

### Front Cover and Missing Pages

The Annual Report for 1999 was copied and scanned. A few pages were skipped during the scanning process. These missing pages are included here:

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ESK  
ANNUAL  
REPORT  
1999



*Rekindling  
the  
spirit  
of  
innovation*



ESKOM

Annual Report 1999

ESKOM



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## THEME RELATED

The new century is an era of hope for the resurgence of the African spirit. While we intend to take our place in the world community of nations, the African continent will be our initial primary focus.





# *Achieving top-tier status*

## Strategic intent

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

## Mission

To satisfy all our customers' electricity needs in the most cost-effective way

## Strategy

To develop Eskom as a business that maximises the value of its products and services to South Africa



# Directors' report

continued

## 3 Black economic empowerment

As part of its procurement policies and managerial support programme, Eskom supports small, medium and micro enterprises (SMMEs). In 1998, the programme was extended to include large black businesses. An estimated amount of R1 320 million (1998: R700 million) was contracted against a 1999 target of R963 million to support the procurement and supply of goods and services from black business, thereby accelerating black economic empowerment. The process by which black economic empowerment companies are identified, has not yet been sufficiently refined and will receive urgent attention during the coming year.

## 4 Human resource mobilisation

### Developing human resources

Eskom has responded to the new skills development legislation, realising value for both the organisation and its employees. The development of employees is an imperative for organisational success and progress, and a project has been launched to align our learning systems with the requirements of legislation.

One major initiative during 1999 was Eskom's participation in the facilitation of the application for the establishment of the Energy Sectoral Education and Training Authority, as promulgated by the Minister of Labour in September 1999.

During 1999, Eskom invested an estimated amount of R437 million (1998: R435 million) in the development and training of its employees.

During 1999, 113 300 (1998: 143 000) learner days were provided to 3 814 (1998: 2 853) Adult Basic Education and Training (ABET) learners against a target of 2 800, at a cost of R36 million (1998: R39 million) and with an overall pass rate of 70% (1998: 66%) across all levels. The need for learner days decreased during the year as the illiteracy rate is reducing. There is, however, still a need for ABET training in the organisation.

Since its inception in 1995 the ABET (formerly Adult Basic Development) project has exposed about 12 000 learners to learning interventions at a total cost of R173 million. A total of 810 000 learner days were utilised at an average cost of R214 per learner per day. The overall pass rate has been 65% (1998: 66%).

This programme has been an investment in the development of A and B-Band employees, and has significantly reduced the illiteracy rate from 45% to less than 10%. In addition, all A and B-Band employees have personal development plans.

The Career Development Programme has been started in the Distribution group to provide for the development of general workers to supervisory levels, thereby contributing to Eskom's objective to increase the skills levels of its general workers. Over 1 298 out of 2 861 (against a target of 1 940) workers have been trained and declared competent on the Assistant Technical Officer curriculum.

### Rewards and recognition

The remuneration system is continuously updated to ensure that Eskom remains competitive. Developmental work on incentive schemes has been completed, and the principles have been discussed with the Electricity Council and Management Board. Implementation will commence during 2000.

The process to provide for the assessment and recognition of competencies in B-Band employees was completed for B-Lower employees. The further implementation of this process has been put on hold in anticipation of the development and evaluation of a holistic approach to competency-based human resources management.

#### Bursars and trainees

During 1999, Eskom supported 2 546 (1998: 2 779) bursars and trainees, of whom 82% (1998: 88%) were black and 24% (1998: 18%) were women. Of the bursary intake for 1999, 29% (1998: 21%) were women. This represents a 38% increase in the intake of female bursars and trainees, which will, in turn, establish the foundation required to meet the gender equity target of 20% by 2004. During the year, 481 (1998: 493) black bursars and trainees completed their training, against the RDP target of 370, at an estimated cost of R74 million (1998: R85 million).

#### Managing and retaining intellectual capital

In recognition of the importance of managing intellectual capital, Eskom's Management Board has approved a formal skills planning process focusing on the identification and development of potential for critical and scarce skills.

