the directors of Eskom for the current year.

Name	Salaries/ fees	Short-term bonus payment	Other payments	Total March 2008	Total March 2007
	R000	R000	R000	R000	R000
Non-executive directors					
MV Moosa	1 069	_	_	1 069	1 084
M Bello	398	_	_	398	206
LCZ Cele	478	_	_	478	285
BM Count	477	_	_	477	529
LG Josefsson	507	_	_	507	486
WE Lucas-Bull	449	_	_	449	298
PM Makwana	478	_	_	478	269
E Marshall	398	_	_	398	153
JRD Modise	495	_	_	495	300
AJ Morgan	535	_	_	535	326
SA Mpambani	427	_	_	427	263
U Nene	449	_	_	449	263
V Mohanlal Rowjee	398	_	_	398	237
FM Baleni <sup>13</sup>	_	_	_	-	62
Executive directors					
TS Gcabashe <sup>1</sup>	3 557 <sup>2</sup>	_	4 205³	7 762	6 165
PJ Maroga <sup>4</sup>	3 9 1 4	_5	_	3 914	3 199
B Nqwababa	2 781	487	_	3 268	2 887
Total directors	16 810	487	4 205	21 502	17 012
Members of Exco	•				
BA Dames <sup>6</sup>	2 438	509	_	2 947	2 534
EL Johnson <sup>7</sup>	I 689	315	_	2 004	
SJ Lennon	I 974	350	_	2 324	2 489
ME Letlape	I 892	279	_	2 171	2 374
PD Mbonyana <sup>9</sup>	801	_	2 9 1 8 10	3 719	2 288
Officials of Exco					
JA Dladla	2 065	364	_	2 429	2 447
EN Matya <sup>8</sup>	2 332	216	_	2 548	2 854
MM Ntsokolo	2 332	363	_	2 695	2 63 1
A Noah <sup>12</sup>	I 650	318	_	I 968	_
NL Angel <sup>13</sup>		_	_	_	370
Total divisional managing directors	17 173	2714	2918	22 805	17 987



	Com	pany
	March 2008	March 2007
Housing loans to executive directors		
TS Gcabashe	I 454	689
PJ Maroga	3 069	3 131
B Nqwababa	3 274	3 346
Housing loans to divisional managing directors		
BA Dames	3 316	3 118
JA Dladla	196	223
EL Johnson	I 050	_
PD Mbonyana	898	1 201
AN Noah	208	_
MM Ntsokolo	_	3 533
	13 465	15 241
The interest rate on the loan from Eskom Finance Company (Pty) Limited at 31 March 2008 was 12,5% (31 March 2007: 10,5%). The loans are repayable over a maximum period of 30 years. 14		
The following board and Exco members were directors of Eskom directly held subsidiary companies. Fees paid for attendance of meetings were all paid to Eskom Holdings.		
Eskom Enterprises (Pty) Limited <sup>15</sup>		
TS Gcabashe	_	_
B Nqwababa	_	_
SJ Lennon	_	_
BA Dames	_	_
Eskom Finance Company (Pty) Limited <sup>16</sup>		
B Nqwababa	25	15
Escap Limited <sup>16</sup>		
B Nqwababa	34	32



Chief executive contract expired on 31 December 2007. Resigned from Exco and board.

 $<sup>^{\</sup>rm 2}$  Total guaranteed payment for nine months.

Conclusion of three year contract and settlement of long-term incentive awards.

<sup>&</sup>lt;sup>4</sup> Appointed as deputy chief executive 8 February 2007 and chief executive 1 May 2007.

Appointed as deputy chief executive of rebridary 2007 and chief executive 1 May 2007.

The chief executive officer antecedently divested himself of any right to receive the short term incentive reward for the year ended 31 March 2008.

Appointed as chief officer Generation division | February 2008.

Appointed as managing division of the properties of t

<sup>&</sup>lt;sup>8</sup> Resigned from Eskom effective 31 July 2008.

<sup>&</sup>lt;sup>9</sup> Retired from Eskom 31 August 2007.

Early retirement and settlement of long-term incentive award.

Disclosure in terms of regulation 28.1 of the Public Finance Management Act.

<sup>&</sup>lt;sup>12</sup> Appointed I July 2007.

<sup>&</sup>lt;sup>13</sup> Resigned June 2006.

On resignation the terms and conditions of the loan are renegotiated.

<sup>&</sup>lt;sup>15</sup> Paid by Eskom.

<sup>&</sup>lt;sup>16</sup> Fees paid to Eskom.

## Corporate governance and tables

## Governance in challenging times



The rapidly changing environment has led to more intensive engagement with stakeholders.



#### Corporate governance

#### Introduction

The rapidly changing business environment presents new and increasingly complex corporate governance challenges. It is therefore critical, that an organisation's governance processes and practices are reviewed on a regular basis to ensure that they are in line with best practices.

Eskom views good corporate governance practices as integral to good performance. It is therefore essential for Eskom to fulfil its mandate in a manner that is in keeping with governance best practices and, in particular, with regard to accountability, transparency, fairness and responsibility.

We have adhered to the statutory duties and responsibilities imposed by the Companies Act as augmented by the Public Finance Management Act (PFMA). Eskom's systems and processes are regularly reviewed to ensure that compliance is monitored in this regard. In addition, Eskom is also guided on best practices by international developments as well as the King Report on Corporate Governance for South Africa – 2002 (King II) and the Protocol on Corporate Governance in the Public Sector – 2002.

The year has been a particularly challenging one for Eskom because of the capacity challenge and it was necessary that the governance processes, systems and structures were able to deal with a number of issues in a coherent and effective manner:

More frequent meetings of the board of directors and the executive management committee were required. In addition, Eskom had to engage with various stakeholders with regard to the capacity issues. There was a need for alignment with government as shareholder and more intensive communication and interaction with customers and the National Energy Regulator of South Africa (Nersa). At the same time Eskom had to focus on the capacity expansion programme and on the operations of the business and there was a need for quick decision-making on a number of issues.

In addition, the need for more intensive engagement with stakeholders resulted in a number of meetings between Eskom, government and customers, including the key industrial customers and major metros. A number of joint task teams were also established to assist with the resolution of some of the problems.

Admittedly, there were some weaknesses in the processes. The stakeholder communication and engagement could have been more effective and Eskom has acknowledged the criticism in this regard. However, in other respects, the integrity of Eskom's governance processes and structures was maintained and they functioned effectively. The current challenges and need at times for urgent decision-making did not lead to a deterioration of the high standards of corporate governance. The governance processes were adhered to and duties were fulfilled in a proper manner.

Eskom's massive capacity expansion programme in itself presents particular challenges for the governance processes. Eskom needs to ensure that there are adequate resources and expertise, and that our processes are beyond reproach. Consequently, a number of initiatives were implemented last year to strengthen our resources in this regard.

The regular review of governance practices was also carried out based on the conclusions of the last board evaluation. This included a review of the committees, the agendas, documentation tabled at board meetings and ongoing director training. In particular, the review of the delegation of authority was completed, with a special focus on procurement processes. The performance of the board committees was considered and areas for improvement were identified. Special information sessions have been introduced prior to scheduled board meetings to allow an opportunity for more detailed information on particular topics to be shared with directors.

An independent board evaluation for the period under review is being conducted.

#### Shareholding and shareholder's compact

The government of the Republic of South Africa is Eskom's sole shareholder. The shareholder representative is the Minister of Public Enterprises.

Each year, Eskom, in consultation with the Minister of Public Enterprises, agrees its performance objectives, measures and indicators in line with treasury regulations under the PFMA. The annual targets are annexed to a list of principles agreed between Eskom and its shareholder (the shareholder compact).



## The shareholder compact promotes good governance.

The performance of the organisation against the performance objectives is indicated on page 30.

