

Annual Report 2002



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Vision

Excellence

Leadership







# **Unleashing Africa's energy**

## **African Energy Fund**

During 2002, Eskom spearheaded the setting up of the African Energy Fund; a vehicle for accelerating energy and electricity infrastructural projects aimed at the re-birth of the African continent.

## **New Partnership for Africa's Development**

Through its programmes in South Africa and on the continent, Eskom actively supports NEPAD's call for action in empowerment processes such as education, training, economic and social development.

## **Partnerships**

We are committed to illuminating the continent, not only by bringing light, but by sharing whatever expertise we may have at our disposal, and to succeed in this we have formed strategic partnerships with many utilities and countries throughout the African continent.

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# Strategic intent

Eskom will be the pre-eminent African energy and related services business, of global stature.

## Mission

Eskom will grow shareholder value by exceeding its local and international customers' needs for energy and related services.

# Strategy

Eskom is positioned as a competitive African energy and related services business:

- Vigorously promoting economic growth in South Africa, its region and the rest of Africa,
- Expanding globally, and
- Supporting social and economic objectives in our markets.







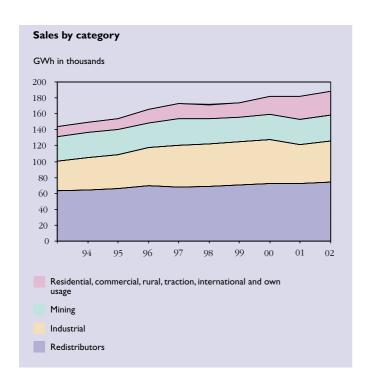
Eskom has been incorporated as a public company with effect from I July 2002. The Annual Report 2002 covers the period I January 2002 to 31 December 2002. The 2002 report continued to follow an integrated approach towards sustainability reporting, covering aspects of, amongst others, economic, social and environmental issues.

#### Major products and services

Eskom is a vertically integrated operation that generates, transmits and distributes electricity. Eskom generates approximately 95% of the electricity used in South Africa.

Eskom Enterprises, the wholly-owned subsidiary of Eskom, together with its subsidiaries, serve as a means by which all the non-regulated activities of Eskom, both inside and outside of South Africa, are carried out. Eskom Enterprises' core lines of business are infrastructure development, energy business operations, specialised energy services and the pursuit of key opportunities in related or strategic businesses, such as information technology and telecommunications.

Eskom's corporate social investment is mainly carried out through the Eskom Development Foundation, a section 21 company, which is responsible for integrating social investment initiatives. The Development Foundation operates extensively throughout South Africa in areas that are underdeveloped, especially in rural and new urban settlements.



#### Countries in which operations are located

The operations of Eskom are located in South Africa. Eskom Enterprises has operations on the African Continent, with its head office being located in Johannesburg, South Africa, and other offices in Uganda, Nigeria and Mali.

#### **Ownership**

The ownership of Eskom vests in the South African government.

#### Nature of markets and customers served

Electricity is sold to industrial, mining, commercial, agricultural and residential customers and redistributors.

#### Scale of activities

Eskom, South Africa's electricity utility, is among the top seven utilities in the world in terms of generation capacity, and among the top nine in terms of sales.

#### Breakdown of sales by country and region

The majority of the sales are in South Africa, with only a small percentage of sales being in the southern African region.

# Additional information on economic, environmental and social aspects

Eskom is committed to aligning itself with international sustainability reporting initiatives. Further environmental and social information is available on the Eskom website.

#### **Contact details**

#### Telephone

Eskom Corporate Communication: +27 II 800 3983
Eskom Enterprises Communication: +27 II 800 2696
Eskom Development Foundation: +27 II 800 2195
Eskom Environmental helpline: +27 II 800 4727

#### E-mail

Eskom Environmental e-mail: envhelp@eskom.co.za

#### Websites

www.eskom.co.za/annreport03/

Eskom Development Foundation: www.eskom.co.za/csi
Eskom business online: https://csonline.eskom.co.za

# **Key statistics**

		Group			Eskom	
	2002	2001	2000	2002	2001	2000
Financial/business performance indicators						
Total assets, Rm	81 422	76 909	74 179	79 126	74 709	73 353
Reserves, Rm	37 762	34 148	30 989	36 457	33 361	30 582
Net financial market liabilities, Rm	9 000	14 041	20 410	10 721	16 021	21 795
Revenue, Rm	29 684	26 112	24 459	28 158	24 983	23 569
Net profit for the year after tax, Rm	3 739	2 561	1 868	3 217	2 272	1 759
Cash flows from operating activities, Rm	11 808	8 641	7 661	11 633	7 464	7 038
Average selling price of electricity, cents per kWh <sup>1</sup>				14,98	13,76	13,23
Average total cost of electricity sold, cents per kWh <sup>2</sup>				12,43	11,90	11,44
Return on total assets, % <sup>3</sup>	13,07	11,01	10,40	11,92	10,21	9,79
Real (inflation-adjusted) return on total assets, % <sup>3</sup>	n/a	n/a	n/a	1,69	1,17	2,45
Debt-equity ratio <sup>3</sup>	0,24	0,41	0,66	0,29	0,48	0,71
Debt-equity ratio (including long-term provisions) <sup>3</sup>	0,44	0,61	0,84	0,50	0,67	0,89
Productivity improvement for the year, %	,	,	,	1,60	0,50	2,10
Staff employed, number	32 357	33 032	35 707	29 359	29 969	32 832
Technical/business performance indicators						
Total electricity sold, GWh	187 957	181 511	178 192			
Coal burnt in power stations, Mt				96,46	94,14	92,45
Energy availability factor, %				89,30	92,00	92,10
Peak demand on integrated system, MW				31 621	30 599	29 188
Nominal capacity, MW <sup>4</sup>				42 011	42 011	41 298
Net maximum capacity, MW <sup>4</sup>				39 810	39 810	39 186
Power lines (all voltages), km				325 010	316 339	305 559
Electricity customers, number (thousands)	3 418	3 275	3 054			
Environmental/social performance indicators						
Specific water consumption by power stations, $\ell/kWh$ ser	nt out			1,27	1,26	1,21
Relative particulate emissions, kg/MWh sent out	0,29	0,31	0,35			
Carbon dioxide emissions, Mt	175,2	169,3	161,2			
Radiation release, milliSieverts (mSv)	0,0005	0,0007	0,0005			
Disabling injury incidence rate, index	0,45	0,50	0,41			
Work-related fatalities, number	11	8	10			
Employment equity, %	54,6	53,1	50,7			
Gender equity, %	24,5	21,7	18,4			
Electrification, number of homes	211 628	209 535	256 023			

<sup>4.</sup> The 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>1.</sup> Average price of electricity sold based on total sales.

<sup>2.</sup> Average total cost of electricity sold calculated as operating expenditure and net interest (including fair value adjustment on financial instruments) and based on external sales.

 $<sup>\</sup>ensuremath{\mathcal{J}}.$  Calculated on the basis described in the five-year financial review.



# Five-year financial review

#### 31 December

	Group				Eskom			
	2002 Rm	2001 Rm	2000 Rm	2002 Rm	2001 Rm	2000 Rm	1999 <b>R</b> m	1
Balance sheet								
Non-current assets	64 386	59 643	61 406	63 960	59 536	61 303	60 562	59
Current assets	17 036	17 266	12 773	15 166	15 173	12 050	10 821	10
Total assets	81 422	76 909	74 179	79 126	74 709	73 353	71 383	69
Reserves	37 762	34 148	30 989	36 457	33 361	30 582	27 198	27
Non-current liabilities	31 241	26 672	28 409	30 639	26 176	28 266	31 292	29
Current liabilities	12 419	16 089	14 781	12 030	15 172	14 505	12 893	12
Total equity and liabilities	81 422	76 909	74 179	79 126	74 709	73 353	71 383	69
• ,								
Income statement								
Revenue	29 684	26 112	24 459	28 158	24 983	23 569	21 568	21
Operating expenditure	(21 363)	(19 409)	(17 979)	(20 674)	(18 791)	(17 441)	(16 511)	(15
Net operating income	8 321	6 703	6 480	7 484	6 192	6 128	5 057	5
Interest income	2 513	3 325	1 057	2 671	3 525	1 310	1 261	1
Interest expenditure	(5 242)	(6 099)	(4332)	(5 251)	(6 109)	(4 354)	(4 256)	(4
Profit after interest before fair value (loss)/gain	5 592	3 929	3 205	4 904	3 608	3 084	2 062	2
Fair value (loss)/gain on financial instruments	(118)	(157)	129	(107)	(182)	129	_	
Profit before tax	5 474	3 772	3 334	4 797	3 426	3 213	2 062	2
Income tax expense	(1 741)	(1 211)	(1 466)	(1 580)	(1 154)	(1 454)		
Net profit for the year after tax	3 733	2 561	1 868	3 217	2 272	1 759	2 062	2
Income from associates and joint ventures	26	2 701	-	<i>J = 1</i> /		1 / <i>J</i> /	2 002	_
Minority interest	(20)	_	_	_	_	_	_	
Net profit for the year after tax	3 739	2 561	1 868	3 217	2 272	1 759	2 062	2
,		-						
Cash flow								
Cash generated from operations	12 911	11 209	9 985	12 608	9 911	9 101	8 821	10
Net interest paid	(1 051)	(2498)	$(2\ 294)$	(975)	(2 447)	$(2\ 063)$	(2781)	(2
Income tax paid	(52)	(70)	(30)	-	-	-	-	
Cash flows from operating activities	11 808	8 641	7 661	11 633	7 464	7 038	6 040	7
Cash utilised in investing activities	(5 750)	(3 711)	(3 538)	(5 319)	(3 384)	$(3\ 462)$	(4 397)	(5
Cash effects of financing activities	(3 515)	(3 491)	(2 413)	(3 853)	(3 762)	(2 423)	(4 285)	(
Net increase/(decrease) in cash and								
cash equivalents for the year	2 543	1 439	1 710	2 461	318	1 153	(2 642)	
RATIOS								
EARNINGS PROTECTION (Profitability indicators)								
Return on total assets, % <sup>1</sup>	13,07	11,01	10,40	11,92	10,21	9,79	8,26	
Return on average equity, %	10,40	7,86	6,39	9,22	7,11	6,09	7,48	
Total operating expenditure/revenue, %	60,24	60,00	60,66	61,70	60,68	61,32	60,10	5
Real (inflation-adjusted) return on	00,21	00,00	00,00	01,70	00,00	01,32	00,10	
total assets, % <sup>1</sup>	n/a	n/a	n/a	1,69	1,17	2,45	1,42	
Net pre-tax interest coverage	2,22	2,21	1,91	2,06	1,61	1,87	1,47	
EBITDA interest coverage	3,22	3,35	2,77	3,00	2,42	2,69	2,54	
CASH FLOW PROTECTION (Cash flow adequacy	3,	5,55	-,,,,	3,00	_,	_, 0 >	=,> 1	
indicators)								
Funds from operations/average total debt, %	42,30	28,00	23,00	41,60	25,70	21,20	16,60	2
Funds from operations/capex, %	208,00	226,20	234,00	221,00	236,00	221,60	151,60	13
Funds from operations/net interest coverage, %	4,28	3,10	2,70	4,18	2,97	2,50	2,40	1,
CAPITAL STRUCTURE	1,20	3,10	2,70	1,10	4,7/	2,50	2,40	
Debt:equity	0,24	0,41	0,66	0,29	0,48	0,71	0,89	
Debt:equity Debt:equity (including long-term provisions)	0,24	0,41	0,84	0,29	0,48	0,71	0,89	
Interest cover	2,92	2,29	2,06	2,79	2,24	2,10	1,69	
OTHER	2,72	4,49	2,00	<u>=</u> ,/9	4,44	2,10	1,09	
Value created per employee, R'000	570	485	428	605	506	441	420	

#### **DEFINITIONS OF RATIOS**

- Return on total assets Net operating income expressed as a percentage of total assets
- Return on average equity Net profit divided by average equity
- Total operating expenditure/revenue Total operating expenditure divided by revenue after making an adjustment for depreciation
- Real (inflation-adjusted) return on total assets Net inflation adjusted operating income, after taking into account of financial gearing adjustment, but before taking into account interest income and interest expenditure, as a percentage of total assets income and interest expenditure, as a percentage of total assets.
- Net pre-tax interest coverage Net profit before tax adjusted by interest expenditure divided by the financial market interest expense adjusting for capitalised interest
- EBITDA interest coverage Net operating income adjusted for interest income and depreciation divided by the financial market interest expense adjusting for capitalised interest
- Funds from operations/average total debt Net operating income adjusted for capitalised interest, depreciation and non-cash flow items divided by the average total financial market liabilities
- Funds from operations/capex Net operating income adjusted for capitalised interest, depreciation and non-cash flow items divided by capital utilised in investment activities adjusted for capitalised interest
- Funds from operations/net interest coverage Net operating income adjusted for capitalised interest, depreciation and non-cash flow items divided by interest expenditure adjusted for capitalised interest
- Debt:equity Net financial market investments and liabilities divided by total reserves
- Debt:equity including long-term provisions Net financial market investments and liabilities plus non current portion of retirement benefit obligation, decommissioning and nuclear waste management and closure, pollution and rehabilitation divided by total reserves
- Interest cover Net operating income divided by net interest income and expenditure including the fair value gain or loss
- Value created per employee Value created divided by number of employees at 31 December as per value added statement

## Value creation and distribution

For the year ended 31 December

Value added is the wealth created by the regulated business through the generation, transmission, distribution and selling of electricity and the non-regulated businesses mainly through the provision of electricity supply and related services outside South Africa and non-regulated supply industry activities.

Value created from the sale of electricity is the excess of turnover over the costs of generation, transmission and distribution, comprising primary energy, materials, services and abnormal items and the excess of turnover over cost of goods and services of non-regulated activities.

The value added statement shows the total wealth created, how it was distributed to meet certain obligations and reward those responsible for its creation, and the portion retained for the continued operation and expansion of businesses.

		Group		Eskom	
	2002	2001	2002	2001	
	Rm	Rm	Rm	Rm	
Value created					
Revenue and staff costs capitalised	29 889	26 294	28 363	25 165	
Less: Cost of primary energy, materials, services and abnormal items	(11 431)	(10 267)	(11 124)	(9 996)	
	18 458	16 027	17 239	15 169	
Value distributed					
Salaries, wages and other benefits	6 651	5 582	6 454	5 345	
Net interest expense	2 847	2 931	2 687	2 766	
Taxation	1 741	1 211	1 580	1 154	
	11 239	9 724	10 721	9 265	
Value reinvested in the group to maintain and develop operations					
Depreciation and amortisation of property, plant and equipment and intangible assets	3 480	3 742	3 301	3 632	
Accumulated profit	3 739	2 561	3 217	2 272	
	18 458	16 027	17 239	15 169	

1. Including capitalised manpower costs amounting to R205 million (2001: R182 million)



<sup>1.</sup> Total assets are reduced by financial market investments and interest receivable, since Eskom's funding is managed in a single pool of financial market assets and liabilities.



## **Eskom Holdings Limited Board**

The new Eskom Holdings Limited Board was appointed by government in July 2002.



Reuel J Khoza (53) bf

Chairman

BA Honours (UNIN), MA Marketing Management (University of Lancaster) (UK), PMD (Harvard), and IPBM (IMD, Lausanne)
Chairman of Aka Capital (Pty) Ltd and Akani Leisure (Pty) Ltd. Founding Managing Director of Co-

(Pty) Ltd. Founding Managing Director of Coordinated Management Consulting (Pty) Ltd. Fellow and President of the institute of Directors of Southern Africa and an Executive Committee member of the World Business Council for Sustainable Development and the WEF International Business Council. Board member of JSE Securities Exchange South Africa and Protea Hospitality Holdings.

Appointed to the Eskom Holdings Limited Board in 2002.



Thulani S Gcabashe (45) bcfg

BA (Botswana), PED (IMD), MURP (Ball State Univ, USA)
Chief Executive of Eskom and
Chairman of Eskom Enterprises (Pty)
Limited.
Chairman of Executive Management
Committee.

Appointed to the Eskom Holdings Limited Board in 2002



Dr Willem J Kok (51) ceg

DCom (RAU) Finance Director: (Eskom)

Appointed to the Eskom Holdings Limited Board in 2002.



Dr B M Count (51) bc
United Kingdom
Honours degree in Mathematics
(Kings College, Cambridge).
PhD in Physics (Exeter University)
Chief Executive Officer of Innogy
which was demerged from National
Power and was recently acquired by
RWE

which was demerged from National
Power and was recently acquired by
RWE

Appointed to the Eskom Holdings
Limited Board in 2002.



#### JRD Modise (36) de

Bachelor of Commerce (B Com) (Wits University) Bachelor of Accountancy (B Acc) (Wits University) Chartered Accountant (CA (SA)) Master of Business Administration (MBA) - WBS Advanced Management Programme (AMP) -Samford Business: Global Utilities Institute, (USA) Advanced Management Programme (AMP) -Harvard Business School Chief Operating Officer of Johnnic Holdings Limited, Board member of M-Cell, Johnnic Communications, M-Net, SuperSport, The South African Institute of Chartered Accountants, Land Bank and member of Advisory Council at Wits **Business School** Director of Charlmed Investments Ltd, M-Tel (Pty) Ltd and Tsogo Sun KwaZulu-Natal (Pty) Ltd. Alternate Director of Mobile Telephone Networks (Pty) Ltd, Mobile Telephone Networks Africa (Pty)

Appointed to the Eskom Holdings Limited Board in 2002.



T N Msomi (36) df

Bachelor of Laws (LLB), University of Natal, Baccalaureus Procurationis (B PROC), University of Natal Conveyancer Chief Director of Department of Public Enterprises Non-executive director of SAFCOL

Appointed to the Eskom Holdings Limited Board in 2002.



S N Funde (59) cef

Masters of Sciences in Engineering (St Petersburg Polytechnical Institute) Member, Board of Trustees, Independent Development Trust (IDT), Member, Board of Directors, Murray & Roberts Holdings Ltd, Executive Chairperson, Kemilinks International (South Africa), President and Director South African Communications Forum

Appointed to the Eskom Holdings Limited Board in 2002.



# **Eskom Holdings Limited Board**



#### SA Mpambani (49) d

BA, Hons. BA (Econ) (University of Transkei), MSc. Econ. SOAS, University of London Senior Lecturer – Economics (University of Transkei) Founder member Untu Consultancy Member of SA Economic Society Member of SA Public Administration

Appointed to the Eskom Holdings Limited Board in 2002.



#### P M Makwana (32) ab

Bachelor of Administration Degree (University of Zululand), B. Admin Honours (Public Management) University of Pretoria

EDP, Kellogg Graduate School of business management

President of Institute for People Management

Group Chief Executive of Saatchi & Saatchi

Chairman of Association of Advertising Agencies, Non Executive Director of Tourvest Limited, Non Executive Director of Nokusa Consulting, Member of Institute of Directors

Appointed to the Eskom Holdings Limited Board in 2002.



#### A J Morgan (55) de

BSc B.Eng (Electrical) University of Stellenbosch, Pr Eng. Government Certificate of Competency (Electrical) Management Development Programme (UNISA) Executive Development Programme (University of Witwatersrand) Fellow of the South African Institute of Electrical Engineers Fellow of the South African Academy of Engineering Non Executive Director Murray & Roberts Holdings Ltd. Non Executive Director Kumba Resources Ltd.

Appointed to the Eskom Holdings Limited Board in 2002.



#### **S V Z**ilwa (35) c

B Compt Hons, CTA, CA, (SA) Advanced Taxation Certificate (UNISA) Certified Financial Planner (IFP – SA) Advanced Diploma in Financial Planning (UOFS)

Chief Executive Officer of Nkonki Pierce Chairman of Sikhona Financial Advisors (Pty) Ltd, a financial planning division of Nkonki Pierce

Non-executive director of Woolworths Limited, Primedia Limited and Discovery Holdings Limited

A member of the South African Institute of Chartered Accountant's Education Committee, the Public Accountants and Auditors Board

Appointed to the Eskom Holdings Limited Board in 2002.



#### V Mohanlal Rowjee (31) bd

Bachelor of Commerce (General), University of Witwatersrand, Accounting and Auditing (University of South Africa), Programme of the South African Institute of Management, UNISA Centre For Business Management

Appointed to the Eskom Holdings Limited Board in 2002.



#### W E Lucas-Bull (49) c

Bachelor of Science (University of Witwatersrand)
Chief Executive Officer of FirstRand
Retail

Appointed to the Eskom Holdings Limited Board in 2002.



L G Josefsson (52) a

Swader

Master of Science in Applied Physics Programme for Executive Development, (IMEDE, Lausanne, Switzerland).

President and CEO of Vattenfall AB, Board member of Böhler-Uddeholm AG (Vienna, Austria), Member of the Royal Swedish Academy of War Sciences and the Royal Swedish Society of Naval Sciences.

Appointed to the Eskom Holdings Limited Board in 2002.



#### F M Baleni (42) df

Diploma in Politics and Trade Unionism (White Hall College, England)
Certificate in Human Resources Management (UNISA)
Building On Talent Programme, (Lausanne, Switzerland) (IMD).
Director of Development Institute for Training, Support and Education for Labour (DITSELA)
Executive Director of the Num College (Elija

Barayi Memorial Training Centre)
National Education Co-ordinator of National
Union of Mineworkers (NUM)

Appointed to the Eskom Holdings Limited Board in 2002.

## The Eskom board committees and their chairpersons

The Board of Directors of Eskom Holdings Ltd has delegated authority in Eskom in the seven Board Committees:

a Audit Committee: Jacob Modise

b Human Resources, Remuneration and Ethics Committee: Reuel Khoza

c Investment and Finance Committee: Wendy Lucas-Bull

d Tender Committee: Frans Baleni

e Risk Management Committee: Sonwabo Funde

f Sustainability Committee: Reuel Khoza

g Executive Management Committee: Thulani S Gcabashe

The small letters next to the names indicate membership of the Eskom Board Committees

Eskom Holdings Secretariat

M Adam (Company secretary) Megawatt Park PO Box 1091, Johannesburg 2000 South Africa





# **Executive Management Committee**

The day-to-day management of Eskom lodges with the Executive Management Committee, which represents the different divisions in Eskom Holdings Ltd and Eskom Enterprises (Pty) Ltd.



Thulani S Gcabashe (45) Chief Executive of Eskom and Chairman of Eskom Enterprises BA (Botswana), PED (IMD), MURP (Ball State UNIV, USA) Joined Eskom in 1993 Appointed to the Eskom Holdings Limited Board in 2002.



Joe Matsau (54) Managing Director Corporate Division Dip in Transport Economics (West Germany) Dip in Marketing (Helsinki) Joined Eskom in 1992 Appointed to the Eskom Executive management committee in 2002.

Eskom positioning Policy and assurance Governance Regulation



Ehud Matya (40)

Managing Director Generation Division Pr Eng, BSc (Mech) (Wits) Joined Eskom in 1988 Appointed to the Eskom Executive management committee in 2002.

Electricity production Fuel (Coal, nuclear) procurement Water management Generation technology Environmental protection Nuclear safety assurance



Dr Willem Kok (51)

Finance Director DCom (RAU) Joined Eskom in 1988 Appointed to the Eskom Executive management committee in 2002.

Corporate finance Corporate financial management Corporate risk services Corporate taxation Eskom Finance Company Financial planning Treasury Commércial services Integrated risk management Financial Control



Mpho Letlape (44)

Managing Director Human Resources Division BSc (Computer Science and Psychology) (Fort Hare) loined Eskom in 2000 Appointed to the Eskom Executive management committee in 2002.

Human resources operations People development and transformation Remuneration and benefits Employee relations Health and wellness



**Dolly Mokgatle (46)** 

Managing Director
Transmission Division
B Proc (UNIN), LLB (Wits)
H Dip Tax Law (Wits)
Joined Eskom in 1991
Appointed to the Eskom Executive
management committee in 2002.

Customer service
Maintenance, refurbishment and
expansion of high voltage electricity
network
System operation and control of
transmission network
Transmission Network capability
Electricity trading
Market operations
Southern African Power Pool
operations, planning and management
interface



Jacob Maroga (43)

Managing Director
Distribution Division

BSc (Elect) (Wits)
Joined Eskom in 1995
Appointed to the Eskom Executive management committee in 2002.

Customer service Distribution engineering and technology Electrification Sales



**Dr Steve Lennon (44)** 

Managing Director Resources and Strategy Division BSc (Chemistry) (Natal), MSc (Eng), PhD (Wits) Joined Eskom in 1983 Appointed to the Eskom Executive management committee in 2002.

Long-term strategic planning
Supply- and demand-side planning
Research development and
Demonstration
Environmental management
Information strategy
Technical audit
Sustainability management
Investment strategy



Dr Enos Banda (37)

Chief Executive Officer (Designate) of Eskom Enterprises (Pty) Ltd

BA (Hons) in Business Administration (Franklin and Marshall College, Pennsylvania), Master of Laws & Letters (LL.M) in International and Comparative Law, (Georgetown University School of Law, Washington, DC, USA), Doctorate in Jurisprudence JD), Western Reserve University. School of Law, Cleveland, Ohio, USA.

Appointed to the Eskom Executive management committee in 2002.



Jan A de Beer (52)

Was Chief Executive Officer of Eskom Enterprises from its inception in 1999 until December 2002 when he retired.





## Corporate governance

#### INTRODUCTION

Corporate governance practices are continually evolving, and recent developments are characterised by a drive towards sustainability. Eskom ensures that its processes and practices are reviewed on an ongoing basis to ensure compliance with legal obligations, use of funds in an economic, efficient, and effective manner, and adherence to good corporate governance practices that are continually benchmarked with international practices. Processes and practices are characterised by triple-bottom-line reporting, economic, environmental and social, underpinned by the principles of openness, integrity and accountability; and an inclusive approach that recognises the importance of all stakeholders with respect to the viability and sustainability of Eskom.

Corporate governance is concerned with structures and processes for decision-making, accountability, control and behaviour beginning at the top level of the organisation, and that will set the tone for behaviour right down to the lowest levels.

Eskom complies with the requirements of the Public Finance Management Act, 1 of 1999, as amended (PFMA), and the Companies Act, 61 of 1973, as amended (Companies Act). In addition, Eskom is in the process of implementing the recommendations of the King Report on Corporate Governance for South Africa 2002 (King II Report) including the Code of Corporate Practices and Conduct contained therein, as well as the Protocol on Corporate Governance in the Public Sector 2002.

#### **SHAREHOLDING**

The South African government is the sole shareholder of Eskom Holdings Limited (Eskom).

#### SHAREHOLDER COMPACT

In terms of the Treasury Regulations issued in accordance with the PFMA, Eskom must, in consultation with its executive authority, the Minister of Public Enterprises, annually conclude a shareholder compact documenting the mandated key performance measures and indicators to be attained by Eskom as agreed between the Board of Directors (Board) and the executive authority.

A shareholder compact between Eskom and government, as shareholder, has been in place for 2002. In addition to setting out key performance measures and indicators, it also provides an efficient and effective framework to guide the relationship

between Eskom and its shareholder. It therefore serves to promote and encourage good governance practices within Eskom, by assisting to clarify the respective roles and responsibilities of the Board and the shareholder.

#### **CONVERSION OF ESKOM**

Eskom was converted from a statutory body into a public company, Eskom Holdings Limited, in terms of the Eskom Conversion Act, 13 of 2001, with effect from 1 July 2002.

The two-tier governance structure of the Electricity Council and the Management Board was replaced by a Board of Directors.

The conversion of Eskom provided the ideal opportunity to review Eskom's existing governance structures and to design a more effective and streamlined decision-making process, but to do so in a manner that did not disrupt Eskom's business operations was a challenge.

The transition was accomplished smoothly and the conversion, including the creation of new Board committees and the induction of Board members, was carried out efficiently.

In creating the new governance structures, fewer committees were created in an attempt to streamline the decision-making process without compromising the governance process.

The description of the governance structures below details the new structures that were put in place after the conversion of Eskom.

#### **GOVERNING BODIES**

#### **Board of Directors**

#### Composition of the Board

The composition of the Board appears on pages 6 to 9.

The new unitary Board of Eskom, in keeping with the recommendations of the King II Report, comprises a majority of non-executive directors. The directors, appointed by the Minister of Public Enterprises, were drawn from diverse backgrounds (both local and international) and bring a wide range of experience and professional skills to the Board.

The term of office of the non-executive directors that were appointed on the conversion of Eskom is three years, while the term of office of the non-executive directors that were previously members of the Electricity Council is two years.

The executive directors have been appointed for the remaining period of their existing Eskom contracts.

#### Role and function of the Board

The Board is the accounting authority of Eskom in terms of the PFMA.

The Board is responsible for providing strategic direction and leadership, ensuring good corporate governance and ethics, determining policy, agreeing on performance criteria and delegating the detailed planning and implementation of policy to the Executive Management Committee (EXCO).

The Board meets quarterly and monitors management's compliance with policy and its achievements against objectives. A structured approach is followed for delegation, reporting and accountability, which includes reliance on various Board committees. The chairman guides and monitors the input and contribution of the directors. The Board has approved a Board charter that provides guidance to the directors in discharging their duties and responsibilities.

#### **Board** evaluation and performance

As was the case with the Electricity Council, performance evaluations of the Board, as a whole, and of individual members will be done on an annual basis. The Human Resources, Remuneration and Ethics committee will facilitate the evaluation of the performance of the directors and senior management, including the chief executive, who will be appraised by the chairman of the Board. The Board will appraise the performance of the chairman.

#### **Director induction and orientation**

The new directors appointed to the Board on incorporation were taken through a tailor-made induction programme, which allowed them an opportunity to understand Eskom's unique legislative framework, its governance and also the nature and operations of the business.

#### **Directors' remuneration**

Non-executive directors receive fees for their contribution to the Board and the committees on which they serve. The remuneration of the directors is determined by the Minister of Public Enterprises, with the concurrence of the Minister of Finance.

The rewards and remuneration of the Board are linked to the value added to Eskom.

Further details on directors' emoluments appear on pages 125 to 127 of this report.

#### **Company secretarial function**

Prior to its incorporation, the role of the company secretary was fulfilled by the Corporate Counsel and the Corporate Secretariat department (Secretariat). With effect from 1 July 2002, the Corporate Counsel was also appointed as the company secretary of Eskom Holdings Limited. The Board members have access to the advice and services of the company secretary as well as Secretariat. The directors are also entitled to obtain independent professional advice, at Eskom's expense, should they deem this necessary.

The Board is assisted by the company secretary in identifying key issues that should form the focus of the directors' attention. The company also ensures that all relevant matters are placed on the agendas for discussion.

The company secretary, together with other assurance functions, monitors Eskom's compliance with the requirements in terms of the PFMA, Companies Act and other legislation, and regularly reports to the Board in this regard.

#### **Board committees**

A number of Board committees exist in order to assist the Board in discharging its responsibilities. Each committee operates within the ambit of its defined terms of reference and delegated duties. A comprehensive framework, which assists in the control of the decision-making process and the delegation of authority within Eskom, has been approved by the Board.

In accordance with the recommendations of the King II Report, all the committees, except for EXCO, comprise a majority of non-executive directors and are chaired by an independent non-executive director.

The Board has approved the terms of reference of each of its committees, and will review the performance and effectiveness of the committees on a regular basis.

#### **Executive Management Committee**

EXCO comprises the chief executive, the finance director, the divisional managing directors and the chief executive officer of Eskom Enterprises (Pty) Limited. The committee is chaired by the chief executive. Committee meetings of EXCO are held at least monthly.

The committee assists the chief executive in guiding and controlling the overall direction of the business and in exercising executive oversight, and is responsible for ensuring the effective management of the day-to-day operations of the business.





## Corporate governance

EXCO is in turn assisted by its sub-committees, Procurement, Operations, Capital Investment and Sustainability in carrying out its delegated duties.

#### **Audit Committee**

The Audit Committee comprises five non-executive directors, including an independent non-executive director as the chairman.

Five Audit Committee meetings were held during 2002, two of which were held after incorporation. These are normally attended by the external auditors, the finance director, the head of Corporate Audit (the internal audit department) and relevant corporate officials. The head of Corporate Audit and the external auditors have unrestricted access to the chairman of the committee, and to the chairman of Eskom.

The committee monitors the quality, integrity and reliability of Eskom's compliance with relevant legislation and ensures that an appropriate system of internal control is maintained to protect Eskom's assets. It reviews the activities of the Corporate Audit department and the effectiveness thereof. It is also responsible for the evaluation of the independence, objectivity and effectiveness of the external auditors and for the review of accounting and auditing concerns identified by internal and external audit. The committee promotes the accuracy, reliability and credibility of financial reporting, and ensures that the annual financial statements and the annual report of the Eskom group are reviewed by management and the external auditors before approval by the Board.

#### **Risk Management Committee**

The Risk Management Committee comprises four non-executive directors and the finance director. It is chaired by an independent non-executive director. Committee meetings are held every alternate month.

The committee is responsible for ensuring that an effective and integrated risk management process is implemented.

#### **Investment and Finance Committee**

The committee comprises three non-executive directors, the chief executive and the finance director. The committee is chaired by an independent non-executive director. Committee meetings are held every alternate month.

The Investment and Finance Committee reviews and makes recommendations to the Board regarding Eskom's investment strategy. It evaluates and approves business cases for new ventures or projects, approves criteria and guidelines for investments, and has the authority to approve 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.

#### **Tender Committee**

The Tender Committee comprises four non-executive directors including an independent non-executive chairperson. Committee meetings are held quarterly.

The committee assists the Board in making commercial process decisions, approves procurement policies and ensures that Eskom's procurement system and processes are fair, transparent, competitive and cost effective. The committee approves tenders and contracts within its delegated authority.

# Human Resources, Remuneration and Ethics Committee

The committee comprises four non-executive directors and the chief executive. It is chaired by an independent nonexecutive director. Committee meetings are held quarterly.

The Human Resources, Remuneration and Ethics Committee:

- influences and approves human resource policies and strategies and monitors compliance with the Employment Equity Act, 55 of 1998;
- makes recommendations to the shareholder on the remuneration policy for executive and non-executive directors;
- makes recommendations to the Board on the appointment and removal of directors;
- ensures that Eskom demonstrates its commitment to integrity in the organisation in an appropriate manner; and
- monitors the ethical conduct of the company, its management, employees and suppliers.

#### **Sustainability Committee**

The Sustainability Committee comprises four non-executive directors and the chief executive. It is chaired by an independent non-executive director. Committee meetings are held every alternate month, with ad hoc meetings taking place as required.

The committee was constituted to address economic, environmental and social issues. It approves and makes recommendations to the Board regarding policies, strategies and guidelines for safety, health, environmental and nuclear issues. The committee performs an oversight function to provide assurance that nuclear safety at Eskom's facilities exceeds compliance with minimum regulatory and Eskom standards, while emulating international best practice.

# PUBLIC FINANCE MANAGEMENT ACT (PFMA)

The PFMA focuses on financial management with related outputs and responsibilities. Eskom has established an ongoing process of awareness, education and advice on the PFMA to the business.

The directors comply with their fiduciary duties as set out in the PFMA. Responsibilities of the Board as accounting authority in terms of the PFMA and other regulations include taking appropriate action to ensure:

- economic, efficient, effective and transparent systems of financial and risk management, and internal control, are in place;
- a system is maintained for properly evaluating all major capital projects prior to a final decision on each project;
- the implementation of appropriate and effective measures to prevent unauthorised, irregular, fruitless and wasteful expenditure, losses from criminal conduct and expenditure not complying with legislation;
- revenue due to Eskom is collected;
- the economic and efficient management of available working capital; and
- the definition of objectives and the allocation of resources in an economic, efficient, effective and transparent manner.

#### INTEGRATED RISK MANAGEMENT

Eskom endeavours to minimise risk by ensuring that the appropriate infrastructure, systems, personnel and controls are in place throughout the organisation, and risk management is integrated into management processes.

The Board is responsible for the total process of risk management and internal control, and for reviewing the systems for effectiveness. It is in the process of determining Eskom's risk tolerance and appetite.

Risk and control strategies and policies have been put in place to ensure that total risk is managed in an integrated way. The risk culture of the organisation has developed well in the past 12 months, and further strategies will be put in place to improve communication with all employees to ensure that risk awareness is incorporated into Eskom's working culture and language.

The Integrated Risk Management department is accountable for providing assurance to the Board that the risk management process is in place and is integrated into day-to-day business activities. Eskom divisions and subsidiaries have designated risk co-ordinators to integrate risk management

into day-to-day business activities. Risk management is addressed through risk categories that include, amongst other things, financial, technical, environmental, legal, human resources, information, stakeholders, regulatory and strategic risks. An integrated risk management strategy and process that is followed by the divisions and main subsidiaries is in place.

Major risks that could influence the achievement of Eskom's strategic objectives are identified, assessed and prioritised on a regular basis through a risk assessment and accountability framework, and control strategies are implemented to manage and monitor these risks. Input to this process is obtained from management at business unit, region, cluster, division, and subsidiary levels in the organisation, and consolidated into the top 20 risks for the Eskom group.

#### **INTERNAL CONTROL**

The Board has ultimate responsibility for establishing a framework for internal controls, including an appropriate procurement and provisioning system. The controls throughout Eskom focus on those critical risk areas identified by operational risk management, confirmed by executive management and endorsed by the auditors. The controls are designed to provide cost effective assurance that assets are safeguarded, and that liabilities and working capital are efficiently managed. Organisational policies, procedures, structures and approval frameworks provide direction, accountability and division of responsibilities, and contain selfmonitoring mechanisms. Both management and Corporate Audit closely monitor the controls, and actions are taken to correct deficiencies as they are identified.

#### **AUDIT**

In line with the PFMA and the King II Report requirements, Corporate Audit provides the Audit Committee and management with assurance that the internal controls are appropriate and effective. This is achieved by means of an independent, objective appraisal and evaluation of the risk management processes, internal controls and governance processes, as well as identifying corrective actions and suggested enhancements to the controls and processes. The risk-based audit plan is based on the major risks emanating from Eskoms' Integrated Risk Management process. The audit plan is responsive to changes in Eskom's risk profile.

Corporate Audit is fully supported by the Board and the Audit Committee, and has full, unrestricted access to all organisational activities, records, property and personnel.



## Corporate governance



The external auditors are responsible for independently auditing and reporting on the financial statements in conformity with generally accepted auditing standards.

#### **FORENSIC INVESTIGATIONS**

In terms of the PFMA and the requirements in the King II Report, the Board is responsible for ensuring that an integrated Crime Prevention Plan is implemented in order to minimise the risk and opportunity for crime and irregularities, in particular, fraud.

The Forensic Investigations department is mandated to assist Eskom, its subsidiaries and alliances by providing strategic crime prevention, detection and investigative direction and services, which support the strategic intent and business objectives.

#### **REPORTING TO STAKEHOLDERS**

In order to present a balanced and understandable assessment of its position, Eskom is continually striving to ensure that its reporting and disclosure to stakeholders is relevant, clear and effective. It places great emphasis on reporting on both financial and non-financial matters, as well as addressing both positive and negative aspects in order to demonstrate the long-term sustainability of the organisation.

Eskom's predetermined objectives, representing both financial and non-financial key performance indicators, and its performance against these indicators, are included in the Directors' Report.