Skills development plans have been drawn up and implemented for critical and scarce skills in all areas of the business. These plans form part of a broader skills or competence planning process that is being put into place to focus Eskom's human resources development processes and systems, and also to meet the requirements of the skills development legislation.

Eskom's bursary programme continues to provide for the critical skills identified at the entrance level in the fields of engineering and information technology. Mentorship has also received attention over the past year. The three major groups in Eskom have instituted mentorship programmes in support of the development of their learners on several levels. However, special attention has been paid to young graduates-in-training. The objective is to increase their ability to make a meaningful contribution to Eskom's business and improve the retention of skills.

#### Employee wellness

Eskom continues to be committed to the wellness of all employees, and the concept and philosophy of the wellness programme is currently being implemented. The programme has achieved excellent results in the construction camps and has been extended to all technical service centres.

#### Stress in the organisation

An audit conducted on the levels of stress experienced by employees provided information for the improvement of employee satisfaction.

The employee assistance programme offers therapy and counselling to employees who experience personal problems that impact on their performance.

#### Managing the impact of HIV/AIDS

The threat posed by HIV and AIDS infection continues to receive priority attention. Information will be used to do an impact analysis and develop coping and preventive strategies for Eskom.

An anonymous HIV surveillance study was conducted during 1999. The study was successful in terms of its scientific validity assessed in terms of the random nature of the sampling process, participation rate, data collection method and analysis. The results of this study will contribute substantially towards understanding the dynamics of the HIV epidemic in Southern Africa. The results are encouraging as they suggest that less than 10% of Eskom's employees may be infected.



1996	1995	1994	1993	1992	1991	1990
165 370 <sup>2</sup> 7,7 <sup>3</sup>	153 547 <sup>2</sup> 2,7	149 443 3,9	143 800 4,1	138 126 (0,4)	138 687 1,8	136 168 1,4
178 884 178 855	165 006 164 834	160 351 160 293	154 361 154 260	148 556 148 207	148 934 148 671	146 320 146 047
163 541 1 319 2 220 — 11 775	151 730 529 1 274 — 11 301	148 003 1 074 1 517 2 9 697	145 514 146 1 345 — 7 255	136 830 752 1 333 4 9 288	135 743 1 980 1 804 — 9 144	134 744 1 010 1 841 3 8 449
29 3 130 175 754	172 1 866 163 140	58 2 113 158 238	101 1 898 152 463	349 2 295 146 261	263 2 933 146 001	273 2 953 143 367
38 497 36 563 27 967	37 840 35 951 25 133	37 840 35 926 24 798	39 746 37 636 23 169	39 060 36 846 22 640	38 396 36 228 22 342	35 673 33 843 21 863
89,6 (90,6)	81,6 (84,3)	77,1 (79,9)	80,5 (81,7)	76,7	76,1	75,0
55,7 (63,9) 71,5 85 401 34,5 5,9	52,3 (59,0) 74,1 79 377 34,4 5,9	50,9 (58,3) 72,8 76 883 34,4 5,6	46,8 (56,4) 75,1 75 926 34,4 5,7	46,9 (54,6) 73,5 71 038 34,2 5,6	49,8 (58,5) 74,6 70 523 34,3 5,0	50,5 (57,3) 74,9 70 861 33,7 5,0
39 857 4,149	39 952 3,843	39 760 3,759	40 128 3,584	42 223 3,271	46 637 2,974	50 000 2,723
4 648	2 044	1 741	1 779	1 007	1 318	1 005
685 596 1 100 2 267	340 600 950 154	205 559 813 164	121 510 999 149	100 436 457 14	106 383 823 6	84 322 586 13
906	942	887	811	808	562	602
335 571	324 618	310 577	281 530	241 567	206 356	192 410
5 554	2 986	2 628	2 590	1 815	1 880	1 607