The compact does not interfere with the normal principles of company law. The relationship between the shareholder and board is preserved. The board ensures that proper internal controls are in place and that Eskom is effectively managed. The compact promotes good governance by helping to clarify the board and shareholder roles and responsibilities and ensures consensus on Eskom's mandate and key objectives.

## Governing bodies Composition of the board

The details of the directors appear on pages 14 to 15.

Eskom has a unitary board structure with 13 non-executive directors and two executive directors. All of the non-executive directors are independent directors, appointed by the shareholder, are drawn from diverse backgrounds (local and international) and reflect South Africa's demographics. They bring a wide range of experience and professional skills to the board. In addition, a number of respected external people have been appointed to a number of the board committees, bringing additional experience to the table.

Eskom's articles of association stipulate that the shareholder will, after consulting the board, appoint a chairman, chief executive and non-executive directors. The remaining executive directors are appointed by the board after obtaining shareholder approval.

Good corporate governance requires that the composition of the board be reviewed on a regular basis. The rotation of directors at regular intervals is accepted as good practice as it ensures that a board remains dynamic and does not become stagnant in terms of its thinking and abilities. However, it is important that it is managed in such a way that the rotation of directors does not lead to a disruption in the operations of the business and that the board is well balanced in terms of skills, expertise and demographics (race, gender and people with disabilities).

The term of office of non-executive directors is a maximum of three years, which will expire at the annual general meeting in July 2008. The terms of these directors will accordingly be reviewed and they are eligible for re-appointment.



Eskom's Klipheuwel wind farm near Bellville

Executive directors are full-time employees and as such are subject to Eskom's conditions of service.

Board meetings are scheduled annually in advance. Special meetings are convened as necessary to address specific issues. Directors or committee members unable to attend meetings may use teleconferencing facilities. The attendance of members at the 10 board meetings during the reporting period is reflected on page 208.

#### Delegation of authority

The board has the authority to lead, control, manage and conduct the business of Eskom, including the authority to delegate. Its aim is to ensure that Eskom remains a sustainable and viable business of global stature. Its responsibilities are facilitated by a well-developed governance structure through board committees, including the executive management committee (Exco), as well as subcommittees of Exco and a comprehensive delegation-of-authority framework. This framework assists decision-making without diluting director accountability and responsibility. The board reviews the framework regularly. It was last reviewed in December 2007.



#### Corporate governance continued

#### Board evaluation and performance

A performance evaluation of the board and individual directors is conducted at the end of the financial year. Any shortcomings are addressed and areas of strength consolidated. The performance of board committees is evaluated against their terms of reference. The human resources, remuneration and ethics committee facilitates the evaluation of senior management.

#### Director induction and orientation

New directors and external committee members complete an induction programme to improve their understanding of Eskom's legislative framework, governance processes, delegation of authority and business operations. Continual training addresses the needs of each director or group of directors. Directors are briefed on new legislation and regulations. The induction and training includes visits to certain business sites.

#### Board and board committees - meeting attendance table 2008

	Board		estment I finance	Tender	Sustain- ability	Human resources, remuneration and ethics	Risk manage- ment	Exco
Number of meetings	101	7	102	123	4	5	5	33 <sup>4</sup>
Board members MV Moosa M Bello LCZ Cele BM Count LG Josefsson WE Lucas-Bull PM Makwana PJ Maroga ET Marshall JRD Modise V Mohanlal Rowjee	10 4 10 7 7 10 7 9 10	- 7 6 6 - 4 - 7	- - - 7 - 9 - 8 -	12  -  -  -  -  -  -  -  -  -	4 - - 2 4 - 4 - -	3 <sup>5</sup>	- - - - - - 5 5	- - - - - - 29 -
AJ Morgan SA Mpambani U Nene B Nqwababa	10 10 8 10	7 =	9 - 5 8	     -  -	- 4 -	- - -	5 - 2 <sup>5</sup> 4	- - 33
External members S Fakie <sup>5</sup> BL Fanaroff TS Gcabashe MJ Husain MM Matutu S Sebotsa	- - - - - -	4 - - - -	- - - - 6	- - 7 - -	- 3 - - 4 -	- 4 - - -	- - - - -	_ _ _ _ _ _ _
Executive management BA Dames JA Dladla E Johnson SJ Lennon ME Letlape EN Matya PD Mbonyana A Noah M Ntsokolo	- - - - - - -	- - - - - - - -	- - - - - -	- - - - - - -	- - - - - - -	- - - - - -	- - - - - 3 <sup>5</sup> - -	32 29 <sup>5</sup> 23 <sup>5</sup> 30 <sup>5</sup> 29 30 6 <sup>5</sup> 19 <sup>5</sup> 27 <sup>5</sup>

<sup>&</sup>lt;sup>1</sup> Four of the board meetings were special meetings.

<sup>&</sup>lt;sup>5</sup> Only a member for part of the year.



<sup>&</sup>lt;sup>2</sup> Six of the investment and finance committee meetings were special meetings.

<sup>&</sup>lt;sup>3</sup> Three of the tender committee meetings were special meetings.

<sup>&</sup>lt;sup>4</sup> Six of the Exco meetings were special meetings.

# Total electricity provided by Eskom power stations 239 108GWh.

As a result of the capacity challenges facing the company, additional board meetings were held during the year and these are reflected in the table on the meeting schedule and attendance. It should be pointed out that over and above these additional board meetings, numerous board briefings and meetings of the chairpersons of the board committees were also held on a regular (at times weekly) basis. The purpose of the additional briefing sessions and meetings of the committee chairpersons was to keep directors informed of key developments as they unfolded and to allow directors an opportunity to express their views on the developments and strategies on an ongoing basis.

This called for the Eskom directors to commit significant additional time to the business of Eskom during this critical period.

#### Directors' remuneration

Please refer to note 43 on page 198 in the annual financial statements for details of directors' remuneration.

#### Company secretarial function

Directors have unrestricted access to the advice and services of the company secretary, and those of the secretariat department. Directors may seek independent professional advice at Eskom's expense, should they deem this necessary.

The company secretary and those responsible for the assurance functions in the Corporate Services division monitor Eskom's compliance with the PFMA, Companies Act and other relevant legislation, and report to the board on these issues.

#### **Board** committees

Several committees assist the board in carrying out its responsibilities. Their recommendations and reports to the board ensure transparency and full disclosure of committee activities. Each committee operates within terms of reference that set out the composition, role, responsibilities and delegated authority of the committee. The board from time to time sets up committees for specific (ad hoc) purposes. All committees, except Exco, comprise a majority of independent non-executive directors. An independent non-executive director serves as chairman in each case. Committee meeting attendance is reflected on page 208.



The smokestacks at Duvha power station are about 300 metres high.

In addition to the terms of reference, a board committee exercises its delegated authority in accordance with specific policies approved by the board from time to time.

#### Audit committee

The committee comprises five independent non-executive directors. Mr S Fakie attended for part of the year as an external appointee. The committee monitors that internal control is maintained to protect Eskom's interests and assets.

The committee also reviews any accounting and auditing concerns raised by internal and external audit, the annual financial statements, the interim reports, the accompanying reports to shareholders, the preliminary announcement of results and any other announcement regarding the company's results or other financial information to be made public.

The committee ensures that an effective internal audit function is in place and that the roles and functions of the external audit and internal audit are sufficiently clarified and co-ordinated to provide an objective overview of the operational effectiveness of the company's systems of internal control, risk management, governance and reporting. The committee also has to assess the performance of the internal audit function, and the adequacy of available internal audit resources.



#### Corporate governance continued

The committee considers and makes recommendations on the appointment and retention of the external auditors, the fees paid and the terms of engagement, pre-approves the nature and extent of any non-audit services and evaluates their independence, objectivity and effectiveness.