#### STAKEHOLDER RELATIONS

In addition to the interests of government as the shareholder, Eskom recognises the legitimate interests of employees, consumers, suppliers, investors and lenders of capital, the National Electricity Regulator, trade unions and local communities in its affairs. Communication and interaction with stakeholders are ongoing during the year, and addressed through various channels depending on the different needs of the various stakeholders. High-level stakeholder issues are addressed in this report.

#### **Employee participation**

Participative structures are in place to ensure the ongoing involvement of employees and organised labour in influencing Eskom's policies and procedures.

#### **BUSINESS CONDUCT**

Eskom has an ethics programme that is in line with the PFMA and the recommendations of the King II Report which promotes ethical behaviour in the workplace. This is supported by a written business conduct policy dealing with ethics, which is applicable throughout Eskom and its subsidiaries.

The chief executive is the custodian of ethics, and the general manager financial control the caretaker, across Eskom. The following process ensures that appropriate business conduct is effectively implemented throughout Eskom:

- The divisional ethics co-ordinators ensure uniformity of application across Eskom and that all employees are appropriately exposed to and made aware of the business conduct policy.
- An ethics awareness presentation for senior management is included as part of corporate governance training. Ethics awareness is also included in induction courses, and ad-hoc training is arranged when required.
- An ethics web-site has been developed to provide core information, including answers to frequently asked questions.
- A summary of the business conduct policy was sent to approximately 19 000 active suppliers in August 2002.
- A database is maintained of all the possible conflicts of interests declared by senior and executive management.
- To ensure that there are no conflicts of interests, all employees performing work unrelated to that of Eskom, must first apply for permission. Any potential conflict of interests or the appearance of a conflict of interests must be declared on the application form.
- A confidential ethics helpline for raising ethical issues, as well as for the reporting of possible contraventions, is in place
- All departments are required to keep a courtesy register in which gifts given and received are recorded.
- Compliance with the business conduct policy is monitored by the Corporate Financial Control department, and is included in the scope of audits performed by Corporate Audit.
- Eskom is a founding member of the Ethics and Compliance Custodian Organisation together with the Centre for Business and Professional Ethics (University of Pretoria), for the purpose of networking, to benefit from research, and the advancement of the theory and practice of ethics within an organisation.

The continued focus on the business conduct policy has raised awareness of the need for ethical behaviour across the organisation. Calls to the ethics helpline have resulted in investigations of irregularities across all divisions and subsidiaries.

#### **ENVIRONMENTAL MANAGEMENT**

The chief executive, as chairman of the Sustainability Committee of EXCO, bears responsibility for Eskom's overall environmental performance. This committee takes guidance from the Sustainability Committee of the Board.

The corporate environmental affairs manager provides strategic direction to the organisation to ensure acceptable environmental performance. The Corporate Environmental Affairs department facilitates the development and implementation of overall Eskom policy, performance measurement and reporting with regard to environmental matters.

The divisions within Eskom, as well as Eskom's subsidiaries, determine strategic direction within the divisions and also provide input via the Environmental Liaison Committee on the environmental strategy for Eskom. The divisions are accountable to ensure the implementation of environmental policies, directives and standards within their areas of delegated authority. They have assigned accountability to specific functional areas, which is supported by the inclusion of environmental key performance indicators in the relevant performance compacts.

A three year cyclic environmental audit programme is conducted by the Technical Audit department to address key issues. Additional environmental risk assessments and environmental incident investigations are also carried out where necessary.

#### **SAFETY**

The Health and Safety Policy and the Occupational Health and Safety Act, 85 of 1993, continue to remain the guiding principles for the achievement of Eskom's safety vision. The Operations Committee of EXCO regularly reviews the health and safety performance and fatalities to ensure that the necessary corrective measures are implemented. The overall strategy is reviewed by the Sustainability Committee of the Board.

#### **Nuclear safety**

The independence of the nuclear safety assurance function from the electricity production function is assured by the separation of Eskom's nuclear infrastructure into two structures. The nuclear business arena has direct accountability to the managing director of the Generation division for all aspects of electricity production at Koeberg Power Station, including safety. A separate department in the Generation division, with its own technical experts and resources, is independently accountable for nuclear safety and licence compliance assurance.

Eskom maintained the three-tier system of nuclear governance in line with international good practice during the During 2002, the Sustainability year under review. Committee of the Board took over the responsibilities of the previous Electricity Council Nuclear Safety Oversight Committee. This committee dedicates a number of its meetings each year to nuclear considerations. These meetings are attended by experienced international nuclear experts, thus bringing an international perspective to the committee's deliberations. The second tier is the Nuclear Management Committee, chaired by the managing director of the Generation division. This committee monitors, reviews, endorses and recommends for approval all aspects of the Eskom nuclear business, including nuclear policy, standards and rules in relation to international standards and benchmarks and Eskom's overall business requirements. The third tier is the Nuclear Safety Review group, a forum that brings together nuclear expertise from different parts of Eskom for the purpose of meaningfully debating and evaluating nuclear safety issues, and making appropriate recommendations to senior management and the higher tiered committees.

#### SOCIAL

Eskom's social responsibility is mainly carried out through the Eskom Development Foundation, a section 21 company, which is responsible for incorporating and integrating all corporate social investment initiatives. The Eskom Development Foundation's mission is to contribute towards the improvement of the quality of life of previously disadvantaged South African citizens through an integrated, efficient and effective development programme.

The Eskom Development Foundation has a board of directors that uses various committees to manage the grant-making activities of the company, and to conduct business within the ambit of the delegated authority.

#### **ESKOM ENTERPRISES (PTY) LIMITED**

Eskom Enterprises (Pty) Limited subscribes to the principles of good corporate governance and high ethical standards and principles that the company brings to all of its businesses in South Africa and across the African continent. Initiatives are underway to implement the recommendations of the King II Report throughout Eskom Enterprises.

Eskom Enterprises has a board comprising a non-executive chairman, six executive directors and five non-executive directors from diverse business backgrounds whose experience enables them to exercise independent judgement on the Eskom Enterprises Board. The role of the Eskom



## Corporate governance

Enterprises Board is to determine the company's direction and strategy, to monitor the achievement of business objectives and to ensure that the company meets its responsibilities to its shareholder. It is further responsible for ensuring that the control environment adequately protects the company's assets against major risks. In addition to monitoring the performance of the executive management of Eskom Enterprises, the Eskom Enterprises Board also contributes to the company's strategy and policy formulation.

The non-executive directors have no fixed term of service, while the executive directors are on five-year contracts, which may be extended if necessary. All directors have access to the advice and service of the company secretary of Eskom Enterprises and to senior management when necessary.

The Eskom Enterprises Board ensures that similar governance structures exist in each of its subsidiaries and joint venture companies where it has the majority shareholding.

#### **Committees**

The Eskom Enterprises Board has five principal standing committees, which are governed by written terms of reference. The committees include the Audit Committee, the Finance Committee, the Investment and Procurement Committee, the Remuneration Committee and the Management Committee.

#### **Public Finance Management Act**

The Eskom Enterprises Board, as the designated accounting authority, complies with the various duties and responsibilities as prescribed by the PFMA, except for the matter regarding Mountain Communications (Pty) Limited as detailed elsewhere in this report.

#### Integrated risk management

The Eskom Enterprises Board approved the integration of risk management into Eskom Enterprises' daily activities. A risk management task group is responsible for the identification of risk areas and to report these areas to the Audit Committee and management for resolution.

An ongoing process has been introduced to implement risk management systems.

#### Internal control

The Eskom Enterprises Board acknowledges that it bears ultimate responsibility for the group's systems of internal and financial control. Systems have been designed to provide reasonable, but not absolute, assurance against inaccurate

internal financial information and other irregularities, as well as to ensure the accuracy and integrity of the accounting records.

The Eskom Enterprises Board, through the Audit Committee, has reviewed the effectiveness of the systems of internal control for the year under review, and no indication of inappropriate or unsatisfactory conduct has been revealed, except for the matter regarding Mountain Communications (Pty) Limited as detailed elsewhere in this report.

Corporate Audit also provides the internal audit function for Eskom Enterprises.

#### **Business conduct**

Employees are required to maintain high ethical standards and to ensure that the Eskom Enterprises Group's business practices are conducted in a manner that is above reproach.

#### **Employee participation**

Eskom Enterprises has a policy of encouraging employee participation in a wide range of issues, and various participative structures are designed to achieve good employer-employee relationships.

#### **OTHER ESKOM SUBSIDIARIES**

Eskom's other wholly owned subsidiaries are governed by independent Board structures. The directors are fully accountable to Eskom as shareholder.

The subsidiaries comply with the requirements of the PFMA, and are in the process of implementing the recommendations of the King II Report.

#### **GENERAL**

Eskom recognises that corporate governance is a dynamic area and, as such, its systems of corporate governance are reassessed on an ongoing basis to ensure that they are on a world-class level of standards and continue to be relevant to Eskom's business as it evolves.

#### **RECORD OF ATTENDANCE AT MEETINGS**<sup>1</sup>

Directors	Board	Audit Committee	Human Resources, Remuneration Ethics Committee	& Finance	Executive Management Committee	Tender Committee	Risk Management Committee	Sustainability Committee
Number of meetings	5	2	2	3	12	3	2	2
Khoza RJ <sup>2</sup>	5		2					2
Baleni MF <sup>2</sup>	3			3		3		1
Count BM <sup>2</sup>	4		1	1				
Funde SE <sup>2</sup>	5			3			2	2
Gcabashe TS <sup>4</sup>	5		1		11			1
Josefsson LG <sup>2</sup>	2	1						
$KokWJ^{^4}$	4	1		2	9		2	
Lucas-Bull WE <sup>2</sup>	3			1				
Makwana MP <sup>2</sup>	4	1	1					
Modise JRD <sup>2</sup>	2	1					1	
Mohanlal Rowjee V <sup>2</sup>	5		2			3		
Morgan AJ <sup>2</sup>	5					3	2	
Mpambani SA <sup>2</sup>	5	2				3		
Msomi TN <sup>3</sup>	5	2						2
Zilwa SV <sup>2</sup>	3						0	

For the period after incorporation.
 Independent non-executive.

<sup>3.</sup> Non-executive.

<sup>4.</sup> Executive.

# Contributing to continental re-awakening











**Chairman's statement**Reuel J Khoza

## Contributing to continental re-awakening

At the core of NEPAD and the African Renaissance vision is the accceptance that Africa's people and their institutions have the capacity and the responsibility to create, foster and maintain economic, political, social and moral processes and practices that define Africans as competent and proud citizens of the world, on par with the best. Our efforts are aimed at giving life to this belief.





#### Chairman's statement continued









#### Introduction

To travellers on a long and difficult road, the significant events on that journey are not always easy to discern. It is sometimes hard to recognise that one has passed a particularly noteworthy milestone or reached a propitious stage in the trip.

The year 2002 will be remembered as one such milestone in Eskom's history. It is a year that seems to have ended too quickly as a result of the numerous events in which we were involved and the projects we executed. All these efforts were aimed primarily at contributing to the economic, social and environmental well-being of the country and the African continent.

Through these efforts, we endeavour to give weight to the South African government's commitment to the African Renaissance and the New Partnership for Africa's Development (NEPAD). At the core of NEPAD and the African Renaissance vision is the acceptance that Africa's people and their institutions have the capacity and the responsibility to create, foster and maintain economic, political, social and moral processes and practices that define Africans as competent and proud citizens of the world, on par with the best. Our efforts are aimed at giving life to this belief.

#### New era for Eskom

Still buoyant from being named the Global Power Company of the Year 2001, the organisation, without losing momentum and focus, proceeded to change its image when it unveiled its new corporate identity. By this image, Eskom wants to make the world aware that it is:

- an African business;
- a global business;
- an agile, entrepreneurial and proactive business; and
- a business supporting the concept of partnerships.

Our new corporate identity and image were given the official stamp of approval by the State President, Thabo Mbeki, when he graced our corridors at the end of March to unveil the statues of four of the greatest leaders of South Africa's revolution, Oliver Reginald

Tambo, Mangaliso Robert Sobukwe, Bantu Steve Biko and Nelson Rolihlahla Mandela. It should be remembered that, not long ago, President Mbeki posed the question: Where are the symbols of Africa? The symbols that epitomise all that is good and praiseworthy about Africa – those noble and fearless men and women who have earned our respect and our love. The statues of these great African leaders that inspire us into the future are Eskom's answer to the President's call.

Inspired by the visionary leadership of these great thinkers, Eskom took the initiative to research and develop the concept of an institution of African leadership. For more than two years we have studied, researched, analysed, captured and recorded the available principles and characteristics of leadership, with particular reference to Africa. We believe we have the resources needed to establish a sound and solid base for an Institution of African Leadership. We plan to trigger processes that will produce implementable strategies. This will not be an academic exercise; it will seek to influence leadership both positively and effectively, building an edifice that will guide and shape the future. The President was here also to inaugurate this African Leadership Programme.

The year 2002 also saw the Minister for Public Enterprises, Mr Jeff Radebe, announcing a new Board of Directors for Eskom and I was appointed the first Chairman of this Board. Eskom was converted in terms of the Eskom Conversion Act into a company with effect from I July 2002. This means that, as of that date, the Electricity Council and the Management Board ceased to exist and the new board of directors assumed office.

The new Board will now set challenges for the future and work to maintain and enhance the respect of local and international stakeholders. The appointments also reflect Government's commitment to ensuring a greater diversity of skills, ideas and domestic, as well as global, experience on the Board, hence the introduction of international non-executive directors onto the Board.

One of the main reasons for the incorporation of Eskom was to ensure that the company is recognised and understood globally. As such, it was necessary for Eskom to move from a two-tier governance structure to a single-tier model, to take on an identity that is known by all stakeholders — that of a company complying with a globally-accepted Companies Act.

Good corporate governance has become a pressing issue globally, especially in recent months, and our incorporation is an intrinsic part of South Africa's move to being more transparent when it comes to business dealings.

#### Our vision and strategic direction

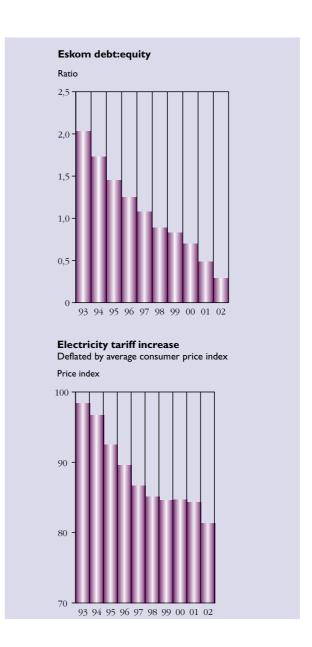
With good corporate governance as our foundation, our vision is to further transform the organisation from one focusing only on South Africa, to being a successful continental and global player. Here we are guided by our strategic intent of being the pre-eminent African energy and related services business of global stature.

Africa has the natural capacity to supply all its electrification needs, and Eskom has already proved itself as a major player in this process. We are already making headway and we are set to remain a valuable leader on this continent in terms of our business, which branches out beyond electrification into information technology, communications, areas that affect communities, business and industry alike.

Our vision and strategic direction are continuously being informed and influenced by what is happening on the continent and around the globe. This is more so now with Eskom's Chief Executive having been inaugurated as the President of the Union of Producers, Transporters and Distributors of Electricity in Africa (UPDEA) for the next three years. Our leadership role in this non-profit continental organisation lends further credence to our vision of preeminence in Africa. Through UPDEA, African power utilities are empowered to play a pivotal role in the provision of infrastructural development, as an integral part of their contribution to NEPAD.

#### Visionary leadership

We are already making headway and we are set to remain a valuable leader on this continent in terms of our business, which branches out beyond electrification into information technology, communications, areas that affect communities, business and industry alike.





#### Chairman's statement continued









# Commitment to economic, environmental and social goals

Eskom is in tune with the new societal and continental imperatives, new economic realities and challenges, which are being conceptualised and given coherence and political muscle through the visions of our continental leaders, manifest in NEPAD, the African Union and the African Renaissance in general. This is evidenced by the fact that, since South Africa's first democratic elections in 1994, we have brought electricity to about three million new South African customers, most of them in underdeveloped rural areas.

Electricity brings about an improvement in the standard of living through electric lights, radio and television and other appliances. It also improves the economic situation, as people are able to use electricity to start their own small businesses. Electricity is essential for significant growth. We should not forget that nations such as Japan, Taiwan and Korea did not begin to show rapid rates of growth before most of their populations had electricity.

Since our business is no longer solely electricity, but energy and related services, we now have a presence in more than 30 African countries. Eskom Enterprises is the vehicle we use to seek out opportunities for cooperation agreements and joint ventures with our neighbours, and thus make a contribution to both infrastructural and economic development in Africa.

At the same time, Eskom's continued commitment to sustainable development and the improvement of the quality of people's lives was demonstrated on a large scale through its participation in and its cosponsorship of one of the largest and the most important events in the world, the World Summit on Sustainable Development (WSSD), which was so successfully hosted by our country in 2002.

Eskom participated in a myriad of activities during the Summit ranging from hosting, co-hosting events through partnerships with key organisations and participated in various other events of relevance to our sector. Input into local and international business interventions on issues of critical importance to sustainable development in developing countries and in particular for South Africa and Africa was achieved

#### Growth in diversity

We will diversify our business further and expand our global reach, particularly into Africa. This will not be achieved through organic growth, but through concerted investments within an agreed framework for growth along the route indicated by our strategic roadmap to a business model for 2010 to realise Eskom's strategic intent.

through Eskom's participation in the South African Business Co-ordinating Forum, chaired by Mr Tokyo Sexwale and myself as Deputy Chair and the international Business Action for Sustainable Development, chaired by Sir Mark Moody Stewart, of which I was also the Deputy Chair.

In order to ensure actual outcomes from the Summit, the African Energy Fund was launched in partnership with the Development Bank of Southern Africa (DBSA) and the Industrial Development Corporation (IDC). The Fund was aimed at enabling investment in African development projects.

The energy sector in South Africa has also been extremely fortunate with the leadership from Government in implementing the principles of sustainable development. In particular, this leadership for our sector has been manifested through the Minister of Minerals and Energy, Ms Phumzile Mlambo-Ngcuka, and the Minister of Environmental Affairs and Tourism, Mr Vali Moosa. Eskom remains committed to working together with Government to address the challenges of sustainable development in our country. As one of the world's largest power supply companies, and arguably the most efficient, Eskom is particularly well placed to provide developmental infrastructure on the continent that will help change both the reality and the perceptions of African conditions. We are dedicated to contributing to Africa's economic recovery; we are committed to bringing light and enlightenment to our beloved continent.

#### Strategic view for the future

In order to put into action its contribution to Africa's economic re-awakening, Eskom has a realistic and realisable view for the future. We will diversify our business further and expand our global reach, particularly into Africa. This will not be achieved through organic growth, but through concerted investments within an agreed framework for growth along the route indicated by our strategic roadmap business model for 2010 to realise Eskom's strategic intent.

The restructuring of the business in support of the government's imperatives will be aligned with the priorities of the shareholder, to position Eskom for a competitive local electricity market, and to position Eskom locally and internationally in harmony with our strategic intent. All this will be done with the prime objective of serving the customer better.

We also have to solidify the new dispensation created by the incorporation of Eskom, and here emphasis is on sound governance and a commitment to synchronise with the requirements of the new Board of Directors.

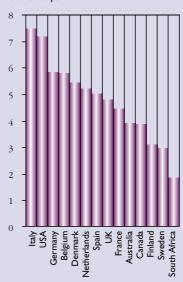
#### **Acknowledgements**

We thank the bold and visionary leadership from our Government leaders, the Minister for Public Enterprises, Mr Jeff Radebe, and Ms Phumzile Mlambo-Ngcuka, the Minister of Minerals and Energy. We are grateful to both these leaders and their departments for the co-operation and warm functional relationship we have with them that facilitated optimum delivery. We thank them for the work we have done together, ironing out policy and transforming our industry, making it more accessible to the previously disadvantaged.

I wish to thank members of the Electricity Council which was replaced by the new Board of Directors. Their dedication to Eskom over the years has been inspiring. To them we owe much and we shall always be grateful for their unwavering support and guidance. Their legacy will live on.

## World industrial electricity prices from a representative utility in each country

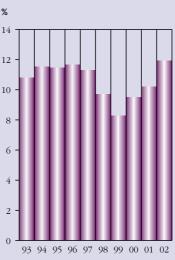
USA cents per kWh



Price per kWh\*, excluding local taxes, from a representative utility in each country for the supply of 1000 kW for an organisation with a monthly usage of 450 000 kWh as at **I April 2001**. Relative purchasing power of the respective currencies is not reflected in these values. \*Converted, using **I April 2001** exchange rates as published in the Wall Street Journal, to US dollar per kilowatt-hour.

as published in uncompeted from the control of the

#### Eskom rate of return on total assets



Historical cost





#### Chairman's statement continued









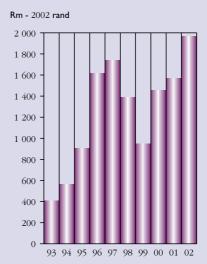
We also thank members of the Eskom Board of Directors for their willingness to join us in steering Eskom to greater heights. We highly value their advice and wisdom based on their enormous wealth of diverse experience.

I would also like to thank the Chief Executive. Mr Thulani S Gcabashe and members of his Executive Management Committee, the customers of Eskom and the people of Eskom with whom we shape our future. Together let us continue ensuring that Eskom occupies its rightful place in the world and becomes the preeminent African energy and related services company of global stature.

A new era has dawned for Eskom, bringing a lot of promise and new challenges with it. I am confident, however, that working collectively as a unit, we shall triumph.

Reuel J Khoza Chairman

#### **Eskom productivity improvement for** all resources



The sum of the cumulative annual productivity savings over the ten-year period amounted to R  $12\,600$  million.

#### Real GDP growth versus Eskom sales (GWh) growth







# Committed to service excellence

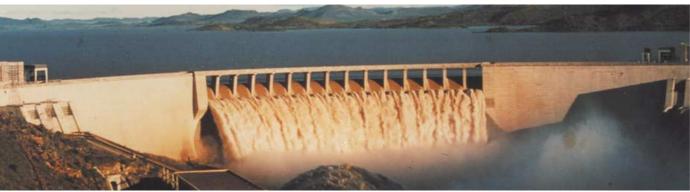
#### **Eskom Values**

# Integrity, Excellence, Customer Satisfication and Innovation

The values define our identity as an organisation as well as the operating qualities used to improve performance. Ultimately our values will define how we will achieve our strategic intent to be the pre-eminent African and related services business, of global stature.









Chief Executive's report
Thulani S Gcabashe

#### **Committed to service excellence**

We have a clear sense of purpose, notwithstanding the transition into a global player of note and the fluidity of decisions impacting our destiny. The organisation has focus and will continue to add exemplary value to the economy of South Africa. Eskom is already a strong proponent of growth and development in our country.



#### Chief Executive's report continued









#### Introduction

We live in an era of such rapid change and evolution that challenges leaders to constantly develop the capacity for continuous change and frequent adaptation, while ensuring that identity and values remain constant. The past year has been one of such change for Eskom. In my view, the dedicated and focused leadership as well as the support of employees and organised labour have allowed us to achieve the goals we had set.

The year 2002 was one in which we unveiled our new corporate identity to the world. This new corporate identity is in line with our strategic intent of being a pre-eminent global player. It is in keeping with this intent that Eskom was converted, in terms of the Eskom Conversion Act, into a company with effect from I July 2002. Eskom Holdings Limited, a public company with a share capital, under the leadership of a new Board of Directors was born of this conversion exercise.

We have a clear sense of purpose, notwithstanding the transition into a global player of note and the fluidity of decisions impacting our destiny. The organisation has focus and will continue to add exemplary value to the South African economy. Eskom is already a strong proponent of growth and development in our country. We are electrifying about 1000 homes every day thus supporting Government's stated objective of ensuring a better life for all South Africans.

We have maintained our status as a model corporate citizen with the Eskom Development Foundation significantly contributing towards improving the quality of life through integrated, efficient and effective development programmes. These programmes target rural communities and newly established settlements. A particular emphasis is placed on women, people with disabilities, and the youth. The sterling work done by the Eskom Development Foundation plays a critical role in strengthening the Eskom brand, with the Foundation rated as having the most hands-on approach and Eskom rated as the most caring company in the country.

#### Summary of high-level performance

One of the key challenges of being a global player is to observe the principles of good corporate governance, underpinned by sound business principles. The results of both the regulated and the non-regulated

businesses of Eskom are a clear indication of our adherence to these principles.

During the year under review, Eskom's regulated business performed exceptionally well. This is reflected by the after-tax net profit of R3,2 billion (R2,3 billion in 2001). Several factors have positively influenced the external revenue. These include the higher-than-expected growth rate of 3,5%, increased revenue from commodity-linked deals, and international customers due to the weaker-than-anticipated Rand/Dollar exchange rate. Furthermore, excellent treasury management reduced our interest and finance charges so much so that our net profit before tax and fair value adjustment increased to R4 904 million from R3 608 million.

Still maintaining our focus, we continue to strive for financial health as a key driver for long-term profitability and market-related returns. We have a managed programme to increase Eskom's return on assets to a market-related level.

Debt collection and management of the debtors' book continues to be an area of concern. This has resulted in an increase in bad and doubtful debts for the year. We are confident that the negotiated Service Delivery Framework will address the situation this year.

#### **Eskom Holdings Limited**

As mentioned earlier in this report, the year 2002 saw the end of Eskom as we had been accustomed to. The incorporation of Eskom into a public company as of I July 2002 meant that governance structures within Eskom needed to be reviewed. This was not only to comply with Eskom's new legal status, but also to ensure a more streamlined decision making process that was consistent with the King II report and one that would allow for an efficient, effective and decisive organisation.

The conversion gives us the capacity to function as a company without having the serious confines of our past state, yet continuing to play a developmental role in South Africa. Though challenging, the conversion process has been handled efficiently with a smooth transition into our current state. The rights of Eskom, investors, employees and other stakeholders have been preserved and protected in this process.

#### Competitive macro-economic environment

When the cabinet approved the restructuring of the electricity industry, it envisaged a process that included the incorporation of Eskom as a company and the introduction of the private sector into the generation side of the business.

In line with this cabinet decision, the proposed restructuring of the electricity distribution industry will result in the establishment of an EDI holding company, the introduction of six regional electricity distributors (REDs). The REDs will incorporate Eskom's seven distribution regions and the 237 municipal distributors.

On the supply side of the business, Eskom will be shedding a portion of its market share in the coming years through the sale of 30% of generation to private equity partners. This government led process will start with the sale of an initial 10% to Black Economic Empowerment (BEE) companies, and a further 20% to local and foreign private sector operators.

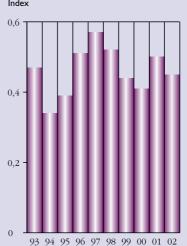
#### Towards sustainability

The globally competitive environment we operate in should not steer us off the sustainability course. We will continue developing strategies that will ensure the economic, social, technical and environmental sustainability of our business. A Sustainability Liaison Committee has been established in order to assist with an integrated approach in addressing key sustainable development issues. A sustainability index for Eskom Holdings Limited to supplement the existing operational index will be developed to support these strategies. The index will include key measures for financial, environmental, health, safety, risk, governance, quality, technical, and social performance.

South Africa hosted a successful World Summit on Sustainable Development during 2002. Eskom is proud of its involvement in this important global event and its contribution in areas of key significance to the energy and related sectors. As Eskom, we welcome the positive outcome emanating from the Summit, as well as what this means for Johannesburg, South Africa, Africa and the world.

We were instrumental in the establishment of 'Legacy Projects' to make certain that after the Summit there would be tangible and measurable outcomes that remained, to ensure significant progress before the next World Summit in 2012. Our Legacy Projects are aligned with the goals of NEPAD in the area of energy and electricity infrastructure, with the main aim being to address the existing infrastructure gap hampering Africa's development. We were co-partners in the establishment of the African Energy Fund, a vehicle for accelerating these infrastructure projects.

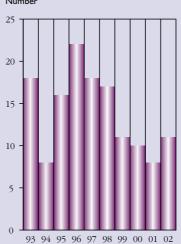
#### Eskom disabling injury incidence rate Index



Disabling injury incidence rate (DIIR) expresses the percentage of employees that suffered a disabling injury over a 12-month period.

#### Eskom fatalities

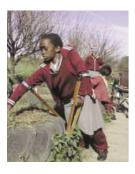
Number





#### Chief Executive's report continued









As part of an ongoing effort to evaluate the viability of all supply-side options, we are looking at various options. This includes the return to service of stations that are currently in cold reserve storage. A number of other power generation technologies - not yet implemented in South Africa on a commercial basis - are being evaluated in terms of technical, socio-economic and environmental aspects. These technologies include solar energy, hydro, pumped-storage schemes, and wind energy among others. The aim is to develop a mix of generation options that will be most practical from a geographic, environmental, socio-economic and technological point of view. This is in line with the White Paper on the Energy Policy.

Entering the global arena has not meant that Eskom forgets about its national obligations, and this is based on the fact that we supply 95 percent of the country's electricity. The bulk of this is produced by coal power stations. Eskom remains committed to integrated environmental management — the consideration of environmental issues is a key part of our operations, which we shall endeavour to improve on a continuous basis. The challenge for Eskom is to produce electricity cost-effectively, whilst maintaining appropriate environmental standards. Our power stations burn approximately 96-million tons of low-grade coal annually and, through improved technology, more than 99 percent of ash is extracted from the combustion gas before it is released into the atmosphere.

#### **Priorities**

In order to meet the growing demand for power, Eskom will, over the next five years invest a substantial amount of money in an extensive expansion and refurbishment programme. This expenditure will go towards projects, electricity market growth, and diversification. This will have a positive spin-off for our business and the South African economy.

We will continously work on ensuring that the overall profile of Eskom employees, their skills and experiences secure Eskom's place as global leader in the energy sector.

We have embarked upon Human Resources initiatives designed to, among others, address the following:

- · change resilience and capacity to transform
- a leadership development programme
- skills management
- Medical Aid
- Pension Fund

- reward strategy transforming to a behaviourdriven reward system
- human resources information system (HoRISon)
- a commitment to our core values.

We have to commit to these aspects as they enhance our competitive advantage and allow us to employ best practices in managing staff. To address these priorities, the necessary project management and other technical, financial, specialist and management support skills must be retained.

A major challenge for this year was the promotion of a safety culture in Eskom. The past year saw an alarming increase in fatalities, rising to 1999 levels, both internally and externally. This is cause for great concern. The major causes of these fatalities are electrical contact incidents, illegal connections and vandalism at electrical sites. We also need to intensify our public awareness and safety campaigns, as well as take appropriate steps to ensure that the public adopts and internalises electrical safety.

#### Acknowledgements

I would like to thank the Chairman and members of the Electricity Council whose term of office came to an end during the course of the year. We highly value their guidance and support over the years. Furthermore, Eskom is proud to have such a recognised and visionary leadership from the Chairman.

My thanks also go to the Board of Eskom Holdings Limited. With their vast and diverse wealth of experience there is only one way where this organisation is headed and that is to the top.

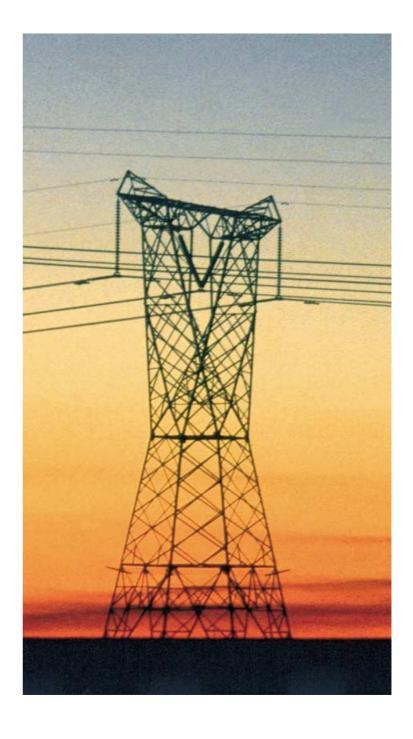
I value the continued co-operation between the National Electricity Regulator (NER) and Eskom. My appreciation also goes to the Minister for Public Enterprises, Mr Jeff Radebe, the Minister of Minerals and Energy, Ms Phumzile Mlambo-Ngcuka, and their staff.

My colleagues on the Executive Management Committee and I would like to thank all Eskom employees for the tremendous support and the dedication they have displayed.

Allene.

Thulani S Gcabashe
Chief Executive

## **Electricity demand patterns** MW in thousands 32 28 24 20 01:00 - 24:00 Winter peak day 18/07/02 Typical winter day Typical summer day Eskom research programmes expressed as a percentage of total research cost Research management 6% Future technology 7% Environmental 11% Transmission and distribution related 29% Generation related 16% Business and market technology 10% Integrated energy systems 17% End use 4% Excludes cost spent on the PBMR.



# Eskom Consolidated annual financial statements

for the year ended 31 December 2002

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# **Currency of financial statements**

The financial statements are expressed in South African rand (R).

The following are approximate values of R1,00 at 31 December for selected currencies:

	2002	2001
Pound sterling	0,07	0,06
Swiss franc	0,16	0,14
Japanese yen	13,80	10,17
US dollar	0,12	0,08
Euro	0,11	0,09

# Statement of responsibilities and approval

The Public Finance Management Act requires the directors to ensure that the Eskom Holdings Limited (Eskom) and the group keep full and proper records of its financial affairs. The annual 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 generally accepted accounting practice.

The annual financial statements are the responsibility of the directors. The external auditors are responsible for independently auditing and reporting on the financial statements.

The annual financial statements of Eskom and the group have been prepared in terms of International Accounting Standards, Statements of South African Generally Accepted Accounting Practice and the Companies Act. These annual 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 every reason to believe that the group will be a going concern in the year ahead.

To enable the directors to meet the above 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 Corporate Audit closely monitor the controls, and actions are taken to correct deficiencies as they are identified.

The directors are of the opinion, based on the information and explanations given by management and Corporate Audit 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 annual financial statements, and accountability for assets and liabilities is maintained.

Nothing has come to the attention of the directors, other than the significant matters referred to in the Directors' report, to indicate that any material breakdown in the functioning of these controls, procedures and systems has occurred during the year under review.

In the opinion of the directors, based on the information available to date, the annual financial statements fairly present the financial position of Eskom and the group at 31 December 2002 and the results of its operations and cash flow information for the year.

The annual financial statements of Eskom and the group for the year ended 31 December 2002, set out on pages 38 to 129, have been approved by the Board of Directors and signed on their behalf on 27 February 2003 by

Reuel J Khoza Chairman Thulani S Gcabashe Chief Executive



# Report of the independent auditors

# To the Minister of Public Enterprises

We have audited the annual financial statements of Eskom Holdings Limited and the group set out on pages 38 to 127 for the year ended 31 December 2002. The group annual financial statements are the responsibility of Eskom's accounting authority. Our responsibility is to express an opinion on these financial statements based on our audit. The performance information is the responsibility of the accounting authority. Our responsibility is to express an opinion on whether the performance information furnished in terms of sub-section 55(2)(a) of the Public Finance Management Act, 1 of 1999, as amended, is fair in all material respects and, on a basis consistent with that of the preceding year.

# Scope

We conducted our audit in accordance with the Statements of South African Auditing Standards issued by the South African Institute of Chartered Accountants. Those standards require that we plan and perform the audit to obtain reasonable assurance that the financial statements are free of material misstatement. The audit was also planned and performed to obtain reasonable assurance that our duties in terms of sections 60 and 61 of the Public Finance Management Act, 1 of 1999, as amended, have been complied with. An audit includes:

- examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements;
- assessing the accounting principles used and significant estimates made by management; and
- evaluating the overall financial statement presentation.

We believe that our audit provides a reasonable basis for our opinion.

# **Audit opinion**

In our opinion:

- the financial statements fairly present, in all material respects, the financial position of Eskom Holdings Limited and the group at 31 December 2002, and the results of their operations and cash flows for the year then ended, in accordance with the South African Statements of Generally Accepted Accounting Practice issued by the Accounting Practices Board and the International Accounting Standards issued by the Accounting Standards Board applied on a basis consistent with that of the previous year; and in the manner required by the Companies Act, 61 of 1973 in South Africa, and the Public Finance Management Act, 1 of 1999, as amended;
- the performance information of Eskom Holdings Limited and the group furnished in terms of section 55(2)(a) of the Public Finance Management Act, 1 of 1999, as amended, fairly presents in all material respects Eskom Holdings Limited and the group's performance for the year ended 31 December 2002 against predetermined objectives and is, where applicable, consistent with that of the preceding year; and
- the transactions of Eskom Holdings Limited and the group that had come to the auditor's attention during auditing were in all material respects in accordance with mandatory functions of Eskom Holdings Limited, as determined by law or otherwise, with the exception of the matter as outlined in the Directors' report under the heading Mountain Communications (Pty) Limited on page 58.

Without qualifying our audit opinion, we draw your attention to the paragraph required by the Public Finance Management Act, 1 of 1999, as amended, disclosing fruitless and wasteful expenditure as contained in the Directors' report on page 58.

We have examined the inflation adjusted financial information set out on pages 128 to 129. In our opinion the statements have been properly prepared on the basis set out in the notes thereto.

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KPMG Inc

Registered Accountants and Auditors Chartered Accountants (SA)

SizweNtsaluba VSP

Registered Accountants and Auditors Chartered Accountants (SA)

**Deloitte & Touche** 

Selos He + Touche

Registered Accountants and Auditors Chartered Accountants (SA)

Johannesburg 27 February 2003



# **Report of the Audit Committee**

# Report of the Audit Committee in terms of regulations 27(1)(10)(b) and (c) 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 effectiveness of internal audit.
- · The risk areas of the entity's operations to be covered in the scope of internal and external audits.
- The adequacy, reliability and accuracy of financial information provided to management and other users of such information.
- · Any accounting and auditing concerns identified as a result of internal and external audits.
- The entity's compliance with legal and regulatory provisions.
- The activities of the internal audit function, including its annual work programme, co-ordination with the external auditors, the reports of significant investigations and the responses of management to specific recommendations.
- Where relevant, the independence of and objectivity of the external auditors.

Nothing has come to the attention of the Audit Committee, other than the significant matters referred to in the Directors' report, to indicate that any material breakdown in the functioning of the internal controls, procedures and systems has occurred during the year under review.

In the opinion of the Audit Committee, the internal controls and laid down procedures of the group are considered to be appropriate in all material respects to:

- · meet the business objectives of the group;
- · ensure the group's assets are adequately safeguarded; and
- · ensure that transactions undertaken are recorded in the group's records.

The Audit Committee has evaluated the annual financial statements of Eskom Holdings Limited and the group for the year ended 31 December 2002 and, based on the information provided to the Audit Committee, considers that it complies, 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 the Statements of International Accounting Standards and South African Statements of Generally Accepted Accounting Practice. The Audit Committee concurs that the adoption of the going concern premise in framing the annual financial statements is appropriate. The Audit Committee has therefore recommended the adoption of the annual financial statements by the Board of Directors at their meeting on 27 February 2003.