## Eskom, South Africa's electricity utility

- has 24 power stations with a nominal capacity of 40 585 megawatts
- is among the top five utilities in the world in terms of size and sales
- supplies approximately 95% of the country's electricity requirements, which equals more than half of the electricity generated on the African continent
- has 26 461 kilometres of transmission lines, which span the entire country and also carry power to neighbouring countries
- sells approximately 41% of its electricity to local authorities which re-sell it to end-users
- operates the largest dry-cooled electricity generation plant in the world
- is presently one of the lowest-cost producers of electricity in the world
- is financed by loans and own reserves, and is run on business principles for the benefit of its customers
- encourages employees to develop their potential through training
- supports employment equity
- supports black economic empowerment as part of its procurement policies and managerial support programme
- sees itself as a responsible corporate citizen and is working towards environmental sustainability and socio-economic improvement
- committed itself to connect 1 750 000 homes between 1994 and the year 2000 and has exceeded this commitment by 750 homes one year ahead of target
- supports the development of a southern African transmission grid to encourage co-operation and accelerate economic growth in the region
- supports the African Renaissance vision

# Key

	1999	1998	Change 1998-99 %	Average yearly change 1995-99 %
<b>Financial/business performance indicators</b>				
<b>Financial</b>				
Revenue, Rm	21 568	21 074	2,3	6,9
Net profit for the year, Rm	2 168	2 474	(12,4)	(0,9)
Property, plant and equipment in commission, Rm	74 522	69 038	7,9	9,1
Net expenditure on property, plant, equipment and intangible assets, Rm	4 027	4 521	(10,9)	(4,9)
Net financial market liabilities and investments, Rm	24 142	24 662	(2,1)	(2,8)
Average price of electricity sold, cents per kWh <sup>1</sup>	12,44	12,29	1,2	3,8
Average total cost of electricity sold, cents per kWh <sup>2</sup>	11,21	10,87	3,1	4,9
<b>Business performance<sup>3</sup></b>				
Return on total assets, percent	7,37	9,69	(23,9)	(8,5)
Real (inflation-adjusted) return on total assets, percent	0,90	2,34	(61,5)	(27,0)
Debt-equity ratio	0,83	0,89	(6,7)	(13,7)
Value created per employee, R'000	416	381	9,2	9,7
<b>Technical/business performance indicators</b>				
<b>Operations</b>				
Total electricity sold, GWh <sup>4</sup>	173 422	171 454	1,1	3,0
Coal burnt in power stations, Mt	88,5	87,2	1,5	2,8
Water consumed by power stations, Ml	227 306	225 300	0,9	1,3
Peak demand on integrated system, MW	27 813 (22 June)	27 803 (9 June)	0,0	2,3
<b>Assets in commission at 31 December</b>				
Nominal capacity, MW <sup>5</sup>	40 585	39 872	1,8	1,4
Net maximum capacity, MW <sup>5</sup>	38 517	37 848	1,8	1,4
Power lines (all voltages), km	294 325	281 010	4,7	4,1
<b>Other key statistics</b>				
<b>Staff employed</b>				
at 31 December, number <sup>6</sup>	34 027	37 311	(8,8)	(3,1)
<b>Customers</b>				
at 31 December, number (thousands)	2 856	2 564	11,4	18,8

1. Average price of electricity sold based on total sales.

2. Average total cost of electricity sold, calculated as operating expenditure and net interest and based on external sales.

3. Calculated on the basis described in the five-year financial review.

4. Includes internal sales of 309 GWh (1998: 309 GWh).

5. 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.

6. Excludes employees of subsidiary companies.



# Electricity Council

**R J Khoza (50)<sup>dfg</sup>**

**Chairman**

MA (Marketing Management) (Lancaster, UK), BA Hons (Psychology) (UNIN), PMD (Harvard Business School, USA), IPBM (IMD, Lausanne, Switzerland)

Chairman of Co-ordinated Network Investments (Pty) Limited, Creda Communication (Pty) Limited, Glaxo Wellcome SA (Pty) Limited, Sun Air (Pty) Limited, Tolcon (Pty) Limited and Unihold Limited. Director of Creda Communication (Pty) Limited, Comair Limited, Datacentrics Limited, Norwich Holdings SA Limited and Standard Bank Investment Corporation Limited. Member of the JSE main committee and the Black Management Forum. Fellow and vice-president of the Institute of Directors of SA.