The head of the corporate audit department and the external auditors have unrestricted access to the chairman of the committee and Eskom's chairman. The committee reviews the accuracy, reliability and credibility of statutory financial reporting. It also reviews the annual financial statements and the Eskom group annual report, as presented by management prior to board approval.

Seven committee meetings were held during the review period. They were also attended by the external auditors, the finance director, the head of the corporate audit department, the managing director of the corporate services division and relevant company officials.

#### Investment and finance committee

The committee comprises four independent non-executive directors, the chief executive and finance director, together with Mrs S Sebotsa, an external appointee. The committee reviews the investment strategy and makes recommendations to the board. It evaluates and approves business cases for new ventures or projects, approves criteria and guidelines for investments and approves investments within its delegated authority.

The committee monitors and oversees the financial health of Eskom, including the review of budgets and financial and business plans. Investment decisions are made within a framework of policies that guide such decisions and which are approved by the board.

Ten committee meetings were held.

#### Tender committee

The committee comprises five endependent non-executive directors, together with Mr MJ Husain, an external appointee

who brings additional expertise to the committee. The tender committee assists the board with procurement decisions, and approves procurement policies, tenders and contracts within its delegated authority. It ensures that Eskom's procurement system is equitable, transparent, competitive and cost effective. If the value of the contracts to be approved exceeds the committee's authority, the contracts are referred to the board for approval.

Twelve committee meetings were held.

#### Sustainability committee

The committee comprises four independent non-executive directors and the chief executive, as well as Mr BL Fanaroff and Mr MM Matutu, external appointees who bring additional expertise to the committee. This committee deals with integrated sustainability issues and approves or recommends policies, strategies and guidelines, particularly related to safety, health, environment, quality and nuclear issues.

The committee also scrutinises nuclear safety at Eskom facilities to ensure that standards exceed all regulatory and internal requirements, and remain consistent with international best practice.

Four meetings were held.

#### Human resources, remuneration and ethics committee

This committee comprises three independent non-executive directors, the chairman of the board and the chief executive (who is recused when his remuneration is considered), as well as Mr BL Fanaroff, an external appointee who brings additional expertise to the committee.

The committee, inter alia, makes recommendations on remuneration policies, the appointment and replacement of directors and senior managers, and monitors the ethical conduct of the company, its management, employees and suppliers.

Five meetings were held.



Eskom has identified 13 major risk categories against which all business objectives are assessed.

#### Nomination committee

The board has established a nomination committee to deal with the appointment of non-executive directors to the board.

This committee comprises the chairman of the board, the chairman of the human resources, remuneration and ethics committee and the chief executive.

#### Risk management committee

The committee comprises four independent non-executive directors and the finance director. It ensures that the company's risk management strategies and processes are aligned with best practices. The audit committee chairman also sits on the risk management committee to ensure that common issues are addressed adequately.

Five meetings were held during the year, covering the integrated risk management strategy and processes, risk tolerance and appetite, risk accountabilities, major risk exposures and emerging risks.

Further information on the risk management processes is set out on pages 28 and 212.

#### Executive management committee (Exco)

Up to 6 February 2008, when the structure was changed, Exco comprised the chief executive, the finance director and divisional managing directors of Eskom.

The Eskom board rationalised the Exco structure with effect from 6 February 2008 on the recommendation of the chief executive. The new Exco structure includes the chief executive, the finance director, the managing directors of corporate services, human resources and corporate affairs (still to be appointed), and the newly introduced positions of chief officer (generation) and chief officer (networks and customer services). This led to the clustering of related line businesses. The divisional managing directors in portfolios that now report to the two new chief officers continue to participate in Exco as officials. Details of executive management appear on page 22.



A high-voltage line under construction.

The committee assists the chief executive in guiding the overall direction of the business and in exercising executive control. Its task is to assist with the effective management of the day-to-day operations of the business.

Thirty-three Exco meetings were held, including scheduled operations and security of supply meetings, special meetings and strategic workshops. Attendance is reflected on page 208.

Exco is assisted by its procurement, operations, investment, nuclear management and sustainability and safety subcommittees.

#### Public Finance Management Act (PFMA)

The board is the accounting authority in terms of the PFMA, and Eskom is listed as a Schedule 2 public entity. This Act also applies to subsidiaries and entities owned or controlled by Eskom. They are also classified as Schedule 2 entities.

The PFMA regulates financial management and governance. Eskom ensures that all directors and employees are aware of the provisions of the PFMA through regular training programmes.



#### Corporate governance continued

Directors comply with their fiduciary duties as set out in the PFMA. Board responsibilities are also specified in the PFMA.

#### Integrated risk management (IRM)

The Eskom board, through the risk management committee, acknowledges its overall accountability for ensuring an effective results-driven, IRM process. Exco has implemented a risk monitoring system that enables management to respond appropriately to all significant risks that could impact negatively or positively on business objectives.

To ensure completeness of the risk identification process, Eskom has identified 13 major risk categories against which all business objectives are assessed. The Eskom integrated risk accountability matrix assigns executive accountability for each of the 13 risk categories.

Risk management in Eskom is performed at departmental, regional, divisional and subsidiary level and reported upward to corporate (bottom-up). After consolidation of these integrated risk reports, Exco and the board risk management committee review and evaluate the risk profile to determine the major operational, strategic and business continuity risks (top-down).

Refer to www.eskom.co.za/annreport08/049 for more details of Eskom's risk management principles.

#### Ethical business conduct

Eskom commits itself to the highest standard of ethical conduct, underpinning its key value of integrity. It strives at all times to foster trust, dependability and honesty.

The ethics office assists the chief executive and the board in setting the framework, rules, standards and boundaries for ethical behaviour, and provides guidance to the Eskom group on ethical conduct.

Key milestones for the past financial year include the approval of Eskom's code of ethics by its executive committee and the board, the development of a communication strategy for the launch of

the code in April/May 2008 and its subsequent implementation throughout the organisation. Training was provided to 77% of the workforce on conflict of interest and ethics training was given to new employees through the induction programmes.

Ethics awareness is furthermore created through the following channels and ongoing initiatives:

- → maintaining effective ethics structures within each division
- → keeping the executive committee and the human resources, remuneration and ethics committee informed via quarterly ethics status reports
- → providing an ethics advisory service for employees, suppliers and customers
- maintaining an advisory service database in order to identify trends
- → monitoring ethics training interventions within the divisions
- → monitoring the submissions of the electronic declaration of interests forms by the board of directors, the executive committee and employees
- → maintaining the ethics website, covering key ethical issues, frequently asked questions and training material
- → hosting the annual ethics networking forum for ethics sponsors and co-ordinators
- → promoting Eskom's externally managed toll-free whistleblowing line, enabling employees, suppliers and customers to report crime and irregularities confidentially

#### Internal control

The board is responsible for ensuring that an effective internal control framework is established. Eskom controls focus on critical risk areas identified by operational risk management and confirmed by management. Controls provide cost-effective assurance that assets are safeguarded and liabilities and working capital are efficiently managed. Organisational policies, procedures, structures and approval frameworks provide direction, establish accountability and separate responsibilities. They each contain self-monitoring mechanisms. Management and the corporate audit department monitor controls and corrective action.



Eskom contributes to the development of the disadvantaged and promotes skills development.

#### Audit

In line with the requirements of the PFMA and good governance, corporate audit gives the audit committee and management information on the appropriateness and effectiveness of internal controls. Information is derived from an independent evaluation of risk management and governance processes and internal controls. Corrective action is identified and improved controls suggested.

The audit plan covers major financial and commercial risks and responds to any changes in Eskom's risk profile.

Corporate audit is supported by the board and audit committee and has unrestricted access to all organisational activities, records, property and personnel.

External auditors independently audit and report on the financial statements. The statements comply with international financial reporting standards (IFRS).