JRD Modise Chairman

27 February 2003

# **Statement by Corporate Counsel/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

Corporate Counsel/Company Secretary

27 **February** 2003



# **Directors' report**



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# INTRODUCTION

The directors have pleasure in presenting their report and the audited annual financial statements of Eskom Holdings Limited (Eskom) and the group for the year ended 31 December 2002. The year under review was a very successful one with strong financial performance, delivery on social commitments and sustained worldclass technical performance while at the same time exercising due care in limiting Eskom's impact on the environment.

This report addresses the performance of the Eskom group and includes relevant statutory information, in particular with regard to the Public Finance Management Act, 1 of 1999, as amended by Act 29 of 1999 (PFMA) and the Companies Act, 61 of 1973, as amended. In addition to compliance with relevant legislation, the focus of its reporting is on demonstrating good governance practices by way of material, relevant and clear disclosure to all stakeholders. As is evident in this report, Eskom's focus in managing the business is not only on financial performance, but rather on achieving a balance of financial, technical, social and environmental performance.

Eskom was incorporated as a public company on 1 July 2002 in terms of the Eskom Conversion Act, 13 of 2001. For the period to 30 June 2002, the Electricity Council and the Management Board fulfilled the role of directors and the Electricity Council acted as the accounting authority. Thereafter the Board of Directors (the Board) was introduced. The Board is the accounting authority in



terms of the PFMA, in respect of which Eskom is listed as a Schedule 2 public entity. This Act also applies to subsidiaries and entities under the ownership and control of Eskom, as they are also classified as Schedule 2 public entities.

Except as further set out herein, the directors are of the opinion that Eskom complies, in all material respects, with the provisions of the PFMA.

# **FUNCTION AND OBJECTIVES OF THE BUSINESS**

## Nature of the business

Eskom generates, transmits and distributes electricity to industrial, mining, commercial, agricultural and residential customers, and to redistributors. Eskom is regulated in terms of licences granted by the National Electricity Regulator (NER) in terms of the Electricity Act of 1987 and the National Nuclear Regulator. Through Eskom Enterprises (Pty) Limited (Eskom Enterprises), Eskom also pursues non-regulated business activities in the energy and related services sector.

The core businesses of the main subsidiaries include non-regulated electricity supply industry activities, the provision of electricity supply and related services outside South Africa, the granting of home loans to employees, the management and insurance of the relevant risks to Eskom and social investment initiatives.

# **Objectives**

## Regulated business

A medium-term, three-year business plan setting out Eskom's strategic direction, as well as critical key indicators to manage the business effectively, is developed after taking into account the input of key stakeholders and input from all divisions. The Electricity Council and the Management Board approved the business plan, including the predetermined strategic and operational objectives for 2002. Key performance indicators (KPIs) linked to these objectives are included in the budget, as well as the shareholder compact with government.

Annual budgets are aligned with the strategic intent contained in the medium-term business plan. The 2002 budget was approved at the end of 2001 subject to the finalisation of certain information early in 2002. KPIs are used to measure performance against budget and targets, and are reported to the Executive Management Committee (EXCO) on a monthly basis in the Eskom and divisional business reports, as well as quarterly to the Board. The divisional objectives are encompassed within the Eskom's objectives, with relevant KPIs, and are communicated and measured at appropriate levels. These objectives and indicators are discussed in detail in this Directors' report.

## Non-regulated business

A medium-term, three-year business plan setting out the strategic direction of the Eskom Enterprises group, as well as critical KPIs to manage the business effectively, was developed taking into account the input of key stakeholders and using input from all divisions and subsidiaries. The Electricity Council and the Eskom Enterprises Board approved the medium-term business plan, including the annual budget. The objectives that encompass KPIs for the year have been included in a shareholder compact with Eskom, and the performance against these KPIs is discussed in this Directors' report.

#### Other subsidiaries

Other subsidiaries also prepare business plans that incorporate objectives and KPIs that are approved by their respective boards of directors.

## HIGH-LEVEL PERFORMANCE FOR THE YEAR

An overview of the major portions of Eskom's group business performance against the objectives is contained in the table below. The detailed performance is described in the remainder of the report. Performance information relating to smaller subsidiaries is dealt with in the high-level performance of subsidiaries section.





# **ESKOM GROUP HIGH-LEVEL PERFORMANCE**

# Objectives

## Key performance indicators

## 1. Economic

Improve the management of resources through:

# 1.1 Financial performance

- Maintain financial viability over the long-term
- Operating and capital resources are used economically, efficiently and effectively
- 1.2 Maintaining good governance
  - Improve discipline, governance and accountability

- 1.3 Customer management
  - Improve the perception of customers regarding Eskom
- 1.4 Technical performance
  - Maintain excellent technical performance

- Profit after interest before fair value adjustment, Rm
- Net profit for the year after tax, Rm
- Debt-equity ratio
- Historic cost return on total assets, %
- $\bullet$  After tax return on equity, %
- Sales growth, GWh %
- Sales growth, Rm %
- Productivity improvement for the year, %
- Shareholder compact approved and implemented
- Effective governance structures and processes implemented
- Internal controls are in place, and they are effective
- Training provided on PFMA
- Customer satisfaction levels, PreCare and MaxiCare indicators
- Operational sustainability index consisting of 19 relevant measures, %
- Generation plant performance
- Energy availability factor, %
- Unplanned automatic grid separations per 7 000 hours, number
- Transmission system performance
- Supply interruptions with severity greater than or equal to one system minute, number
- System minutes, minutes per year
- Distribution system performance-quality of supply:
- Disturbance performance, Type Z dips
- Waveform quality, voltage regulation



Regulated - Eskom Targets Performance results		Non regulated - Eskom Enterprises Targets Performance results		
≥ <b>R</b> 4 780 <b>m</b> ≥ <b>R</b> 3 150 <b>m</b>	Exceeded - R4 904m Exceeded - R3 217m	≥ <b>R</b> 176 <b>m</b> ≥ <b>R</b> 132 <b>m</b>	Not achieved - R47m Not achieved - R9m	
≤0,42 ≥10,2 <b>%</b>	Exceeded - 0,29 Exceeded - 11,92%	n/a n/a	n/a n/a	
n/a ≥1,6%	n/a Exceeded - 3,5%	12% n/a	Not achieved - 1% n/a	
≥9,0 <b>%</b>	Exceeded - 12,7%	15%	Exceeded - 23%	
≥0,3%	Exceeded - 1,6%	≥3%	Not achieved - 0,9%	
Yes	In place	Yes	In place	
Yes	In place	Yes	In place, but certain procedural irregularities occurred in terms of compliance with PFMA	
Yes	One procedural breakdown relating to significant foreign exchange cover (noted in the report under PFMA)	Yes	Yes, except for procedural irregularities referred to above	
Yes	Ongoing	Yes	Ongoing	
≥8,00	MaxiCare: Underachieved - 7,91 PreCare: Exceeded - 8,49	n/a	n/a	
≥80,00% (minimum threshold)	Exceeded - 88,18%	n/a	n/a	
≥89,2 <b>%</b> ≤2,2	Achieved - 89,3% Exceeded - 1,3	n/a n/a	n/a n/a	
<pre>   four cumulative looking   backwards over a three   year window </pre>	Achieved - cumulative 4 (2002: 2 2001: 2	n/a	n/a	
≤6,43	2000: 0) Not achieved - 6,57	n/a	n/a	
Compliance with NER	Ashioved 05.29	n/a	n/a	
limit in ≥95% of sites measured for sustainability index	Achieved - 95,2% Achieved - 98,0%	n/a n/a	n/a n/a	





# **ESKOM GROUP HIGH-LEVEL PERFORMANCE**

# **Objectives**

# **Key performance indicators**

## 1.5 Safety

• Improve safety performance

# 1.6 Human resource alignment

Align human resource management to support the strategic intent

## 1.7 HIV/AIDS

• Managing the impact of HIV/AIDS

# 2. Sustainable environment

• Minimise Eskom's impact on the environment

- Disabling injury incidence rate, less than target
- Work-related fatalities, number
- · Public electrical contact fatalities, number
- Human resources sustainability index, %
- · A skills management system is in place
- Skills levy refund, %
- Reward systems updated, developed and implemented
- Response strategies to HIV/AIDS surveillance and financial impact studies findings implemented

Indicators, amongst others, the following:

- Reported legal contraventions counted in the sustainability index, number
- Specific water consumption,  $\ell/kWh$  sent out
- Relative particulate emissions, kg/MWh sent out
- Radiation exposure milliSieverts per annum
- Division and subsidiary specific action plans to implement environmental management systems (EMS) in compliance with SABS ISO14001 standard at divisional and subsidiary level by the end of 2002 approved and implemented

Regulated - Eskom		Non regu	lated - Eskom Enterprises
Targets	Performance results	Targets	Performance results
ZO 40	Not achieved - 0,45	l-	- l-
$\leq 0.40$ Striving for $0$	Actual - 11 (2001: 8)	n/a n/a	n/a n/a
Less than previous years, with a downward trend	Actual - 25 (2001: 43)	n/a	n/a
≥80,0%	Exceeded - 89,8%	n/a	n/a
Yes	System in place	n/a	n/a
Recovered maximum of 70%	Recovered - 67% of grants	n/a	n/a
Yes	System updated and implemented	n/a	n/a
Yes	Ongoing	Yes	Ongoing
0	Not achieved - 3	n/a <sup>¹</sup>	n/a <sup>¹</sup>
≤1,25	Not achieved - 1,27	n/a	n/a
≤0,27	Not achieved - 0,29	n/a	n/a
≤0,25	Better than target - 0,0005	n/a	n/a
Yes	Action plans developed and EMS implemented. An external ISO 14001 compliance audit is scheduled for 2003 to confirm compliance.	n/a <sup>1</sup>	n/a <sup>1</sup>

<sup>1.</sup> Performance of Eskom Enterprises is included in the Eskom overall performance.



# **ESKOM GROUP HIGH-LEVEL PERFORMANCE**

## **Objectives**

## Key performance indicators

## 3. Socio economic

Demonstrate exemplary corporate citizenship and harmony with society through:

# 3.1 Employment equity

· Continued focus on employment equity

- $\bullet$  Black management, professional and supervisory staff at 31 December, %
- Women management, professional and supervisory staff employed at 31 December, %
- · Develop and implement disability employment targets

# 3.2 Black economic empowerment

• Encourage black and women enterprise development

- Procurement expenditure and supply of services, both capital and operating, on black economic empowerment, Rm
- Implement a process that supports economic empowerment of women

## 3.3 Electrification

 $\bullet$  Electrify an additional  $600\,\,000$  homes between 2000 and the end of 2002

 $\bullet$  Homes electrified during  $2002\mbox{, number}$ 

## 4. New business model

Demonstrate progress towards achieving Eskom's intended business model through:

 Restructuring Eskom to support the strategic intent and align with Government policy

- Eskom incorporated, and implement appropriate corporate and divisional governance frameworks
- Finalise investigations regarding the establishment of subsidiaries of Eskom
- Distribution business ringfenced and separation framework in place
- Develop equity and investment framework for Generation division (including framework for private equity and black economic empowerment ownership)
- Develop Eskom preferred market model and use as basis for stakeholder interaction on the finalisation of a market model for the Electricity Supply Industry (ESI)
- Establish implementation plan for customer service interface capability, and wholesale and retail trade
- Non-Eskom group sales as percentage of total sales, %

• Diversification of markets, products and services



Regulated - Eskom		Non regulated - E	skom Enterprises
Targets	Performance results	Targets	Performance results
>53,1%	Exceeded - 54,6%	≥47%	Exceeded - 47,2%
22%	Exceeded - 24,5%	≥15%	Exceeded - 15,7%
Yes	Policies for identification and accommodating these employees in the workplace are in place	n/a	n/a
≥R3 797m including VAT	Exceeded - R4 891m	≥R250m including VAT	Exceeded - R562m
Implemented	Policy implemented	n/a	n/a
≥205 371 <sup>1</sup>	Exceeded - 211 628  Cumulative between 2000 and 2002 - 677 186	n/a	n/a
Yes	Successfully implemented	n/a	n/a
Yes	First phase of investigation finalised	n/a	n/a
Yes	In progress	n/a	n/a
Yes	Ongoing	n/a	n/a
Yes	Input given into government process	n/a	n/a
Yes	Continuing investigation and exploration	n/a	n/a
n/a	n/a	≥40%	Achieved - 43%

<sup>1.</sup> Target was renegotiated after the grant received from the Department of Minerals and Energy was reduced as a result of being subjected to VAT.



## 1. ECONOMIC

# 1.1. Financial performance

# High-level performance of Eskom Holdings Limited

The financial performance for the year can be summarised as follows:

	Budget 2002	Actual 2002	Actual 2001
Sales, GWh:			
Total external sales	184 105	187 589	181 185
International	6 568	7 184	6 996
Commodity-linked pricing agreements	13 242	13 916	13 797
Other distribution	164 295	166 489	160 392
External sales growth, GWh %	1,6	3,5	1,8
External sales growth, Rm %	9,0	12,7	6,0
Revenue, Rm:			
International	623	815	645
Commodity-linked pricing agreements	1 529	1 833	1 668
Other distribution	25 033	25 453	22 625
External revenue	27 185	28 101	24 938
Internal revenue	58	57	45
Total revenue	27 243	28 158	24 983
Other results:			
Operating expenditure, Rm	20 655	20 674	18 791
Interest income, Rm	$\mathbf{n}/\mathbf{a}^{1}$	2 671	3 525
Interest expenditure, Rm	$\mathbf{n}/\mathbf{a}^{1}$	5 251	6 109
Average total cost of electricity, R/MWh <sup>2</sup>	122,01	123,96	117,97
Profit after interest before fair value adjustment on historical cost basis, Rm	4 780	4 904	3 608
Net fair value loss on financial instruments, Rm	$\mathbf{n}/\mathbf{a}^3$	(107)	(182)
Net profit for the year after tax on historical cost basis, Rm		3 217	2 272
Debt-equity ratio (including long-term provisions)	0,42	0,50	0,67
Historic cost return on total assets,48 %	10,20	11,92	10,21
Net loss on inflation-adjusted basis, Rm	$\mathbf{n}/\mathbf{a}_{3}^{3}$	(2 041)	(2 523)
Real (inflation-adjusted) rate of return, %	n/a°	1,69	1,17

Eskom's financial performance for the year exceeded expectations. When the performance for 2002 is compared with 2001, the net profit before tax and fair value adjustment increased to R4 904 million from R3 608 million.

External revenue was positively impacted by the higher than expected growth rate of 3,5% in GWh, increased revenue from commodity-linked deals and international customers due to the weaker than anticipated rand/US dollar exchange rate and the colder than expected winter.

The continued focus on productivity assisted in limiting the increase in operating expenditure which was in line with inflation. This was despite the fact that costs were negatively impacted by increased bad and doubtful debts and a higher medical aid inflation rate. This, together with the increase in revenue, resulted in an improvement in the return on assets from 10,21% in 2001 to 11,92% in 2002.

In a capital intensive business like Eskom, it is very important to measure the inflation-adjusted performance, which is done by using a technique of valuing the assets at inflation-adjusted values and depreciating them accordingly. The net inflation-adjusted loss decreased from R2 523 million in 2001 to R2 041 million during the year, whilst the real rate of return improved from 1,17% in 2001 to 1,69% in 2002. The inflation-adjusted performance is an indication that Eskom is currently not earning a market-related return on its assets.

- 1. Net interest income and expenditure budget: R1  $807\,\mathrm{million}$ .
- 2. Based on external sales.
- 3. No targets set.



#### Valuation of assets

Although cross-subsidisation exists between certain customer categories, depending on customers' electricity consumption levels, geographical location and voltage supply levels, Eskom fully recovers all costs of supplying electricity to its customer base as a whole, 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.

## Future restructuring of the Electricity Distribution Industry (EDI)

The directors believe that, based on the principle of cross-subsidisation, there is no need to raise a provision for impairment of certain classes of property, plant and equipment in the current year. Depending on how the EDI restructuring takes place, it might however be necessary for Eskom to raise a provision for impairment in future years.

#### **Investment in Eskom Enterprises**

Eskom increased its investment in Eskom Enterprises by R861 million. Eskom Enterprises invested R212 million in Mountain Communications (Pty) Limited, a company registered in Lesotho.

Eskom Enterprises has also invested a total of R669 million in the fibre optic network to position itself for a stake in South Africa's fixed-line second network operator (SNO). Esi~tel, a division of Eskom Enterprises, and Transtel have been awarded a joint interest of 30% in the SNO. The announcement of the party awarded the controlling interest in the SNO was expected in early 2003. However, the Independent Communications Authority of South Africa has indicated that the bids were unacceptable and it was announced that a new process would be implemented to identify a party to whom the controlling interest would be awarded. This is believed to be a temporary setback. If all goes well, the SNO could have a licence by the middle of 2003 and start rendering commercial services.

The investment in the SNO is expected to be a sound and profitable venture, and the directors are of the opinion that there is no need to raise a provision for possible impairment.

#### Revenue management

The accounting authority is responsible for establishing systems, procedures, processes and training and awareness programmes to ensure efficient and effective banking and cash management. Adequate cash banking and investment management processes and procedures were in place during the year. The trade debtors at year-end are summarised as follows:

	Actual 2002 Rm	Actual 2001 Rm
Trade debtors	2 514	2 606
Local debtors	4 276	4 360
Soweto, take-overs and suspense accounts	1 193	1 251
Other	3 083	3 109
International debtors	159	169
Provision for doubtful debts, including interest	(1 921)	(1 923)
Bad and doubtful debts	337	169
Local trade debtors	289	195
International trade debtors	12	(39)
Other debtors	36	13

The lower payment levels in the Central region, mainly in Soweto where the payment levels decreased from 61% in 2001 to 36% in 2002, was the main reason for the increase in bad and doubtful debts for the year. The negotiated Service Delivery Framework should address the situation in 2003.

Eskom entered into an arrangement with local authorities to assist with bulk debt accumulated prior to 30 June 1995. Most of these local authorities have fulfilled their obligations in terms of the arrangement at the end of December 2002.

#### Management of credit risk

The management of credit risk remained a priority area for the Distribution division during 2002. A number of credit control strategies were enhanced to reduce credit risk within Eskom. These included an assessment of the appropriateness of deposits and guarantees obtained from customers, the implementation of stringent disconnection procedures, and the introduction of alternative options for defaulting customers.





# High-level performance of subsidiaries

The discussion below covers all the significant Eskom subsidiaries.

#### **Eskom Enterprises (Pty) Limited**

Eskom Enterprises, a company domiciled in South Africa, was registered to accommodate all the non-regulated energy-related activities of Eskom in South Africa and its energy-related activities outside South Africa. Eskom Enterprises and its subsidiaries, associates and joint ventures, leverage the competencies and facilities of Eskom. Eskom Enterprises conducts its operations through numerous autonomous operating divisions and a corporate head office.

The operating results of the Eskom Enterprises group for the year are summarised as follows:

	Budget 2002 Rm	Actual 2002 Rm	Actual 2001 Rm
Revenue	2 395	2 907	2 371
Eskom Non-Eskom	1 400 995	1 666 1 241	1 553 818
Profit before interest	186 (10)	58 (11)	108 (3)
Profit after interest before fair value adjustment	176	47	105
Fair value (loss)/gain on financial instruments Profit before taxation	176	(11)	25 240
Taxation Profit for the year before minority interest	(44) 132	(7) 29	(22) 108
Minority shareholders' interest	-	(20)	-
Net profit for the year after tax	132	9	108
Return on equity on historical basis, %	12	1	11
Sales growth, Rm %	15	23	15
Non-Eskom sales as percentage of total sales, % Annual investment in new business, Rm	40 n/a <sup>1</sup>	43 548	35 329

The financial performance for the year was disappointing. Although revenue increased by 23% and gross margins were within expectations, there was a significant erosion of profits arising from a number of activities, including strategic long-term initiatives that did not contribute to the 2002 profit. These included the commencement of the mobile telecommunication operation in Lesotho, which made an operating loss of R29 million for the first year, costs incurred to position the SNO (R33 million), advisory costs for the restructuring of Rotek (R6 million), restructuring of the Eskom Enterprises head office (R11 million) and business development costs not yet recovered from projects (R50 million).

Eskom Enterprises recorded positive productivity of 0.9% or R27 million (2001: 0.8% or R18 million). This is an improvement on the previous year and closer to the targeted annual improvement of 3% per year.



# **Eskom Finance Company (Pty) Limited (EFC)**

Eskom Finance Company (Pty) Limited makes home loans available to employees of the Eskom group at favourable interest rates to enable them to have access to accommodation.

The operating results for the year are summarised as follows:

	Budget	Actual	Actual
	2002	2002	2001
	Rm	Rm	Rm
Financing income Financing costs	305	358	336
	(261)	(303)	(303)
Net financing income Sundry income less administration costs	44	55	33
	(6)	(1)	(7)
Profit before tax Taxation	38	54	26
	(11)	(17)	(8)
Net profit for the year after tax	27	37	18

The high-level performance against objectives for the year is as follows:

Objective	Key performance indicators	Targets	Performance results
Position EFC to be the financial services provider of choice in the electricity industry and other selected niche markets	Structure the EFC funding mechanism and launch an EFC rated commercial paper to facilitate funding	Yes	The funding structure was delayed because of the investigation into a proposed merger between EFC and Transnet Housing. The project was revived late in 2002 and should be finalised in 2003, if the relevant approval is obtained.
	<ul> <li>Economic value added to Eskom, Rm</li> </ul>	<b>R</b> 50,2 <b>m</b>	Exceeded - R93,6m
	<ul> <li>Customer satisfaction level index, %</li> </ul>	85%	Exceeded - 86,5%
	<ul> <li>Human resources sustainability index, %</li> </ul>	92 <b>%</b>	Exceeded - 95%
	Culture and climate index, %	80%	Not measured in 2002. Professional services will be contracted in 2003 to perform this function.

EFC managed to exceed its performance targets in a market where rising funding costs dictated increased lending rates. Sound financial management and funding strategies were the major contributors to the good financial results.



# **Escap Limited (Escap)**

Escap Limited was established in 1993 to reduce Eskom's overall cost of risk management and insurance. It formed part of Eskom's risk financing strategy to formalise the insurance function and act as a vehicle within which formal reserves and additional insurance capacity could be created.

The operating results for the year are summarised as follows:

	Budget 2002 Rm	Actual 2002 Rm	Actual 2001 Rm
Premium income	498	467	386
Reinsurance premium expenditure	(56)	(67)	(23)
Net premium income	442	400	363
Insurance expenditure	(527)	(489)	(369)
Underwriting loss	(85)	(89)	(6)
Investment income	86	100	83
Profit before tax	1	11	77
Taxation	-	(7)	(33)
Net profit for the year after tax	1	4	44

The high-level performance against objectives for the year is as follows:

Objective	Key performance indicators	Targets	Performance results
Reduce Eskom's cost of risk and insurance	• Reduce the real costs of premiums and claims over a five-year period between 2001 and 2005	2002: 4,0% (20% real reduction by 2005)	Premiums: Not achieved - 10,8% real increase (2001: 0,3% real reduction) Claims: Not achieved - 21,4% real increase (2001: 8,6% real reduction)
Operating and capital resources are used economically, efficiently and effectively	<ul> <li>Operating costs as a percentage of net premium income, %</li> </ul>	<11,5%	Not achieved: 13,3% (2001: 11,5%)
Maintain financial viability over the long-term	Solvency/net asset ratio	>60%	Not achieved: 53% (2001: 79%)
Support black economic empowerment	Procurement expenditure on black economic empowerment	50% of discretionary expenses	Achieved - 92% (2001: 80%)
Improve discipline, governance and accountability	Shareholder compact approved and implemented	Yes	Still to be finalised
	Effective governance structures and processes implemented	Yes	In place
	<ul> <li>Internal controls are in place, and they are effective</li> </ul>	Yes	No material breakdown occurred during period under review

In 2002, Escap experienced an unprecedented increase in the value of insurance claims. Escap negotiated a loss ratio protection policy to limit the value of claims for which it is liable. The estimated recovery of claims from this policy was R77 million for 2002.

## **Gallium Insurance Company Limited (Gallium)**

Gallium Insurance Company Limited, a wholly owned insurance subsidiary of Eskom, was established in 1995 to provide capacity to Eskom and Escap for catastrophic risks and risks for which insurance cover is not available. Gallium retains risks for its net account, which is prudent in relation to its financial resources, and purchases reinsurance as appropriate from international markets. It has provided R77 million in its insurance expenditure to cover the estimated costs of the loss ratio protection policy it underwrites for Escap Limited. Gallium was also adversely affected by the numerous high value asset claims during 2002.

The operating results for the year are summarised as follows:

	Budget 2002 Rm	Actual 2002 Rm	Actual 2001 Rm
Premium income	170	130	175
Reinsurance premium expenditure	(83)	(83)	(39)
Net premium income	87	47	136
Insurance expenditure	(90)	(198)	(105)
Commission and (expenses)/income	2	(6)	29
Underwriting (loss)/profit	(1)	(157)	60
Investment income	63	74	53
Net (loss)/profit for the year	62	(83)	113

The high-level performance against objectives for the year is as follows:

Objective	Key performance indicators	Targets	Performance results
Operating and capital resources are used economically, efficiently and effectively	<ul> <li>Operating costs as a percentage of net premium income, %</li> </ul>	<1%	Not achieved - 2%
Maintain financial viability over the long-term	Surplus over Isle of Man statutory solvency margin	100% of solvency margin	Achieved - 100%
Improve discipline, governance and accountability	Effective governance structures and processes implemented	Yes	In place
	<ul> <li>Internal controls are in place, and they are effective</li> </ul>	Yes	No material breakdown occurred during period under review

## **The Eskom Development Foundation**

Eskom's corporate social investment initiatives are carried out through the Eskom Development Foundation (Development Foundation), a section 21 company. The Development Foundation strives to be one of the leading socially responsible organisations in its commitment to the social and economic development of historically disadvantaged communities. It contributes towards improving the quality of life through integrated, efficient and effective development programmes.

These corporate social investment (CSI) programmes support development especially in rural areas and newly established urban settlements, with an emphasis on women, people with disabilities and the youth. Donations are also made to philanthropic and welfare organisations, which include grants for strategic projects and grants made by the Eskom Chairman's Fund.





The following amounts were disbursed during 2002:

	Budget 2002 Rm	Actual 2002 Rm	Actual 2001 Rm
Social development programme	11,0	10,2	9,1
Economic development programme	11,0	15,8	6,0
Education programme	5,0	5,0	5,3
Donations	7,2	6,9	3,4
Special projects	7,5	27,0	24,6
- South African AIDS Vaccine Initiative (SAAVI)	-	22,5	15,0
- Electrification of schools and clinics	-	-	9,6
- Other projects	7,5	4,5	0,0
	41,7	64,9	48,4

During 2002, an impact assessment of all projects that received grants from the Development Foundation between 1999 and May 2002 was completed. The objectives of the assessment included an evaluation of whether or not the projects yielded the desired impact, and are sustainable and viable. A total of 84% of the projects visited were found to be operational, 84% of small businesses were found to be sustainable and 72% of social projects had had the desired impact on the communities targeted. The Eskom brand is being positively enhanced, and the Development Foundation was rated to have the most hands-on approach to CSI in communities in South Africa in 2002. Eskom was also rated the most caring company in South Africa and has been amongst the top five since 1994.

## Social development programme

The social development division focuses on health, education, nutrition and environmental, as well as on arts and cultural projects. During 2002, a total of 27 social development projects received grants.

#### Economic development programme

This programme focuses on projects that enhance income generation and make a contribution to the local economy through small, medium and micro enterprises. A total of 104 projects received grants in this programme during 2002.

#### Education programme

The Mathematics and Science College Education Programme has continued from 2001 and focuses on teacher development, capacity building for school governing bodies and school management, as well as the second-chance project for grade-12 learners to improve their mathematics and science results.

#### Donations

A total of 214 (2001: 174) donations were approved for philanthropic and welfare causes.

#### Special projects

A total of 26 special projects was approved, inter alia:

#### SAAV

Eskom supports SAAVI, through the Development Foundation, in its search for an HIV/AIDS vaccine. SAAVI, co-ordinated by the Medical Research Council, was set up to develop and test an affordable and effective HIV/AIDS vaccine for southern Africa. The Development Foundation continues to support SAAVI, contributing R15 million in 2002, to bring its cumulative contribution to date to R52,5 million. Eskom has undertaken to continue to inject R15 million per year until 2007.

#### National programmes

The Eskom small business opportunities exhibition was part of Business Week 2002 and accredited by the World Summit on Sustainable Development (WSSD). A total of  $5\,702$  visitors attended the exhibition, and several exhibitors established contacts for potential contracts in other countries.

The Eskom Eduplant Programme, which has been running for eight years, is a partnership between the Development Foundation, the Department of Water Affairs and Forestry (DWAF), the Department of Agriculture (Land Care) and TIKKUN, a Jewish welfare organisation. In 2002, training was provided for 3 635 educators from 2 890 schools in 37 permaculture workshops. Many schools have developed gardens and use them for active learning; they grow their own food, conserve and manage water and recycle waste.

1. Electrification of schools and clinics are now funded by the Department of Minerals and Energy.



# **Productivity performance**

Productivity information provides key insights into business performance by analysing the change in net profit 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 includes, amongst others, coal, employees and assets. Price recovery is the difference between electricity price increases and inflationary changes in the prices of Eskom's resources. Growth represents the change in net profit when resource quantities and prices change at the same rate as electricity sales volumes and prices. Broadly speaking, productivity improvement creates additional wealth and thereby drives long-term business performance. Price recovery, on the other hand, indicates how wealth is distributed to the organisation's stakeholders, who include customers, employees and investors.

The change in net profit between 2001 and 2002 was as follows:

	2002 Rm	2001 <b>R</b> m
Net profit for the year before fair value adjustment	4 904	3 608
Adjustment and provisions not impacting on overall performance	(184)	512
Adjusted net profit for the year before fair value adjustment	4 720	4 120
Adjusted net profit for previous year before fair value adjustment	4 106	3 584
Change in profit	614	536
Attributable to:		
Net productivity improvement	382	107
Productivity improvement/(deterioration) before restructuring	373	(21)
Productivity improvement on restructuring		128
Price (under)/over recovery	(292)	214
Wealth reinvested in the business	90	321
Growth	524	215
Total	614	536

The adjusted net profit before fair value for 2001 has been decreased by R14 million to take into account the impact of changes in accounting practice.

The sustainable improvement in productivity continues to be a key focus area for the business. This is reflected by the improvement of R382 million during the year with positive contributions from increases in sales volumes, operating and capital resources.

The result indicates that Eskom built on the improvements achieved in previous years, thereby demonstrating its commitment to improving performance on a sustainable basis. It also indicates that a large portion of the benefit from the productivity improvement has been passed onto the customer. This has been done through the price underrecovery of R292 million or 1,2 percentage points (the difference between the effective price increase passed onto the customer and the price increase that the business had to absorb from its suppliers of resources). This meant that Eskom's effective average electricity price increase was lower than the impact of inflation on the business. The improvement achieved was as a result of better use of existing capacity and infrastructure through increased sales. Over the past ten years, Eskom's cumulative productivity saving, when expressed in 2002 rand, amounted to R12,6 billion.





The productivity results for the year were as follows:

	Budget 2002 Rm	Actual 2002 Rm	Actual 2001 Rm
Productivity - resource view	(101)	382	(107)
Primary energy	4	3	26
Operating manpower	80	193	300
Other operating expenses	(176)	89	(272)
Capital	(9)	97	53
Productivity - business view	(101)	382	(107)
Core business	(31)	390	(23)
Electrification and takeovers	(94)	(20)	-
Other	24	12	130
Productivity - capacity and efficiency view	(101)	382	(107)
Capacity utilisation	208	453	258
Efficiency	(309)	(71)	(151)

Eskom recorded a bottom-line productivity improvement of 1.6% (2001: 0.5%) or R382 million (2001: negative R107 million) during 2002 compared to 2001. There were significant productivity improvements in operating manpower, other operating expenses and capital. In financial terms, the sum of the improvements in these resource categories saved the business R379 million (2001: R81 million). Primary energy recorded very little change in productivity over the period and this was due to the mix of power stations used. As demand increases and spare generating capacity reduces, Eskom is forced to use the more expensive power stations. The improvement against budget was a result of actual sales volumes being 1.9 percentage points higher than the level budgeted and the business absorbing the effect of higher than anticipated inflation during the year. Employee productivity improved during the year resulting in a positive contribution of R193 million (2001: R300 million).

The productivity results have been reviewed by the National Productivity Institute (NPI). It included an examination of the structure of the analysis, the appropriateness of quantity and price drivers used, the accuracy of the model and the derivation and presentation of the results. In the opinion of the NPI, the productivity statement fairly presents the overall performance of Eskom for 2002 when compared with 2001. This is the tenth year that the NPI has reviewed Eskom's productivity results. The NPI congratulated Eskom for its commitment to account for its productivity performance and its transparency and consistency in reporting its productivity results.

## Integrated risk management

The integrated risk management process has been implemented within the Eskom group of companies and takes into account known and possible risks and opportunities to which the organisation may be or is exposed. These risks and opportunities are identified and evaluated. Significant risks are then controlled, transferred or accepted by those accountable for decision making. Reports are provided to the Risk Management Committee of the Board that monitors the risk management strategy and process, and reviews it for effectiveness.

Eskom's integrated risk management strategy and process seeks to fulfil the recommendations proposed by the King II Report on Corporate Governance (King II Report), and significant progress has been made to date. Further information with regard to specific risk areas, such as health and safety, treasury and environmental issues, is provided separately within this report.

The process of integrating risk management into management processes at all levels in divisions and subsidiaries will continue in 2003, and will form part of the ongoing risk management focus within Eskom.

As part of the integrated risk management process, major risks were identified throughout the whole organisation and ranked by executive management. The top twenty risks for the Eskom group have been consolidated and reported to the Risk Management Committee together with management strategies and action plans. Some of the major risks identified during the latter part of 2002 included those related to proposed changes in the ESI together with the transformation issues aligned to these changes, the management of skills and knowledge within Eskom and the impact of HIV/AIDS on the business.

The top risks relating to specific events and projects that could have a major impact on the business during the year were identified, prioritised and managed with input from executive management. One of the major events was the WSSD, where risks were identified and strategies and action plans developed to manage these risks.

An integrated risk management simulation workshop has been developed and piloted to provide senior managers with practical scenarios on the identification and management of risks within the business as well as the potential impact of risk strategies implemented. The lack of enterprise-wide risk management training within South Africa has been identified and will be addressed during 2003.



A risk survey was conducted amongst all managerial level employees to establish their perceptions on how the Eskom group of companies is managing its risks and opportunities, broadly based on the Objectives, Risks, Alignment and Control model. This survey shows that the perception of risk within the organisation has improved significantly over the past two years and has identified areas for improvement within each division.

#### Sensitivity to financial market forces

Eskom's policy to hedge all fixed and ascertainable foreign currency commitments remained unchanged during the financial year, thereby minimising volatility on operational activities due to currency fluctuations. Eskom was once again well positioned to capitalise on the interest rate cycle, and invested a significant amount of surplus cash at very favourable capital market rates which, together with sound duration management strategies, contributed significantly to reducing the cost of debt.

# Information management

Eskom recognises the need to manage its information in an integrated manner. This takes cognisance of the need to balance transparency and openness towards stakeholders, with confidentiality and protection of intellectual assets. Information is identified and managed to ensure adherence to this objective. Information management is integrated with good business management and is supported by effective information systems in a manner that allows for the systematic entry and exit point for information into and out of the organisation.

#### **Promotion of Access to Information Act**

Eskom complies with the Access to Information Act, 2 of 2000. An information manual has been completed by Eskom and is to be published in the Government Gazette in February 2003 in accordance with the extended deadline. Eskom's compliance with this legislation has focused on integrated information management as a business imperative, rather than only demonstrating administrative compliance.

#### **Business systems and processes**

Key initiatives under business systems and processes included the following:

#### Customer billing system

The project to replace the inhouse developed billing system with an off-the-shelf reputable billing package progressed well during the year with the implementation of the CorDaptix billing system, supplied by SPL WorldGroup in November 2002 for conventional customers. It is anticipated that the solution for pre-paid customers will be implemented by the second quarter of 2003.

#### Human resources information system (HoRISon)

The configuration of a totally integrated human resources system was initiated in 2002. The scope of the project includes the implementation of new human resource processes and systems impacting payroll and all other human resources processes, as well as environmental health and safety. Implementation will commence in the last quarter of 2003.

#### SAP upgrade

The upgrades to SAP 4.6 in the Generation, Transmission and Corporate divisions have been successfully implemented. The implementation for the Distribution division is scheduled for May 2003.

## Research, development and demonstration

Research, development and demonstration are focused on supporting sustainable development in Eskom. Investment in technical research, development and demonstration projects amounted to R325 million (2001: R284 million) which is 1,2% (2001: 1,1%) of total revenue. It is estimated that, in 2002, research provided a return of 5:1 (2001: 5:1) in terms of avoided costs and direct cost reductions. In addition, non-quantifiable benefits in social, environmental and customer satisfaction were realised.

During 2002, highlights of research, development and demonstration activities included the final commissioning of both the first sub-Saharan wind farm in the Western Cape and the first solar dish stirling system, outside of the United States of America (USA), in partnership with the Development Bank of Southern Africa (DBSA).

Key environmental research achievements, both at an operational and strategic level, in 2002 included:

- innovative use of pulse jet fabric filters for the removal of particulate emissions,
- quantification of the impacts of sulphur trioxide gas conditioning for the removal of particulate emissions on the environment, which was proven to be well within acceptable limits, and
- support given and research initiated, in partnership with the Endangered Wildlife Trust (EWT), on national blue crane research.

In addition, several projects were reviewed in order to align them with organisational needs.





# **Directors' report**

Joint collaborative research continued to expand both locally and internationally. In addition, a co-operative agreement was signed with the Central Research Institute of Electric Power Industry (CRIEPI), which is Japan's leading electrical research institute.

The South African Centre for Essential Community Services, established by Eskom and the Electric Power Research Institute (EPRI), aims to identify, develop and implement technologies that improve the quality of life in South African communities.

#### Demonstration

Eskom's strategic planning takes into account research and development relating to the identification of demonstration plants. Environmental Impact Assessments (EIAs) are integrated into business planning and investment decisions.

#### Winc

The draft version of the revised wind atlas for South Africa was compiled by Eskom in 2002. The atlas was partly funded by the Danish Co-operation for Environment and Development (DANCED) and is currently being reviewed by the Department of Minerals and Energy (DME). At the experimental wind energy facility at Klipheuwel in the Western Cape, the first wind turbine of 660 kW was commissioned in August 2002 and the second turbine of 1,75 MW in December 2002.

#### Sola

Eskom commissioned a 25 kW solar dish stirling system at the DBSA to assess whether the technology will be suitable for the South African context, and specifically if it is a viable option for rural electrification. Eskom is also investigating the feasibility of large concentrating solar power technology and a detailed design study has been initiated.

#### Biomass

During 2002, the System Johansson Gasifier underwent extensive tests, which indicated potential for successful operation of the unit. Efforts in 2002 focused on site selection in collaboration with the University of Fort Hare's Institute of Technology.

#### Nuclear

The detailed feasibility study and the development of a business case for the Pebble Bed Modular Reactor (PBMR) project were completed in 2002. The EIA process was concluded and the final Environmental Impact Report was submitted to the South African Department of Environmental Affairs and Tourism (DEAT) at the end of October 2002.