*Appointed to the Electricity Council in 1997.*

**F Baleni (39)<sup>abcfg</sup>**

Diploma in Politics and Trade Unionism (White Hall College, England), Certificate in Human Resources Management (Unisa)  
Regional co-ordinator of National Union of Mineworkers (NUM).

Representing organised labour.

*Appointed to the Electricity Council in 1997.*

**J P Deetlefs (66)<sup>o</sup>**

NTC5 (Pretoria Technical College)

National president of the Independent Municipal and Allied Trade Union (IMATU), Chairman of Pretoria branch of IMATU. Member of the Stakeholders Advisory Committee – Department of Minerals and Energy.

Representing IMATU

*Appointed to the Electricity Council in 1997.*

**A B Dickman (69)<sup>abcf</sup>**

BCom (Hons) (Wits), FIBSA

Economic consultant.

Representing organised business.

*Appointed to the Electricity Council in 1985.*

**S E Funde (56)<sup>o</sup>**

MSc (Elec Eng) (Leningrad Polytechnical Institute, St Petersburg)  
Deputy chairperson of South African Telecommunications Regulatory Authority (SATRA) and the National Institute of Economic Policy (NIEP). Chairperson of the Independent Development Trust (IDT).  
Representing the economic development fraternity.

*Appointed to the Electricity Council in 1997.*

**K J Hlongwane (61)<sup>abcd</sup>**

BA (ICI University, Texas, USA), BEd (CTS, Cape Town), EDP (Wits)  
Executive chairman of Nafhold. Chairman of Greater Africa Properties and Savuna Properties (Pty) Limited. Deputy chairman of Uni-Africa Investments. Director of Medhold Limited, Prosperity Bank Limited, Saambou Bank Limited and Financial Services Board. Member of the Financial Services and Regulation Policy Board, the Unisa Board of Trustees and RAU Council.

Representing organised business.

*Appointed to the Electricity Council in 1995.*

**B A Khumalo (47)<sup>abcdf</sup>**

MA (Fairfield), AEP (Unisa), Dip in Management (Henley, UK)

Executive director: Human Resources (Eskom).

Representing Management Board.

*Appointed to the Electricity Council in 1997.*

**Dr W J Kok (48)<sup>ab</sup>**

DCom (RAU)

Executive director: Finance (Eskom).

Representing Management Board.

*Appointed to the Electricity Council in 1997.*

**Prof I J Lambrechts (57)<sup>abcdf</sup>**

DCom (Stell), MBA (Stell)

Professor of Business Management at the University of Stellenbosch.

Chairman of Subcommittee for Energy of the AHI.

Representing organised business.

*Appointed to the Electricity Council in 1985.*





*Masai warrior*

**Mrs N Majija (65)<sup>ab</sup>**

Teaching diploma (St Matthew's College), Diploma in Strategic Management, Finance and Corporate Governance

Treasurer of the South African National Civics Organisation (SANCO) (Transkei Region). Chairperson of the Transkei Rural Development Forum (TRDF).

Representing the rural communities.

*Appointed to the Electricity Council in 1993.*

**L J Mngomezulu (33)<sup>af</sup>**

Acting chief executive officer of Vereeniging Kopanong City Council.

Representing South African National Civics Organisation (SANCO).

*Appointed to the Electricity Council in 1995.*

**A J Morgan (52)<sup>abdefg</sup>**

Pr Eng, BSc, BEng (Elec) (Stell)

Chief executive of Eskom and chairman of the Management Board.

Vice-chairman of the South African National Energy Association.

Director of the Electronic Power Research Institute.

*Appointed to the Electricity Council in 1994.*

**T S Gcabashe (42)<sup>abcfjg</sup>**

MA (Ball State Univ USA)

Deputy chief executive and chairman of Eskom Enterprises.

Representing Management Board.

*Appointed to the Electricity Council in 1999.*

**D B Mostert (62)<sup>abc</sup>**

BSc, BEng (Stell), MBA (PUCHE), AMP (Harvard)

Representing the Steel and Engineering Industries Federation of South Africa (SEIFSA).