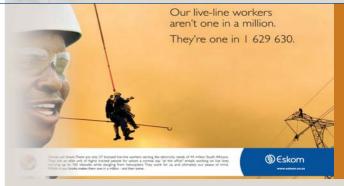
#### Technical audit

The corporate technical audit department provides reports to management on technical, environmental, quality and safety performance. It also carries out incident investigations and monitors technical performance. In addition, the department measures and verifies energy efficiency and load-shifting projects. Safety, health, environmental, quality and technical risk audits, reviews and assessments are also conducted.

Corporate technical audit is supported by the board, audit committee and chief executive, and has unrestricted access to all organisational activities, records, property and personnel. Audit programmes are based on one- and three-year cycles.

#### Security risk management

The board ensures that an integrated crime-prevention plan is implemented to minimise exposure to criminal acts, particularly fraud. The security risk management department addresses these threats. Its work covers crime prevention, detection, response and investigation.



One of the new corporate advertisements.

Where serious fraud, corruption and irregularities are suspected, forensic investigations (a division of security risk management) establishes the facts to enable management to deal appropriately with the matter and prevent a recurrence.

#### Stakeholder engagement

We define our stakeholders as any group or individual who can affect or is affected by the achievement or non-achievement of Eskom's business objectives. Stakeholders are all important to Eskom and we need to communicate with and engage our stakeholders in an effective and transparent manner. Our stakeholders include: employees; our shareholder; national, provincial and local government; parliament; customers; financial institutions; lenders; rating agencies; suppliers and contractors; regulatory authorities; professional institutions or bodies; organised business and labour; industry, media and civil society organisations.

Eskom's primary stakeholder management objectives are:

- → to identify, prioritise and build relationships with stakeholders at national, provincial, regional and local level
- → to inform stakeholders of Eskom's strategic priorities
- → to build the trust with internal and external stakeholders through strategic action-driven stakeholder engagement that is relevant to the business



#### Corporate governance continued

Eskom uses various techniques to identify its stakeholders. The following are some of them:

- → issues serve as a guide to identifying the stakeholders with whom we need to engage. An "issue" can be defined most simply as: "the gap between what a stakeholder expects of an organisation and the organisation's corporate practice"
- → we further align the six priorities of the organisation to the stakeholders that must be consulted

The categorisation of stakeholders aids in facilitating the allocation of responsibilities, accountabilities as well as resources for dealing with the various stakeholder categories.

We have a stakeholder management and engagement strategy that ensures a pro-active stakeholder engagement process. Firstly, we analyse the issue, map it with the relevant stakeholders and then engage with those stakeholders.

## Sustainability, occupational health, safety and environmental management

The chief executive, as chief safety officer and chairman of Exco's sustainability and safety subcommittee, is accountable for overall sustainability and safety performance.

The sustainability and safety subcommittee guides our strategy and sets performance targets on sustainability, occupational health and safety and environmental matters, in line with Eskom's safety, health and environmental policy, the National Environmental Management Act (107 of 1998), as amended, and the Occupational Health and Safety Act, (85 of 1993), as amended. Strategies are reviewed and approved by the sustainability committee of the board.

Exco's operations subcommittee assesses occupational health, safety and environmental performance and reviews major incidents to ensure that corrective action is taken.

#### Nuclear safety

The nuclear safety assurance function is kept independent from the electricity production function by dividing Eskom's nuclear infrastructure into two. The nuclear business area is directly accountable to the chief officer (generation) for all aspects of electricity production at Koeberg power station, including safety. The nuclear safety and assurance section, a separate department in the Generation division with its own technical experts and resources, provides independent assurance on nuclear safety and compliance with licence requirements.

In line with international best practice, Eskom has a three-tier system of nuclear safety governance. The sustainability committee of the board (the top tier) dedicates several meetings a year to nuclear matters. The meetings are attended by international nuclear experts who bring a broad perspective to the deliberations. The middle tier, the nuclear management committee, presided over by the managing director of the Generation division, monitors, reviews and makes recommendations on issues such as nuclear policy, standards, benchmarks and rules and Eskom's overall business requirements. The third tier, the safety review group, brings together experts from various parts of Eskom to evaluate nuclear safety issues and make recommendations to senior management and other tiers.

#### Corporate citizenship

The objective of government's Accelerated and Shared Growth Initiative for South Africa (Asgisa) is to promote economic growth and halve poverty and unemployment by 2014. Eskom's contribution to accelerated and shared growth is centrally coordinated and facilitated through the office of the chief executive. Eskom's most significant contribution to Asgisa is through its core business of supplying reliable electricity. Eskom also leverages associated activities, including its corporate social investment (CSI) programmes, for the development of the disadvantaged.



Eskom CSI contributes to the development of the disadvantaged and promotes skills development, job creation, education and health. Many CSI initiatives are executed by the Eskom Development Foundation.

#### **Subsidiaries**

Eskom Enterprises (Pty) Limited, an Eskom subsidiary that focuses on its non-regulated activities, has subsidiaries in South Africa, Mali, Zambia, Uganda and, until March 2008, Lesotho. All of the Eskom Enterprises group companies are governed by independent board structures with their own internal control. Eskom Enterprises and its wholly owned subsidiaries are subject to Eskom group policies, governance and financial control. The directors are accountable to Eskom as shareholder through the shareholder compact.

Eskom's other wholly owned subsidiaries – Eskom Finance Company (Pty) Limited, Eskom Development Foundation, Escap Limited and Gallium Insurance Company Limited are governed by independent boards. The directors are accountable to Eskom through the shareholder compact.

The subsidiaries comply with the PFMA and Companies Act, or their equivalent legislation where they are foreign-registered, and follow good governance principles.