A major engineering milestone was achieved in September 2002 with the successful start-up of the micro turbine model of the PBMR power conversion system at Potchefstroom University Faculty of Engineering. The model represents the first closed-cycle, multi-shaft gas turbine in the world.

The USA utility Exelon announced early in 2002 that, in view of its strategic decision to streamline its business, it would not be participating in the project beyond the detailed feasibility phase. There is, however, worldwide interest in the project and PBMR (Pty) Limited is discussing opportunities for investment by other companies.

The future of the project is currently being reviewed by all stakeholders, and should it be decided not to continue with the project, it will be phased down in such a manner as to maximise the future value of the intellectual property developed to date.

#### Capacity planning and management

Eskom's Integrated Strategic Electricity Planning (ISEP) process provides strategic projections of supply-side and demand-side options to be implemented to meet long-term load forecasts. It provides the framework for Eskom to investigate a wide range of new supply-side and demand-side technologies, with a view to optimising investments and returns.

The most recent iteration of the ISEP plan was approved by the Management Board during March 2002 and provides many economically and environmentally acceptable options for flexible and timely decision-making. The focus was to provide as robust a plan as possible, taking into account Eskom's and the shareholder's objectives. Specific attention was given to those uncertainties that would influence decisions on the timing and mix of new capacity.

The uncertainty in long-term planning is illustrated by the differences in the timing for the implementation of new supply-side or new demand-side options over the scenario range (see graph below). This can be placed in context by noting that the recorded maximum demand during 2002 was 31~621 MW and that a reserve margin is normally maintained in order to accommodate risks such as plant outage and unexpectedly bad weather conditions. The graph shows the national picture and includes the approximately 5% of capacity and sales contributed by non-Eskom generators and imports from neighbouring countries.

With moderate growth in demand for electricity and a moderate reserve margin, additional supply-side options are required for commercial service from approximately 2006 (the estimated date). The commissioning of additional demand-side options has started during 2002 in order to have sufficient capacity available at the end of the current excess capacity period. The most attractive supply option is the return to service of the mothballed plant, referred to as the Simunye power stations, which were placed in reserve storage during the period of high excess capacity on the Eskom system.

Demand-side management is the process by which predictable changes are achieved in customer demand. The main objective is to reduce the average cost of generating capacity and improve the utilisation of resources by lower risk demand-side alternatives, instead of system expansion through the construction of new generating capacity.

The higher energy demand experienced during 2002 has resulted in a decrease in the generation reserve margin from 22% in 2001 to 17% in 2002.

There are also potential power plant development projects of approximately  $15\,000$  MW external to South Africa in the future, which could form part of power trading within the Southern African Power Pool (SAPP) framework.

A variety of options, including conventional pulverised fuel plant, pumped storage schemes, gas-fired plant, nuclear plant (PBMR), greenfield fluidised bed combustion technology and renewables, mainly wind and solar projects, are being investigated by Eskom.

Environmental issues continue to be integrated into the ISEP process and in 2002 focused on life cycle assessments, water quality and assessment of environmental issues for new technologies.

Planning has started on supply-side options, in particular pump storage schemes, to meet the long lead times of these options. Feasibility studies for two pumped storage schemes (Braamhoek and Steelpoort) have been undertaken, and positive records of decision have been obtained for both sites. The Braamhoek Pumped Storage Scheme is planned for commissioning in 2012. A partnership, relating to the Braamhoek Scheme, has been initiated with Bird Life South Africa, Middelpunt Wetland Trust and Eskom's Generation division to optimise potential environmental benefits and to implement mitigation measures to minimise the impact on the environment.

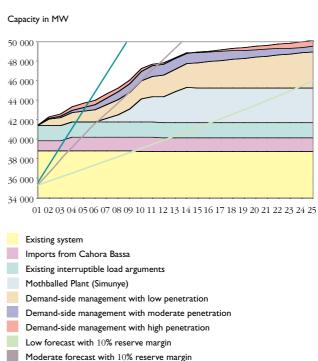
## 1.2 Maintaining good governance

## **Shareholder compact**

The shareholder compact was developed to promote and encourage good governance practices within Eskom, and also to provide an effective framework for guiding the relationship between Eskom and government as shareholder. In terms of the compact, the shareholder communicated its objectives and expectations regarding the performance of Eskom and confirmed a mandate from the shareholder to the Board. The compact is not intended to interfere in any way with normal company law principles. The normal relationship between the shareholder and the Board is preserved, as the Board is responsible for ensuring that proper internal control is in place and that Eskom is effectively managed. In giving effect to these principles, the compact clarifies the role and responsibilities of government as shareholder by setting out the circumstances when shareholder approval is required, when the shareholder needs to be consulted, and the remaining areas where the Board is duly empowered to direct the organisation.

The shareholder compact for 2002 was implemented and it has proved to be an effective governance tool. There is a need for agreement on performance objectives on an annual basis. This is being finalised for 2003. During this process, the form and structure of the shareholder compact will also be reviewed.

# Timeframe for new supply-side and demand-side options



High forecast with 10% reserve margin



## Governance structures and processes

Effective governance structures and processes have been implemented in Eskom and its subsidiaries in line with the King II Report and in terms of the PFMA. The behaviour of employees and management is governed in terms of the Business Conduct Policy.

#### Internal control

Various internal control assurance functions, including internal and external audit, have confirmed that, in all significant respects, the systems of internal control are in place and are effective.

Additional information on corporate governance, ethics and internal control appears on pages 12 to 18 of this report.

## **Public Finance Management Act**

#### Implementation, training and awareness

The systematic programme of training within the major divisions, as well as the subsidiaries, to create awareness and provide guidance to all staff regarding the application of the PFMA continued during the year. Non-compliance with the Act is dealt with in terms of Eskom's existing disciplinary process.

A materiality framework has been developed for reporting losses through criminal conduct and irregular, fruitless and wasteful expenditure, as well as for significant transactions envisaged per section 54(2) of the PFMA that require ministerial approval. The framework was finalised after consultation with the external auditors and has received acceptance from the Department of Public Enterprises (DPE). Formal confirmation of the Minister's approval is awaited.

# Losses through criminal conduct and irregular, fruitless and wasteful expenditure Fruitless and wasteful expenditure

Eskom has processes and procedures in place to guide foreign exchange transactions. However, a loss of R128 million was incurred as a result of excess foreign exchange cover taken. An investigation is currently being conducted in accordance with standard disciplinary procedures and legislation, to determine the appropriate action to be taken. A comprehensive evaluation of the systems, responsibilities and processes over foreign exchange transactions has been initiated to improve the overall control processes.

#### Criminal conduct

Prepaid electricity revenue loss due to fraud and theft by vendors and the public remains a significant focus area. The management and financial controls over assets, vendors and prepaid sales have been enhanced. New vending systems and technologies to reduce errors and the possibilities of theft and fraud have also been introduced during the year. Strategies identified for implementation from the Prepaid Operations Programme is expected to reduce non-technical losses significantly.

Losses amounting to R77 million (2001: R51 million) were incurred during the year as a result of conductor theft. There is an ongoing collaborative effort between Eskom, other affected state-owned enterprises and the government law enforcement agencies to address this issue from a national perspective.

#### **Eskom Enterprises and other subsidiaries**

Eskom Enterprises complies in all significant respects with the provisions of the PFMA, except for the matter relating to Mountain Communications (Pty) Limited as disscussed below. The Eskom Enterprises Board, as the accounting authority, complies with the various duties and responsibilities as prescribed by the act. An awareness programme, run by Eskom, has been used to communicate the implications of the Act. Training has been provided to other subsidiaries during the year to educate and create employee awareness.

# Mountain Communications (Pty) Limited

In 2000, Eskom Enterprises invested and participated in Mountain Communications (Pty) Limited (trading as MKC), a Lesotho company, and obtained approval for the initial investment of R46 million in terms of section 54 of the PFMA. The full extent of all the investment transactions was not disclosed and, in particular, a guarantee that gave rise to a contingent liability for Eskom Enterprises of R424 million at the date of the investment.

At 31 December 2002 the contingent liability had reduced to approximately R217 million. The guarantee relates to a commitment by MKC to a capital expansion programme amounting to US\$56 million (R424 million) in its subsidiaries for the period to 9 February 2004, where Eskom Enterprises guarantees the shortfall to the extent that the MKC group does not meet its commitments.

The above non-disclosure constituted procedural non-compliance with the PFMA. Of the total investment of R213 million, transactions to the value of R167 million were not in compliance with section 54 of the PFMA, which requires that approval of the executive authority be obtained before the conclusion of the transactions.

The outcome of a forensic investigation to determine the action that needs to be taken, is awaited. The necessary steps have been taken to strengthen the procedural processes, in particular with regard to PFMA applications, to prevent similar eventualities. A process is currently underway towards seeking approval for the above transactions from Eskom and the executive authority.

# 1.3 Customer management

## **Customer perception**

Eskom uses a variety of statistical perception surveys, conducted by an independent organisation, which measure customer satisfaction with the service delivered.

#### MaxiCare and PreCare

MaxiCare and PreCare surveys rated Eskom's overall service quality at  $7.91\ (2001:\ 8.03)$  for MaxiCare and  $8.49\ (2001:\ 8.51)$  for PreCare against targets of 8. The trend showed an improvement in most categories, except for a negative trend in the agricultural category. Areas highlighted for improvement by the agriculture, commercial and industrial customer categories related to quality of supply and outage management.

## Enhanced MaxiCare<sup>3</sup> and PreCare<sup>3</sup>

The Total Quality Index (TQI) summarises the enhanced MaxiCare and PreCare results and gives a broader overall indication of the quality of service delivered. Both the importance and perceived performance of the individual service aspects that are measured are taken into account. A TQI of 100% will be where customers' expectations are exactly met. The average TQI for enhanced MaxiCare for all customer categories was 87% (2001: 74%). The TQI for enhanced PreCare was 97% (2001: 73%) for residential customers.

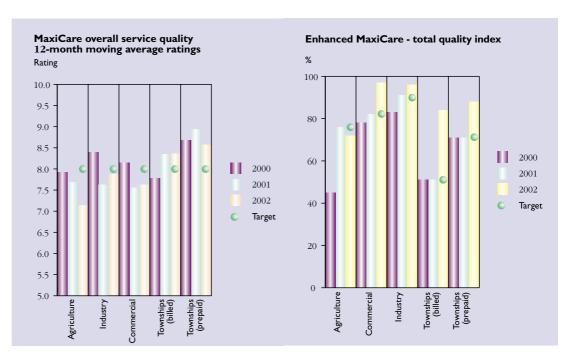
The TQI analysis indicates that there has been a marked improvement in performance against service categories rated important by customers in all categories except agriculture. This correlates with the MaxiCare trend.

#### KevCare<sup>6</sup>

The KeyCare TQI, which measures the perceptions of key customers, reflected 104% (2001: 104%).

# CallCare<sup>5</sup>

Call volumes to the seven call centres increased to  $2\ 430\ 173\ (2001:\ 2\ 399\ 227)$ . The call centre service level 12-month moving window improved to  $70\%\ (2001:\ 67\%)$  of calls answered in 30 seconds. The CallCare survey measures the satisfaction of customers that phoned the call centre in the previous week. Customers rated the call centre service delivery as  $7,3\ (2001:\ 7,7)$  and the follow-up service delivery at  $6,2\ (2001:\ 6,2)$  out of a scale of 10.



- 1. Monthly survey of customers that have been receiving electricity for longer than six months on a scale of one to ten.
- 2. Monthly survey of new customers or customers with revised contracts on a scale of one to ten.
- 3. Annual survey where retail customers rate both importance and perceived performance on detailed service issues where results are the TQI percentage against importance.
- 4. Monthly survey where key customers rate both importance and perceived performance on detailed service issues where results are the TQI percentage against importance.
- 5. Quarterly survey where customers that have phoned the call centre are asked to rate the various aspects of their experience out of a scale of one to ten.





Specific actions were implemented during 2002 to improve customer service. These included refurbishing all the call centres into a virtual single contact centre, and a new customer information system. Specific focus on reducing unallocated bill payments, and regular meter reading led to a marked improvement in bill accuracy. Mobile data terminals were installed in the vehicles of field staff, which improved the feedback during power outages and led to other improved efficiencies. Quality of customer data and the link to the electrical network improved substantially. There was also a continued focus on staff training and quality assessment.

# **Electricity tariffs**

## Average price increase

Eskom has proposed a pricing plan to the NER whereby Eskom's current low levels of return are gradually increased to market-related levels through a combination of real price increases, further productivity improvements and future sales growth. During 2002, the NER approved a general price increase of 8,43% for 2003 (2002: 6,20%), which is above the South African Reserve Bank's inflation target for 2003. Eskom regards this increase as a positive step towards cost reflective and stable prices into the future.

#### Regulation

The relationship between Eskom and the NER continues to be constructive. The NER has, during the year under review, made progress towards clarifying the regulatory framework and released a discussion document entitled "Regulatory Framework for the Economic Regulation of the Electricity Supply Industry of South Africa". Eskom has submitted comments regarding this document and regards this as a positive step towards establishing a transparent regulatory framework.

The DME released a second version of the Electricity Regulation Bill in 2002 for public comment. Eskom has submitted comprehensive comments on this important legislation. The bill is expected to be promulgated in 2003.

#### Tariff restructuring

During 2001, Eskom published proposals in the Government Gazette for the restructuring of electricity pricing structures, which are more cost reflective, more aligned with the input pricing structures and allow for stronger demand-side management and efficiency signals. After a robust process of stakeholder engagement, it was decided to implement the structural changes only from 1 July 2002 and this resulted in certain key changes. All tariffs have been redesigned, based on Eskom's internal transfer pricing mechanism being the input cost of the Distribution division. The restructured tariffs provide a sound basis for the future when the EDI is restructured.

Eskom has informed the NER on what, in its view, the main processes are, and which institutions are accountable for resolving outstanding issues before the Wholesale Electricity Pricing System (WEPS) can be implemented. As a result, an electricity industry workgroup, under the leadership of a NER board member, was established to address the outstanding issues to ensure that the WEPS will be ready for promulgation and implementation in phases at the earliest possible date. Progress has been made, but the design of a national subsidy framework remains one of the major challenges to resolve.

# 1.4 Technical performance

## **Operational sustainability index**

The purpose of the operational sustainability index is to reflect overall technical performance, and to balance low-cost production of electricity against long-term reliability. The index, through its monitoring and alarm system, assists management to achieve the smooth and sustainable long-term technical running of Eskom. The sustainability index combines 19 (2001: 20) weighted indicators into a composite index. The number of weighted indicators reduced by one as a result of regrouping the sub-measures more logically.

The sustainability index is revised annually to ensure that appropriate indicators are measured, and that standards and alarms are realistic. International and regional trends are monitored and, where appropriate, included in the index. Senior management performance is evaluated against this index.

The score achieved for 2002 was 88,18% (2001: 82,35%) against a minimum threshold of 80,00%.

In the Generation division, where availability, reliability, long-term plant health and nuclear safety are measured, a score on the sustainability index of 100% (2001: 100%) was achieved. In the Transmission division the score was 97% (2001: 86%) for measures that included system stability, plant health, interruption performance and quality of supply. The Distribution division measures quality of supply and customer service and achieved a score of 73,4% (2001: 60,0%). The safety and environmental measures, which are the responsibility of all divisions, scored 30% and 100% respectively (2001: 59% and 100%). The poor safety performance is due to the high number of Eskom fatalities as well as public electrical contact fatalities discussed elsewhere in this report. The new common NRS 048 compliance measure, which measures compliance with the NER's requirements for power quality, scored 100%.



# **Generation plant performance**

#### Generation energy availability factor (EAF)

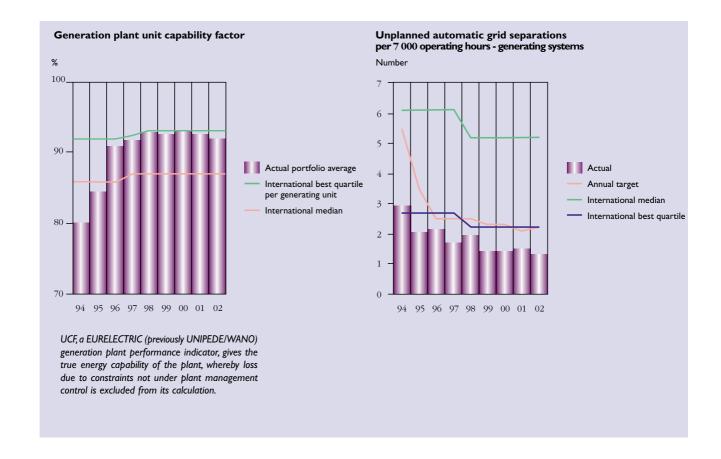
The EAF measures plant availability and takes into account energy losses not under the control of plant management, as well as internal non-engineering constraints. During 2002, a performance of 89,3% (2001:92,0%) was achieved against an annual target of 89,2%. This deterioration relative to 2001 resulted from an increase in the Other Capability Loss Factor, due to a decision to optimise plant availability across the portfolio in favour of low cost production.

#### Plant unit capability factor (UCF)

The Generation division continued its high level of plant performance in 2002 by achieving an average generating unit UCF of 91.7% (2001: 92.5%) across the whole portfolio of generators against an international best quartile per individual unit of 92.8%.

## Unplanned automatic grid separations (UAGS)

UAGS, a EURELECTRIC base load plant indicator, is a measure of the reliability of service provided to the electrical grid, and measures the number of supply interruptions per operating period (7 000 hours). During 2002, the reliability of the Eskom generating units was 1,3 (2001: 1,5) interruptions against a target of 2,2.





## Transmission system performance

The two key Transmission division measures, which directly impact on continuity of supply to customers, are system minutes lost and the number of interruptions. During 2002, the business registered 6.57 (2001:17.50) system minutes lost against a target of 6.43. In 2002, system minutes were divided into severe incidents greater than one system minute and incidents less than one system minute.

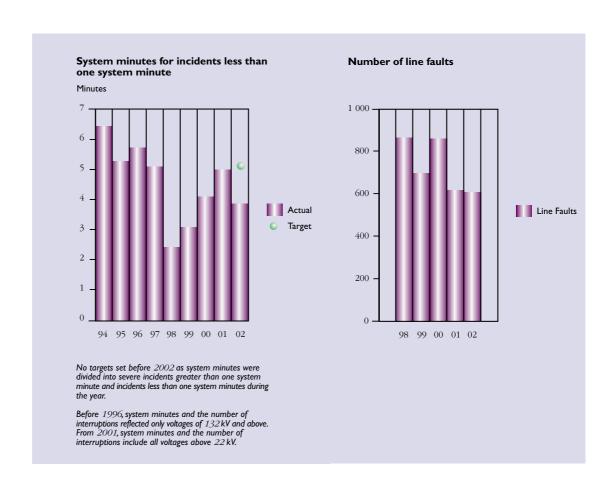
During 2002, the business registered 3.85 (2001:5.00) system minutes lost with a severity smaller than one system minute against a target of 5.10 and it recorded 51 (2001:49) interruptions for the year against a target of 45 interruptions. In 2002, there were two incidents with a severity greater than one system minute (2001:2). The incidents were the failure of a Vulcan power transformer (1.40 system minutes) and the failure at Invubu substation of the gas insulated switchgear during routine bus changeover (1.32 system minutes) resulting in 2.72 (2001:12.52) system minutes lost.

Another key indicator, which impacts on the quality of the supply delivered to customers, is the number of line faults. During 2002, the Transmission division demonstrated a best ever performance of 606 line faults (2001:616).

## **Distribution system performance**

Distribution system performance is measured by network performance and power quality indicators. Network performance indicators are measures of the way interruptions are managed, while power quality indicators measure the technical quality of electricity supplied to customers.

The Distribution division implemented a new system called Network Equipment Performance System to capture and quantify the impact of interruptions on customers. The system became operational in 2001, and reporting will commence once historical data has stabilised sufficiently for the trends of these indicators to be meaningfully measured.



Power quality indicators are those associated with voltage waveform (regulation, unbalance, harmonics) and voltage disturbance (dips).

The performance for 2002 for these power quality indicators was:

Measure		Target 2002 %	<b>Actual</b> 2002 %	<b>Actual</b> 2001 %
Waveform quality indicators	Regulation Unbalance Harmonics	95,00 95,00 95,00	98,00 98,40 100,00	95,80 99,10 100,00
Disturbance indicators	Type X dips <sup>4</sup> Type S dips <sup>4</sup> Type T dips <sup>4</sup> Type Z dips <sup>4</sup>	95,00 95,00 95,00 95,00	98,80 96,40 100,00 95,20	92,60 95,60 100,00 98,50

The targets for these indicators are based on regulatory requirements introduced by the NER. Due to the improved understanding and management of the indicators, the Distribution division has continued to improve the power quality delivered during 2002. The action steps taken include reconfiguration of networks, improvement of equipment performance and improved management of external factors, such as bird interactions, pollution, veld fires and lightning. Distribution is, where practical and financially feasible, increasing efforts to improve this performance, as these measures have a direct impact on the satisfaction and profitability of certain customers.

#### **Energy purchases and resource management**

Eskom continued to review its fuel supply options and plant operating methodology with a view to reduce costs and improve efficiency and flexibility.

#### Coal

The growth in the total electricity demand for 2002 resulted in 96.5 million tons (2001: 94.1 million tons) burned compared to the budget of 92.8 million tons. Increases in coal costs as a result of the increase in the inflation rate and the rand dollar exchange rate for 2002 were well managed, resulting in a real reduction of 8% in Eskom's coal purchase costs.

Coal stockpile levels have remained at an acceptable level throughout the year. This was achieved through the procurement of additional coal to ensure the security of supply while maintaining flexibility in the burn regime.

#### Black economic empowerment (BEE)

During 2002, Eskom purchased 92,8 million tons of coal (2001: 89,1 million tons) against a budget of 89,3 million tons. Of this, 18,1 million tons (2001: 17,4 million tons) were purchased from BEE suppliers, including purchases from Eyesizwe Mining (Pty) Limited.

Eskom also implemented the first phase of the long-term plan to support BEE and introduce flexibility in purchasing additional coal requirements (over and above the existing long-term contracts). Indicative proposals were requested and received from the coal mining industry. In excess of two billion tons of coal was offered to Eskom. Eskom will commence in 2003 with the second phase of the long-term plan to support BEE, which will entail requesting official tenders for specific power stations.

#### Major projects

Projects are being carried out on the Eskom tied-collieries to ensure stable coal supplies, which will enhance Eskom's ability to meet production requirements.

The Matla 2-seam shortwall was installed during 2002, and production levels matched required levels. Further improvement is anticipated as experience is gained. This piece of production equipment is the largest of its kind in the world and Eskom has high expectations of its improved production capability.

Eskom has approved a project to move Khutala opencast operations to Pit A. This project is expected to be completed in 2003.

Eskom has also approved funding for a strategic project to identify a coal transport system that will meet the full burn requirements of Majuba Power Station and any shortfall at Tutuka Power Station, as well as improving source and inter-station flexibility. The results of this study are expected by the end of 2003.

- 1. Reflects the ability to control deviations from the nominal supply voltage contracted with customers.
- Reflects the ability to keep the three phases of the supply voltage electrically balanced, i.e. displaced by 120. degrees relative to each other and the same magnitude.
- $\it 3.$  Reflects the ability to avoid higher order frequencies in the  $\it 50\,Hz$  supply voltage.
- 4. Reflects the ability to minimise faults and breaker operations at various voltage levels.



# **Directors' report**



The Board has approved, subject to certain governance issues being resolved, the contracting arrangements between Eskom and Eskom Enterprises that will enable Eskom Enterprises to develop the Usutu mine. This venture will produce coal for export, as well as coal for Eskom power stations.

#### Environmental

Eskom has long-term coal supply contracts with mines to ensure the continuous supply of coal to the power stations. The contracts require the mining houses to carry out rehabilitation and include a provision for mine closure.

The provision for closure and rehabilitation of the Eskom tied-collieries was reviewed and assessed by independent consultants during 2001 and 2002, to confirm their compliance with the requirements as set out in the Minerals Act, 50 of 1991.

Eskom's coal fired power stations have been designed to burn low-grade coal. While this supports South Africa's coal export capabilities, it provides a challenge for air quality and efficiencies.

Eskom supports the commitment of the mining houses to meet international environmental standards and the implementation of the SABS ISO 14001 standard.

#### Water

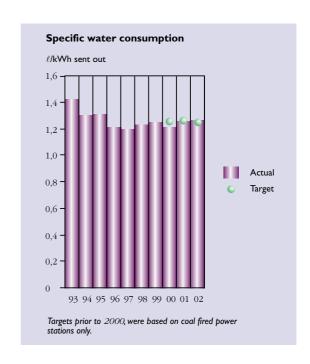
Approximately 70% of Eskom's nominal capacity of coal-fired power stations employs wet-cooled technology. During 2002, Eskom's power stations used a net of  $251\ 611\ M\ell\ (2001:\ 239\ 233\ M\ell)$  raw water to produce  $197\ 737\ GWh\ (2001:\ 189\ 590\ GWh)$  of electricity, resulting in specific water consumption of  $1,27\ \ell/kWh$  sent out ( $2001:\ 1,26\ \ell/kWh$ ) against a target of  $1,25\ \ell/kWh$  sent out. The higher consumption is due to the extended outages at Koeberg Power Station (which uses sea-water for cooling) and Matimba Power Station (dry-cooled), thus increasing the relative contribution to power generation by the wet-cooled power stations. In addition, lower rainfall and relatively drier conditions resulted in our coal-fired power stations using more raw water.

Eskom continually assesses the management of water resources and the impact of water-related legislation on its business. Eskom plays an active role in the development of the various strategies and institutions, such as catchment management agencies, that may affect its water use in the future.

Key environmentally-related water research projects undertaken included a surface water research programme and pre-treatment plant optimisation.

## Hydro and pumped storage schemes

Hydro and pumped storage schemes contributed 2,1% (2001:1,9%) of the electricity generated by Eskom during 2002, primarily during periods of peak electricity demand. The maximum peak demand increased by 3,3% (2001:4,8%) to 31 621 MW (2001:30 599 MW). Such peak demands are usually of short duration. Hydro electric power stations and pumped storage schemes are cost effective electricity generating technologies, providing a rapid response to peak electricity demand, and are important contributors to ensuring a sustainable supply of affordable electricity.



#### Nuclear

A modification on an existing contract for the additional supply of uranium enrichment services and a new contract for the supply of nuclear fuel fabrication services were entered into during 2002. These and other contracts entered into during the past few years have ensured that the price of Koeberg's primary energy remained competitive with the other supply options, despite negative exchange rate impacts. This trend is expected to continue into the foreseeable future.

# 1.5 Safety risk management

## Safety performance

After six years of continued improvement in the health and safety performance, there has been a sharp increase in the number of work-related fatalities this year.

Safety performance	Target 2002	Actual 2002	Actual 2001
Work related safety Total fatalities, number Electrical contact fatalities, number Vehicle accident fatalities, number Other fatalities Disabling injury incidence rate (DIIR) <sup>2</sup> Electrical contact injuries, number	0 n/a n/a n/a n/a 0,40 n/a	11 5 2 4 0,45 12	8 2 4 2 0,50 17
Public safety Electrical contact fatalities, number Fatalities as a result of other causes, number	$0 \\ \mathbf{n/a}^{^{1}}$	25 20	43 44

## Work related safety performance

The number of fatalities that were reported at the end of 2001 increased by one after the death of an employee in February 2002, as a result of a vehicle incident that occurred in November 2001.

The Occupational Health and Safety Act, 85 of 1993, and the Eskom health and safety policy are the two most important structures that complement the safety initiatives of the Operations Committee of EXCO. Investigations conducted during the year indicated weaknesses in the areas of job observations and discipline, and these will be the major focus areas for 2003 in order to reverse the current negative trend.

#### Electrical contact incidents

After some of the successes in reducing electrical contact fatalities involving employees in 2001, Eskom had a disappointing year in 2002 with an increase in the number of fatalities. A detailed review of these incidents is being conducted by the Operations Committee of EXCO, and focus will be on behavioural safety programmes and discipline to ensure the enforcement of all safety regulations.

## Fleet safety

The ongoing fleet safety campaigns that included driver training and awareness, improved controls over the issuing of vehicles and the installation and monitoring of onboard computers, have resulted in a continued reduction in vehicle related fatalities and accompanying insurance claims. Continued effort is being focused on identifying further areas for improvement that will include behavioural safety programmes to address poor road attitude and substance abuse.

## Occupational hygiene

Revised asbestos regulations in terms of the Occupational Health and Safety Act were promulgated during the year, and draft regulations regarding noise levels were also issued. Extensive training and implementation energy has been exerted throughout Eskom to ensure compliance with the new regulations.

#### Emergency preparedness

Business units throughout the organisation reviewed and tested their emergency preparedness plans during the year. Training courses were conducted for new staff and managers to promote emergency preparedness awareness. Eskomwide audits were conducted during the year to evaluate the effectiveness of programmes, identify exposures and institute corrective actions.

- 1. No targets set for these indicators.
- 2. DIIR expresses the percentage of workers that suffered a disabling injury during a consecutive 12-month period.





#### Training and awareness

Training and awareness programmes form a key component of continuous improvement to our safety culture throughout the organisation. Ongoing technical training focusing on operating regulations for high-voltage systems, plant safety regulations and driver training are presented to employees that are at risk. In addition, general courses on safety induction, emergency preparedness, occupational hygiene, health and safety representative and supervisor safety training have been conducted. Additional areas of high risk that contribute to injuries and damage are included in a video series produced in support of ongoing safety training.

## Contractor safety

The increase in the use of contractors in various parts of the business has required a review of the management of contractors. The health and safety performance of contractors will now be monitored on a monthly basis to identify areas of weakness. During 2002, there were four contractor fatalities and six electrical contact incidents.

#### **Public safety performance**

There has been a reduction in the number of public electrical contact fatalities for the year. The major cause of these incidents remains direct contact with low hanging conductors, as well as indirect contact via mobile equipment and objects making contact with lines. Additional fatalities as a result of conductor theft, vandalism and unauthorised entry into sub-stations also decreased. The risk of electrical contact incidents to the public continues to increase with the expansion of Eskom's power network due to electrifications and have been exacerbated by illegal connections, energy theft and the increased market for scrap conductor sales.

The creation of electrical safety awareness amongst members of the public that use electricity, in particular first time users, remains an ongoing task. Ongoing awareness campaigns and public electrical safety education for communities in identified high-risk areas have been intensified in both the print and electronic media, to further reduce the incidence of electrical contacts. In addition to television and radio advertising, an electrical safety radio drama was launched on community radio stations to enhance public awareness. A major campaign has been launched with the South African Police Services to reduce the incidents of conductor theft.

#### Safety performance of subsidiaries

The safety performance indicators of Eskom Enterprises and its subsidiaries were not included in the calculation of the overall performance figures of Eskom. The DIIR of Eskom Enterprises has improved, moving from 0.93 in 2001 to 0.60 in 2002. No fatal incidents were reported for the period under review.

## Fire risk management

Fire still poses a major risk to the safety of plant. Only two incidents (2001: 8) resulting from plant operation were reported during 2002. Veld fire incidents had an affect on the transmission electrical system causing a sudden failure of the Cape network. Although Eskom had little control over the fire incident, it responded appropriately to regain control and reinstall supply.

There is an ongoing process of engagement with DWAF, along with other stakeholders and Non Government Organisations (NGOs), to improve awareness relating to veld and forest fires through the implementation of the National Veld and Forest Fire Act, 101 of 1998.

An improved remuneration structure for emergency team members was finalised and implemented during the year. It is hoped that the new allowance will ensure that suitable numbers of volunteers are available for the emergency teams (fire fighting and trauma or rescue) mainly for the Generation environment.

Ongoing audits and assessments to monitor fire safety and asset protection continued during the year.

## **Nuclear safety performance**

Eskom's nuclear safety performance continues to meet world standards as measured against the latest available information. Regular benchmarking of the Koeberg Power Station performance against international industry best practice is carried out as part of Eskom's ongoing commitment to nuclear safety. This has been coupled with four subject focused peer reviews by international teams during the past year. Actions have been taken to make appropriate improvements in areas where specific safety performance has been identified as not meeting the performance standards of the top quartile of stations in the world.

During the WSSD, Greenpeace conducted a peaceful demonstration at Koeberg Power Station. Six Greenpeace activists entered the Koeberg sea water intake basin and scaled the walls of the pump house buildings. Immediately prior to the demonstration, the power station manager was informed by Greenpeace that the demonstration would be peaceful. To avoid unnecessary risk to individuals' lives, the station's security forces were instructed to use minimum force to confine the activists to the outside of the pump house structures. At no time did the activists enter any sensitive areas such as the control room or the reactor building. The power station, its operation and nuclear safety were not threatened by the Greenpeace activists, and the power station continued to operate throughout the incident.



# 1.6 Human resource alignment

## Human resources sustainability index

The human resources sustainability index provides a measure of Eskom's ongoing ability to achieve its business objectives. The index comprises 20 measures in the areas of employee satisfaction, competence, equity and health and wellness. The index that was implemented in 2001 was reviewed and further refined in 2002. The target of 80% was exceeded with an achievement of 89.8%.

# Managing and retaining skills

A skills management system to identify, manage and retain skills has been implemented for all management and professional levels. During 2002, the skills database was populated and is currently in the process of being validated. This will enable line management and the human resources practitioners to have a realistic real time view of available talent, and to identify clearly capability gaps for both current and future requirements.

#### Training and development

Eskom is committed to the training and development of all employees and to contributing towards the skills development of not only the Eskom employees, but also the broader South African community. Development is a prerequisite for all employees and is managed through their performance contracts and the number of training days completed.

Eskom plays a significant leadership, development and management role within the Energy Sector Education and Training Authority (ESETA). Skills levy grants totalling R27 million were received from ESETA in 2002, which represents a recovery rate of 67%.

Bursaries are available to students for tertiary education at university and technicon levels, particularly to talented South African youths that could become future employees.

Bursaries are also provided to children of employees without further obligation to Eskom. These bursaries are awarded on a weighted system based on employee service, student results and demographical representation. Interest free loans are also available to all Eskom employees with children at school level to assist with educational needs.

Eskom provides opportunities for learners to obtain practical experience required for obtaining their qualifications. Many of these learners are not Eskom employees. Furthermore, the special post graduate women's programme has continued, with the aim of accelerating the development of female engineers.

Training and development	<b>Actual</b> 2002 <sup>1</sup>	Actual 2001
Training		
Total training cost, Rm	494	449
Average training cost per employee, R'000	17	15
Learnerships		
Bursars and trainees, number	2 010	2 123
Black bursars and trainees, %	87	85
Women bursars and trainees, %	58	53
Black bursars and trainees that completed training, number	590	676

## **Reward strategy**

As a reward strategy to encourage employee behaviour that will enhance business performance, a new incentive scheme has been implemented for managerial staff. Implementation of this scheme for non-managerial staff is being considered by management and organised labour.

## **Employee relations**

Employees are encouraged to become involved in the affairs of the organisation and to obtain a sound understanding of the direction, values, programmes and activities. This is achieved through employee representation forums. The recognition agreement provides for trade union representation for non-managerial staff. This agreement also provides an avenue for employee grievances to be addressed without fear of discrimination or victimisation.

Eskom and organised labour continued with their spirit of mutual respect and co-operation and as a result no work stoppages due to labour conflict were experienced. The total workdays lost as a result of industrial action reduced to  $2\,567$  in 2002 compared to  $17\,204$  in 2001. The relatively low number of workdays lost during 2002 was supported by the fact that the COSATU privatisation strike during October 2002 did not result in any work stoppage at Eskom.

 $1. \,\,$  No targets set for these indicators.







During 2002, Eskom spent in excess of R6 million on empowering the trade unions to facilitate meaningful participation in the decision-making process of the organisation. This included financial support given to trade unions to maintain a team of full-time shop stewards and seconded employees for the purpose of building capacity.

# 1.7 Managing the impact of HIV/AIDS

The primary focus during 2002 was the continued education and awareness programmes, which included describing HIV/AIDS and the economic impact thereof on the household, communities and the workplace, the extent of the pandemic, the prevention thereof, sexually transmitted infections, HIV/AIDS and human rights, living with the virus and availability of internal and external support structures, as well as myths, attitudes and perceptions about the pandemic. There was special focus on voluntary counselling and testing (VCT). This initiative was fully supported by members of management and their public testing, during VCT week, was a testimony of their commitment. Focus during 2002 was also on care and support for infected and affected employees. This was reinforced by HIV positive employees forming a support group, which was launched in November 2002 at an event attended by the Minister of Health.

Eskom is committed to addressing the HIV/AIDS pandemic and has programmes in place to ensure that all employees have access to education and treatment. Eskom has taken a corporate leadership and sponsorship role in the research for the development of a vaccine against HIV/AIDS. Partnerships locally and globally have also enhanced Eskom's position to contribute actively towards the management of this disease. Locally Eskom is a founder member of the South African Business Council on HIV/AIDS and globally Eskom is a delegated member of the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria, as well as a member of another three international organisations focusing on HIV/AIDS management.

To ensure that Eskom remains responsive to the impact of HIV/AIDS, a second organisationwide voluntary surveillance study will be carried out in 2003, followed by a comprehensive analysis of the economic impact of the pandemic on Eskom. This will enable Eskom to review its current strategies.

Eskom via the Eskom Development Foundation continued to support the research for an HIV/AIDS vaccine.

# **Employee health and wellness**

Eskom has a comprehensive health and wellness programme that consists of psychosocial assistance for employees, sports and recreation, biokinetics, spiritual wellness, occupational health and medicine, travel medicine, expatriate health and health education and promotion.

# 2. SUSTAINABLE ENVIRONMENT

# **Environmental management system**

Eskom is committed to strive continually towards sound environmental management and performance. An environmental management system (EMS) is as an effective management tool to ensure legal compliance, reduce risk, demonstrate due diligence and monitor ongoing environmental performance.

During 2000, a policy decision was made that the divisions in Eskom and Eskom Enterprises would be SABS ISO 14001 compliant by the end of 2002. As required by corporate policy, certain business units submitted motivations to the Sustainability Committee of EXCO for certification to the SABS ISO 14001 standard.

Self-assessments were conducted within relevant business units in the divisions to assess the level and degree of compliance with the SABS ISO 14001 standard. Results from the self assessments indicate that divisions are substantially compliant with the standard. During 2003, an external SABS ISO 14001 audit will be conducted to verify compliance, excluding those business units that have already obtained SABS ISO 14001 certification.

During 2002, selected business units obtained SABS ISO 14001 certification. They are in the Transmission division (the Grids, the System Operator and Apollo High Voltage direct current (DC) Substation) and in Eskom Enterprises (Technology Services International and Rotek Engineering). The Corporate Environmental Affairs department maintained SABS ISO 14001 certification during 2002.

#### Legal requirements

Eskom's policy is to comply with legislation as a minimum and, where appropriate in the interest of the sustainability of the business, set standards where no legislation exists. The organisation continues to interact with the relevant authorities regarding legislative compliance issues. Legislation requirements are incorporated into policies, procedures and standards. During 2002, as part of the SABS ISO 14001 compliance process, legal aspect registers were compiled for the relevant Eskom divisions and subsidiaries.