*Appointed to the Electricity Council in 1990.*

**Mrs J N Seroke (66)<sup>c</sup>**

BA (Rhodes)

Trustee of the Women's Development Foundation.

Representing the community.

*Appointed to the Electricity Council in 1995.*

**C G van Veijeren (65)<sup>eh</sup>**

BSc (Agric) (Pret)

Director of Outspan International. Member of the Agricultural Research Council and National Water Advisory Council.

Representing the agricultural sector.

*Appointed to the Electricity Council 1993.*

**Members retired/resigned during 1999**

**P R Janisch**

Represented the South African Chamber of Mines.

*Appointed to the Electricity Council in 1997.*

Term of office expired.

**M Mkwazazi**

Represented Transnet Limited.

*Appointed to the Electricity Council in 1997.*

Resigned.

**Eskom's Secretariat**

Megawatt Park

PO Box 1091

Johannesburg 2000

South Africa

<sup>a</sup> on Finance Committee

<sup>b</sup> on Audit Committee

<sup>c</sup> on Tariffs and Marketing Committee

<sup>d</sup> on Remuneration and Personnel Committee

<sup>e</sup> on Tender Committee

<sup>f</sup> on Regulation and Structure Committee

<sup>g</sup> on Nuclear Safety Oversight Committee

# Management Board portfolios

## Directors of Eskom's regulated business



**Chief Executive**  
*A.J. Morgan (52)*

Pr Eng, BSc, BEng (Elec) (Stell)  
Chief executive of Eskom and chairman of the Management Board.  
Joined Eskom in 1971.  
*Appointed to the Management Board in 1992.*

Corporate business processes and controls



**Deputy Chief Executive  
and Chairman of Eskom Enterprises**  
*T.S. Gcabashe (42)*

MA (Ball State Univ USA)  
Urban and Regional Planning.  
Joined Eskom in 1993.  
*Appointed to the Management Board and Electricity Council in 1999.*



**Deputy Chief Executive  
Restructuring and Transformation**  
*B.A. Khumalo (47)*

MA (Fairfield), AEP (Unisa), Dip in Management (Henley, UK)  
Joined Eskom in 1991.  
*Appointed to the Management Board in 1994.*



**Generation**  
*E.N. Matya (37)*

Pr Eng, BSc (Mech) Witwatersrand  
Executive director designate: Generation.  
Joined Eskom in 1985.  
*Appointed to the Management Board in 1999.*

Fuel and water management  
Generation technology  
Power station operations  
Project management



**Distribution**  
*J. Matsau (51)*

Diploma in Transport Economics (West Germany), Diploma in Marketing (Helsinki)  
Executive director: Distribution.  
Joined Eskom in 1992.  
*Appointed to the Management Board in 1999.*

Customer service  
Distribution engineering and technology  
Electrification  
Sales



**Transmission**  
*Mrs D.D. Mokgatle (43)*

BProc (UNIN), LLB (Wits), H Dip Tax Law (Wits)  
Executive director: Transmission.  
Joined Eskom in 1991.  
*Appointed to the Management Board in 1996.*

Maintenance, refurbishment and expansion of electricity and telecommunications network  
Trading and network administration of bulk electricity  
Transmission network capability  
Transmission network operations



**Finance**

*Dr W J Kok (48)*

DCom (RAU)  
Executive director: Finance.  
Seconded to Eskom in 1988; joined permanent staff in 1989.  
*Appointed to the Management Board in 1993.*

Corporate finance  
Corporate financial management  
Corporate risk services  
Eskom Finance Company  
Financial planning  
Treasury  
Commercial services



**Human Resources**

*R S Moloko (45)*

BCom (UNISA), MBA (Rutgers, USA)  
Executive director: Human Resources.  
Joined Eskom in 1992.  
*Appointed to the Management Board in 1999.*

Human resources centralised services  
Human resources development  
Human resources leadership, industrial relations  
Organisational development and transformation  
Remuneration and benefits, Eskom and Allied Industries  
Training Board (EAITB), Integrated Awareness Education, Training and Evaluation System (IAETES)

## Management Board changes during the year

J A de Beer (Technology) was appointed chief executive officer and VTL Ngubeni (Services) and M S Mosikili (Marketing and Communication) as executive directors of the non-regulated business Eskom Enterprises.