## **Tables**

#### I. Statistical overview

1. Statistical overview						
	2008	2007	2006	2005 (15 months)	2004	
Sales Total sold (GWh) <sup>1,2</sup> Growth in GWh sales (%)	224 366 2,9	218 120 4,9	207 921 (18,9) <sup>3</sup>	256 453 30,5	206 799 5,0	
Electricity output Total electricity for Eskom system (Eskom stations and purchased) (GWh) <sup>4</sup> Total produced by Eskom stations (GWh (net)) Coal-fired stations (GWh (net)) Hydroelectric stations (GWh (net)) Pumped storage stations (GWh (net)) Gas turbine stations (GWh (net)) Nuclear power station (GWh (net)) Total purchased for Eskom system (GWh) Total consumed by Eskom (GWh) <sup>5</sup> Total available for distribution (GWh) <sup>2</sup>	250 618 239 108 222 908 751 2 979 1 153 11 317 11 511 4 235 246 383	243 926 232 443 215 211 2 443 2 947 62 11 780 11 483 3 937 239 989	232 295 221 985 206 606 1 141 2 867 78 11 293 10 310 3 814 228 481	285 601 273 404 251 914 903 3 675 - 16 912 12 197 5 043 280 558	229 970 220 152 202 171 720 2 981 - 14 280 9 818 4 040 225 930	
Plant performance indicators Total power station nominal capacity (MW) Total power station net maximum capacity (MW) Peak demand on integrated Eskom system (MW) Average energy availability – EAF (UCF) (%) <sup>6,7</sup> Generation load factor (%) <sup>7,9</sup> Integrated Eskom system load factor (EUF) (%)	43 037 38 744 36 513 84,8 (86,2) 72,3 85,2	42 618 37 761 34 529 87,5 (88,6) 72,4 82,7	42 011 36 398 33 461 87,4 (88,7) 69,7 79,8	42 011 36 208 34 195 89,5 (89,9) <sup>8</sup> 69,0 78,0	42 011 36 208 34 195 89,5 (90,0) 69,2 77,4	
Environmental indicators Relative particulate emissions (kg/MWh sent out) Specific water consumption (L/kWh sent out) Reported legal contraventions counted in the operational health dashboard (number) Customer satisfaction (PreCare/MaxiCare) (ratio) Customer satisfaction (Enhanced PreCare/MaxiCare) (ratio) Customer satisfaction (Enhanced PreCare/MaxiCare) (ratio) Net raw water consumption (ML) Coal burnt (Mt) Average calorific value (MJ/kg) Average ash content (%) Average sulphur content (%) Overall thermal efficiency (%) Line losses (%) Nitrous oxide (N <sub>2</sub> O) (t) <sup>13</sup> Carbon dioxide (CO <sub>2</sub> ) (Mt) <sup>13</sup> Sulphur dioxide (SO <sub>2</sub> ) (kt) <sup>13</sup> Nitrogen oxide (NO <sub>x</sub> as NO <sub>2</sub> ) (kt) <sup>13</sup> Particulate emissions (kt) Ash produced (Mt) Ash sold (Mt) Radiation release (mSv) <sup>14</sup> Radiation release (mSv) <sup>15</sup> Low-level radioactive waste (m³) Intermediate-level radioactive waste (m³) Low-level nuclear waste – fuel racks (m³) <sup>16</sup> Spent nuclear fuel (number of elements (cumulative figure))	0,21 1,32 6 - 97,21 322 666 125,3 18,51 29,09 0,87 33,4 8,0 2 872 223,6 1 950 984 50,84 36,04 2,4 - 0,0041 181,80 26,8 697	0,20 1,35 0 	0,21 1,32 I - 101,06 291,516 112,1 19,58 29,10 0,88 33,8 8,2 3,134 203,7 1,763 877 45,76 33,40 1,8 - 0,0049 91,30 52,4 697 52 (1,505)	0,26 <sup>8</sup> 1,27 <sup>8</sup> 3 <sup>8</sup> 8,29 <sup>8</sup> 93,10 347 135 136,4 19,36 29,60 0,87 34,0 8,2 <sup>8</sup> 3 552 247,0 2 236 994 72,83 40,80 2,0 - 0,0079 <sup>8</sup> 282,50 114,5 697 104 (1 453)	0,27 1,26 2 8,31 - 277 557 109,6 19,42 29,60 0,87 34,0 7,8 2 924 197,7 1 779 797 59,17 33,10 1,6 - 0,0087 258,80 97,5 697 56 (1 405)	
Sales to countries in southern Africa (GWh) Botswana Mozambique Namibia Zimbabwe Lesotho <sup>18</sup> Swaziland Zambia Short-term energy market <sup>19</sup>	13 908 2 181 8 491 2 087 107 50 770 222	13 589 1 959 8 435 1 632 589 50 856 68	13 122 1 727 8 167 1 709 549 23 760 187	16 008 2 111 10 108 1 821 598 13 872 465 20	12 954 1 699 8 076 1 515 532 12 697 403 20	



2003	2002	2001	2000	1999	1998
196 980 4,8	187 957 3,5	181 511 1,8	178 193 2,8	173 412 1,1	171 457 (0,6)
218 412 210 218 194 046 777 2 732 - 12 663 8 194 3 664 214 748	207 233 197 737 181 651 2 357 1 738 — 11 991 9 496 2 354 204 879	198 790 189 590 175 223 2 061 1 587 - 10 719 9 200 2 177 196 613	194 601 189 307 172 362 1 343 2 591 1 13 010 5 294 3 478 191 123	188 475 181 818 165 665 726 2 590 — 12 837 6 657 3 507 184 968	185 583 183 093 165 473 1 596 2 420 3 13 601 2 490 3 299 182 284
42 011 36 208 31 928 87,5 (88,7) 66,3 76,8	42 011 36 208 31 621 89,3 (91,7) 62,3 74,0	42 011 36 208 30 599 92,0 (92,5) 59,8 73,4	41 298 35 584 29 188 92,1 (92,8) 60,6 74,7	40 585 34 585 27 813 91,0 (92,5) 61,2 75,9	39 872 33 977 27 803 91,6 (92,7) 61,6 74,8
0,28 1,29 2	0,29 1,27	0,31 1,26	0,35 1,21	0,37 1,25 9	0,36 1,23
8,47 - 271 940 104,4 19,41 28,90 0,92 34,2 8,3 2,580 190,1 1,728 760 58,65 29,80 1,2 - 0,0123 86,90 37,4	8,57 	8,43 	8,82 	8,78  227 288 88,5 19,53 28,50 0,96 34,4 6,2 2 010 159,4 1 506 673 67,08 24,30 1,1 0,0005 0,0112 70,77 37,11	8,90 
104 (1 349)  10 173  1 390 5 875 1 114 793 38 796 151 16	48 (I 245) <sup>17</sup> 6 956 I 124 3 907 598 298 I 6 799 I 03 I I I	104 (1 197) 6710 1 183 3 899 578 371 40 639 —	52 (1 093) 3 872 986 1 331 640 788 12 115 -	3 884 934 68 562 I 564 55 70I –	52 (937) 4 093 689 385 602 I 52 I 209 687 —

- Sales prior to 2005 include internal sales.
- <sup>2</sup> Difference between electricity available for distribution and electricity sold is due to transmission and other losses.
- <sup>3</sup> Actual sales growth was 0,8% when compared to the 12 months 1 April 2004 to 31 March 2005.
- Includes Eskom electricity produced and delivered to neighbouring countries.
- Used by Eskom for pumped storage facilities and synchronous condenser mode of operation.
- <sup>6</sup> Capacity hours available times 100 divided by total capacity hours in a year.
- <sup>7</sup> After excess capacity.
- <sup>8</sup> Represents the 12-month moving average for 1 April 2004 to 31 March 2005.
- 9 kWh produced times 100 divided by average net maximum capacity times hours in a year.
- 10 Volume of water consumed per unit of generated power sent out, excluding Camden and Grootvlei power stations as well as rain and mine water used.
- 11 2000 to 2002 reported in terms of the revised definition of the operational health dashboard index. Other environmental-related contraventions included since 1998. Only water-related incidents were reported prior to 1998. From 2008, repeat legal contraventions are included in the criteria.
- 12 Reflects the environmental element of Enhanced MaxiCare. The Enhanced MaxiCare replaced the PreCare/MaxiCare from January 2005.
- 13 Calculated annual figures based on coal characteristics and power station design parameters excluding Camden, Grootvlei and the gas turbine power stations.
- 14 Radiation releases, based on the methodology stipulated by the National Nuclear Regulator prior to 2003, included for reference purposes.
- <sup>15</sup> Indicators have been restated for meaningful comparison based on the more conservative methodology approved by the National Nuclear Regulator from 1 January 2003. The limit set by the National Nuclear Regulator is ≤ 0,25mSv.
- <sup>16</sup> Waste as a result of re-racking of spent fuel elements at Koeberg power station.
- 17 The 2002 figure was restated as one element was not reported.
- <sup>18</sup> Lesotho started its own generation in 1999.
- 19 The short-term energy market consists of all the utilities in the southern African countries that form part of the Southern African Power Pool. Energy is traded on a daily, weekly and monthly basis as there is no longterm bilateral contract.