Eskom continues to keep abreast of developments in relevant legislation and continually assesses the impact of legislation on its business. Eskom provided input on environmentally related legislative issues, including the draft White Paper on the promotion of Renewable Energy and Clean Energy Development, the Air Quality standards-setting process and the draft South African Climate Change Response Strategy. Eskom continued to align its renewables strategy with the DME draft White Paper on renewable energy.

#### **Conventions**

South Africa ratified the United Nations Framework Convention on Climate Change (UNFCCC) during August 1997 as a developing country. During 2002, South Africa acceded to the Kyoto Protocol. In global terms, Africa is a small player with only 3% of the world's carbon dioxide (CO<sub>2</sub>) emissions, and South Africa contributes approximately half of these emissions. The energy sector, including the production of electricity, is a major contributor to South Africa's greenhouse gas emissions.

Eskom participated in the UNFCCC and various other interventions that included continued evaluation of opportunities under the Clean Development Mechanism and the evaluation of adaptation projects. Two southern African regional projects continued during 2002. The first quantifying plant specific emission factors, and the second, a project proposed to the SAPP, focusing on adaptation to the impacts of climate change on drought cycles.

Eskom supports the government's adherence to relevant environmental conventions. Policies relating to the Montreal Protocol (Ozone Depleting Compounds) and the Persistent Organic Pollutants Convention (Polychlorinated Biphenyls and dioxins and furans) were revised accordingly.

#### **Industry charters**

The UN global compact asks companies to embrace, support and enact nine universal principles in the areas of human rights, labour standards and the environment. Eskom, a signatory to the compact, continues to support the UN global compact through its sustainable practices.

In line with Eskom's commitment to the UN Global Compact, case studies that have been submitted to the UN Global Compact Learning Forum included Flexicon (Flexible Hot Water Load Management Control System), the Efficient Lighting Initiative, Eskom and HIV/AIDS, reduced water consumption for the generation of electricity and Eskom's electrification programme.

## **Environmental impact assessments**

Eskom's corporate directive requires that EIAs are conducted for all projects as defined in the EIA Regulations. Public participation is an essential element of the EIA process. Case studies relating to the public participation process were researched to identify areas for improvement in the Eskom processes. All relevant divisions have compiled and implemented procedures incorporating environmental screening into the overall project planning processes. During 2002, two projects (2001: three) were initiated prior to the issue of a record of decision (ROD) by the relevant authority, and eight projects (2001: one) experienced delays in excess of six months in obtaining a ROD.

Audits relating to the EIA process were undertaken at selected sites within the Generation, Transmission and Distribution divisions. Results indicate that appropriate EIA processes have been implemented and are in compliance with the applicable regulations. Action plans were developed to address the audit findings in respect of deficiencies.

## **Environmental management programmes**

As part of the EIA process for new projects and the implementation of environmental management systems, Environmental Management Programmes (EMPs) are being compiled. During 2002, the Generation division reviewed existing EMPs and developed new EMPs where required. The Transmission division maintained EMPs for 100% of substations (2001: 100%) and for 98% of lines (2001: 85%) and the Distribution division completed EMPs for 100% of substations (2001: 99,5%) and 26% for sub-transmission lines (33kV - 132kV).

EMP related audits were undertaken as part of the EMS compliance audits within the organisation. Specific EMP audits for land management at Eskom power stations were also undertaken. The audits indicated that EMPs are being developed and used for the management of land.

# Stakeholder relationship

# Partnerships and associations

Eskom continues to develop long-term partnerships and sustainable environmental programmes with NGOs and community groups.

Partnerships have been established with the EWT, Food and Trees for Africa, Ekangela Trust, World Wide Fund (SA), Peace Parks and the Wildlife and Environment Society of Southern Africa. During 2002, a partnership was initiated with Birdlife South Africa and Middelpunt Wetland Trust. These partnerships focus on co-operative initiatives towards sustainable development, capacity building and joint ventures.

Eskom interacts with other businesses and organisations, both nationally and internationally. Key initiatives undertaken in 2002 included Eskom's participation in Phase 1 of the World Business Council for Sustainable Development (WBCSD) member-led project on Sustainable Development in the Electricity Utility Industry. The CRIEPI and Eskom signed a collaborative agreement in 2002 to conduct joint research focusing on coal combustion-related research.





#### Communication and marketing

Communication has been facilitated by the development of an environmental intranet portal, EnviroWeb, which makes information, that is vital for the implementation of the EMS, available to the organisation.

The environmental help line received 42 (2001: 83) telephone and more than 120 (2001: 120) electronic requests. Environmentally-related public complaints were reported and covered issues including servitude management, animal interactions with infrastructure and quality of supply-related issues.

Environmental awards are held on an annual basis to reward superior performance in Eskom.

# **World Summit on Sustainable Development**

Eskom's long history of involvement in and commitment to sustainable development issues led to active participation in the WSSD. Eskom's experience in this area has demonstrated that sustainable development practices result in long-term reduction of risk and increased stakeholder and shareholder value.

Multi-stakeholder dialogues enabled direct interactions between governments and major groups (including business) on specific topics and as part of the official inter-governmental process.

Eskom's involvement in the WSSD was multifaceted. This included:

- the launch of Africa's first concentrated solar power generator (solar dish stirling) and South Africa's first 660 KW wind turbine,
- · a conference on Sustainability in the ESI, highlighting the concepts of sustainability and encouraging networking,
- the launch of the electrification research compact disc with the University of Cape Town, detailing work carried out in support of Eskom's electrification programme, and
- · SAPP workshops to discuss key environmental issues for the sector, such as climate change and oil management.

In addition, Eskom participated in the following:

- The Eskom initiation of the African Energy Fund in collaboration with the Industrial Development Corporation and the DBSA. The purpose of the fund is to develop a partnership to realise the implementation of large infrastructural Legacy Projects in Africa.
- The sustainable energy exhibition at Ubuntu village.
- · The Renewables Roundtable, hosted by the DME.
- The Coal and Sustainable Development conference, hosted by the DME.
- The launch of the phase 1 report of the WBCSD electricity utilities project.
- The launch of the WBCSD Sustainable Livelihoods project.
- The International Union for Nature and Conservation exhibition.
- The Virtual exhibition highlighting those projects and achievements that have contributed to sustainable development including the solar dish stirling, dry cooling technology, bird fatality mitigation devices and the African Energy Fund.
- The Waterdome exhibition where initiatives in sustainable development in relation to water were highlighted.

Eskom also participated in other parallel events, including the Investment Advisory Council meetings, the Business Day or Lekgotla, the Global Reporting Initiative Guidelines Event, New Partnership for Africa's Development Day and the Global Compact Event.

In terms of energy, the three priority messages were: that energy is the means to every sustainable development objective at the WSSD, that access to energy is essential for poverty alleviation and that the aim is to provide safe, accessible and economically viable energy, in all its forms, whilst meeting environmental goals and challenges.

A window of opportunity has been created for existing energy businesses to diversify or modify their business in alignment with sustainable development principles. Further, the opportunity to develop new forms of energy is created, without compromising the business sustainability of the conventional energy sources.

#### **Environmental auditing**

Regular internal environmental audits are undertaken on all divisions. During 2002, these audits focused on SABS ISO 14001 compliance. Audits were conducted on land management, oil management, fleet management and implementation of the EIA process. Audits on vegetation clearance under Eskom power lines and water-related incidents at power stations were undertaken as required by the corporate incident investigation process. Key findings from these audits are included in this report.

## **Environmental education**

Eskom is committed to educating, training and motivating its employees about the environment, and has implemented training and awareness programmes. The Transmission and Distribution divisions compiled a training matrix for the implementation of SABS ISO 14001 and the Generation division completed training needs' analyses. In addition, the divisions have continued with awareness programmes through interventions on World Environment Day, publications in divisional news letters and awareness pamphlets.

Several capacity-building events were held through the African Centre for Energy and the Environment, including The Rights of Way Workshop, which involved the EPRI, and a seminar on water and waste.

#### **Environmental accounting**

Environmental accounting refers to the practice of identifying and reporting on expenditure incurred for environmental purposes. During 2002, R164 million (2001: R146 million) was spent on capital and R325 million (2001: R261 million) on operational environmental activities.

The Generation division incurred 66% (2001:72%) and the Resources and Strategy division accounted for 21% (2001:9%) of Eskom's total environmental costs. The majority of the expenditure in the Generation division related to air quality management at the coal fired power stations and rehabilitation at the coal mines. The expenditure in the Resources and Strategy division was mainly related to research funding for the development of the pilot wind energy facility.

Expenditure within the Transmission division was mainly for servitude maintenance and alien vegetation management. In the Distribution division expenditure was mainly for environmental assessments associated with reticulation lines. Eskom Enterprises' expenditure is primarily related to the PBMR

#### **Environmental externalities**

Externalities refers to costs and benefits experienced by third parties, as a result of the actions of an organisation, that are not accounted for in the price of the product. Eskom continued to undertake research to establish a robust methodology for identifying and managing current and future externalities. Eskom has expanded the traditional approach to include positive externalities and has applied this to the environmental, social, economic and political areas.

#### **Environmental performance**

Assessment and measurement of environmental performance is managed through the operational sustainability index and reporting on additional key environmental indicators and issues to the Sustainability Committee of EXCO. During the year, both reporting processes were reviewed and found to be applicable. Benchmarking of environmental KPIs was initiated.

The environmental component of the operational sustainability index comprises four equally weighted KPIs, namely relative particulate emissions, specific water consumption, customer satisfaction (PreCare/MaxiCare) and legal compliance.

Environmental performance indicators	Target 2002	Actual 2002	Actual 2001
Relative particulate emissions, kg/MWh sent out <sup>2</sup>	≤0,27	0,29	0,31
Specific water consumption, $\ell/kWh$ sent out <sup>3</sup>	≤1,25	1,27	1,26
PreCare/MaxiCare - environmental component	>8,00	8,57	8,43
Total particulate emissions, kt	≤124,80 <sup>4</sup>	57,53	59,64
Reported legal contraventions counted in the operational sustainability index	0	3	2
Radiation exposure, milliSieverts per annum	<b>≤0,25</b> <sup>5</sup>	0,0005	0,0007
Net raw water consumption, M $\ell$	n/a <sup>6</sup>	251 611	239 233

Of the  $18\ (2001:\ 20)$  legal contraventions reported, three  $(2001:\ two)$  were registered against the sustainability index. They were the following:

- The maturation pond at Kriel Power Station overflowed into the Pampoen Spruit on 5 March and again on 7 March 2002. This was primarily due to a high influx of storm water after four intense thunderstorms occurred within nine days. An exacerbating factor was the non-availability of one of the recovery pumps as a result of a motor fault. The legal contravention was registered on the sustainability index by the Generation division due to delayed reporting to DWAF. Corrective actions, including the enlargement of the pond, have been identified and implemented.
- The clearing of vegetation from a servitude of the Distribution division in the Western Cape Province using a bulldozer resulted in a letter of
  censure being received from the local authority. This was a contravention in terms of the sustainability index. The area was subsequently
  rehabilitated and local procedures revised to prevent reoccurrence.
- A Distribution division transformer awaiting repairs in the Gauteng Province was transported without a drip tray, resulting in oil being spilt on
  a public road. This incident was not managed or reported as required. The contravention resulted in the review of reporting procedures and
  management processes.
- 1. Based on the definition by the European Commission Studies, 1998.
- 2. Amount of ash emitted per unit of generated power sent out.
- ${\it 3.}$  Volume of water consumed per unit of power sent out by all generating stations.
- Chief Air Pollution Control Officer limit.
- 5. National Nuclear Regulator limit.
- 6. No targets set for this indicator.







#### Air quality management

#### **Particulate emissions**

The emission of particulates (ash) is regulated by the Chief Air Pollution Control Officer (CAPCO) of the DEAT. Registration certificates for individual power stations are issued by CAPCO, which state the actual quantity of particulate emissions that may be emitted from the power station stacks during a 31-day period.

Eskom is committed to reducing overall particulate emissions to an average of 0.28 kg/MWh sent out by the end of 2003 as part of a five year strategy initiated in 1998. However, in line with Eskom's policy of continual improvement, a target of 0.27 kg/MWh sent out, was set for 2002. While this target was not achieved, relative emissions reduced to 0.29 kg/MWh sent out (2001: 0.31 kg/MWh). Performance, however, far surpassed regulatory requirements, with overall particulate emissions of 57.53 kt (2001: 59.64 kt) against a permit requirement of 124.80 kt (2001: 124.50 kt). This was primarily due to retrofitting two units at Hendrina Power Station with fabric filter bags, the installation of sulphur trioxide flue gas conditioning on all six units at Lethabo Power Station and enhanced management attention at Matla Power Station.

#### **Gaseous** emissions

The quantities of nitrogen ( $NO_x$ ), sulphur dioxide ( $SO_2$ ) and  $CO_2$  emitted from Eskom power stations are calculated annually, based on the coal characteristics and the power station design parameters. The increase in  $CO_2$ , Nitrous Oxide and  $NO_x$  emissions in 2002 is primarily due to an increase in the amount of coal burnt. The relative  $CO_2$  emissions in kilograms per kilowatt hour of electricity sent out have remained fairly constant, even though the total electricity produced by the Eskom power stations has increased. The decrease in sulphur oxides is due to lower sulphur levels in the coal burnt. Work has continued on Eskom's gaseous emissions strategy.

#### Ambient air quality

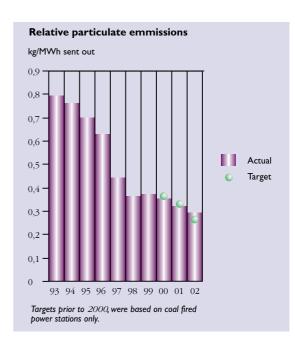
Eskom has been operating an ambient air quality monitoring network since the 1980s. This network includes strategic sites and sites in the immediate vicinity of certain power stations. The network provides strategic information on long-term trends in air quality from various sources on a national and regional scale.

All sites, with the exception of two, are equipped to monitor  $SO_2$ , oxides of nitrogen  $(NO_x)$ , ozone  $(O_3)$ , fine particulate matter (FPM) and the relevant meteorological parameters comprising wind speed, wind direction and ambient temperature. The remaining two are equipped to monitor  $SO_2$ , FPM and meteorological parameters.

All monitoring equipment is calibrated against National Meteorological Laboratory standards in a South African National Accreditation Systems (SANAS) accredited laboratory.

Ambient air quality results indicate that the annual concentrations at all sites are within the guidelines set by the DEAT for  $SO_2$  and  $NO_x$ . With respect to FPM, an excess was recorded at one site. Source apportionment studies are underway to determine the cause of this excess.

Key research projects include the bagfilter research programme, Aerosol Loading on the Highveld and reviewing of the ambient air monitoring programme.



#### Other related impacts

Eskom continues to monitor international trends, with respect to electromagnetic frequencies activity. Eskom adheres to national standards that govern the noise pollution levels associated with electrical power plants. Research was also undertaken to understand the nature of corona generated noise produced under certain conditions by  $400~\mathrm{kV}$  power lines.

#### Land, biodiversity and quality of supply management

The environmental land management directive requires the sustainable use and maintenance of all Eskom land in order to ensure conformance with applicable legislation and to optimise its asset value. Land registers are maintained for divisions and were updated during 2002. Property manuals implemented in 2001, to assist in the general management of land, were reviewed. Environmental issues were integrated into these manuals.

Land management audits focused on Eskom land not currently used by Eskom, such as land adjacent to Eskom substations and power stations. Results indicated that EMPs are implemented for the majority of these sites.

Eskom's partnership with the EWT focused on efforts to manage interactions between birds and electrical infrastructure.

Since 1997, 71 blue crane mortalities were reported as a result of power line collisions in the Overberg area in the Western Cape. This led to the marking of 19 localities with bird flappers. Since the marking of the lines in this area, only one blue crane mortality has been reported.

Operation Firebreak has been re-integrated into the existing operational processes in the Transmission division, resulting in improvements in the management of veld fires and hence quality of supply.

Key research projects include the degradation and bioremediation of pollutants in soils, rehabilitation and vegetation management, optimisation of herbicide use and application in servitudes, innovative methods to clean up contaminated sites and bird power line interactions in natural habitats compared to transformed habitats in the Eastern Cape. Work has also been initiated on the impact of crows and woodpeckers on power lines.

#### Waste management

In 2001, Eskom implemented a directive relating to waste management and reporting to support the waste policy that requires the proactive management of waste and integrated environmental management. While the different divisions do report according to the requirements of the directive, there is, however, still room for improvement.

A total of 139 (2001: 146) oil spills were reported, all of which have been addressed and appropriate mitigation measures implemented.

Approximately 30 tons of Poly-Chlorinated Biphenyls (PCBs) contaminated capacitor cans, from the Transmission division substations, were incinerated as part of a research project. An EIA, including public participation, was conducted by an independent environmental consulting company.

During 2002, waste management audits focused on oil management. These audits focused on the disposal of old oil and oil contaminated waste, mainly within the Distribution division, which handles large volumes of oil in depots and warehouses. Results have indicated that the Eskom oil management manual has been implemented.

Key research projects include optimised brine management and the removal of sulphates from mine and sewage effluents.

#### 3. SOCIO ECONOMIC

#### 3.1 Employment equity

Employment equity policies have been implemented that are inclusive of race, gender and people with disabilities to ensure that Eskom builds an organisation that is representative of all the people of South Africa.

Preferential practices have been implemented and targets set to address imbalances of the past by recruitment practices driven by affirmative action, accelerated development, promotions, and providing a substantial number of bursaries to previously disadvantaged communities. The representation of people with disabilities was 0.16% against a target of 0.5% for all levels, by the end of 2004.





Employment equity	Target 2002	Actual 2002	Actual 2001
Eskom			
Race:			
- Black staff on managerial level, %	>53,1	54,6	53,1
- Black staff on all levels, %	$\mathbf{n}/\mathbf{a}^{3}$	68,8	68,5
Gender:		,	,-
- Women on managerial level, %	22,0	24,5	21,7
- Women on all levels, %	$\mathbf{n}/\mathbf{a}^3$	19,7	17,9
Internal promotions			
- Black staff on all levels, %	$\mathbf{n}/\mathbf{a}^3$	78,9	78,9
- Women on all levels, %	$\mathbf{n}/\mathbf{a}^3$	26,8	27,6
Eskom Enterprises			
Race:			
- Black staff on managerial <sup>2</sup> level, %	47,0	47,2	43,0
- Black staff on all levels, % Gender:	n/a <sup>3</sup>	52,0	45,0
- Women on managerial level, %	15,0	15,7	13,0
- Women on all levels, %	$\mathbf{n}/\mathbf{a}^3$	36,4	17,0

#### 3.2 Black economic empowerment

As part of its procurement policies and managerial support programmes, Eskom supports small, medium and micro enterprises and large black businesses by the procurement and supply of goods and services from black businesses, thereby contributing to BEE. An amount of R4 891 million (2001: R3 636 million) was spent in this regard, against a target of R3 797 million, all amounts inclusive of value added tax (VAT).

A policy framework for the economic empowerment of women was implemented in 2002. An amount of R197 million was spent in this regard, against a target of R123 million. The target represents 5% of the overall Eskom target on black economic empowerment, excluding the target for coal purchases.

During 2002, Eskom Enterprises spent R562 million (2001: R313 million) against a target of R250 million, all amounts inclusive of VAT, on the procurement and supply of goods and services from black business in South Africa. This includes an amount of R283 million (2001: R89 million) spent on the fibre optic network.

#### 3.3 Electrification

The DME commenced funding the National Electrification Programme (NEP) in April 2001. Eskom is responsible for the implementation of the programme in its areas of supply. Operating costs continue to be the responsibility of the licensed distributors.

As business planning and implementation agent, Eskom spent R546 million (2001: R411 million) during 2002 and electrified 211 628 (2001: 209 535) homes including those of farm workers for and on behalf of the DME.

Eskom has achieved its three year commitment made in 1999 to electrify a further  $600\ 000$  homes between 2000 and 2002 by exceeding this target by  $77\ 186$  household connections. Since the inception of Eskom's electrification programme in 1991, a total of  $2\ 812\ 847$  homes have been electrified.

- 1. Black, Asian and Coloured South Africans.
- $2. \quad \textit{Managers, professionals and supervisors within the CU to F Band levels}.$
- 3. No targets set.



Electrification	Target 2002	Actual 2002	Actual 2001
Direct connections, excluding farm workers, number	203 543	209 056	206 103
Capital expenditure, Rm	573	546	522
Capital cost per connection, R	2 816	2 614	2 523
Average monthly sales per prepayment customer, kWh	89	92	90
Average monthly revenue per prepayment customer, R	31	34	30
Farm worker connections, number	1 828	2 572	3 432
Farm worker connection incentives paid, Rm	4	5	3

The increase in capital cost per connection is attributable to fewer developer projects and the increase in inflation on capital expenditure. A further contributing factor is that project areas are in deep rural areas where there is no existing electricity infrastructure and housing densities are low.

The average monthly sales to prepayment customers measured in kilowatt-hours increased during 2002, compared with 2001, but remains significantly lower than the amount required to cover operating cost and the depreciation of capital expenditure. The higher prepaid sales per customer are due to the increase in household consumption. The replacement of faulty meters, which commenced in 1999, continued in 2002. Efforts continue to reduce the unit capital cost and monthly operating costs.

#### **Electrification of schools and clinics**

Funds applied to the electrification of grid schools	Budget 2002			tual 002	Actual 2001	
	Number	Rm	Number	Rm	Number	Rm
Eskom Development Foundation Department of Minerals and Energy	48 869	3,6 39,3	61 915	4,04 <sup>1</sup> 40,8	197 109	9,6 <sup>1</sup> 3,0

As of 2002, the Eskom Development Foundation no longer funds the schools and clinics electrification programme as this is now all funded through the NEF.

Funds applied to the electrification of non-grid schools	Project budget 2002		•	on to date 002	Actual 2001	
	Number	Rm	Number	Rm	Number	Rm
European Union	1 0002	982	1 000	53,1	125	14,8

The non-grid (solar power) electrification of schools project funded by the EU was completed in August 2002. The R53,1 million spent by Eskom and recovered from the EU via the DME, only represents a portion of the amounts spent on the project. The budget of R98 million includes amounts payable directly by the EU to the equipment suppliers. The  $1\ 000$  schools electrified by Eskom have been handed over to the Department of Education.

<sup>1.</sup> Funds provided by the Eskom Development Foundation in 2001 used in 2002 amounting to R3,6 million. The balance was funded by Eskom.

<sup>2.</sup> Project over the period 1999 to 2002.



#### 4. **NEW BUSINESS MODEL**

#### **Incorporation of Eskom**

In terms of the Eskom Conversion Act, which was approved by Parliament during 2001, Eskom was incorporated as a company with effect from 1 July 2002. A new Board of Directors has been appointed for Eskom Holdings Limited. Divisional boards and approved sub-committees have also been established. The conversion process has been effective, and has allowed for Eskom's governance to be transformed without any interruption to its business operations or prejudice to its financial integrity.

#### Company structure and strategies

An investigation has been embarked upon to ascertain what the best model and structure for Eskom would be, taking into account government policy and a changing global environment. The implementation at this stage includes the creation of Eskom Holdings Limited as a holding company, and the creation of each of its main groups as operating divisions and ultimately as wholly owned subsidiaries of Eskom when deemed appropriate.

#### Strategic and investment planning

A long-term strategic roadmap aimed at identifying the business strategies and milestones required to achieve Eskom's strategic intent of being Africa's pre-eminent energy and related services business of global stature was developed in 2001 and revised during 2002.

#### **Electricity industry restructuring**

#### **Distribution**

The EDI restructuring process gained momentum during 2002, after the approval of the EDI blueprint by government in September 2001. This blueprint outlines the process whereby the electricity distribution function of Eskom will separate from Eskom and merge with municipal electricity undertakings to form six Regional Electricity Distributors (REDs)

The EDI Restructuring Committee, consisting of representatives from the DME, DPE, Department of Provincial and Local Government, NER, National Treasury, Eskom and the South African Local Government Association, is active in:

- ongoing discussions around the finalisation of the future RED business boundaries,
- the development of a framework to guide the ringfencing of the electricity distribution undertakings within the municipalities and Eskom in preparation for the transfer to REDs,
- · the business definition of the future REDs and the implications and preparation of required activities, and
- discussions around the appropriate methodology for asset valuation in the interest of fair compensation to the entities contributing assets to the REDs.

Eskom was actively involved in these discussions and provided associated research and input into these activities.

#### Positioning for competitive Electricity Supply Industry (ESI)

Government has also indicated its intention to restructure the generation and transmission sectors of the ESI in order to introduce competition into the generation sector, to facilitate black economic empowerment and to encourage private sector participation. Eskom is continuously engaged with government on various models that will ensure open access to the transmission network and an effective power market, while maintaining quality of supply standards and honouring existing customer contracts. A concept multi-market framework for consideration by government has been submitted.

#### **Generation division**

The Generation division is continuing to focus on world class performance consistent with best commercial practice. Management teams are exploring learning opportunities in the areas of trading, flexibility in production generators and risk management. It is believed that this will equip managers to operate effectively in the restructured ESI environment. Trading and bidding via clusters, have now become part of the everyday business and are currently being refined.

#### **Transmission division**

In the medium-term, the government will establish a separate state-owned transmission company that will be independent of generation and the retail businesses, with ring-fenced transmission system operation and market operation functions. Initially, this transmission company will be a subsidiary of Eskom and will eventually be established as a separate state-owned transmission company, before any investments are made in current or new generation capacity.

#### INFORMATION AS REQUIRED UNDER SCHEDULE 4 OF THE COMPANIES ACT

#### Share capital and dividends

Eskom was converted into Eskom Holdings Limited on 1 July 2002 with an issued share capital of R1. Equity consists of reserves. Full details of the Eskom's authorised share capital and the number of shares issued are set out on page 108.

The directors have proposed a dividend of R549 million based on a dividend cover of six, excluding secondary tax on companies, for approval by the shareholder at the annual general meeting.

#### **Capital expenditure**

Capital expenditure on property, plant, equipment and intangible assets was  $R5\ 385$  million (2001:  $R3\ 643$  million) and included expenditure of R31 million (2001: R66 million) on Majuba Power Station and R546 million (2001: R552 million) on electrification.

#### Subsidiaries, associates and joint ventures

Details of Eskom's principal subsidiaries, significant associates and joint ventures are set out in Schedule 1 and Schedule 2 on page 123 and page 124 respectively.

#### **Directorate and secretariat**

The names of the directors and the address of Eskom's Secretariat appear on pages 6 to 9.

Changes in the composition of directors appear on pages 6 to 9 and 125.

Details of directors' emoluments appear on pages 125 to 127.

#### Post balance sheet events

On 8 January 2003, Unit 2 of Duvha Power Station suffered a catastrophic failure. It is believed that the incident resulted from an internal mechanical failure followed by a fire. The exact cause has not yet been established and experts are currently investigating the incident. At this stage, it is not possible to estimate accurately the total cost of repair for the damage suffered. The claim has been reported to Eskom insurers and is currently under investigation. No interruption in supply was experienced as a result of the incident and the capacity of Eskom to supply will not be affected.

#### **Comparative information**

Eskom Holdings Limited was incorporated on 1 July 2002. The 2001 comparative information refers to the financial information of Eskom. The 2002 financial information of Eskom Holdings Limited includes Eskom's financial information for the period 1 January 2002 to 30 June 2002.





#### At 31 December

		G	iroup	Eskom		
	Notes	2002	2001	2002	2001	
		Rm	Rm	Rm	Rm	
Assets						
Non-current assets		64 386	59 643	63 960	59 536	
Property, plant and equipment	2	51 826	50 196	49 980	49 279	
Goodwill	3	(83)	(250)	(212)	(250	
ntangible assets	4	460	170	376	168	
Future fuel supplies	5	2 420	2 525	2 420	2 525	
Financial market assets	6	6 667	3 918	6 634	3 918	
Loans receivable	9	2 494	2 408			
nvestments in associates and joint ventures	10	252	392	97	150	
nvestments in subsidiary companies	11			4 400	3 518	
Other investments	12	42	61	42	49	
Deferred tax assets	13	85	44	-	170	
Trade and other receivables	14	223	179	223	179	
Current assets		17 036	17 266	15 166	15 173	
nventories	15	2 384	2 293	2 173	2 210	
Trade and other receivables	14	3 775	3 478	3 665	3 505	
Financial market assets	6	10 877	11 495	9 328	9 458	
Total assets		81 422	76 909	79 126	74 709	
Equity and liabilities						
Capital and reserves		37 762	34 148	36 457	33 361	
Non-current liabilities		31 241	26 672	30 639	26 176	
- Financial market liabilities	6	19 018	17 933	18 889	17 896	
Retirement benefit obligations	17	4 654	3 931	4 443	3 733	
Decommissioning and nuclear waste management	18	2 488	2 154	2 488	2 154	
Closure, pollution control and rehabilitation	18	611	598	611	598	
Other provisions	18	585	411	456	157	
Deferred income	19	1 236	702	1 236	702	
Deferred tax liabilities	13	2 649	943	2 516	936	
Current liabilities		12 419	16 089	12 030	15 172	
Frade and other payables	20	4 139	3 542	3 682	2 917	
Taxation		43	19	-	-	
Financial market liabilities	6	7 526	11 521	7 794	11 501	
Provisions	18	711	1 007	554	754	

### **Income statements**

#### For the year ended 31 December

	Group		roup	p Eskom		
	Notes	2002 Rm	2001 <b>Rm</b>	2002 Rm	2001 <b>Rm</b>	
Revenue	23	29 684	26 112	28 158	24 983	
Operating expenditure	24	(21 363)	(19 409)	(20 674)	(18 791)	
Net operating income		8 321	6 703	7 484	6 192	
Interest income Interest expenditure	25 26	2 513 (5 242)	3 325 (6 099)	2 671 (5 251)	3 525 (6 109)	
Profit after interest before fair value adjustment		5 592	3 929	4 904	3 608	
Net fair value loss on financial instruments	26	(118)	(157)	(107)	(182)	
Profit before tax		5 474	3 772	4 797	3 426	
Income tax expense	27	(1 741)	(1 211)	(1 580)	(1 154)	
Profit after tax		3 733	2 561	3 217	2 272	
Income from associates and joint ventures Minority interest	10	26 (20)	- -	-	- -	
Net profit for the year after tax		3 739	2 561	3 217	2 272	

## **Cash flow statements**

#### For the year ended $31\ \mathrm{December}$

	Gr		roup	Es	skom
	Notes	2002 Rm	2001 <b>Rm</b>	2002 <b>R</b> m	2001 <b>Rm</b>
Cash flows from operating activities		11 808	8 641	11 633	7 464
Cash generated from operations Interest received Interest paid Income tax paid	28 29 30 31	12 911 3 559 (4 610) (52)	11 209 4 609 (7 107) (70)	12 608 3 654 (4 629)	9 911 4 481 (6 928)
Cash utilised in investing activities	32	(5 750)	(3 711)	(5 319)	(3 384)
Cash effects of financing activities	33	(3 515)	(3 491)	(3 853)	(3 762)
Net increase in cash and cash equivalents for the year	34	2 543	1 439	2 461	318



## Statements of changes in equity

#### For the year ended 31 December

Group	Issued capital Rm	Foreign revaluation Rm	Local revaluation Rm	Insurance Ao reserve Rm	ccumulated profit Rm	Minority interest Rm	Total Rm
Balance 1 January 2001	-	562	-	73	30 354	-	30 989
Available-for-sale asset movements							
- Fair value gains	-	113	512	-	-	-	625
Cash flow hedges							
- Fair value losses	-	(131)	-	-	-	-	(131)
- Reclassified and added to future fuel supplies	-	104	-	-	-	-	104
Net profit for the year after tax	-	-	-	-	2 561	-	2 561
Transfer of reserves	-	537	(694)	30	127	-	-
Balance at 31 December 2001	-	1 185	(182)	103	33 042	-	34 148
Prior year adjustment	-	(116)	-	-	98	-	(18)
Available-for-sale asset movements							
- Fair value gains	-	-	89	-	-	-	89
- Fair value losses	-	-	(4)	-	-	-	(4)
- Items realised in net profit	-	-	-	-	(116)	-	(116)
Cash flow hedges							
- Fair value losses	-	(148)	-	-	-	-	(148)
- Reclassified and added to future fuel	-	(62)	-	-	-	-	(62)
Net profit for the year after tax	-	-		-	3 739	-	3 739
Outside shareholders interest	-	-	-	-	-	134	134
Issue of shares	1	-	-	-	-	-	-
Transfer of net unrealised revaluation gains/(losses) from distributable reserves to non-distributable reserve	-	(874)	764		110	-	-
Transfer of insurance reserve to accumulated profit	-	-	-	(1)	1	-	-
Balance at 31 December 2002	-	(15)	667	102	36 874	134	37 762

#### Prior year adjustment

During the current year, the group correctly accounted for gains and losses resulting from fair value adjustments. The prior year's gains were incorrectly accounted for by a subsidiary as a non-distributable reserve, instead of being accounted for through the income statement. The effect of this adjustment is accounted for in the statement of changes in equity as follows:

	2002	2001
	Rm	Rm
Fair value gains Tax effect	116	- :
	116	-

The 2001 net profit of Gallium Insurance Company Limited was restated by R18 million.

#### Foreign revaluation

The foreign revaluation reserve includes gains and losses on the fair value revaluation of foreign exchange contracts and similar instruments designated as cash flow hedges for future anticipated foreign currency denominated transactions. The variable revaluation exists until the maturity of these instruments, which coincides with the maturity of the underlying obligation, thereby resulting in the actual contracted cost of cover being taken to the income statement.

The local revaluation reserve includes gains and losses on the fair value revaluation of available-for-sale assets.

1. Nominal value.



#### For the year ended 31 December

Eskom	Issued capital Rm	Foreign revaluation Rm	Local revaluation Rm	Accumulated profit Rm	Total Rm
Balance at 1 January 2001	-	553	-	30 029	30 582
Available-for-sale asset movements					
- Fair value gains	-	-	534	-	534
Cash flow hedges					
- Fair value losses	-	(131)	-	-	(131)
- Reclassified and added to future fuel supplies	-	104			104
Net profit for the year after tax	-	-	-	2 272	2 272
Transfer of reserves	-	537	(719)	182	
Balance at 31 December 2001	-	1 063	(185)	32 483	33 361
Available-for-sale asset movements					
- Fair value gains	-	-	89	-	89
Cash flow hedges					
- Fair value losses	-	(148)	-	-	(148)
- Reclassified and added to future fuel	-	(62)	-	-	(62)
Net profit for the year after tax		-	-	3 217	3 217
Issue of shares	1	-	-	-	-
Transfer of net unrealised revaluation gains/(losses)					
from distributable reserves to non-distributable					
reserve		(871)	764	107	-
Balance at 31 December 2002	-	(18)	668	35 807	36 457

A dividend of R549 million has been proposed by the Board of Directors for approval at the annual general meeting by the shareholder.



For the year ended 31 December

#### **Accounting policies** 1.

#### **Basis of preparation**

The annual financial statements of Eskom Holdings Limited (Eskom) and the group are prepared in accordance with the Companies Act, 61 of 1973 and comply with the South African Statements of Generally Accepted Accounting Practice and with International Accounting Standards

The group annual financial statements are prepared on the historical cost basis except that certain financial instruments, such as foreign loans, derivative financial instruments, available-for-sale investments and trading assets and liabilities, are stated at fair value at balance sheet date.

The following principal accounting policies are consistent, in all material respects, with those applied during the previous year.

Where necessary, comparative figures have been reclassified and restated for disclosure purposes.

#### **Basis of consolidation**

The group annual financial statements present the consolidated financial position and changes therein, operating results and cash flow information of Eskom and its subsidiaries. Subsidiaries are those entities in which the group has an interest of more than one half of the voting rights and the power to exercise control. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control effectively commences until the date that control effectively ceases.

The results of subsidiaries are included for the duration in which the group exercises control over the subsidiary. All significant intercompany transactions and resulting profits and losses between the group companies have been eliminated. Where necessary, accounting policies for subsidiaries have been changed to ensure consistency with the policies adopted by the group.

#### Investments

Investments in subsidiary companies

Investments in subsidiaries are carried at cost less accumulated impairment losses.

Investments in associates and joint ventures

An associate is an entity over which the group is in a position to exercise significant influence over the financial and operating policies, but it does not control. A joint venture is an entity jointly controlled by the group and one or more other venturers in terms of a contractual agreement.

Investments in associates and joint ventures are accounted for at cost in the financial statements of Eskom and in the group, the equity method is used for the duration that the group has the ability to exercise significant influence or joint control established by contractual agreement. Equity accounted income represents the group's proportionate share of profits of these entities and the share of taxation thereon. All material unrealised intergroup profits and losses are eliminated.

Carrying amounts of investments in associates and joint ventures are reduced to their recoverable amount where this is lower than their carrying amount.

Other investments

Unlisted investments are stated at cost less accumulated impairment losses.

#### 1. Accounting policies (continued)

#### Property, plant and equipment

#### Owned assets

Property, plant and equipment is stated at cost of acquisition or construction, less accumulated depreciation thereon.

Land is not depreciated. Mothballed power stations are plant that is out of commission, and are not being depreciated.

Major overhaul costs are capitalised as part of generating plant and depreciated on a straight-line basis over the estimated useful lives of overhauls.

Other property, plant and equipment in commission are depreciated on a straight-line basis over their respective estimated useful lives, which are as follows:

	Years
Buildings and facilities	10 <b>to</b> 40
Plant - Generation	6 <b>to</b> 35
- Transmission	25
- Distribution	15 <b>to</b> 25
- Test, telecommunication and other plant	3 to 10
Equipment and vehicles	1 to 10

Works under construction are stated at cost, which includes all costs necessarily incurred to bring plant to the condition and location essential for its intended use. Costs include overheads and borrowing costs where applicable.

The cost of renewal and maintenance of assets is expensed as incurred. Where the life of an asset is extended, such costs are capitalised and depreciated over the adjusted useful life of the asset.

Construction materials are stated at weighted average cost.

#### Leased assets

Assets subject to finance lease agreements are capitalised at their cash cost equivalents, and the corresponding liabilities are recognised. The assets are depreciated on the straight-line basis over the shorter of their estimated useful lives, or the lease term. Lease finance charges are included in interest expenditure as they become due.

Lease and leaseback transactions in terms of which the group assumes substantially all the risks and rewards of ownership, are classified as finance leases. The lease and leaseback assets are kept at their carrying amount and depreciated over their remaining useful lives.

Rentals payable under operating leases are charged to income on a straight-line basis over the term of the relevant lease.

#### Positive and negative goodwill

Any excess of the fair value of the net assets acquired over the cost of the acquisition is described as negative goodwill. Any excess of the cost of the acquistion, compared with the value of the net assets acquired, is described as positive goodwill.

Positive goodwill is amortised in the income statement and negative goodwill is recognised as income in the income statement over the life of the assets, on a straight-line basis, both over a period not exceeding 20 years.

For the year ended 31 December

#### **Accounting policies (continued)** 1.

#### Intangible assets

Computer software

Computer software is depreciated on a straight-line basis over its estimated useful life of three years.