#### Tables continued

#### 2. Power station capacities

at 31 March 2008

Name of station	Location	Number and designed capacity of generator sets	Total nominal capacity	Total net maximum capacity	Genera reserve		Other generation
		MW	MW	MW <sup>1</sup>	Number	Total nominal rating MW	Total rating MW <sup>2</sup>
Cool fine disease (12)			27.450	22.5//	1.5	2 200	
Coal-fired stations (13) Arnot <sup>3,9</sup>	Middelburg, Mpumalanga	3 × 350; 3 × 370	37 458 2 160	33 566	I5  -	2 200	_
Camden <sup>4, 10</sup>	Ermelo	8 × 200	1 520	250		200	_
Duvha <sup>3</sup>	Witbank	6 × 600	3 600	3 450	_		_
Grootvlei <sup>4</sup>	Balfour	6 × 200	1 200	190	5	1 000	_
Hendrina <sup>3</sup>	Mpumalanga	10 × 200	2 000	1 895	_	_	_
Kendal <sup>3,5</sup>	Witbank	6 × 686	4 116	3 840	_	_	_
Komati <sup>4</sup>	Middelburg, Mpumalanga	5 × 100; 4 × 125	1 000	_	9	1 000	_
Kriel <sup>3</sup>	Bethal	6 × 500	3 000	2 850	_	_	_
Lethabo <sup>3</sup>	Viljoensdrift	6×618	3 708	3 558	_	_	_
Majuba <sup>3</sup>	Volksrust	$3 \times 657; 3 \times 713$	4 110	3 843	-	_	-
Matimba <sup>3, 5</sup>	Lephalale	6 × 665	3 990	3 690	_	_	_
Matla <sup>3</sup>	Bethal	6 × 600	3 600	3 450	-	_	-
Tutuka³	Standerton	6 × 609	3 654	3 5 1 0	_	_	_
Gas/liquid fuel turbine stations <sup>6</sup> (4)			1 385	I 378			
Acacia	Cape Town	$3 \times 57$	171	171	-	_	_
Ankerlig <sup>11</sup>	Atlantis	$4 \times 149$	596	592	-	_	-
Gourikwa <sup>11</sup>	Mossel Bay	$3 \times 149$	447	444	-	_	-
Port Rex	East London	$3 \times 57$	171	171	_	_	
Hydroelectric stations (6)			661	600			61
Colley Wobbles	Mbashe River	$3 \times 14$	42	_	-	_	42
First Falls	Umtata River	2 × 3	6	_	-	_	6
Gariep <sup>7</sup>	Norvalspont	4 × 90	360	360	-	_	-
Ncora	Ncora River	$2 \times 0,4; 1 \times 1,3$	2	_	-	_	2
Second Falls	Umtata River	$2 \times 5,5$		_	-	_	11
Vanderkloof <sup>7</sup>	Petrusville	2 × 120	240	240	_	_	_
Pumped storage schemes <sup>8</sup> (2)			1 400	<u> </u>		_	
Drakensberg	Bergville	$4 \times 250$	1 000	1 000	-	_	-
Palmiet	Grabouw	2 × 200	400	400	_	_	
Wind Energy (1) Klipheuwel <sup>2</sup>	Klipheuwel	× 1,75;   × 0,66;   × 0,75	3	_	_	_	3
Nuclear power station (I) Koeberg <sup>3</sup>	Cape Town	2 × 965	I 930	1 800	_	_	_
Total power station capacities (27)	Capo 101111	27,700	43 037	38 744	15	2 200	64

Difference between nominal and net maximum capacity reflects auxiliary power consumption and reduced capacity caused by age of plant and/or low coal quality.

<sup>11</sup> After performance test, rating finalised at 149MW per unit.



<sup>&</sup>lt;sup>2</sup> Operational but not included for capacity management purposes.

<sup>&</sup>lt;sup>3</sup> Base-load station.

 $<sup>^{\</sup>rm 4}\,$  In long-term reserve storage (mothballed), but currently being returned to service.

<sup>&</sup>lt;sup>5</sup> Dry-cooled unit specifications are based on design back-pressure and ambient air temperature.

<sup>&</sup>lt;sup>6</sup> Stations used for peaking or emergency supplies.

 $<sup>^{7}</sup>$  Use restricted to peaking, emergencies and availability of water in Gariep and Vanderkloof dams.

<sup>&</sup>lt;sup>8</sup> Pumped storage facilities are net users of electricity. Water is pumped during off-peak periods so that electricity can be generated during peak periods.

<sup>&</sup>lt;sup>9</sup> Two units uprated in the Arnot capacity increase project.

<sup>&</sup>lt;sup>10</sup> Most of Camden units have been derated.

#### 3. Environmental implications of using or saving one kilowatt-hour of electricity

•	•			•	
		If electrici	ty consump	otion is measured in:	
	Factor <sup>2</sup>	kWh	MWh	GWh	TWh
Coal use	0,56	kilogram	ton	thousand tons (kt)	million tons
Water use <sup>3</sup>	1,44	litre	kilolitre	megalitre	thousand megalitres
Ash produced	161	gram	kilogram	ton	thousand tons (kt)
Particulate emissions	0,23	gram	kilogram	ton	thousand tons (kt)
CO <sub>2</sub> emissions <sup>4</sup>	1,005	kilogram	ton	thousand tons (kt)	million tons
$SO_x$ emissions <sup>4</sup>	8,69	gram	kilogram	ton	thousand tons (kt)
$NO_x$ emissions <sup>4</sup>	4,39	gram	kilogram	ton	thousand tons (kt)

Use of table: Multiply electricity consumption or saving by the relevant factor to determine the environmental implication.

Example 1: Used 90kWh of

electricity

Water consumption:  $90 \times 1,44 = 129,60$ Therefore 129,60 litres of water used

Example 2: Used 90GWh of

electricity

 $CO_2$  emissions  $90 \times 1,00 = 90,00$ Therefore 90,00 thousand tons emitted

#### 4. Transmission and distribution equipment in service at 31 March 2008

	2008	2007
Power lines		
Transmission power lines (km) <sup>1</sup>	28 099	27 619
765kV	1 153	1 153
533kV DC (monopolar)	I 035	I 035
400kV	16 191	15 711 <sup>2</sup>
275kV	7 346	7 3462
220kV	I 336	I 336
132kV	I 038	1 038
Distribution power lines (km)	44 680	44 044
165 – 132kV	23 296	22 797
88 – 33kV	21 384	21 247
Reticulation power lines (km)		
22kV and lower	293 424	288 040
Total all power lines (km)	366 203	359 703
Cables (km)	9 921	8 622
165 – 132kV	170	164
22kV and lower	9 75 1	8 458
Total transformer capacity (MVA)	215 696	210 929
Transmission (MVA) <sup>3</sup>	122 100	120 7454
Distribution and reticulation (MVA)	93 596	90 184
Total transformers (number)	324 435	314511
Transmission (number)	385	3814
Distribution and reticulation (number)	324 050	314 130

<sup>&</sup>lt;sup>1</sup> Transmission line lengths as per Geographic Information System distances.



<sup>&</sup>lt;sup>1</sup> Figures are calculated based on total energy sold by Eskom. Further information can be obtained through the Eskom environmental helpline. Contact details appear on back cover.

<sup>&</sup>lt;sup>2</sup> Figures represent the 12-month period from 1 April 2007 to 31 March 2008.

<sup>&</sup>lt;sup>3</sup> Volume of water consumed per unit of generated power sent out, excluding rain and mine water used.

<sup>&</sup>lt;sup>4</sup> Calculated annual figures based on coal characteristics and power station design parameters, excluding the gas turbine power stations.

<sup>&</sup>lt;sup>5</sup> Represents the Eskom average CO<sub>2</sub> figure. We have calculated the carbon emission factor to be 1,2kg/kWh in accordance with the clean development mechanism (CDM) approved consolidated methodology 0002. The methodology can be found on the official CDM website (http://cdm.unfccc.int).

<sup>&</sup>lt;sup>2</sup> Transmission line lengths for 2007 have been restated to eliminate the duplicate reporting of changes.

<sup>&</sup>lt;sup>3</sup> Transformers rated  $\geq$  30MVA and primary voltage  $\geq$  132kV.

<sup>&</sup>lt;sup>4</sup> Transformers for 2007 have been restated to record transformers installed but not reported.

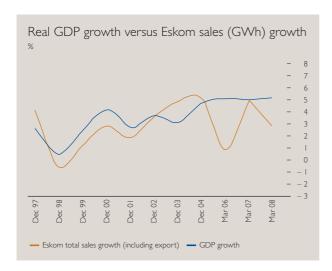
## Tables continued

#### 5. Sale of electricity and revenue per category of customer

Category	Cu	stomers <sup>1</sup>		Sold	R	evenue
	2008 Number	2007 Number	2008 GWh	2007 GWh	2008 Rm	2007 Rm
Redistributors	766	760	89 941	86 908	16 382	14 670
Residential <sup>2</sup>	4 016 689	3 829 986	10 423	9 736	4 645	4 064
Commercial	46 496	45 233	8 373	7 842	2 081	I 843
Industrial	2 966	2 955	61 510	59 823	10 629	9 578
Mining	1 153	1 127	32 373	32 42 I	5 825	5 479
Agricultural	83 722	82 583	4 848	4 732	l 741	1 594
Traction	510	510	2 990	3 069	697	646
International						
Utilities	7	7	4 553	4 350	860	666
End users across the border	3	3	9 355	9 239	1.111	849
	4 152 312	3 963 164	224 366	218 120	43 971	39 389³

<sup>&</sup>lt;sup>1</sup> Customer numbers have been revised to take into account disconnected customers and homes that no longer exist as a result of floods and other reasons.

 $<sup>^3</sup>$  R45 million revenue, resulting from testing in 2007 at Camden power station, was capitalised to plant.





<sup>&</sup>lt;sup>2</sup> Prepayments and public lighting included under residential.

#### **Awards**

#### Noscar Status Award

Kendal power station achieved Noscar status following the power station's audit conducted between 11 and 15 June 2007 by obtaining a score in excess of 95% for three consecutive years and having a disabling incidence frequency rate (DIFR) of less than 0,8. Currently only 10% of all the companies audited on the Nosa integrated five star system achieved this status, which is an indication of the hard work and dedication of all the employees at the power station. The Noscar trophy and certificate will be awarded to Kendal at the Noscar banquet in 2008.

#### African Power Station Manager of the Year

The award for African Power Station Manager of the Year was created to recognise people who achieve the objectives of producing quality power for consumers and operating at maximum capacity and high efficiency. It also recognises excellence in a specific project or achievement by a power station manager that leads to a remarkable improvement in power plant efficiency or has had benefits for the community or environment. As a recipient of the award Johan Prinsloo stands out for having shared his considerable expertise not only within the confines of his own business but also far beyond the borders of his country. This includes his work in Sierra Leone and the sharing of experience and knowledge in a spirit of cooperation that extends across the length and breadth of our continent.

#### Best debt issue - 2007

The Bond Exchange of South Africa bestowed this award on Eskom for the bond issue that was most visible and best received and taken up by the market last year. The issue of the ES26 bond may have been successful due to its timing as a result of differentiating qualities such as its innovative structure or simply because of market appeal based on coupon maturity size or spread.

## Accreditation of Koeberg operator training programmes with the National Academy for Nuclear Training, USA

On 19 November 2003, Koeberg was the first nuclear plant, outside the United States of America, to achieve initial accreditation for our operator training programmes. This was granted by the independent National Nuclear Accrediting Board in Atlanta, USA. The National Academy for Nuclear Training and the Institute of Nuclear Power Operations (INPO) support this process. On 29 November 2007, the accreditation of Koeberg's training programmes was successfully renewed. We remain the only nuclear plant, outside the USA, to achieve this. This gives the nuclear academy the assurance that Koeberg is capable of maintaining accreditation standards and is continually improving its operator training programmes.

#### Golden key award

The golden key awards, a joint effort between the South African Human Rights Commission and the Open Democracy Advice Centre, are aimed at giving recognition to government departments, deputy information officers, and private institutions, for best practice in nurturing positive sentiment to openness and setting up enabling organisational systems and procedures that promote compliance with the provisions of the Public Access to Information Act (PAIA). Eddie Laubscher of Eskom was declared a joint winner of the *Deputy information officer of the year* award.

## Ernst & Young Excellence in Corporate Reporting Survey award

Eskom's 2007 annual report was selected as "Excellent" in the parastatal category for the 2008 Ernst & Young Excellence in Corporate Reporting Survey awards. The parastatal category is a new addition to the prestigious annual Excellence in Corporate Reporting Survey awards event. The judging panel indicated that "Eskom may well have been in contention for a top 10 ranking" if the parastatal category had been running for a longer period of time.



## Glossary

D	
Base-load plant	Base-load power stations, largely coal-fired and nuclear, are designed to operate continuously
Clawback	The actual over-recovery against that allowed by Nersa in the multi-year-price-determination
Combined cycle	A technology for producing electricity from otherwise lost waste heat as it exits from one or more gas (combustion) turbines
Daily peak	The maximum amount of energy demanded in one day by electricity consumers
Decommissioning	Removing a facility (eg reactor) from service, and subsequent actions of safe storage, dismantling and making the site available for unrestricted use
Demand-side management (DSM)	Planning, implementing and monitoring activities to encourage consumers to use electricity more efficiently, including both the timing and level of electricity demand
Embedded derivative	A financial instrument that causes some or all cash flows that would otherwise be required by a contract to be modified according to a specified variable such as a currency
Energy availability factor (EAF)	A measure of plant availability taking account of energy losses not under the control of plant management and internal non-engineering constraints
Energy efficiency	Programmes to reduce energy used by specific end-use devices and systems, typically without affecting the services provided
Eskom sustainability performance index (ESPI)	Index covering technical, economic, environmental and social measures to score sustainable performance
Flashover	Electrical insulation breakdown
Forced outage	Shutdown of a generating unit, transmission line or other facility for emergency reasons or a condition in which generating equipment is unavailable for load due to unanticipated breakdown
Free basic electricity (FBE)	Amount of electricity deemed sufficient to provide basic electricity services to a poor household
Human resources sustainability index (HRSI)	A measure of Eskom's ability to achieve its human resources objectives
International financial reporting standards (IFRS)	Global accounting standards that require transparent and comparable information in general purpose financial statements issued by the International Accounting Standards Board
Independent power producer (IPP)	Any entity, other than Eskom, that owns or operates, in whole or in part, one or more independent power production facilities
Interruptible load	Load that can be interrupted in the event of capacity or energy deficiencies on the supply system
Interruptible power	Power whose delivery can be curtailed by the supplier, usually in agreement between Eskom and the customer
Kilowatt-hour (kWh)	Basic unit of electric energy equal to one kilowatt of power supplied to or taken from an electric circuit steadily for one hour; one kilowatt-hour equals 1 000 watt-hours
Load	Amount of electric power delivered or required at any specific point on a system
Load management	Activities to influence the level and shape of demand for electrical energy so demand conforms to the present supply situation, long-term objectives and constraints
Load profile	Information on a customer's electricity use over time, sometimes shown as a graph
Load shifting	The transfer of loads from peak to off-peak periods; eg in situations where a utility does not expect to meet demand during peak periods but has excess capacity in off-peak periods
Load shedding	Scheduled and controlled power cuts by rotating available capacity between all customers when demand is greater than supply to avoid total blackouts in the supply area
Lost-time incident rate	A proportional representation of the occurrence of lost-time injuries over 12 months
Maximum demand	Highest demand of load within a specified period
Megawatt	One million watts
Megawatt-hour (MWh)	One thousand kilowatt-hours or one million watt-hours
Metro	Municipalities of large cities
Mid-merit power generation	Installations that generate electricity during the day when electricity demand is higher than average
Mothballed	Plant (ie power stations) placed in long-term storage
Non-technical losses	The difference between total losses and technical losses is referred to as non-technical losses.