Research and development

Research expenditure is expensed as incurred. Costs incurred on development projects (relating to the design and testing of new or improved products) are recognised as intangible assets to the extent that such expenditure is expected to generate future economic benefits. Other development expenditures are recognised as incurred. Development costs previously recognised as an expense are not recognised as an asset in a subsequent period. Development costs that have been capitalised are amortised by the group on a straight-line basis over the period of the expected benefit from the commencement of the commercial production of the product or when the new product is used. The amortisation period adopted does not exceed five years.

#### 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 financial instruments. The capitalisation rate applied is the weighted average of the net borrowing costs applicable to the net borrowings of the group.

#### Impairment of assets

The carrying amounts of assets stated in the balance sheet, other than inventories and deferred tax assets, are reviewed at each balance sheet date to determine whether there is any indication of impairment. If any such indication exists, the recoverable amount of the asset is estimated as the higher of the net selling price and its value in use. An impairment loss is recognised in the income statement whenever the carrying amount exceeds the recoverable amount.

In assessing value in use, the expected future cash flows are discounted to their present value that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

A previously recognised impairment loss is only reversed if there has been a change in the estimates used to determine the recoverable amount; however, not to an amount higher than the carrying amount that would have been determined (net of depreciation and amortisation) had no impairment loss been recognised in previous years.

An impairment loss in respect of goodwill is not reversed unless the loss was caused by a specific external event of an exceptional nature that is not expected to recur, and the increase in the recoverable amount relates clearly to the reversal of the effect of that special event.

#### **Future fuel supplies**

Nuclear

Fuel assemblies in the process of fabrication are valued at cost and include borrowing costs, which are capitalised during the fabrication period. Advance payments in terms of agreements are capitalised.

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.



#### 1. Accounting policies (continued)

#### **Financial instruments**

#### Local financial market instruments

Derivative financial market instruments

Derivative financial assets and derivative financial liabilities are deemed to be held for trading unless they are designated as effective hedging instruments and comply with hedging criteria. Certain derivative transactions, while providing effective economic hedges under risk management policies, do not qualify for hedge accounting under the specific rules of IAS 39, Financial Instruments - recognition and measurement.

Derivative financial instruments held for trading purposes are measured at fair value, with the resultant gains and losses included in interest income and interest expenditure respectively.

Financial market assets

Held-to-maturity assets, originated loans and receivables are measured at amortised cost.

Available-for-sale assets are measured at fair value with the resultant gains or losses recognised in equity until the financial asset is sold, or otherwise disposed of, or found to be impaired, at which time the cumulative gains or losses previously recognised in equity are included in interest income and interest expenditure respectively. Fair value gains or losses recognised in equity exclude interest, which are reported in the income statement on an accrual basis.

Financial assets held for trading purposes are measured at fair value, and the resultant gains and losses are included in interest income and interest expenditure respectively.

The settlement of financial market transactions that are established by regulation or market convention are accounted for, using trade date accounting.

Financial market liabilities

All financial market liabilities other than liabilities held for trading purposes, and derivative liabilities are measured at amortised cost.

Financial market liabilities held for trading purposes and derivative liabilities are measured at fair value, and the resultant gains and losses are included in interest income and interest expenditure respectively.

Fair value estimation

Fair value is determined from a discounted cash flow calculation using independently sourced market rates for similar instruments.

Capital market instruments are calculated on a clean price basis as interest accrued to date is disclosed separately.

Options are fair valued using the Black-scholes model.

Amortised cost basis

Amortised cost is determined using the effective interest rate method.



For the year ended 31 December

#### **Accounting policies (continued)** 1.

#### Foreign currency financial market instruments

Transactions in foreign currencies are initially recognised at the exchange rates prevailing on the transaction date.

Foreign loans are non-trading and are recorded at the exchange rates ruling at the date of the transaction. At balance sheet date, foreign loans are restated at the closing rates and the gains or losses are recognised in the income statement for the period. The initial measurement of foreign loans is adjusted for discounts or premiums. The discounts or premiums are amortised over the period of the relevant loan using the yield to maturity method.

Other monetary assets, liabilities and commitments in foreign currencies are translated at the exchange rates ruling at the balance sheet date.

Forward exchange contracts and similar instruments, designated as cash flow hedges for future anticipated foreign currency denominated transactions, are measured at fair value with the resultant gains or losses being recognised in equity. Forward exchange contracts and similar instruments, designated as fair value hedges for recognised foreign denominated transactions, are measured at fair value with the resultant gains or losses being charged to the income statement in the period.

If the hedged forecasted transaction results in the recognition of an asset or liability, the cumulative amount recognised in equity is adjusted against the initial measurement of the asset or liability. For other cash flow hedges, the cumulative amount recognised in equity is included in the income statement in the period when the forecasted transaction affects profits or losses.

#### Other financial market instruments

Trade and other receivables

Trade and other receivables are stated at cost less provision for doubtful debts. Debts considered to be irrecoverable are written off.

Trade and other payables

Local trade and other payables are stated at nominal value, which approximates fair value.

#### Loans receivable

Loans receivable consist of finance provided to employees of the group mainly for the purchase of immovable property, and are stated after a provision for doubtful loans. Specific provisions are made against identified doubtful loans. A provision is also raised based on periodic evaluations of loans and taking into account past experience, economic conditions, and changes in the nature and levels of risk exposure.

#### 1. Accounting policies (continued)

#### **Inventories**

Coal, maintenance spares and consumables

Inventories are valued at the lower of cost and net realisable value. Cost is determined on the weighted average basis.

Nuclear fuel

Nuclear fuel is valued 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.

Insurance reserve

A full contingency reserve is created in Escap Limited and Gallium Insurance Company Limited in terms of the Short-term Insurance Act, 53 of 1998.

#### **Provisions**

Provisions are recognised when the group has a present legal or constructive obligation as a result of past events, for which it is probable that an outflow of economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

An onerous contract is a contract under which the unavoidable cost of meeting the obligation exceeds the economic benefit expected to be received under it. When a contract becomes onerous, the present obligation under a contract is recognised and measured as a provision.

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.

#### Decommissioning and nuclear waste management

Nuclear and other generation plant

A provision is raised for the estimated decommissioning cost of nuclear or 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 cost capitalised to the cost of nuclear or other generation plant is written off on a straight-line basis over the estimated useful lives of the plant.

Where the effect of discounting to present value is material, provisions are adjusted to reflect the time value of money and, where appropriate, the risk specific to the liability.

Any subsequent change to the provision regarding a change in the estimate of the decommissioning cost is charged to the income statement.

The provisions are restated on an annual basis to reflect the changes in time value of money. The impact of the change in time value on the provision is reflected in the income statement.

Spent fuel

A provision is made, over the life of the plant, for the management of spent nuclear fuel assemblies and radioactive waste. The annual charge to the income statement is based on the latest available cost information and is included in operating expenditure.

Where the effect of discounting to present value is material, provisions are adjusted to reflect the time value of money and, where appropriate, the risk specific to the liability.

The provisions are restated on an annual basis to reflect the changes in time value of money. The impact of the change in time value on the provision is reflected in the income statement.

For the year ended 31 December

#### **Accounting policies (continued)** 1.

#### 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 constructive or legal 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 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.

Where the effect of discounting to present value is material, provisions are adjusted to reflect the time value of money and, where appropriate, the risk specific to the liability.

Any subsequent change to the provision regarding a change in the estimate of the environment and rehabilitation cost is charged to the income statement.

#### **Deferred** income

#### Cross-border lease

Income realised on cross-border lease transactions is deferred. This income is recognised over the period that Eskom is exposed to a risk of a cancellation event on the contract and is allocated to the income statement on the same basis as the risk exposure profile.

#### 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.

#### **Retirement benefits**

Retirement benefits are provided for all 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.

The net benefit liability or asset at the balance sheet date is not accounted for in the financial statements. The rules of the Eskom Pension and Provident Fund state that any deficit on the valuation 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 estimated cost of gratuities is accounted for over the potential working life of the employees based on the assessment by independent actuaries, which takes into account the probability of employees staying until retirement.

Provision is made for post-retirement medical contributions 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 that exceed 10% of the present value of the post-retirement medical aid obligation are amortised to the income statement over the lesser of 10 years or the expected remaining working lives of the participating employees. The amount recognised in the balance sheet represents the present value of the post-retirement medical aid contribution as adjusted for unrecognised actuarial gains and losses.

#### 1. Accounting policies (continued)

#### **Discontinuing operations**

A discontinuing operation is a significant distinguishable component of the group's business that is abandoned or terminated pursuant to a single formal plan, and which represents a separate major line of business or geographical area of operations.

The profit or loss on the sale or abandonment of a discontinuing operation is determined from the formalised discontinuance date.

#### **Exceptional items**

Exceptional items are material items that derive from events or transactions that fall within the ordinary activities of the group and that individually or, if of a similar type, in aggregate, need to be disclosed by virtue of their size or incidence.

#### Cash and cash equivalents

Cash and cash equivalents are defined as money market assets and liabilities that mature within one year, and cash and bank balances.

#### Revenue

Revenue, which excludes value-added tax, represents the gross value of goods or services invoiced and accrued at the end of the year.

Electricity revenue

Electricity revenue is recognised when electricity is consumed by the customer.

Other revenue

Revenue from the sale of goods is recognised when the significant risks and rewards of ownership are transferred to the buyer.



For the year ended 31 December

#### **Accounting policies (continued)**

#### Interest income

Interest income comprises interest receivable on loans, advances, trade receivables and income from financial market investments. Interest is only recognised where it is probable that the economic benefits associated with the transaction will flow to the group. Interest income is recognised on a time proportionate basis that takes into account the effective yield on assets.

#### **Taxation**

Income tax on the net profit for the year comprises current, deferred and secondary tax on companies. Income tax is recognised in the income statement except to the extent that it relates to items recognised directly to equity, in which case it is recognised in equity.

The charge for current tax is based on the results for the year as adjusted for items that are non-assessable or disallowed using tax rates that have been enacted or substantially enacted at the balance sheet date and any adjustment to tax payable in respect of a previous year.

Deferred tax is provided on the comprehensive basis using the balance sheet liability method on all temporary differences between the carrying amounts of assets or liabilities for financial reporting purposes and the amounts used for taxation purposes, except differences relating to positive and negative goodwill not deductible for taxation purposes and the initial recognition of assets or liabilities that affect neither accounting nor computed taxable profits or losses.

Deferred tax is calculated at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled and is charged to the income statement.

A deferred tax asset is recognised only to the extent that it is probable that future taxable profits will be available against which the associated unused tax losses and credits can be utilised. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realised.

Property, plant and equipment		_				
		Group			Eskom	
	Cost	Accumulated	Carrying	Cost	Accumulated	Carrying
		depreciation	value		depreciation	value
	Rm	Rm	Rm	Rm	Rm	Rm
2002						
Land	302	-	302	271	-	271
Buildings and facilities	2 887	1 586	1 301	2 767	1 545	1 222
Plant - Generation	45 072	19 760	25 312	45 072	19 760	25 312
- Transmission	9 711	4 289	5 422	9 711	4 289	5 422
- Distribution	24 098	8 728	15 370	24 098	8 728	15 370
Regular distribution	14 877	5 230	9 647	14 877	5 230	9 647
Electrification	9 221	3 498	5 723	9 221	3 498	5 723
- Test, telecommunication						
and other plant	2 172	1 429	743	503	463	40
Equipment and vehicles	3 063	2 038	1 025	2 706	1 847	859
Total in commission	87 305	37 830	49 475	85 128	36 632	48 496
Plant at mothballed power stations	588	367	221	588	367	221
Works under construction	2 049	-	2 049	1 182	-	1 182
Construction materials	81	-	81	81	-	81
	90 023	38 197	51 826	86 979	36 999	49 980
2001						
Land	304	_	304	273	_	273
Buildings and facilities	2 892	1 536	1 356	2 790	1 510	1 280
Plant - Generation	44 336	18 503	25 833	44 336	18 503	25 833
- Transmission	9 432	3 941	5 491	9 432	3 941	5 491
- Distribution	22 016	7 647	14 369	22 016	7 647	14 369
Regular distribution	13 602	4 705	8 897	13 602	4 705	8 897
Electrification	8 414	2 942	5 472	8 414	2 942	5 472
- Test, telecommunication	0 111	2 / 12	9 1/2	0 111	2 / 12	J 1/2
and other plant	1 812	1 227	585	503	445	58
Equipment and vehicles	2 652	1 897	755	2 399	1 752	647
Total in commission	83 444	34 751	48 693	81 749	33 798	47 951
Plant at mothballed power stations	598	377	221	598	33 798 377	221
Works under construction		3//			3//	
Construction materials	1 225	-	1 225	1 050	-	1 050
Construction materials	57		57	57		57
	85 324	35 128	50 196	83 454	34 175	49 279
		JJ 140	JU 170	UJ 1/T	011/	1/ 4//

For the year ended 31 December

#### Property, plant and equipment (continued)

#### **Reconciliation of movements**

	Carrying					
	value	Additions		Impair-		Carrying
	beginning	and		ment		value end
	of year	transfers	Disposals	losses	Depreciation	of year
	Rm	Rm	Rm	Rm	Rm	Rm
Group						
2002						
Land	304	17	19	-	-	302
Buildings and facilities	1 356	96	55	(9)	105	1 301
Plant	46 278	3 605	105	-	2 931	46 847
Equipment and vehicles	755	606	6	-	330	1 025
Plant at mothballed power stations	221	-	-	-	-	221
Works under construction	1 225	867	-	43	-	2 049
Construction materials	57	44	20	-	-	81
	50 196	5 235	205	34	3 366	51 826
Eskom						
2002	0=0	4=	10			0=4
Land	273	17	19	(0)	-	271
Buildings and facilities	1 280	84	55	(9)		1 222
Plant	45 751	3 310	105	-	2 812	46 144
Equipment and vehicles	647	498	5	-	281	859
Plant at mothballed power stations	221	-	-	-	-	221
Works under construction	1 050	175	-	43	-	1 182
Construction materials	57	44	20	-	-	81
	49 279	4 128	204	34	3 189	49 980

Borrowing costs are capitalised at a weight	ed average rate of
10,36% (2001: 10,08%).	

Details of land and buildings are available for examination at the registered offices of the respective businesses.

Included in generation plant are assets leased to an international lessor and leased back under cross-border lease agreements with a book value of

G	roup	E	skom
2002	2001	2002	2001
Rm	Rm	Rm	Rm
4 979	5 161	4 979	5 161

#### 2. Property, plant and equipment (continued)

The cross-border lease transactions over three units comprise primary lease terms of 18.8 and 22 years as well as renewal lease terms of 15.8 and 13 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 leases the assets will return to Eskom.

The present value of lease and leaseback obligations was settled in full at commencement of the transactions.

#### 3. Goodwill

Positive goodwill

Arising on acquisition of subsidiaries and joint ventures Amortised during the year

Negative goodwill

Balance at beginning of the year Amortised during the year

Total

Gr	oup	Esl	kom
2002	2001	2002	2001
Rm	Rm	Rm	Rm
129	-	-	-
138 (9)	-		
(212)	(250)	(212)	(250)
(250)	(288)	(250) 38	(288) 38
(83)	(250)	(212)	(250)

#### For the year ended 31 December

		Group			Eskom	
	Cost	Accumulated amortisation	Carrying value	Cost	Accumulated amortisation	Carrying value
	Rm	Rm	Rm	Rm	Rm	Rm
2002						
Total	1 174	714	460	1 078	702	376
2001						
2001 Total	738	568	170	736	568	168
Reconciliation of movements	Carrying					
	value			Impair-		Carrying
	beginning			ment		value end
	of year	Additions	Disposals	losses	Amortisation	of year
	Rm	Rm	Rm	Rm	Rm	Rm
Group						
2002						

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#### **Future fuel supplies**

Coal

2002

Total

Balance at beginning of the year

Additions

Loan repayment

Amortised

Nuclear

Balance at beginning of the year

Additions

Transfer to inventories

2002 <b>R</b> m	<b>Group</b> 2001 Rm	2002 Rm	Eskom 2001 Rm
KIII	Kili	KIII	KIII
2 389	2 384	2 389	2 384
2 384	2 587	2 384	2 587
199	237	199	237
-	(279)	-	(279)
(194)	(161)	(194)	(161)
31	141	31	141
141	69	141	69
305	255	305	255
(415)	(183)	(415)	(183)
2 420	2 525	2 420	2 525

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An amount of R62 million credited (2001: R104 million debited) to nuclear fuel was debited to the foreign revaluation reserve in terms of the accounting policy on foreign currency and financial instruments in respect of cash flow hedges.

		2002 2002		<b>up</b> 2001	2001	2002	2002	<b>Eskom</b> 2001	2001
		Carrying amount Rm	Fair value Rm	Carrying amount Rm	Fair value Rm	Carrying amount Rm	Fair value Rm	Carrying amount Rm	Fair value Rm
6.	Financial instruments								
	Financial market assets								
	Financial assets, other than invest- ments in subsidiaries, associates and joint ventures, trade and other receivables, comprise the following classes of financial assets:								
	Non-current assets	6 667	6 667	3 918	3 918	6 634	6 634	3 918	3 918
	Held-to-maturity assets 6.1.1 Originated loans and receivables 6.1.2 Available-for-sale assets 6.1.3 Assets carried at fair value 6.1.4 Hedging instruments 6.1.5	758 5 620 146 143	758 5 620 146 143	1 046 2 768 132 (28)	1 046 2 768 132 (28)	758 5 620 113 143	758 5 620 113 143	1 046 2 768 132 (28)	1 046 2 768 132 (28)
	Current assets	10 877	10 877	11 495	11 495	9 328	9 328	9 458	9 458
	$\begin{array}{lll} \mbox{Held-to-maturity assets} & 6.1.1 \\ \mbox{Originated loans and} \\ \mbox{receivables} & 6.1.2 \\ \mbox{Available-for-sale business} & 6.1.3 \\ \mbox{Assets carried at fair value} & 6.1.4 \\ \mbox{Hedging instruments} & 6.1.5 \\ \end{array}$	566 5 027 383 4 770 131	566 5 027 383 4 770 131	5 165 1 473 3 002 1 855	5 165 1 473 3 002 1 855	4 044 383 4 770 131	4 044 383 4 770 131	3 244 1 473 3 002 1 739	3 244 1 473 3 002 1 739
		17 544	17 544	15 413	15 413	15 962	15 962	12 276	13 376
	Financial market liabilities  Financial liabilities other than trade and other payables comprise:	1/ )++	1/ )44	1) 413	1) 41)	1) 902	1) 902	13 376	13 3/0
	Non-current liabilities	19 018	19 018	17 933	17 933	18 889	18 889	17 896	17 896
	Liabilities carried at fair value 6.2.1 Other liabilities 6.2.2 Hedged items 6.2.3 Hedging instruments 6.2.4	515 16 348 2 030 125	515 16 348 2 030 125	888 16 535 510	888 16 535 510	515 16 219 2 030 125	515 16 219 2 030 125	888 16 498 510	888 16 498 510
	Current liabilities	7 526	7 526	11 521	11 521	7 794	7 794	11 501	11 501
	Liabilities carried at fair value 6.2.1 Other liabilities 6.2.2 Hedged items 6.2.3 Hedging instruments 6.2.4	2 700 3 734 183 909	2 700 3 734 183 909	3 122 3 532 4 867	3 122 3 532 4 867	2 976 3 726 183 909	2 976 3 726 183 909	3 122 3 512 4 867	3 122 3 512 4 867
		26 544	26 544	29 454	29 454	26 683	26 683	29 397	29 397



#### For the year ended $31\ \mathrm{December}$

			G	roup	
		2002	2002	2001	2001
		Carrying amount Rm	Fair value Rm	Carrying amount Rm	Fair value Rm
6.	Financial instruments (continued)				
6.1	Financial market assets				
6.1.1	Held to maturity	566	566	-	-
	Capital market instruments Money market instruments	566	566	-	
6.1.2	? Originated loans and receivables	5 785	5 785	6 211	6 211
	Capital market instruments Money market instruments Cash and other deposits Other - unsettled financial market deals Foreign deposits	129 200 4 810 - 646	129 200 4 810 - 646	129 400 4 098 667 917	129 400 4 098 667 917
6.1.3	3 Available-for-sale assets	6 003	6 003	4 241	4 241
	Capital market instruments Non-qualifying hedged amounts	6 003	6 003	4 241	4 241
6.1.4	Assets carried at fair value	4 916	4 916	3 134	3 134
	Capital market instruments Money market instruments Derivatives Non-qualifying hedges	3 4 783 96 34	3 4 783 96 34	17 2 998 112 7	17 2 998 112 7
6.1.5	5 Hedging instruments	274	274	1 827	1 827
	Derivatives designated as cash flow hedges	118	118	30	30
	Contracts with positive fair values	118	118	169	169
	<ul><li>Foreign exchange contracts</li><li>Foreign interest rate swaps</li></ul>	118	118	169	169
	Contracts with negative fair values	-	-	139	139
	<ul><li>Foreign exchange contracts</li><li>Foreign interest rate swaps</li></ul>			139	139
	Derivatives designated as fair value hedges	156	156	1 797	1 797
	Contracts with positive fair values	156	156	2 213	2 213
	<ul><li>Foreign exchange contracts</li><li>Foreign interest rate swaps</li></ul>	113 43	113 43	2 143 70	2 143 70
	Contracts with negative fair values	-	-	416	416
	<ul><li>Foreign exchange contracts</li><li>Foreign interest rate swaps</li></ul>			416	416



2002	2002	2002	2002	2002	Eskom 2002	2002	2001	2001	2001	2001
Current I year	Non-curr I-5 years A	rent	Sub total	Total	Fair value	Weighted average	Current	Non-	Total	Fair value
Rm	Rm	Rm	Rm	Rm	Rm	%	Rm	Rm	Rm	Rm
-	-	-	-	-			-	-	-	
-	-	-	-	-			-		-	
4 044	48	710	758	4 802	4 802		3 244	1 046	4 290	4 29
17 200	48	64	112	129 200	129 200	14,93 13,55	400	129	129 400	12 40
3 827	-			3 827	3 827	-5,55	2 177 667	-	2 177 667	2 17 66
-	_	646	646	646	646		-	917	917	91
383	52	5 568	5 620	6 003	6 003		1 473	2 768	4 241	4 24
383	52	5 568	5 620	6 003	6 003	12,14	1 473	2 768	4 241	4 24
4 770	1	112	113	4 883	4 883		3 002	132	3 134	3 13
4 753	-	-	-	4 753	4 753	13,41	2 998	17	17 2 998	1 2 99
17	(1)	80 32	79 34	96	96	13,41	4	108	112	11
131	143		143	274	274		1 739	(28)	1 711	1 71
27	91	-	91	118	118		33	(3)	30	3
27	91	-	91	118	118		137	32	169	16
27	91	-	91	118	118		137	32	169	16
-	_	-	-	_	-		104	35	139	13
-	-	-	-	-	-		104	35	139	13
104	52	-	52	156	156		1 706	(25)	1 681	1 68
104	52	-	52	156	156		1 843	254	2 097	2 09
61 43	52		52	113 43	113 43		1 773 70	254	2 027 70	2 02
-	-	-	-	-	-		137	279	416	41
-	-	-	-	-	-		137	279	416	41
-	-		-				-	-	-	L

#### For the year ended 31 December

			G	roup	
		2002	2002	2001	2001
		Carrying amount Rm	Fair value Rm	Carrying amount Rm	Fair value Rm
6.	Financial instruments (continued)				
6.2	Financial market liabilities				
6.2.1	1 Liabilities carried at fair value	3 215	3 215	4 010	4 010
	Capital market instruments Money market instruments Derivatives Embedded derivatives Non-qualifying hedges	344 2 716 155 -	344 2 716 155	28 2 363 1 225 394	28 2 363 1 225 394
	The embedded derivative is an equity-linked cash instrument. The equity-linked cash instrument comprises a zero coupon note and an embedded ALSI future. As a result of being unable to measure seperately the embedded ALSI future, the entire instrument has been fair valued.				
6.2.2	2 Other liabilities	20 082	20 082	20 067	20 067
	Capital market instruments Money market instruments Other Other - unsettled financial market deals Non-qualifying hedges	13 407 2 346 130 1 880 2 319	13 407 2 346 130 1 880 2 319	14 110 2 921 179 - 2 857	14 110 2 921 179 - 2 857
6.2.	3 Hedged items				
	Foreign liabilities	2 213	2 213	5 377	5 377
	Euro US dollar Japanese yen Pound sterling Swiss franc	2 116 44 - 53	2 116 44 - 53	2 711 293 2 289 67 17	2 711 293 2 289 67 17
6.2.4	4 Hedging instruments	1 034	1 034	-	-
	Derivatives designated as cash flow hedges	368	368	-	-
	Contracts with positive fair values	-	-	-	-
	<ul><li>Foreign exchange contracts</li><li>Foreign interest rate swaps</li></ul>		-		-
	Contracts with negative fair values	368	368	-	-
	<ul><li>Foreign exchange contracts</li><li>Foreign interest rate swaps</li></ul>	368	368		
	Derivatives designated as fair value hedges	666	666	-	-
	Contracts with positive fair values	-	-	-	-
	<ul><li>Foreign exchange contracts</li><li>Foreign interest rate swaps</li></ul>	-	-	-	-
	Contracts with negative fair values	666	666	-	-
	- Foreign exchange contracts	666	666	-	-

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#### For the year ended 31 December

					Eskom					
2002	2002	2002	2002	2002	2002	2002	2001	2001	2001	2001
Current 1 year	Non-cur 1-5 years A	After 5 years	Sub total	Total	Fair value	Weighted average	1 year	Non-current After 1 year	Total	Fair value
Rm	Rm	Rm	Rm	Rm	Rm	%	Rm	Rm	Rm	Rm
2 976	(72)	587	515	3 491	3 491		3 122	888	4 010	4 010
113 2 992	18	213	231	344 2 992	344 2 992	11,73 13,22	2 363	28	28 2 363	28 2 363
(129)	(90)	374	284	155	155		365 394	860	1 225 394	1 225 394
_	-	-		_	_		-	-	-	-
3 726	3 726	12 493	16 219	19 945	19 945		3 512	16 498	20 010	20 010
915 2 164	2 123	10 369 53	12 492 53	13 407 2 217	13 407 2 217	13,57 13,07	71 2 876	14 039 45	14 110 2 921	14 110 2 921
647	1 233	122	122 1 233	122 1 880	122 1 880		1 -	121	122	122
	370	1 949	2 319	2 319	2 319	13,34	564	2 293	2 857	2 857
102	2.020		2.020	2 212	2 212		4.067	510	5 277	E 277
183 130	2 030 1 986	_	2 030 1 986	2 213 2 116	2 213 2 116	11,70	4 867 2 340	510 371	5 377 2 711	5 377 2 711
40	4	-	4	44	44	7,28	221 2 289	72	293 2 289	293 2 289
13	40	-	40	53	53	8,64	- 17	67 -	6 <del>7</del> 17	6 <del>7</del> 17
909	125	-	125	1 034	1 034		-	-	-	-
288	80	-	80	368	368		-	-	-	-
-	-	-	-	-	-		-	-	-	-
-	-	-	-	-			-	-	-	-
288	80	-	80	368	368		-	-	-	-
288	80		80	368	368		-			
621	45	-	45	666	666		-	-	-	-
-	-	-	-	-	-		-	-	-	-
-	-	-	-	-	-		-		-	-
621	45	-	45	666	666		-	-	-	-
621	45		45	666	666		-			
7 794	5 809	13 080	18 889	26 683	26 683		11 501	17 896	29 397	29 397



#### For the year ended $31\ \mathrm{December}$

		2002	<b>Eskom</b> 2001
6.	Financial instruments (continued)		
	The items discussed below apply to both Eskom and the group.		
6.3	Key interest rate risk indicators for non-trading instruments		
	Domestic to foreign interest rate mix, ratio Foreign currency risk is fully hedged.	70:30	71:29
6.4	The average annual rate of interest and finance charges based on average net financial market instruments, %	16.14	11 /1
	<ul> <li>including fair value adjustment</li> <li>excluding fair value adjustment but including book loss on debt buybacks</li> </ul>	16,14 14,01	11,41 13,14
6.5	The weighted average maturity period of financial market instruments, years	12,02	8,05
	Current financial market liabilities including credits and current loans of a revolving nature, Rm	5 264	5 346
6.6	Fair value information		
	Integrated fair value information for portfolios where the intention is to hold the instruments to maturity is only prepared on a pool basis for risk assessment and risk management purposes. It is impractical to determine the fair value of all instruments in their respective categories for financial accounting purposes.		
6.7	Nominal value of locally issued Eskom bonds, Rm		
	Authorised	48 380	56 360
	Issued	14 042	15 245
6.8	Financial market liabilities and interest thereon are secured by a first		
	claim against revenue and assets.		
6.9	Portion of foreign debt guaranteed by the government, Rm	200	2 709
6.10	Derivatives and forward exchange contracts		
	Derivatives and forward exchange contracts are primarily used for risk management purposes. In particular, they are used to hedge Eskom's exposure to domestic and foreign interest rate risk, foreign exchange risk and commodity price risk. In addition, derivatives are transacted to a limited extent for trading purposes. These trading positions are controlled within very tight limits and within the parameters of Eskom's risk management policies. Their use is monitored on a real time basis by an independent compliance function.		
	The range of derivative instruments used includes domestic and foreign interest rate swap agreements, forward rate agreements, forward exchange contracts, commodity option contracts, bond option contracts and commodity futures contracts.		

6.11	The carrying amounts and fair values of financial assets and
	liabilities at 31 December are:

#### Financial assets

Financial market assets
Investment in subsidiary companies
Investment in associates and joint ventures
Other investments
Trade and other receivables

#### Financial liabilities

Financial market liabilities Letter of credit facilities Trade and other payables

#### Unrealised gains

The carrying amount of cash, trade receivables and trade payables approximates fair values because of the short maturity period of these instruments. Trade and other receivables, after provision for doubtful debts, and trade payables are mainly expected to mature within 12 months.

The fair value of investment in associates and joint ventures, and other investments is based on directors' valuations.

The method and assumptions for the fair value of the rest of the instruments are stated in the accounting policies and, as a result, the carrying values approximate the fair values.

Eskom				
2002	2002	2001	2001	
Caarrying	Fair	Carrying	Fair	
amount	value	amount	value	
Rm	Rm	Rm	Rm	
15 962	15 962	13 376	13 376	
4 400	5 233	3 518	4 294	
97	128	150	213	
42	42	49	49	
3 665	3 665	3 505	3 505	
		<u> </u>		
24 166	25 030	20 598	21 437	
26 683	26 683	29 397	29 397	
85	85	108	108	
3 682	3 682	2 917	2 917	
J 002	J 002	2 /1/	2 /1/	
30 450	30 450	32 422	32 422	
JU 170	864	<i>J2</i> 122	839	

Group

For the year ended 31 December

7.	Marke	et risk	management	

The items discussed below refer to both the group and

The objective of Eskom's market risk management is to ensure that Eskom and its customers are not exposed to undue financial risk. The management of market risk takes place within Eskom's centralised treasury function and adheres substantially to the  $\mbox{G}30^{1}$  recommendations and, in particular, to the requirement that the functions of risk assessment and risk management be completely segregated.

#### Risk assessment

The risk assessment function takes responsibility for the identification, measurement and monitoring of market risk. By ensuring that the necessary processes and tools are in place, the risk assessment function seeks to identify potential risks at an early stage so that the information can be supplied timeously to the risk management committee. Advanced risk evaluation procedures are used and, amongst other indicators, internationally recognised methodologies of Value at Risk are used extensively. The revaluation rates and prices used for risk and accounting evaluations are obtained from independent external sources.

To ensure impartiality, the risk assessment and compliance functions within the centralised Treasury department have direct access and reporting responsibility to the Finance Director.

#### Risk management

Based on the information supplied by the risk assessment function, the Treasury risk management committee meets regularly to review and, if appropriate, approve the implementation of optimal strategies for the effective management of Eskom's commodity, liquidity, credit, currency and interest rate risks.

# 2002 2002 2001 2001 Rm Rm Rm Rm

**Eskom** 

1. Group of 30 leading international bankers.



Market risks and broad management strategi
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#### Commodity risk

Commodity risk originates from Eskom's use of commodities as inputs to the business as well as commodity-linked tariff agreements exposing it to commodity risk on the income side of the business. Where necessary, Eskom uses derivative instruments, including options, futures and forward agreements, to manage the exposure to these commodities.

#### Liquidity risk

Liquidity risk arises primarily from unexpected variations in revenue flows as well as Eskom's commitment to act as a market-maker in its own debt instruments. Eskom's strategy is to maintain a satisfactory call account balance as well as an adequate liquidity reserve portfolio consisting of liquid government and government-guaranteed assets.

#### Credit risk

The risk of counterparty failure is managed by setting exposure limits for each counterparty. This process is evaluated and managed by placing reliance on independent rating agencies. A credit committee, which is chaired by the Finance Director, reviews and approves these limits on a quarterly basis. International Swap Dealers Association (ISDA) netting agreements are in place with all Eskom's major counterparties.

The credit exposures by risk rating as at 31 December were:

RSA government, % A1+, % Other, %

2002	2001	2002	2001
24	25	24	25
55	64	55	64
21	11	21	11
100	100	100	100

Group

2002

2001

**Eskom** 

2001

2002



#### For the year ended $31\ \mathrm{December}$

	Group		Esko	om
	2002	2001	2002	200
	Rm	Rm	Rm	Rr
Market risk management (continued)				
Trade debtors comprise a large, widespread customer base. Credit evaluations are performed for all new customers together with required cash deposits and guarantees. Ongoing credit evaluation is performed on the financial condition of debtors and, where neccessary, appropriate steps are taken to minimise risk. Information on trade receivables is contained under revenue management in the Directors' report on page 47.				
Currency risk				
Currency risk arises primarily from foreign borrowings, imported components and electricity sales in foreign currencies. Management follows a conservative approach to currency risk, and therefore forward exchange contracts, and, to a limited extent, currency options, are used to hedge substantially all known foreign exchange exposures.				
Interest rate risk				
Interest rate risk arises from the repricing of Eskom's forward cover and floating rate debt as well as incremental funding and roll-over of maturing debt. Interest rate swaps are used as cash flow hedges of future interest rate payments, which has the economic effect of converting borrowings from floating to fixed rates. Interest rate swaps and forward rate agreements are used to limit the exposure to interest rate fluctuations.				
Funding requirements				
Eskom's requirements for external funding have been decreasing steadily over recent years, and it is anticipated that this trend will continue in the foreseeable future.  However, Eskom's future funding requirements may change, depending on the future financial framework with respect to dividend payments still to be finalised with government and the impact of the restructuring of the electricity supply industry. Eskom was a net investor of				

#### **Customised pricing arrangements**

Eskom has entered into a number of agreements to supply electricity to electricity intensive industries where the price is influenced by commodity prices, foreign exchange rates and production price indices. Due to the long-term nature of the contracts, relevant and reliable forward pricing data is unavailable for many of the inputs needed in determining the value.

cash of R6 788 million (2001: R309 million) in the domestic and foreign markets during 2002.

Estimations of value, given various simulations of forward prices, yield a range of values that is so variable and the possibilities of the various outcomes are so numerous that the usefulness of an estimate of value is negated. Disclosure has been provided to reflect the economic characteristics and inputs that are necessary in determining a range of values.

The following disclosure has been provided according to the type of commodity to which the pricing agreement is linked.

				Annual commodity	% of electricity
Commodity	Pricing components	Mechanism	Period	tonnages <sup>1</sup>	revenue
Aluminium	3-month forward	The monthly consumption on these	2001	110 486	5,7
	aluminium price	contracts is converted at the ruling	2002	113 632	5,7
	USD/ZAR	three month LME (London Metals	2003 - 2012	116 880	
		Exchange) aluminium price	2013 - 2020	200 978	
		converted to rand at the then	2021 - 2025	84 098	
		ruling spot USD rate			
Ferrochrome	eFerrochrome spot price	The monthly consumption on	2001	35 630	0,9
	USD/ZAR	these contracts is converted at	2002	44 518	1,1
		the historical three month ferrochrom	e 2003	33 213	
		price converted to rand at the then	2004	3 968	
		ruling spot USD rate	2005	3 968	
		These contracts all vary within a collar	2006	384	
Other	US PPI	Annual price escalated by US PPI	2001		0,3
			2002		0,3

Rates		verage	Year-end		
	2002	2001	2002	2001	
Aluminium princ LISD/son	1 264 80	1 450 21	1 262 50	1 257 00	
Aluminium price USD/ton Ferrochrome price USD/ton	1 364,80 651,02	1 458,31 731,91	1 362,50 704,68	1 357,00 643,93	
USD/ZAR	10,506	8,594	8,605	12,100	
US PPI, %	(2,20)	1,20	3,80	(6,00)	
RSA PPI, %	14,20	8,40	12,40	8,30	

<sup>1.</sup> Annual tonnages fluctuate due to the commencement or expiry of the commodity component of existing contracts.



#### For the year ended $31\ \mathrm{December}$

		Group		Eskom	
		2002	2001	2002	2001
		Rm	Rm	Rm	Rm
9.	Loans receivable				
	Consumed by magnetic and	2 474	2 220		
	Secured by mortgages	2 474	2 330	-	-
	Other	53	110	-	
	B 6 . 1 . 1 . 1 . 1	2 527	2 440	-	-
	Provision for doubtful loans	(33)	(32)	-	-
		2 494	2 408	_	_
10.	Investment in associates and joint ventures				
	Associates	151	191	4	74
	Cost of investment	202	255	275	246
		392	355	275	
	Share of post-acquisition profit, net of dividends received	30	8	275	246
	Duration for investment leave	422	363	275	246
	Provision for impairment losses	(271)	(172)	(271)	( 172)
	Joint ventures	101	201	93	76
	Cost of investment	129	206	125	103
	Share of post-acquisition profit, net of dividends received	5	22	-	-
		134	228	125	103
	Provision for impairment losses	(33)	(27)	(32)	(27)
	Total (refer schedule 1)	252	392	97	150
	Aggregate attributable after tax profits of associates and joint ventures	26	16 <sup>1</sup>		
	7.881 egate attributable after tax profits of associates and joint ventures		10		
11.	Investment in subsidiary companies				
	Shares at cost			184	184
	Indebtedness			4 216	3 334
	macbecaness			4 400	3 518
	Provision for impairment losses			-	-
	Total (refer schedule 2)			4 400	3 518
				1 100	3 710
	Aggregate attributable after tax profits of subsidiary companies	50	289		
	Aggregate attributable after tax losses of subsidiary companies	83	-		

<sup>1.</sup> In 2001, amount included in revenue for disclosure purposes.



		Gr	oup	Eskom		
		2002	2001	2002	2001	
		Rm	Rm	Rm	Rm	
12.	Other investments					
		20	20	20	20	
	Amounts owed by electricity utilities	29	29	29	29	
	Other	47	66	47	54	
	Describing for investment leaves	76 (36)	95	76	83	
	Provision for impairment losses	(34)	(34)	(34)	(34)	
		42	61	42	49	
		12	O1	12	1)	
13.	Deferred tax					
	Deferred tax assets	85	44			
	Deferred tax assets	65	44	-	-	
	Balance at beginning of the year	44	35	-	218	
	Transfer from income statement (refer note 27)	41	9	-	(218)	
	Deferred tax liabilities	(2 649)	(943)	(2 516)	(936)	
	Balance at beginning of the year	(943)	218	(936)	-	
	Transfer from income statement (refer note 27)	(1 706)	(1 161)	(1 580)	(936)	
		(2 564)	(899)	(2 516)	(936)	
	Comprising:					
	Deferred tax assets					
	Property, plant and equipment	(13)	-	-	-	
	Provisions	72	44	-	-	
	Computed tax losses utilised	10	-	-	-	
	Other	16	-	-	-	
		85	44	-	_	
	Deferred tax liabilities					
	Property, plant and equipment	5 987	3 823	5 987	3 811	
	Inventories	97	96	97	96	
	Provisions	(2 518)	(2 162)	(2 518)	(2 160)	
	Computed tax losses utilised	(830)	(397)	(830)	(397)	
	Other	(87)	(417)	(220)	(414)	
		2 649	0/2	2 516	026	
	Computed tax losses not used, but available for set-off	2 049	943	2 516	936	
	against future taxable income	98	144		_	
	against ratar a taxable meeme		111			



#### For the year ended $31\ \mathrm{December}$

		Gı	oup	Es	kom
		2002	2001	2002	2001
		Rm	Rm	Rm	Rm
14.	Trade and other receivables				
	Trade	4 678	4 751	4 435	4 529
	Interest receivable	207	625	360	715
	Other	1 081	232	1 014	363
		5 966	5 608	5 809	5 607
	Provision for doubtful debts	(1 968)	(1 951)	(1 921)	(1 923)
		3 998	3 657	3 888	3 684
	Non-current portion	223	179	223	179
		3 775	3 478	3 665	3 505
15.	Inventories				
	Coal	675	956	675	956
	Nuclear fuel	741	590	741	590
	Maintenance spares and consumables	968	747	757	664
		2 384	2 293	2 173	2 210
16.	Issued capital				
	Authorised	1		1	
	$1\ 000\ (2001$ - nil) ordinary shares of R1 each		-		-
	Issued				
	issued	,			

In terms of the articles of association the unissued share capital is under the control of the government as the sole shareholder.

1 (2001 - nil) ordinary share of R1



17. Retirement benefits  17.1 The Estorn Pension and Provident Fund is registered in terms of the Pension Funds Act, 1956 as amended. All the employees are members of the Fund. Contributions comprise 20.8% of pensionable emoluments of which members par, 7.3%. The assets of the Fund contributions comprise 20.8% of pensionable emoluments of which members par, 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 last valuation was performed at 31 December 2002. The Fund is actuarially valued annually. The actuarial present value of promised retirement benefits at 31 December 2002 was R21 070 million (2001: R19 584 million), while the fair value of the Fund's assets at this date was R21 315 million (2001: R19 584 million).  The principal actuarial assumptions used for actuarial valuation purposes were, 8.  Long-term interest rate before tax  Long-term interest rate before tax  A process is under way to convert the current Eskom Pension and Providend Fund into a defined contribution fund.  17.2 A service gratuity, where applicable, is payable on retirement or death. The estimated present value of the anticipated expenditure for gratuities was calculated by independent actuaries at 31 December 2002. The probability of employees sturying until retrement is taken into account when calculating the provision.  Amount provided, Rm Present value of obligation  Unrecognised actuarial assumptions used for actuarial valuation purposes were, 8.  Long-term interest rate before tax  Long-term interest rate before tax  Long-term interest rate before tax  Expected rate of salay; increases  5,5 8,0 6,55 8,80			Group		Eskom	
17.1 The Eskom Pension and Provident Fund is registered in terms of the Pension Funds Act, 1956 as amended. All the employees are members of the Fund. Contributions comprise 20,8% of pensionable emolluments 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 last valuation was performed at 31 December 2002. The Fund is actuarially valued annually. The actuarial present value of promised retirement benefits at 31 December 2002 was 821 070 million (2001: R1 081 million), while the fair value of the Fund's assets at this date was R21 345 million (2001: R20 665 million), indicating an estimated surplus of R275 million (2001: R1 081 million).  The principal actuarial assumptions used for actuarial valuation purposes were, %  Long-term interest rate before tax  10,50  13,00  10,50  13,00  10,50  13,00  10,50  13,00  10,50  13,00  10,50  13,00  10,50  13,00  10,50  13,00  10,50  10				-	2002	2001
17.1 The Eskom Pension and Provident Fund is registered in terms of the Pension Funds Act, 1956 as amended. All the employees are members of the Fund. Contributions comprise 20,8% of pensionable emolluments 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 last valuation was performed at 31 December 2002. The Fund is actuarially valued annually. The actuarial present value of promised retirement benefits at 31 December 2002 was 821 070 million (2001: R1 081 million), while the fair value of the Fund's assets at this date was R21 345 million (2001: R20 665 million), indicating an estimated surplus of R275 million (2001: R1 081 million).  The principal actuarial assumptions used for actuarial valuation purposes were, %  Long-term interest rate before tax  10,50  13,00  10,50  13,00  10,50  13,00  10,50  13,00  10,50  13,00  10,50  13,00  10,50  13,00  10,50  13,00  10,50  13,00  10,50  13,00  10,50  13,00  10,50  13,00  10,50  10						
terms of the Pension Funds Act, 1956 as amended. All the employees are members of the Fund. Contributions comprise 20,3% of pensionable emoluments of which members pay 7,3%. The sastes of the Fund are held separately from those of the group in respect of funds under the control of the trustees.  The last valuation was performed at 31 December 2002. The Fund is actuarially valued annually. The actuarial present value of promised retirement benefits at 31 December 2002 was R21 070 million (2001: R19 584 million), while the fair value of the Fund's assets at this date was R21 345 million (2001: R20 665 million), indicating an estimated surplus of R275 million (2001: R1 081 million).  The principal actuarial assumptions used for actuarial valuation purposes were, \$  Long-term interest rate before tax  10,50  A process is under way to convert the current Eskom Pension and Providend Fund into a defined contribution fund.  17.2 A service gratuity, where applicable, is payable on retirement or death. The estimated present value of the anticipated expenditure for gratuities was calculated by independent actuaries at 31 December 2002. The probability of employees staying until retirement is taken into account when calculating the provision.  Amount provided, Rm Present value of obligation  Unrecognised actuarial loss  The principal actuarial assumptions used for actuarial valuation purposes were, %  Long-term interest rate before tax  10,50  13,00  10,50  13,00  10,50  13,00  10,50  10	<b>17.</b>	Retirement benefits				
R21 345 million (2001: R20 665 million), indicating an estimated surplus of R275 million (2001: R1 081 million).  The principal actuarial assumptions used for actuarial valuation purposes were, %  Long-term interest rate before tax  10,50 Salary inflation rate Future pension increases  A process is under way to convert the current Eskom Pension and Providend Fund into a defined contribution fund.  17.2 A service gratuity, where applicable, is payable on retirement or death. The estimated present value of the anticipated expenditure for gratuities was calculated by independent actuaries at 31 December 2002. The probability of employees staying until retirement is taken into account when calculating the provision.  Amount provided, Rm Present value of obligation Unrecognised actuarial loss  1148 1008 1079 917  The principal actuarial assumptions used for actuarial valuation purposes were, % Long-term interest rate before tax 10,5 13,0 10,5 13,0 10,5 13,0	17.1	terms of the Pension Funds Act, 1956 as amended. All the 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 last valuation was performed at 31 December 2002. The Fund is actuarially valued annually. The actuarial present value of promised retirement benefits at 31 December 2002 was R21 070 million (2001: R19 584 million),				
The principal actuarial assumptions used for actuarial valuation purposes were, %  Long-term interest rate before tax Salary inflation rate Future pension increases Future pension increases A process is under way to convert the current Eskom Pension and Providend Fund into a defined contribution fund.  17.2 A service gratuity, where applicable, is payable on retirement or death. The estimated present value of the anticipated expenditure for gratuities was calculated by independent actuaries at 31 December 2002. The probability of employees staying until retirement is taken into account when calculating the provision.  Amount provided, Rm Present value of obligation Unrecognised actuarial loss  1148 1008 1079 917 1144 1008 1058 917  The principal actuarial assumptions used for actuarial valuation purposes were, % Long-term interest rate before tax 10,50 13,0 10,5 13,0 10,5 13,0						
valuation purposes were, %  Long-term interest rate before tax Salary inflation rate Future pension increases 6,00 8,50 7,10 10,30 7,10 10,30 7,10 10,30 8,50 8,50  A process is under way to convert the current Eskom Pension and Providend Fund into a defined contribution fund.  17.2 A service gratuity, where applicable, is payable on retirement or death. The estimated present value of the anticipated expenditure for gratuities was calculated by independent actuaries at 31 December 2002. The probability of employees staying until retirement is taken into account when calculating the provision.  Amount provided, Rm Present value of obligation Unrecognised actuarial loss 1148 1008 1079 917 1144 1008 1058 917  The principal actuarial assumptions used for actuarial valuation purposes were, % Long-term interest rate before tax 10,50 13,0 10,5 13,0 10,5 13,0 10,5 13,0		estimated surplus of R275 million (2001: R1 081 million).				
Salary inflation rate Future pension increases  7,10 10,30 8,50 6,00 8,50 6,00 8,50  A process is under way to convert the current Eskom Pension and Providend Fund into a defined contribution fund.  17.2 A service gratuity, where applicable, is payable on retirement or death. The estimated present value of the anticipated expenditure for gratuities was calculated by independent actuaries at 31 December 2002. The probability of employees staying until retirement is taken into account when calculating the provision.  Amount provided, Rm Present value of obligation 1148 1 008 1 079 917 Unrecognised actuarial loss (4) - (21) -  The principal actuarial assumptions used for actuarial valuation purposes were, % Long-term interest rate before tax 10,5 13,0 10,30 6,00 8,50 6,00 8,50 6,00 8,50 8,50 8,50 8,50 8,50 8,50 8,50 8						
Salary inflation rate Future pension increases  7,10 10,30 8,50 6,00 8,50 6,00 8,50  A process is under way to convert the current Eskom Pension and Providend Fund into a defined contribution fund.  17.2 A service gratuity, where applicable, is payable on retirement or death. The estimated present value of the anticipated expenditure for gratuities was calculated by independent actuaries at 31 December 2002. The probability of employees staying until retirement is taken into account when calculating the provision.  Amount provided, Rm Present value of obligation 1148 1 008 1 079 917 Unrecognised actuarial loss (4) - (21) -  The principal actuarial assumptions used for actuarial valuation purposes were, % Long-term interest rate before tax 10,5 13,0 10,5 13,0		Long-term interest rate before tax	10,50	13,00	10,50	13,00
A process is under way to convert the current Eskom Pension and Providend Fund into a defined contribution fund.  17.2 A service gratuity, where applicable, is payable on retirement or death. The estimated present value of the anticipated expenditure for gratuities was calculated by independent actuaries at 31 December 2002. The probability of employees staying until retirement is taken into account when calculating the provision.  Amount provided, Rm Present value of obligation Unrecognised actuarial loss  1148 1008 1079 917 1144 1008 1058 917  The principal actuarial assumptions used for actuarial valuation purposes were, % Long-term interest rate before tax 10,5 13,0 10,5 13,0		Salary inflation rate	7,10	10,30	7,10	10,30
Pension and Providend Fund into a defined contribution fund.  17.2 A service gratuity, where applicable, is payable on retirement or death. The estimated present value of the anticipated expenditure for gratuities was calculated by independent actuaries at 31 December 2002. The probability of employees staying until retirement is taken into account when calculating the provision.  Amount provided, Rm Present value of obligation 1148 1 008 1 079 917 Unrecognised actuarial loss (4) - (21) -  1144 1 008 1 058 917  The principal actuarial assumptions used for actuarial valuation purposes were, % Long-term interest rate before tax 10,5 13,0 10,5 13,0		Future pension increases	6,00	8,50	6,00	8,50
Present value of obligation       1 148       1 008       1 079       917         Unrecognised actuarial loss       (4)       -       (21)       -         The principal actuarial assumptions used for actuarial valuation purposes were, %       1 008       1 058       917         Long-term interest rate before tax       10,5       13,0       10,5       13,0	17.2	Pension and Providend Fund into a defined contribution fund.  A service gratuity, where applicable, is payable on retirement or death. The estimated present value of the anticipated expenditure for gratuities was calculated by independent actuaries at 31 December 2002. The probability of employees staying until retirement is taken into				
Unrecognised actuarial loss  (4) - (21) -  1144 1 008 1 058 917  The principal actuarial assumptions used for actuarial valuation purposes were, % Long-term interest rate before tax  10,5 13,0 10,5 13,0		Amount provided, Rm				
The principal actuarial assumptions used for actuarial valuation purposes were, % Long-term interest rate before tax  1144  1 008  1 058  917  10,5  13,0  10,5  13,0		Present value of obligation	1 148	1 008	1 079	917
The principal actuarial assumptions used for actuarial valuation purposes were, %  Long-term interest rate before tax  10,5  13,0  10,5  13,0		Unrecognised actuarial loss	(4)	-	(21)	-
The principal actuarial assumptions used for actuarial valuation purposes were, %  Long-term interest rate before tax  10,5  13,0  10,5  13,0			1 144	1 008	1 058	917
valuation purposes were, %  Long-term interest rate before tax  10,5  13,0  10,5  13,0						·
Long-term interest rate before tax <b>10,5</b> 13,0 <b>10,5</b> 13,0						
Expected rate of salary increases 5,5 8,0 5,5		Long-term interest rate before tax	10,5	13,0	10,5	13,0
		Expected rate of salary increases	5,5	8,0	5,5	8,0



	Gı	Group		Eskom		
	2002	2001	2002	2001		
17. Retirement benefits (continued)						
17.3 The group has anticipated expenditure in terms of continued contributions to medical aid subscriptions in respect of employees that retire. The estimated present value of the anticipated expenditure, for both in-service and continuation members, was recalculated by independent actuaries at 31 December 2002. An independent actuarial valuation is performed annually.						
Amount provided, Rm						
Present value of obligation	3 612	3 055	3 507	2 943		
Unrecognised actuarial gain	36	-	10			
	3 648	3 055	3 517	2 943		
The principal actuarial assumptions used for actuarial valuation purposes were, %:				, ,		
Long-term interest rate before tax	10,5	13,0	10,5	13,0		
Long term medical aid inflation	8,5	11,0	8,5	11,0		
17.4 Provision for post-retirement medical aid and						
gratuities, Rm						
Balance at beginning of the year	4 063	3 444	3 860	3 300		
Provision for the year	467	330	446	290		
Interest adjustment	427	469	405	445		
Transfers within groups and associate	-	(48)	-	(48)		
Expenditure incurred	(165)	(132)	(136)	(127)		
Balance at end of the year (refer notes 17.2 and 17.3)	4 792	4 063	4 575	3 860		
Current portion	(138)	(132)	(132)	(127)		
	1.6-1					
	4 654	3 931	4 443	3 733		

			Group				Eskom		
		Total	Other	Total	Nuclear	Other	Closure,	Letter of	Other
		Group	sub-	Eskom	decom-	decom-	polution	credit	
			sidiaries		missioning	missioning	control	facilities	
					and waste		and reha-		
					manage-		bilitation		
					ment				
		Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm
18.	Provisions								
	Balance at 1 January 2001	3 933	444	3 489	1 290	673	549	109	868
	Provision for the year	591	138	453	37	-	14	-	402
	Interest adjustment	325	-	325	169	91	65	-	-
	Revaluation	(30)	-	(30)	-	-	-	(30)	-
	Foreign exchange profit	44	-	44	-	-	-	44	-
	Utilised during the year	(825)	(80)	(745)	(45)	(2)	(14)	(15)	(669)
	Balance at 31 December 2001	4 038	502	3 536	1 451	762	614	108	601
	Provision for the year	156	-	156	41	(9)	(67)	-	191
	Interest adjustment	384	-	384	200	101	83	-	-
	Revaluation	31	-	31	-	-	-	31	-
	Foreign exchange profit	(31)	-	(31)	-	-	-	(31)	-
	Utilised during the year	(321)	(222)	(99)	(11)	(12)	(8)	(23)	(45)
	Balance at 31 December 2002	4 257	280	3 977	1 681	842	622	85	747

#### Disclosed as:

Non-current portion

Decommissioning

Closure, pollution control and rehabilitation

Other

Current portion

Current provisions per balance sheet

As above

Provision for post-retirement medical aid and gratuities (refer note 17.4)

G	roup	Es	skom
2002	2001	2002	2001
Rm	Rm	Rm	Rm
3 684	3 163	3 555	2 909
2 488	2 154	2 488	2 154
611	598	611	598
585	411	456	157
573	875	422	627
4 257	4 038	3 977	3 536
573	875	422	627
138	132	132	127
711	1 007	554	754



For the year ended 31 December

#### 18. Provisions (continued)

#### Nuclear decommissioning and waste management

The payment dates of total expected future decommissioning costs are uncertain, but are currently expected to be between 2021 and 2050.

The provisions for the estimated decommissioning and waste management cost of nuclear plant have been discounted at 5% (2001: 5%).

The payment dates of total expected future spent fuel costs are uncertain, but the bulk of the payments are currently expected to be between 2031 and 2080. The provision for the estimated spent fuel cost has been discounted at 5% (2001: 5%).

#### Other decommissioning

The payment dates of total expected future decommissioning costs are uncertain, but are currently expected to be between 2025 and 2043.

The provision for the estimated decommissioning cost of other plant has been discounted at 5% (2001: 5%).

#### 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 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 2008 and 2050. The provision has been discounted at 5% (2001: 6%).

#### Letter of credit facilities

The letter of credit facilities arise from fees payable to banks that are providing letter of credit facilities to cover any possible cancellation costs in terms of the cross-border lease transactions over the period of the leases. The letter of credit fees are influenced by the rates charged by banking institutions over time. The calculation of the value of the letters of credit is influenced by pledged securities that are marked to market. These US dollar denominated future cash flows have been discounted to arrive at a present value of the total provision required over the lease term.

		Group		Eskom		
		2002	2001	2002	2001	
10	B ( )	Rm	Rm	Rm	Rm	
19.	Deferred income					
	Balance at beginning of the year	702	299	702	299	
	Additions during the year	573	449	573	449	
	Income recognition during the year	(39)	(46)	(39)	(46)	
	Balance at end of the year	1 236	702	1 236	702	
	The deferred income arises from benefits realised through cross-border lease transactions over certain generating plant. The present value of the lease and leaseback commitments was settled in full on commencement of the transactions and a profit resulted. The income is recognised in the income statement in accordance with the disclosed accounting policy.  The addition during the year arose as a result of the portion of the government's transitional electrification programmes that Eskom is managing 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 and responsibility for the electrification assets created upon conclusion of the agreement.					
20.	Trade and other payables					
		2	2	2.2/2	2.150	
	Trade and other payables	3 707	2 775	3 249	2 150	
	Interest accrued	432	767	433	767	
		4 139	3 542	3 682	2 917	
21.	Commitments					
21.1	Capital expenditure					
	Estimated capital expenditure	6 145	4 498	6 018	3 746	
	Contracted	2.255	1 727	2.000	005	
	Approved, not yet contracted	2 255 3 890	1 737 2 761	2 090 3 928	985 2 761	
	Approved, not yet contracted	3 890	2 /01	3 928	2 /01	
	This expenditure will be financed from debt and internally generated funds and is expected to be incurred as follows:	6 145	4 498	6 018	3 746	
	Wishing and the second	2.044	2.9/2	2.026	2,000	
	Within one year Thereafter	2 944 3 201	2 842 1 656	2 826 3 192	2 090 1 656	
	The care	3 201	1 000	3 1/2	1 0,00	
21.2	Future minimum operating lease payments	157	54	71	50	
	Within one year	50	21	26	10	
	Within one year  Between 2 and 5 years	50 107	21 33	36 35	19 31	
	2336 2 a 2 / joan 3	10/	- 33	3,5	<i>J</i> 1	
			I			

#### For the year ended 31 December

		Grou	р	Eskom	
	2002		2001	2002	2001
21 Commitments (continued)	Rm		Rm	Rm	Rm
21. Commitments (continued)					
21.3 Derivative financial instruments					
The range of derivative instruments used includes domestic and foreign interest rate swap agreements, forward rate agreements, forward exchange contracts, commodity option contracts, bond option contracts and commodity futures contracts.					
21.4 Supply of water					
Eskom Holdings Limited 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 the cost of primary energy and is included in operating expenditure.					
1.5 Coal					
Eskom has entered into long-term agreements with suppliers for coal purchases. The annual cost of coal is regarded as part of the cost of primary energy and is included in operating expenditure.					
22. Contingent liabilities					
22.1 Guarantees and suretyships, issued on behalf of group companies and third parties, amount to	559	,	194	362	9
2.2 Eskom has guaranteed the debt raised by Motraco - Mozambique Transmission Company SARL. At 31 December the outstanding commitment was	784	:	1 328	784	1 32
2.3 Guarantees have been issued for the pollution control costs and part of the estimated closure and rehabilitation costs for certain collieries. The unprovided portion at 31 December was	104		18	104	1
22.4 A subsidiary company is disputing the intepretation by the Sc	outh				

African Revenue Service of premiums refunded.

#### For the year ended 31 December

#### 22. Contingent liabilities (continued)

- 22.5 Eskom has indemnified the Eskom Pension and Provident Fund against any loss resulting from the negligence, dishonesty or fraud of the Fund's officers or trustees.
- 22.6 Eskom has underwritten the solvency margin of its subsidiary, Escap Limited, in accordance with the requirements of the Insurance Act. At 31 December, Escap Limited had a 53% solvency ratio against the 25% required.
- 22.7 Eskom has provided collateral security in the form of letters of credit from banks in respect of the cross-border lease transactions. 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.

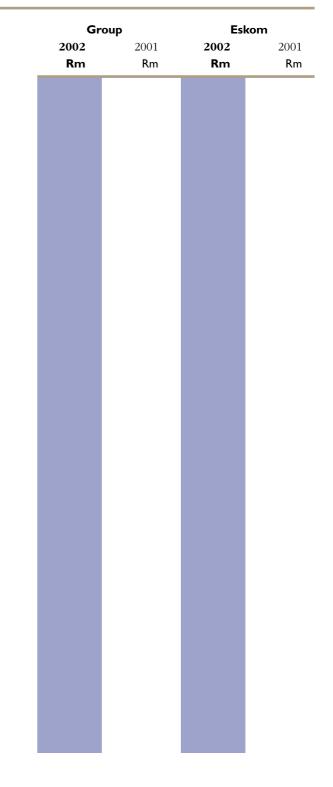
Eskom is ultimately responsible for meeting any potential losses that may arise to the banks should a cancellation event occur. A cancellation event will occur if there is an event of default, an event of loss of the asset or economic obsolescence of the asset.

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.

At 31 December 2002, the amount guaranteed is U\$\$399 million (2001: U\$\$407 million).

22.8 Mountain Communications (Pty) Limited (MKC), a subsidiary of Eskom Enterprises, is committed to a capital expansion programme in its subsidiaries amounting to U\$\$56 million for the period to 9 February 2004. Eskom Enterprises guarantees the shortfall to the extent that the MKC group does not meet its commitments. The guarantee that gives rise to a contingent liability has been reduced to approximately R217 million at 31 December 2002.





		Group			skom
		2002	2001	2002	200
		Rm	Rm	Rm	Rn
	Revenue				
	Electricity revenue	28 158	24 983	28 158	24 98
	Other revenue	1 526	1 129	20 1 30	24 90
	Cutof revenue	1 )20	1 12/		
		29 684	26 112	28 158	24 98
•	Operating expenditure				
	Primary energy	6 199	5 382	6 199	5 38
	Materials	1 529	1 164	545	56
	Contracts	1 097	1 823	1 200	1 82
	Transport	472	377	474	30
	Staff costs	6 446	5 400	6 249	5 16
	Salaries and other staff costs	5 371	4 520	5 209	4 35
	Pension contributions	411	383	404	35
	Post-retirement medical benefits and gratuities	467	330	446	29
	Training and development (only manpower-related costs)	197	167	190	16
	Depreciation and amortisation	3 480	3 742	3 301	3 63
	Depreciation of property, plant and equipment	3 366	3 548	3 189	3 43
	Amortisation of intangible assets	114	194	112	19
	Insurance proceeds	_	-	(466)	(39
	Amortisation of negative goodwill	(38)	(38)	(38)	(3
	Amortisation of positive goodwill	9	-		
	Managerial, technical and other fees	431	187	423	15
	Net (profit)/loss on disposal of property, plant, equipment and intangible assets	(49)	154	(46)	15
	Doubtful and bad debts	351	195	337	16
	Research and development	136	284	136	28
	Deferred income recognised	(39)	(46)	(39)	(4
	Net impairment losses	139	131	138	Ì
	Directors' emoluments (refer schedule 3)	22	12	22	1
	Auditors' remuneration	19	15	15	]
	Audit	18	15	14	1
	Other	1	-	1	
	Other operating expenditure	1 159	627	2 224	1 45
	Total operating expenditure	21 363	19 409	20 674	18 79
	The net impairment losses consist of:	139	131	138	9
	Property, plant and equipment	34	2	34	
	Investments in associates and joint ventures	105	129	104	12
	Investment in subsidiary companies		12/	101	(3

		Group		Eskom		
		2002 Rm	2001 <b>Rm</b>	2002 <b>R</b> m	2001 <b>Rm</b>	
25.	Interest income					
	Interest and discount amortised on financial market assets	2 482	3 298	2 324	3 194	
	Treasury trading net income Interest receivable from subsidiary companies	31	27 -	31 316	27 304	
	Fair value gains on financial instruments	2 513 841	3 325 649	2 671 841	3 525 624	
		3 354	3 974	3 512	4 149	
26.	Interest expenditure					
	Interest and discount amortised Locally issued bonds Other local debt Foreign debt	4 398 2 769 943 686	5 475 2 633 1 309 1 533	4 428 2 769 973 686	5 509 2 633 1 343 1 533	
	Other net financial profits and losses Exchange differences	75	(113)	75	(113)	
	Amounts capitalised	(42)	(57)	(41)	(57)	
	Unwinding of discount on provisions (refer notes $17$ and $18$ )	811	794	789	770	
	Fair value losses on financial instruments	5 242 959	6 099 806	5 251 948	6 109 806	
		6 201	6 905	6 199	6 915	
	Net fair value adjustment on financial instruments Gains (refer note 25) Losses	841 (959)	649 (806)	841 (948)	624 (806)	
		(118)	(157)	(107)	(182)	



		G	roup	Eskom		
		2002 Rm	2001 <b>Rm</b>	2002 <b>R</b> m	2001 <b>Rm</b>	
<b>7.</b>	Income tax expense					
	Current tax	76	59		-	
	Current year	63	53	-	-	
	Underprovided in prior years	13	6	_	-	
	Deferred tax	1 665	1 152	1 580	1 154	
	Origination and reversal of temporary differences current year	1 830	983	1 722	983	
	(Over)/underprovided in prior years	(165)	169	(142)	171	
	Total income tax expense in income statement	1 741	1 211	1 580	1 154	
	Computed tax losses	2 865	1 466	2 767	1 322	
	Unused tax losses available for set-off against future income	98	144	-	-	
	Reconciliation of effective tax rate	%	%	%	%	
	Taxation as a percentage of profit before tax	31,76	32,07	32,93	33,68	
	Taxation effect of					
	Exempt income	0,70	1,83	0,72	2,00	
	Expenditure not allowed	(5,49)	(8,23)	(6,60)	(9,07)	
	Insurance contingency reserve	-	(0,13)	-	-	
	Controlled foreign operations income	-	(0,40)	-	(1,59)	
	Foreign tax rate differential	0,01	-	-	-	
	Utilised tax losses	0,25	0,40	-	-	
	Prior year adjustment	2,77	4,46	2,95	4,98	
	Standard tax rate	30,00	30,00	30,00	30,00	

	G	Group		Eskom		
	2002 <b>R</b> m	2001 <b>Rm</b>	2002 <b>R</b> m	2001 <b>Rm</b>		
28. Cash generated from operations						
Net operating income Non-cash items	8 321 4 411	6 703 4 483	7 484 4 450	6 192 4 230		
Depreciation on property, plant and equipment Amortisation of intangible assets	3 366 114	3 548 194	3 189 112	3 438 194		
Amortisation of future fuel Positive goodwill amortised Negative goodwill recognised	194 9 (38)	161 - (38)	(38)	161 - (38)		
Net (profit)/loss on disposal of property, plant, equipment and intangible assets  Net impairment losses	(49) 139	154 131	(46) 138	154 95		
Net movement in provisions  Net movement on deferred income  Other	137 534 5	(70) 403	367 534	(163) 403 (14)		
Changes in working capital	12 732 179	11 186 23	11 934 674	10 422 (511)		
Inventories Trade and other receivables Trade and other payables	(91) (715) 985	116 99 (192)	37 (515) 1 152	134 105 (750)		
	12 911	11 209	12 608	9 911		
29. Interest received						
Interest income (refer note 25) Non-cash items Interest receivable	2 513 1 046 418	3 325 1 284	2 671 983 355	3 525 956 62		
Discount amortised Other	(52) 680	200	(52) 680	(90) 984		
	3 559	4 609	3 654	4 481		
30. Interest paid						
Interest expenditure (refer note 26) Non-cash items Interest accrued Discount amortised Other	(5 242) 632 (335) 625 342	(6 099) (1 008) (157) 454 (1 305)	(5 251) 622 (334) 625 331	(6 109) (819) (234) 744 (1 329)		
	(4 610)	(7 107)	(4 629)	(6 928)		



		G	roup	E	Eskom		
		2002 <b>R</b> m	2001 <b>Rm</b>	2002 Rm	2001 <b>Rm</b>		
31.	Income tax paid						
	Amounts unpaid at beginning of the year  Current taxation charged to income statement  Amounts unpaid at end of the year	(19) (76) 43	(30) (59) 19	- - -	- - -		
		(52)	(70)	-	-		
32.	Cash utilised in investing activities						
	Expenditure on property, plant and equipment Expenditure on intangible assets	(5 235) (406)	(3 944) (49)	(4 128) (322)	(3 652) (46)		
	Proceeds from disposals	(5 641) 256	(3 993) 350	(4 450) 252	(3 698) 345		
	Net expenditure on property, plant, equipment and intangible assets Future fuel supplies Investment in associates, joint ventures, subsidiary companies and other	(5 385) (151)	(3 643) 75	(4 198) (151)	(3 353) 75		
	investments  Long-term accounts receivable  Loans receivable	(84) (44) (86)	(114) (18) (11)	(926) (44) -	(88) (18)		
		(5 750)	(3 711)	(5 319)	(3 384)		
33.	Cash effects of financing activities						
	Debt raised Debt repaid (Decrease)/Increase in non-current financial assets	2 296 (5 108) (703)	548 (5 541) 1 502	2 065 (5 245) (673)	522 (5 541) 1 257		
		(3 515)	(3 491)	(3 853)	(3 762)		
34.	Cash and cash equivalents						
	Cash and bank, and money market assets Cash equivalents Commercial paper bills	9 704 (647) (4 837)	6 238 668 (5 229)	7 987 (647) (5 123)	4 317 668 (5 229)		
	Total cash and cash equivalents at end of the year Total cash and cash equivalents at beginning of the year	4 220 1 677	1 677 238	2 217 (244)	(244) (562)		
	Net increase in cash and cash equivalents for the year	2 543	1 439	2 461	318		

#### 35. Related-party information

#### Associates and joint ventures

Details of investment in associates and joint ventures are disclosed in note 10 and schedule 1 while income is disclosed in note 25. Interest income of R13 million (2001: R2 million) is included in note 25.

The group sold goods to the value of R352 million (2001: R267 million) to associates and joint ventures.

The group purchased goods to the value of R299 million (2001: R360 million) from associates and joint ventures.

The outstanding balances included in trade and other receivables (note 14) amounted to R162 million (2001: R56 million).

The above transactions were on commercial terms and conditions at market rates.

The investments in associates and joint ventures are set out in schedule  $1. \ \ \,$ 

There is an exemption in terms of IAS 24 paragraph  $4(\mathbf{d})$  in respect of shareholder and related entities.



For the year ended  $31\ \mathrm{December}$ 

Segment reporting					_		_	
	Reg <b>2002</b>	gulated 2001	Non-i 2002	regulated 2001	Group e 2002	eliminations 2001	Cons- 2002	olidated 2001
	Rm	Rm	Rm	Rm	Rm	Rm	Rm	Rm
Business segmentation								
Revenue	28 158	24 983	3 830	3 234	(2 304)	(2 105)	29 684	26 11:
Net operating income	7 484	6 192	536	498	301	13	8 321	6 70
Interest income	2 671	3 525	209	167	(367)	(367)	2 513	3 32
Interest expenditure	(5 251)	(6 109)	(57)	(332)	66	342	(5 242)	(6 09
Fair value adjustment	(107)	(182)	(11)	25	-	-	(118)	(15
Profit before tax	4 797	3 426	677	358	-	(12)	5 474	3 77
Income tax expense	(1 580)	(1 154)	(161)	(57)	-	-	(1 741)	(1 21
Profit after tax	3 217	2 272	516	301	-	(12)	3 733	2 56
Income from associates and	joint							
ventures Minority interest	-	-	26 (20)	- -	-	- -	26 (20)	
Minority interest	-	-		-	-	-		
Net profit for the year after	r tax 3 217	2 272	522	301	-	(12)	3 739	2 56
Other information								
Capital expenditure	4 450	3 698	1 108	295	83	-	5 641	3 99
Depreciation and amortisati		3 632	176	115	3	(5)	3 480	3 74
Net impairment losses Non-cash flow items	138 4 450	95 4 230	1 202	364	(241)	36 (111)	139 4 411	13 4 48
Assets and liabilities	1 1)0	1 250	202	301	(=11)	(111)		1 10
	<b>-</b> 2.222	7/550	2 = 1 /	6 (00	(4.252)	(/ 50/)	04.450	<b>-</b> ( 51
Assets Investment in associates and	79 <b>029</b>	74 559	3 514	6 482	(1 373)	(4 524)	81 170	76 51
ventures	97	150	137	247	18	(5)	252	39
Total assets	79 126	74 709	3 651	6 729	(1 355)	(4 529)	81 422	76 90
Capital and reserves	36 457	33 361	2 090	1 191	(785)	(404)	37 762	34 14
Liabilities Total equity and liabilities	42 669 79 126	41 348 74 709	1 561 3 651	5 538 6 729	<b>(570)</b> (1 355)	(4 125) (4 529)	43 660 81 422	42 76 76 90
		/4 /09	3 0 ) 1	0 /29	(1 3)))	(4 )29)	01 122	70 90
Geographical segmentat	tion							
Revenue South Africa	27 343	24 339	3 403	3 056	(2 304)	(2 105)	28 442	25 29
Outside South Africa	815	24 339 644	5 405 427	178	(2 304)	(2 105)	1 242	25 25 82
Total revenue	28 158	24 983	3 830	3 234	(2 304)	(2 105)	29 684	26 11

The assets and liabilities are not presented on a geographical level. The assets and liabilities outside South Africa of the non-regulated business are not significant.



### Schedule 1 - Investment in associates and joint ventures

#### At 31 December

Name	Nature of operation	Issued/ stated	Effective	holding	Group o	arrying lue	Eskom carrying value	
		capital R	2002 %	2001 %	2002 Rm	2001 <b>Rm</b>	2002 Rm	2001 <b>R</b> m
The following unlisted investments are incassociates and joint ventures (Refer note								
Associates								
Unlisted shares								
Directly held PN Energy Services (Pty) Limited (formerly Phambili Nombane)	Electricity reticulation	3 000 000	50	50	13	4	4	4
TED (Pty) Limited <sup>1</sup> (Transitional Electricity Distributor)	Electricity reticulation	1 000	50	50	269	240	269	240
Uitesco (Pty) Limited (Uitenhage Electricity Supply Company (Pty) Limited)	Electricity reticulation	60 000	33	33	2	2	2	2
<i>Indirectly held</i> Arivia.kom (Pty) Limited	Information technology	301 156 570	45	45	128	109	-	-
Elgas SARL	Gas energy	100	25	25	8	7	-	-
Gesco (Libya)	Technology refurbishment	1 000 000	49	49	2	1	-	-
Total investment in associates					422	363	275	246
oint ventures								
ncorporated								
Directly held Motraco - Mozambique Transmission Company SARL	Management of electricity transmission system and supply of electricity	39 500 000 <sup>2</sup>	33	33	100	78	95	78
Eskom-Shell Solar Home Systems (Pty) Limited	Electrification	100	50	50	30	25	30	25
Indirectly held Trans Africa Projects (Pty) Limited $^{ m 1}$	Construction	4 000	50	50	-	-	-	-
Trans Africa Projects Limited (Mauritius) <sup>1</sup>	Construction	100 0002	50	50	3	17	-	-
Hem~Kom Live Line Engineering (Pty) Limited	Live line maintenance	900 000	50	50	1	1	-	-
EON~Solutions Africa (Pty) Limited	Telecommunication consulting	100	50	50	-	1	-	-
Ash Resources (Pty) Limited	Manufacture	200	25	25	-	6	-	-
South Dunes Coal Terminal (Pty) Limited	Coal	100 000	50	50	-	-	-	-
Mountain Communications (Pty) Limited	Telecommunication	1 000	-	50	-	100	-	-
Total investment in joint ventures					134	228	125	103
Total investment in associates and joint ve	entures				556	591	400	349
Provision for impairment losses					(304)	(199)	(303)	(199
Investment in associates and joint ventur	es				252	392	97	150

Where the above entities' financial year-ends are not coterminous with that of Eskom, financial information has been obtained from publised information or management accounts as appropriate.

<sup>1.</sup> Year-end other than 31 December.

<sup>2.</sup> Authorised capital in US dollar.



#### At 31 December

Name	Nature of operation	Country of incorporatio	lssued/ n stated	Effective	holding	Interest of Eskom			
		capital R		2002 %	2001 %	Invest 2002 <b>R</b> m	ment 2001 Rm	Indebte 2002 <b>R</b> m	edness 2001 Rm
SUBSIDIARY COMPANIES									
Directly held Eskom Finance Company (Pty) Limited	Finance (employee housing loans)	South Africa	4 000	100	100	1	1	2 374	2 316
Escap Limited	Insurance	South Africa	179 500 000	100	100	180	180	-	-
Gallium Insurance Company Limited	Insurance	Isle of Man	4 000 000	100	100	4	4	-	-
Eskom Enterprises (Pty) Limited	Non-regulated electricity supply industry activities and electricity supply and related services outside South Africa	South Africa	100	100	100	1	1	1 842	1 018
Indirectly held Golang Coal (Pty) Limited	Coal exports	South Africa	1 000	67	67				
Eskom Enterprises Global West Africa	Operations management	Nigeria	100	100	100				
Eskom Energie Manantali SA	Energy supply	Mali	1 000	100	100				
Pebble Bed Modulor Reactor (Pty) Limited	Reactor driven generation project	South Africa	100	100	100				
Technology Services International (Pty) Limited	Technical consulting	South Africa	100	100	100				
Rotek Industries (Pty) Limited	Maintenance and services	South Africa	4 000	100	100				
Rosherville Properties (Pty) Limited	Properties	South Africa	1	100	100				
Rosherville Vehicle Services (Pty) Limited	Transport	South Africa	1	100	100				
Roschon (Pty) Limited	Construction	South Africa	1	100	100				
Airborne Laser Solutions (Pty) Limited	Aerial surveying technologies	South Africa	1	100	100				
Amazing Amanzi (Pty) Limited	Low-energy utility devices	South Africa	100	70	70				
Mountain Communications (Pty) Limited	Telecommunication	Lesotho	1 6462	71	50				
Lumsemfwa Hydro Power Company	Operations and maintenance service	Zambia	1 825	51	-				
						184	184	4 216	3 334
Total investment in subsidiary complex investment Indebtedness	panies							4 400 184 4 216	3 518 184 3 334
Provision for impairment losses								-	-
Investment in subsidiary companies								4 400	3 518

- 1. Nominal value.
- 2. Authorised capital in maluti.