Outage	The period in which a generating unit, transmission line, or other facility is out of service
Off-peak	Period of relatively low system demand
Peak demand	Maximum power used in a given period, traditionally between $07:00-10:00$ and $18:00-21:00$
Peaking capacity	Generating equipment normally operated only during hours of highest daily, weekly or seasonal loads
Peak-load plant	Usually gas turbines or a pumped storage scheme used during peak-load periods
Power pool	An association of two or more interconnected electricity supply systems that agree to co-ordinate operations and seek improved reliability and efficiencies
Primary energy	Energy embodied in natural resources (eg coal, liquid fuels, sunlight, wind, uranium)
Pumped storage scheme	A pumped storage scheme consists of a lower and an upper reservoir with a power station/pumping plant between the two. During off-peak periods the reversible pump/turbines use electricity to pump water from the lower to the upper reservoir. During peak demand, water is allowed to run back into the lower reservoir through the turbines thereby generating electricity
Reserve margin	Difference between net system capability and system's maximum load requirements (peak load or peak demand)
Spent fuel	Nuclear fuel that has been irradiated in and permanently removed from a nuclear reactor. At Koeberg power station approximately 52 fuel assemblies (one third of the fuel assemblies) are removed from each of the two reactors on average every 16 months, and stored on site in the spent fuel pools in the respective fuel buildings next to the respective reactors
Supply-side management (SSM)	Planning, implementing and monitoring supply-side activities to create opportunities for cost-effective purchase, management, generation, transmission and distribution of electricity and all other associated activities
System minutes	The international benchmark for measuring the severity of interruptions to customers. One system minute is equivalent to the loss of the entire system for one minute at annual peak
Technical losses	Technical losses are the naturally occurring losses which depend on the power systems used
Unplanned automatic grid separations (UAGS)	A measure of the reliability of the service provided to the electrical grid that logs the number of supply interruptions per operating period
Unit capability factor (UCF)	A measure of plant availability indicating how well plant is operated and maintained
Unplanned capability loss factor (UCLF)	All occasions when plant has to be shut down and taken out of service. Energy losses due to outages are considered unplanned if they are not scheduled at least four weeks in advance

#### Energy terms

Units of power	Units of energy
Power is generated per unit of time	Energy is power multiplied by time
Power is expressed in watts (W)	
IkW (kilowatt) = I 000W	IkWh (kilowatt hour) = IkW expended over one hour
IMW (megawatt) = I 000kW	IMWh (megawatt hour) = I 000kWh
IGW (gigawatt) = 1 000 000kW or 1 000MW	IGWh (gigawatt hour) = I 000 000kWh or I 000MWh
ITW (terawatt) = I 000 000MW	ITW (terawatt hour) = I 000 000MWh
Voltage	
IkV (kilovolt) = 1.000V	

#### Presentation currency

Unit of currency	Unit of currency
RI million = RI 000 000	R1 million = R1 000 000
RI billion = RI 000 000 000	RI billion = RI 000 000 000



## Abbreviations and acronyms

 Asgisa	Accelerated and Shared Growth Initiative for South Africa (RSA)		
BEE	Black economic empowerment, legislated in South Africa under the Preferential Procurement Policy Framework Act, (5 of 2000) and Broad-Based Blac Economic Empowerment Act, (53 of 2003)		
Besa	Bond Exchange of South Africa		
BWO	Black women-owned businesses		
CDM	Clean development mechanism (to address climate change)		
CFL	Compact fluorescent lamps		
CPI	Consumer price index		
CSI	Corporate social investment		
CSP	Concentrating solar plant		
CV	Calorific value		
DEAT	Department of Environmental Affairs and Tourism (RSA)		
DME	Department of Minerals and Energy (RSA)		
DMP	Demand market participation		
DPE	Department of Public Enterprises (RSA)		
DWAF	Department of Water Affairs and Forestry (RSA)		
EBITDA	Earnings before interest, tax, depreciation and amortisation		
EDI	Electricity distribution industry, currently being restructured in RSA		
EFC	Eskom Finance Company		
EIA	Environmental impact assessment		
ELI	Eskom learning institutions		
EMPs	Environmental management programmes		
EMS	Environmental management system		
Esco	Energy services company		
EWT	Endangered Wildlife Trust		
Exco	Eskom executive management committee		
FBE	Free basic electricity of 50kWh/month to assist		
FGD	low-income households (RSA)		
FPM	Fluidised gas desulphurisation		
	Fine particulate matter		
GDP	Gross domestic product		
GHG	Greenhouse gas		
GWh	Gigawatt hour (1 000MWh)		
HRSI	Human resources sustainability index		
HVDC	High-voltage direct current		
IFRS	International financial reporting standards		
ILO	International Labour Organisation		
Inep	Integrated national electrification programme		
IPCC	Intergovernmental Panel on Climate Change		
<u>IPP</u>	Independent power producer		
<u>IRM</u>	Integrated risk management		
Isep	Integrated strategic electricity planning		
	This international standard specifies requirements for an environmental management system		
KPI	Key performance indicator		
kt	Kilotons (1 000 tons)		
kWh	Kilowatt hour		
kWh SO	Kilowatt hour sent out		
	Kilowatt hour sent out London Metals Exchange		
kWh SO			
kWh SO LME	London Metals Exchange Living standards measure (indicates economic		

MKC	Mountain Kingdom Communications		
mmi	Monthly moving index		
$\overline{MW}$	Megawatt		
MWh	Megawatt hour (1 000kWh)		
ML	Megalitre (1 000 000 litres)		
mSv	Millisievert		
Mt	Mega tons		
MVA	Mega Volt Ampere		
MYPD	Multi-year price determination		
Neea	National Energy Efficiency Agency		
Necsa	Nuclear Energy Corporation of South Africa (RSA)		
Nepad	New Partnership for Africa's Development		
Nersa	National Energy Regulator of South Africa (RSA)		
Nema	National Environmental Management Act		
NGO	Non-governmental organisation		
NNR	National Nuclear Regulator (RSA)		
$\overline{NO_x/NO_2}$	Nitrogen oxide		
$\overline{N_2O}$	Nitrous oxide		
NPI	National Productivity Institute		
OCGT	Open-cycle gas turbine		
OCLF	Other capability loss factor		
OEM	Original equipment supplier		
OHSA	Occupational Health and Safety Act		
OMS	Outage management system		
PCB	Polychlorinated biphenyls		
PBMR	Pebble bed modular reactor		
PCP	Power conservation programme		
PCLF	Planned capability loss factor		
PFMA	Public Finance Management Act (RSA)		
RED	Regional electricity distributor		
RoD	Record of decision (environmental authorisation)		
Saavi	South African Aids Vaccine Initiative		
SACECS	South African Centre for Essential Community Services		
SADC	Southern African Development Community		
Sapp	Southern African Power Pool		
SHE	Safety, health and environment		
SMME	Small, medium and micro enterprises		
SME	Small and medium enterprises		
SNO	Second network operator (RSA		
	telecommunications)		
SOE	State-owned enterprise		
SO <sub>2</sub>	Sulphur dioxide		
SO <sub>3</sub>	Sulphur trioxide		
Sm <sup>3</sup>	Standard cubic metre		
TOU	Time-of-use (tariff)		
TQI	Total quality index		
UCF	Unit capability factor		
UCG	Underground coal gasification		
UCLF	Unplanned capability loss factor		
UN	United Nations		
UNFCCC	United Nations Framework Convention on Climate Change		
VAT	Value added tax (RSA)		
VCT	Voluntary counselling and testing (HIV/Aids RSA)		
Wano	World Association of Nuclear Operators		
WBCSD	World Business Council for Sustainable Development		



## **GRI** index

An index to the 2008 annual report based on the Global Reporting Initiative (GRI) sustainability reporting guideline criteria is provided in the table.

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