At 31 December

Name	Salary/fees	and related	Contributions	Expense allowances	Other	Total <b>2002</b>	Total 2001
	<b>R'</b> 000	payments R'000	<b>R'</b> 000	<b>R'</b> 000	<b>R'</b> 000	<b>R'</b> 000	<b>R'</b> 000
Eskom Holdings Limited							
Non-executive directors							
R J Khoza	800	-	-	276	-	1 076	1 005
F M Baleni	164	-	-	-	-	164	146
B M Count	296	-	=	-	-	296	-
S E Funde	145	-	=	-	-	145	-
L G Josefsson	186	-	=	-	-	186	-
P M Makwana	70	-	-	-	-	70	-
J R D Modise	70	-	-	-	-	70	-
A J Morgan	82	-	-	-	-	82	-
S A Mpambani	82	-	-	-	-	82	-
T N Msomi	-	-	-	-	-	-	-
V M Rowjee	82	-	-	-	-	82	-
SV Zilwa	58	-	-	-	-	58	-
W E Lucas-Bull	42	-	-	-	-	42	-
J P Deetlefs <sup>2</sup>	33	-	-	-	-	33	106
A B Dickman <sup>2</sup>	91	-	-	-	-	91	149
K J Hlongwane <sup>2</sup>	94	-	-	-	-	94	141
I J Lambrechts <sup>2</sup>	97	-	-	-	-	97	180
R J Linnell <sup>2</sup>	68	-	-	-	-	68	120
N Majija <sup>2</sup>	65	-	-	-	-	65	107
L J Mngomezulu <sup>2</sup>	76	-	-	-	-	76	145
D B Mostert <sup>2</sup>	126	-	-	-	-	126	212
J N Seroke <sup>2</sup>	48	-	-	-	-	48	77
C G van Veijeren²	42	-	-	-	-	42	63
Executive directors							
T S Gcabashe	1 308	2 066	321	283	-	3 978	2 742
W J Kok	821	4 501	254	344	-	5 920	4 347
	4 946	6 567	575	903	-	12 991	9 540
Past directors - retirement funding		-		-	9 003	9 003	2 802
	4 946	6 567	575	903	9 003	21 994	12 342

Directors' emoluments for 2002 includes remuneration paid to the Board of Directors and the Electricity Council members while the directors' emoluments for 2001 only includes remuneration paid to the Electricity Council members.

 $<sup>2. \</sup> These \ Electricity \ Council \ members' contracts \ expired \ on \ 30 \ June \ 2002 \ and \ were \ not \ appointed \ on \ the \ Board.$ 



<sup>1.</sup> Bonus declared and paid during 2002 which refers to their performance during 2001.



For the year ended 31 December 2002

	E	skom
	2002	2001
	<b>R'</b> 000	<b>R'</b> 000
Eskom Holdings Limited (continued)		
Contributions include Eskom's contributions to the Eskom Pension and Provident Fund, the Executive Group Life Insurance Scheme and medical aid contributions.		
All the executive directors have normal employment contracts with Eskom. The continuation of their service is dependent on satisfactory performance on an ongoing basis and notice periods do not exceed one year. There are no service contracts for non-executive directors.		
Loans to directors		
Housing loan		
T S Gcabashe	1 308	774

The interest rate on the loan from Eskom Finance Company (Pty) Limited at the end of the year was 15% ( $2001:\ 11,5\%$ ). The loan is repayable over a maximum period of 30 years. On resignation, the loan is repayable in full within 90 days from date of resignation.

#### At 31 December

Name	Salary/fees	and related	Contributions	Expense allowances	Other	Total 2002	Total 2001
	<b>R'</b> 000	Payments R'000	<b>R'</b> 000	<b>R'</b> 000	<b>R'</b> 000	<b>R'</b> 000	<b>R'</b> 000
Subsidiary companies							
Eskom Enterprises (Pty) Limited							
Non-executive directors							
T S Gcabashe (paid by Eskom)	-	-	_	_	_	_	-
K J Hlongwane	84	-	_	_	-	84	66
D B Mostert	118	-	-	-	-	118	130
D M Ramaphosa	46	-	-	-	-	46	40
D R Geeringh	78	-	-	-	-	78	80
S Dakile-Hlongwane	54	-	-	-	-	54	62
Executive directors							
J A de Beer (retired - 31 December 2002)	1 037	940	184	140	3 252	5 553	1 897
E Banda (appointed - 1 August 2002)	647	-	109	118	-	874	-
VT L Ngubeni	829	790	216	185	-	2 020	1 683
P D Mbonyana	742	825	200	316	-	2 083	1 656
R S Moloko	803	799	229	201	-	2 032	1 725
R Naidoo (appointed - 1 January 2002)	714	486	129	178	-	1 507	-
	5 152	3 840	1 067	1 138	3 252	14 449	7 339
				•	-		

#### At 31 December

Name	Salary/fees	Bonus Co and related payments	ntributions	Expense allowances	Other	Total <b>2002</b>	Total 2001
	<b>R'</b> 000	R'000	<b>R'</b> 000	<b>R'</b> 000	<b>R'</b> 000	<b>R'</b> 000	<b>R'</b> 000
Eskom Finance Company (Pty) Limited	d						
Non-executive directors							
W J Kok (fees paid to Eskom)	20	-	-	-	-	20	20
L S Africa (resigned - 31 December 2001)	-	-	-	-	-	-	20
M de Jager	47	-	-	-	-	47	41
R S Moloko (fees paid to Eskom)	20	-	-	-	-	20	20
J van den Berg (fees paid to Eskom)	20	-	-	-	-	20	15
P B Mabelane (appointed - 1 April 2002) (fees paid to Eskom)	10	-	-	-	-	10	-
Executive director							
M M Bashe	363	251	101	157	-	872	798
	480	251	101	157	-	989	914
Escap Limited							
Non-executive directors							
W J Kok (fees paid to Eskom)	24	-	-	-	-	24	22
K Nilsson (resigned - 31 December 2002)	24	-	-	-	-	24	22
R Vivian	24	-	-	-	-	24	22
P K Darbourn (fees paid to Eskom)	24	-	-	-	-	24	22
S P Ndlovu	24	-	-	-	-	24	22
Executive directors							
S I Kotane (paid by Eskom)		-	-	-	-	-	-
	120	-	-	-	-	120	110
Gallium Insurance Limited							
Non-executive directors							
S I Kotane	-	_	-	-	-	-	-
J C Fagher	40	-	-	-	-	40	38
P J V Dougherty	40	-	-	-	-	40	38
	80	-	<del>-</del>		-	80	76



## **Eskom** Inflation-adjusted financial information

#### For the year ended 31 December

Historical cost accounting practices reflect financial results of prices and costs in effect at the time the underlying transactions occurred. This approach does not account for the fact that the purchasing power of money diminishes during periods of inflation. In an attempt to eliminate the effects of changing prices on assets and income, and to ensure that funds needed to maintain the operating capacity are preserved, historical costs have been restated by the preparation of inflation-adjusted financial statements based on IAS 15, Information reflecting the effect of changing prices.

In reflecting the impact of inflation, Eskom has adjusted the most significant of these effects by revaluing the property, plant and equipment and charging the related additional depreciation to the income statement. To the extent that further adjustments are necessary, especially as regards the effect of inflation on future fuel supplies, maintenance spares and consumables and the relief provided by funding assets with monetary liabilities, additional adjustments have been made.

The portion of the fair value adjustment of foreign financial market assets and liabilities relating to future anticipated transactions is taken directly to equity. All other adjustments to reflect the fair value of financial market assets and liabilities are included in interest income and interest expenditure.

The following summary shows the fully adjusted performance and financial position of Eskom prepared in terms of the principles contained in IAS 15.

#### Summarised income statement

Historical cost net profit for the year after tax Inflation adjustments Additional depreciation Cost of sales Financial gearing adjustment

Inflation-adjusted net loss for the year

	SKUIII
2002	2001
Rm	Rm
3 217	2 272
(5 258)	(4 795)
(5 111)	(5 066)
(460)	(336)
313	607
(2 041)	(2 523)

## Inflation-adjusted financial information

	Historical	Adjustments		rrent value
	2002 Rm	2002 Rm	2002 <b>R</b> m	2001 <b>Rm</b>
Summarised balance sheet of Eskom				
Assets				
Property, plant, equipment and intangible assets Non-current and current financial market assets Other non-current assets Other current assets	50 144 15 962 7 182 5 838	65 556 - 3 643 50	115 700 15 962 10 825 5 888	105 181 12 709 9 631 6 409
	79 126	69 249	148 375	133 930
Equity and liabilities				
Capital and reserves Non-current and current financial market liabilities Other non-current liabilities Other current liabilities	36 457 26 683 11 750 4 236	69 249 - - -	105 706 26 683 11 750 4 236	92 582 29 397 8 280 3 671
	79 126	69 249	148 375	133 930
RATIOS <sup>1</sup>				
Average production price index, % Real return on total assets (after taking account of the financial			14,20	8,50
gearing adjustment), % Financial gearing adjustment, % Debt:equity Interest cover			1,69 5,62 0,10 0,87	1,17 11,25 0,18 0,54

<sup>1.</sup> Calculated on the basis described in the five-year financial review.





#### 1. Statistical overview

Sales Total sold, GWh <sup>1</sup> Growth in GWh sales, %	2002 187 957 <sup>2</sup> 3,5 <sup>3</sup>	2001 181 511 <sup>2</sup> 1,8 <sup>3</sup>	$   \begin{array}{r}     2000 \\     178 \ 193^2 \\     2,8^3   \end{array} $	
<b>Electricity output</b> Total electricity for Eskom system (Eskom stations and purchased), GWh <sup>4</sup> Total produced by Eskom stations, GWh (net)	207 233 197 737	198 790 189 590	194 601 189 307	
Coal-fired stations, GWh (net) Hydroelectric stations, GWh (net) Pumped storage stations, GWh (net) Gas turbine stations, GWh (net) Nuclear power station, GWh (net)	181 651 2 357 1 738 - 11 991	175 223 2 061 1 587 - 10 719	172 362 1 343 2 591 1 13 010	
Total purchased for Eskom system, GWh Total consumed by Eskom, GWh <sup>5</sup> Total available for distribution, GWh <sup>1</sup>	9 496 2 354 204 879	9 200 2 177 196 613	5 294 3 478 191 123	
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) (after excess capacity), % 7 Generation load factor (after excess capacity management), % 8 Integrated Eskom system load factor, %	42 011 39 810 31 621 89,3 (91,7) 56,8 (62,3) 74,0	42 011 39 810 30 599 92,0 (92,5) 54,4 (59,8) 73,4	41 298 39 186 29 188 92,1 (92,8) 55,1 (60,6) 74,7	
Environmental indicators Relative particulate emissions, kg/MWh sent out Specific water consumption, \( \mathcal{l} \) kWh sent out Reported legal contraventions counted in the operational sustainability index, number  Customer satisfaction (PreCare/MaxiCare), ratio Net raw water consumption, M\( \mathcal{l} Coal burnt, kt Average calorific value, MJ/kg Average ash content, \( \mathcal{k} \) Average sulphur content, \( \mathcal{k} \) Overall thermal efficiency, \( \mathcal{k} \) Line losses, \( \mathcal{k} \) Nitrous oxide (N2O), t Carbon dioxide (CO2), Mt Sulphur dioxide (SO2), kt Nitrogen oxide (NOx) as NO2, kt Particulate emissions, kt Ash produced, Mt Ash sold, Mt Radiation release, mSv10 Low-level waste - steel drums, cubic metres Intermediate-level waste - concrete drums, cubic metres Spent nuclear fuel, number of elements (cumulative figure)  11	0,29 1,27 3 8,57 251 611 96 460 19,54 28,4 0,92 34,1 8,2 2 246 175,2 1 494 702 57,53 26,2 1,257 0,0005 89,04 30,21 47 (1 244)	0,31 1,26 2 8,43 239 233 94 136 19,42 28,8 0,93 34,1 7,2 2 154 169,3 1 500 684 59,64 26,5 1,161 0,0007 117,25 45,65 104 (1 197)	0,35 1,21 3 8,82 228 759 92 454 19,50 28,6 0,90 34,4 7,4 2 093 161,2 1 505 674 66,08 24,6 1,126 0,0005 72,80 22,10 52 (1 093)	
Employees Total number at 31 December 12 GWh sold per employee	29 359 6,402	29 969 6,054	32 832 5,427	
Sales to countries in southern Africa, GWh Botswana Mozambique Namibia Zimbabwe Lesotho 13 Swaziland Zambia 14 Short term energy market15	6 956 1 124 3 907 598 298 16 799 103 111	6 710 1 183 3 899 578 371 40 639	3 872 986 1 331 640 788 12 115	

- 1. Difference between electricity available for distribution and electricity sold (includes internal sales) is due to transmission and other losses.
- Includes sales in respect of Department of Water Affairs and Forestry (DWAF) not stated in previous years.
   Own usage is not included in the calculation.
- 4. Includes Eskom electricity produced and delivered to neighbouring countries.
- 5. In respect of pumped storage facilities and synchronous condenser mode of operation. See Table 2, Note 8, Since 1993, energy consumption for water pumped for DWAF has been excluded from this total.

1999	1998	1997	1996	1995	1994	1993
173 412 <sup>2</sup>	171 457 <sup>2</sup>	172 550 <sup>2</sup>	165 370 <sup>2</sup>	153 547	149 443	143 800
1,1 <sup>3</sup>	(0,6) <sup>3</sup>	4,3 <sup>3</sup>	7,7 <sup>3</sup>	2,7	3,9	4,1
188 475	185 583	187 850	178 884	165 006	160 351	154 361
181 818	183 093	187 811	178 855	164 834	160 293	154 260
165 665 726 2 590	165 473 1 596 2 420 3	170 464 2 092 2 608	163 541 1 319 2 220	151 730 529 1 274	148 003 1 074 1 517 2	145 514 146 1 345
12 837	13 601	12 647	11 775	11 301	9 697	7 255
6 657	2 490	39	29	172	58	101
3 507	3 299	3 511	3 130	1 866	2 113	1 898
184 968	182 284	184 339	175 754	163 140	158 238	152 463
40 585	39 872	39 154	38 497	37 840	37 840	39 746
38 517	37 848	37 175	36 563	35 951	35 926	37 636
27 813	27 803	28 329	27 967	25 133	24 798	23 169
91,0 (92,5)	91,6 (92,7)	90,4 (91,5)	89,6 (90,6)	81,6 (84,3)	77,1 (79,9)	80,5 (81,7)
54,9 (61,2)	55,3 (61,6)	57,7 (65,0)	55,7 (63,9)	52,3 (59,0)	50,9 (58,3)	46,8 (56,4)
75,9	74,8	74,3	71,5	74,1	72,8	75,1
0,37 1,25 9 8,78 227 288 88 470 19,53 28,5 0,96 34,4 6,2 2 010 159,4 1 506 673 67,08	0,36 1,23 9 8,90 225 280 87 225 19,84 29,1 0,93 34,2 5,9 2 031 163,2 1 583 669 65,21	0,44 1,20 15 9,10 225 699 90 169 19,68 28,4 0,94 34,5 6,4 2 085 169,0 1 383 688 83,43	0,63 1,21 11 8,72 216 131 85 401 19,83 27,8 0,97 34,5 5,9 2 004 158,6 1 295 647 112,11	0,70 1,28 210 612 79 377 19,95 28,7 0,95 34,4 5,9 1 864 147,0 1 198 603 115,32	0,76 1,29 206 955 76 883 20,09 29,0 0,97 34,4 5,6 1 830 142,9 1 167 582 122,00	0,79 1,41 217 785 75 926 20,05 28,6 0,87 34,4 5,7 1 830 141,0 1 134 582 122,20
24,3	24,7	23,7	22,2	23,0	22,1	20,9
1,116	1,180	1,118	0,995	0,942	0,827	0,712
0,0005	0,0007	0,0008	0,0008	0,0004	0,0005	0,0004
70,77	61,18	89,95	109,06	73,29	85,47	100,80
37,11	22,77	26,26	35,35	28,76	42,64	37,65
104 (1 041)	52 (937)	104 (885)	104 (781)	52 (677)	52 (625)	104 (573)
34 027	37 311	39 241	39 857	39 952	39 760	40 128
5,096	4,595	4,397	4,149	3,843	3,759	3,584
3 884	4 093	6 439	5 554	2 986	2 628	2 590
934	689	748	685	340	205	121
68	385	680	596	600	559	510
562	602	1 295	1 100	950	813	999
1 564	1 521	2 790	2 267	154	164	149
55	209	318	335	324	310	281
701	687	608	571	618	577	530

<sup>9. 2000</sup> to 2002 are in terms of the revised definition of the operational sustainability index. Since 1998, other environment-related contraventions are also included. Prior to 1998 only water-related incidents were reported.

 $<sup>10. \ \ \</sup>text{Indicators have been restated based on the new methodology as approved by the National Nuclear Regulator.}$ 

<sup>11.</sup> Spent fuel means nuclear fuel that has been irradiated in, and permanently removed from, the reactor core.

<sup>12.</sup> Excludes employees of subsidiary companies.

<sup>13.</sup> Lesotho started its own generation in 1999.

<sup>13.</sup> Lesoulo statted its own generation in 1999.
14. Zambia included as from 2002.
15. 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 long-term bilateral contract.



#### 2. Power stations in commission at 31 December 2002

Name of station	Location	Number	Total	Total net	Generator	Generators in	
		and capacity	nominal	maximum	reserve storage		generation
		of generator	capacity	capacity		Total	Total
		sets	$MW^1$	$MW^1$		rating	rating
		MW			Number	MW	MW
Coal-fired station	ns						
Arnot <sup>3</sup>	Middelburg, Mpumalanga	6 x 350	2 100	1 980	-	-	-
Camden <sup>4</sup>	Ermelo	8 x 200	1 600	-	8	1 520	-
Duvha <sup>3</sup>	Witbank	6 x 600	3 600	3 450	-	-	-
Grootvlei <sup>4</sup>	Balfour	6 x 200	1 200	-	6	1 130	-
Hendrina 3	Hendrina	10 x 200	2 000	1 895 <sup>1</sup>	-	-	-
Kendal 3, 5	Witbank	6 x 686	4 116	3 840	-	-	-
Komati <sup>4</sup>	Middelburg, Mpumalanga	5 x 100; 4 x 125	1 000	-	9	891	-
Kriel <sup>3</sup>	Bethal	6 x 500	3 000	2 850	-	_	-
Lethabo 3	Sasolburg	6 x 618	3 708	3 558	-	_	-
Majuba	Volksrust	3 x 657; 3 x 713	4 110	3 843	-	_	-
Matimba 3, 5	Ellisras	6 x 665	3 990	3 690	-	-	_
Matla 3	Bethal	6 x 600	3 600	3 450	-	-	_
Tutuka 3	Standerton	6 x 609	3 654	3 510	-	_	-
Subtotal coal-fired	stations (13)		37 678	32 066	23	3 541	-
Gas turbine stati	ions <sup>6</sup>						
Acacia	Cape Town	3 x 57	171	171	-	-	-
Port Rex	East London	3 x 57	171	171	-	-	-
Subtotal gas turbin	e stations (2)		342	342	-	-	-
Hydroelectric st	ations						
Colley Wobbles	Mbashe River	3 x 14	42	-	-	-	42
First Falls	Umtata River	2 x 3	6	-	-	-	6
Gariep 7	Norvalspont	4 x 90	360	360	-	-	_
Ncora	Ncora River	2 x 0,4; 1 x 1,3	2	-	-	_	2
Second Falls	Umtata River	2 x 5,5	11	-	-	_	11
Vanderkloof 7	Petrusville	2 x 120	240	240	-	_	_
Subtotal hydroelect			661	600	-	-	61
Pumped storage	schemes <sup>8</sup>						
Drakensberg	Bergville	4 x 250	1 000	1 000	-	_	-
Palmiet	Grabouw	2 x 200	400	400	-	_	-
Subtotal pumped st			1 400	1 400	-	_	-
Nuclear power s	tation						
Koeberg <sup>3</sup>	Cape Town	2 x 965	1 930	$1\ 800^{1}$	-	-	-
Total Eskom stat	ions in commission (24)		42 011	36 208	23	3 541	61

<sup>1.</sup> Difference between nominal and net maximum capacity reflects auxiliary power consumption and reduced capacity caused by age of plant and/or low coal quality. Hendrina unit 10 was derated by 5 MWs and Koeberg units 1 and 2 were derated by 20 MWs each as from 2001.

<sup>2.</sup> Operational but not included for capacity management purposes.

<sup>3.</sup> Base-load station.

<sup>4.</sup> In long-term reserve storage (mothballed).

<sup>5.</sup> Dry-cooled unit specifications are based on design back-pressure and ambient air temperature.

<sup>6.</sup> Stations used for peaking or emergency supplies.

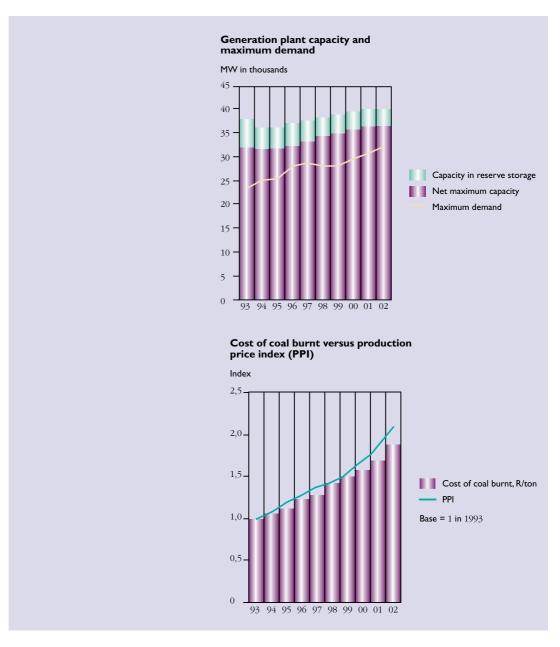
 $<sup>7. \</sup>quad \text{Use restricted to peaking, emergencies and availability of water in Gariep and Vanderkloof dams}.$ 

<sup>8.</sup> Pumped storage facilities are net users of electricity during peak periods. Water is pumped during off-peak periods to generate electricity during peak periods.

#### 3. Environmental implications of using one kilowatt-hour of electricity<sup>2</sup>

	2002	2001	2000	1999	1998	1997	$1992^{1}$
Water usage, $\ell$	1,27	1,26	1,21	1,25	1,23	1,20	1,45
Coal usage, kg	0,49	0,50	0,49	0,49	0,48	0,48	0,48
Ash produced, g	132,62	139,78	129,95	133,65	134,90	126,19	-
Ash emitted, g	0,29	0,31	0,35	0,37	0,36	0,44	1,03
SO <sub>2</sub> emissions, g	7,56	7,91	7,95	8,28	8,65	7,36	7,25
NO <sub>x</sub> emissions, g	3,55	3,61	3,56	3,70	3,65	3,66	3,65
CO <sub>2</sub> emissions, kg	0,89	0,89	0,85	0,88	0,89	0,90	0,90

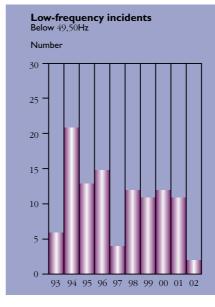
- 1. This is a base year to be used for reference purposes only.
- 2. Figures are based on total energy produced by Eskom power stations.





#### 4. Transmission and distribution equipment in service at 31 December 2002

		2002	2001	Change
Main transmission system, km	765 kV 533 kV DC (monopolar) 400 kV 275 kV 220 kV 132 kV	870 1 031 15 204 7 254 1 336 815	870 1 031 15 204 7 379 1 336 797	- - (125) - 18
Total transmission lines, km <sup>1</sup>		26 510	26 617	(107)
Distribution lines, km	165-132 <b>kV</b> 88-33 <b>kV</b>	20 932 21 159	20 681 21 144	251 15
Total distribution lines, km		42 091	41 825	266
Reticulation lines, km	22 kV and lower	256 409	247 897	8 512
Total all lines, km		325 010	316 339	8 671
Cables, km	165-132 kV 88-33 kV 22 kV and lower	77 240 6 999	77 243 6 738	(3) 261
Total all cables, km		7 316	7 058	258
Transformers	Transmission, MVA <sup>2</sup> Distribution and reticulation, MVA	112 075 80 798	111 910 79 855	165 943
Total transformer capacity, MVA		192 873	191 765	1 108
Transformers	Transmission, number Distribution and reticulation, number	362 269 777	363 261 897	(1) 7 880
Total transformers, number		270 139	262 260	7 879



Low frequency is an indicator of imbalance of instantaneous supply and demand due to unexpected unit trips and/or immediate shortages on the electrical system.

Eskom's frequency control target was reduced from 49,70 Hz in 2001 to 49,50 Hz in 2002 following an international benchmarking exercise. The previous, unduly tight, frequency control target led to movement of generators' output and resulted in unnecessary cost to Eskom and the South African economy. The reduction has resulted in cost savings and the reduction of movement of generators by some 80% without any adverse impact on customers.

- Transmission line lengths as per GIS (Geographic Information System) distances.
   Base of definition: transformers rated >30 MVA and primary voltage >132 kV.

#### 5. Sales of electricity to categories of customers

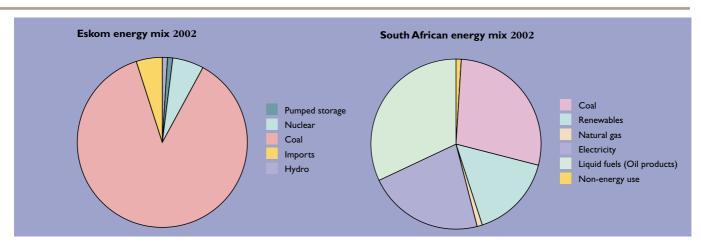
Category	Number	ber of customers <sup>1</sup> Change		GWh sold		Change
	2002	2001	%	2002	2001	%
Distributors	734	989	(25.8)	74 636	72 189	3,4
Residential	3 283 848	3 159 990	3.9	7 888	7 301	8,0
Commercial	48 514	35 534	36.5	6 483	6 407	1,2
Industrial	3 215	3 416	(5.9)	51 581	48 664	6,0
Mining	1 252	1 337	(6.4)	32 549	31 923	2,0
Agricultural	79 125	72 519	9.1	4 009	4 224	(5,1)
Traction	511	600	(14.8)	3 259	3 481	(6,4)
Distribution international	5	46	(89.1)	228	286	(20,1)
Eskom international	8	8	0.0	6 956	6 710	3,7
Internal	440	424	3.8	368	326	12,9
	3 417 652	3 274 863	4.4	187 957	181 511	3,5°

- 1. Customer numbers have been revised to take into account the removal of disconnected customers and homes that no longer exist as a result of floods and other reasons.
- 2. The GWh sold growth from 2001 to 2002 increased by 3.5% if own usage is excluded.

#### 6. Net revenue per category of customer

Category	Net revenue Rm		Average net price			
			Change	Change c/kWh sold		Change
	2002	2001	%	2002	2001	%
Redistributors	10 514	9 325	12,8	14,09	12,91	9,1
Residential <sup>1</sup>	2 637	2 256	16,9	33,43	30,90	8,2
Commercial	1 265	1 151	9,9	19,51	17,95	8,7
Industrial	6 646	5 624	18,2	12,88	11,56	11,5
Mining	4 604	4 261	8,0	14,14	13,35	6,0
Agricultural	1 061	1 134	(6,4)	26,47	26,85	(1,4)
Traction	559	547	2,2	17,15	15,69	9,3
Distribution international	33	40	(17,5)	14,44	13,99	3,2
Eskom international	782	600	30,3	11,24	8,94	25,8
Internal	57	45	26,7	15,49	13,80	12,2
	28 158	24 983	12,7	14,98	13,76	8,9°

- 1. Prepayments included under Residential.
- General price increase with effect from 1 January 2002 equals 6,2%. In July 2002, structural changes were made to the tariffs where some tariffs increased and others decreased.





#### **Exel Award**

Eskom was given an award by the petrochemical company Exel in recognition of its valuable contribution to Black Economic Empowerment and its effective implementation among others, through transformation and human resources development, including affirmative action and gender equity.

## Sunday Times-Markinor Brands of the Year Survey

Eskom was voted as the third most admired company in South Africa, and as the third most loved everyday South African brand in the 2002 Sunday Times-Markinor Top Brands Survey.

#### **Raptor Awards**

Eskom received two Raptor awards. The Eskom Expo for Young Scientists sponsorship won an award in the medium budget category, whilst the Light Beam to Mark Shuttleworth project took honours in the small budget category. The Raptor Awards are the highest accolade that can be bestowed on a company for achieving excellence in sponsorship.

#### **IT Project Masters Opportunity Award**

Eskom was awarded the IT Project Masters Opportunity award by the Computer Society of South Africa for the SAP Plant Maintenance implementation project.

#### **Public Sector Gold Awards**

Eskom's Distribution Division scooped the Public Sector Gold award at the 2002 National Productivity Institute Awards. This was for the progress it has made in the electrification of houses, mostly in rural areas. In addition, as an outstanding service provider, the Division received the Gold Award in the "Electricity Distributor" category at the 2002 ESI Africa Excellence Awards.

#### **SABS Tourism Award**

The Global Conformity Services arm of the South African Bureau of Standards (SABS) awarded the Eskom Convention Centre two tourism services certificates – the four-crystal grading in honour of its service excellence and the three-crystal grading in recognition of its quality service.

#### **Apex Awards**

Eskom NEWS received the international Award for Excellence in the 2002 APEX awards in the category "Most Improved Magazines and Journals". These awards recognise excellence in publishing all over the world and they are based on excellence in design, editorial content and the ability to achieve overall communication excellence.

#### **Prism Awards**

Eskom Generation Division's GenTalk newsletter was voted as the best employee publication in the country at the annual Prism awards sponsored by the Financial Mail and presented by the Public Relations Institute of Southern Africa (PRISA). The aim of these awards is to recognise public relations professionals who have successfully blended flair, creativity and professionalism into public relations programmes and strategies.

#### **Top Business Personality Award**

Eskom's Chairman was a recipient of a Top Business Personality Award for 2002. This award is made annually by the Top 300 Companies publication. This award recognises the winners' achievements in business in terms of factors such as company growth, innovation, contribution to the economy, job creation, export orientation and transformation.

#### **Energy Newsmaker of the Year**

Eskom Demand Side Management (DSM) manager, Albert Africa received the Energy Newsmaker of the Year award from the Southern African Association for Energy Efficiency (SAAEE). This award is presented to individuals who have realised outstanding achievements that will change the energy industry in Southern Africa.

#### **Technology for Women in Business Award**

Matimba Power Station manager, Khumo Radebe, won the Electricity and Nuclear category of the annual Technology for Women in Business (TWIB) awards. TWIB is an initiative aimed at enhancing the accessibility of science and technology to women in business, and these awards celebrate and recognise women who succeed to integrate technology in their business.

#### **Technology Top 100**

For the second year running, Eskom's Research, Development and Demonstration department was declared the overall category winner in the Technology Top 100 as the "Best Research and Development Group in South Africa" by Business Day and MTN.

#### **Platinum Awards**

Eskom's Research, Development and Demonstration department also received a Platinum award from the University of Durban-Westville in 2002 for Training and Capacity building where Eskom was recognised as the leader in the field.

### South African Maintenance Association Awards

In April 2002, Vanderkloof Hydroelectric Power Station was crowned the overall winner of the 2002 ABB/SAMA Maintenance Excellence Awards. The Southern African Maintenance Association (SAMA) instituted the Maintenance Excellence Awards to reward companies and facilities within companies that recognise that good maintenance contributes to the bottom line. In the same competition, Drakensberg's Pumped Storage Scheme was awarded a Gold Award together with Vanderfloof, while Lethabo Power Station received a Silver Award.

#### **NOSA Platinum Awards**

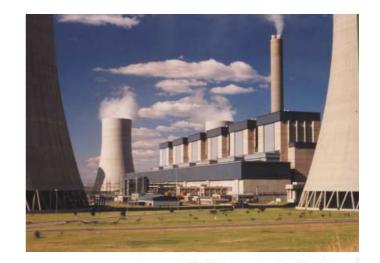
In February 2002, Gariep and Vanderkloof power stations were the first two industries in the country to be honoured with Platinum awards from NOSA for their integrated health and safety programmes.

#### 50 Key Women in Energy Awards

Eskom's Transmission Division had two women selected as honourees at the 50 Key Woman in Energy 2002 Awards. Nicoline Bredenkamp was selected in the "Innovation and Creativity" category for her role in the creation of the Short Term Energy Market (STEM), which is set to liberalise energy trading throughout the Southern African region. Evrille Nareen was selected in the "Potential" category for her superb human resources management execution. 50 Key Women in Energy is a prestigious, international competition which aims to acknowledge the role of women in business and to honour women in the energy industry who have made an exceptional contribution to their marketplace.

#### **UFS Honorary Award**

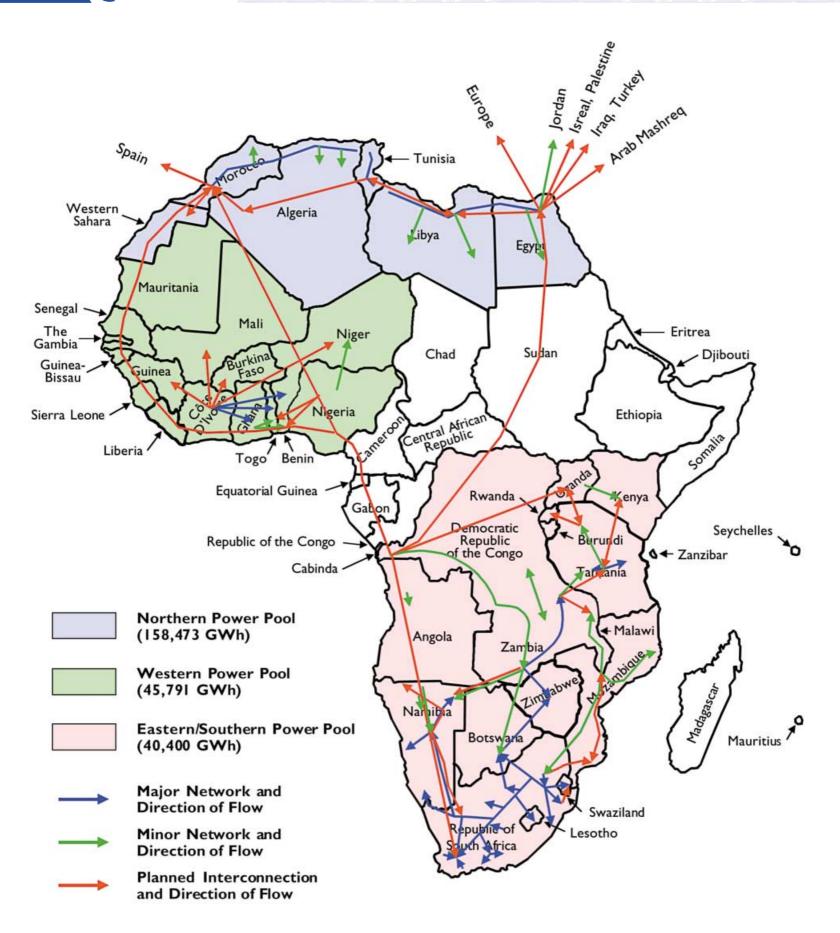
In November 2002, Peaking Generation's Power Station Manager, Terry Moss, received a shield of honour from the University of the Free State (UFS). The annual shield of honour is one of the institution's highest awards for persons outside the university. It is awarded in recognition of outstanding academic contributions of national interest and of particular interest to the university.











### International comparisons by capacity and sales

Major electricity utilities in the world - rated by sales

Company	Country	Sales TWh	Rating by Sales
RAO-UES	Russia	626,8	I
EDF	France	476,5	2
Tepco Electric Power Co.	Japan	275,5	3
KEPCO	South Korea	257,7	4
AEP	USA	245,0	5
E.On	Germany	225,7	6
RWE Energie AG	Germany	209,8	7
Enel	Italy	206,0	8
Eskom	South Africa	181,5	9
Tennessee Valley Authority (TVA)	USA	161,4	10
TXU	USA	161,0	11
Hydro-Québec	Canada	154,2	12
Vattenfall	Sweden	149,9	13
Endesa Group	Spain	147,3	14
Southern Company	USA	145,3	15
Ontario Power Generation	Canada	140,2	16
Kansai Electric Power Co.	Japan	139,8	17
Chubu Electric Power Co.	Japan	123,0	18
Exelon Corp	USA	120,5	19
Electrobrás	Brazil	117,6	20

<sup>•</sup> Source: Data Monitor UK 2001 figures

Major electricity utilities in the world - rated by generation capacity

Company	Country	Generation	Rating
		capacity	by
		MW	capacity
RAO-UES	Russia	156100	I
EDF	France	118725	2
Tepco Electric Power Co.	Japan	58843	3
Enel	Italy	55000	4
KEPCO	South Korea	50859	5
AEP	USA	45244	6
Eskom	South Africa	42011	7
Endesa Group	Spain	41972	8
Exelon Corp	USA	38841	9
Kansai Electric Power Co	Japan	35585	10
Southern Company	USA	34579	П
E.On	Germany	34000	12
RWE Energie AG	Germany	32339	13
Chubu Electric Power Co.	Japan	31771	14
Hydro-Quebec	Canada	31174	15
Tennessee Valley Authority (TVA)	USA	30365	16
Vattenfall	Sweden	27713	17
Electrobrás	Brazil	27591	18
TXU	USA	26077	19
Ontario Power Generation	Canada	22600	20

• Source: Data Monitor UK, 2001 figures.





### Health and safety policy

Eskom will provide and maintain a healthy and safe work environment for its employees.

It is Eskom's policy to provide the resources necessary:

- To maintain health and safety systems
- To protect individuals against risk to health and safety arising out of Eskom's business
- To protect Eskom's property against damage or loss
- To minimise risk to the environment arising out of Eskom's activities

No operating condition or urgency of service can ever justify endangering the life of anyone.

Thulani S Gcabashe Chief Executive

### **Environmental policy**

#### Eskom will:

- · Promote open communication on environmental issues amongst employees and stakeholders;
- Establish an environmental management system with a view to ensuring continual improvement in appropriate business activities including prevention of pollution where economically viable and sustainable;
- · Contribute toward sustainable development through the efficient production, distribution and use of energy; and
- · Educate, train and motivate its employees about the environment.

Thulani S Gcabashe Chief Executive

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