P A Faling (Transmission) and L J Messerschmidt (New Business Development) retired.

R S Dabengwa (Distribution) resigned.

B T Crookes (Generation) passed away in September.



*Affecting the  
of a prosperity  
continent*





# Chairman's statement

## *Introduction*

The new century is an era of hope for the resurgence of the African spirit. Our resolve to be the pre-eminent African energy and related services business, of global stature, could not have come at a better time. While we intend to take our place in the world community of nations, the African continent will be our initial primary focus.

During the past year, in the spirit of the **African Renaissance**, we have crossed many rivers and flown over many mountains, hills and valleys, in search of partnerships with our African counterparts. We aimed to cement relationships through long-lasting and meaningful development ventures. Today, most of the African electricity utilities know about Eskom and its capabilities. We believe that together we can make a difference and improve the provision and supply of electricity in Africa. The new-found inspiration evident in Africa to rise above its problems makes this the ideal time to close ranks and rekindle our capacity to harness all our resources for growth and development.

This past year was far from plain sailing, and we witnessed times of economic recession. Eskom can never be immune from a global economic downturn, which this year had a negative effect on many countries, including our own, and in particular negatively impacted Eskom's sales revenue.

We live in a world of rapid change and intense competition. Eskom recognises that the electricity industry is becoming dynamic and will face competition in future. That is why we are positioning the organisation as a competitive multinational African energy and related services business, vigorously promoting economic growth in South Africa, the southern African region and the rest of the continent.

We will continue to be an efficient business. That is why the organisation has put emphasis on human resource development to enable our employees to develop the highest standard of skills and performance, reconfigured the business to enhance efficiency and, as reported last year, established Eskom Enterprises. Just as the twentieth century was an era of wonders in which man went to the moon, the new millennium will have its own miracles, but this time Africa will play a much more meaningful role.





*Xhosa man*

### ***Financial performance***

Eskom's net profit for 1999, after taking into account the adjustments necessary to comply with changes in International Accounting Standards, was R2 168 million, compared with the 1998 restated figure of R2 474 million.

This is a satisfactory performance, given the tough economic climate experienced in 1999 and the cost of voluntary separations undertaken during the year, which will have a future beneficial effect. It was pleasing to note the positive sales growth of 1,15% compared with the negative growth recorded in 1998, which indicates a general upturn in the economy. Eskom's financial health continues to improve and at year-end the debt-equity ratio was 0,83:1.

Eskom believes that, as a world-class utility, we must embrace and comply with International Accounting Standards. To this end, the necessary accounting policy changes were made during the year, bringing us in line with the latest changes which require us to make full provision for employee benefits and comply with foreign currency financial instruments disclosure. The policy change did, however, result in our reserves being reduced by R1 017 million.

### ***Technical performance***

Eskom has always been determined to be a generator of electricity that satisfies our country's needs on a sustainable basis. It is with this in mind that we pay utmost attention to the level of performance of our power stations.

As a direct result of these high levels of performance, existing stations will be able to meet customers' electricity needs. While this performance enhancement was initially targeted only at the base-load stations, our peaking plant has also proved that it is now close to the best, if not the best, in the world in terms of technical performance.

Parallel to these developments on the technical front, a strong focus has also been maintained on the cost of coal, which constitutes some 30% of the total cost of Generation.

Through co-operation with our suppliers, it has been possible to contain increases in the unit cost of coal, thereby contributing to Eskom's ability to meet its commitment to the electricity price compact.

In 1999, Transmission's performance in the quality and continuity of supply was excellent. Incidents of interruption were negligible. This was a significant improvement on the previous year. The interests of our customers have been and will always remain of paramount importance to us.

### ***Electricity price compact***

Eskom has committed itself to reduce the real price of electricity in South Africa by a cumulative 15% between 1 January 1995 and the end of the year 2000. The 1999 general price increase, which was approved by the National Electricity Regulator, was 0,7% (1998: 1,9%) below the rate of inflation as measured by the average consumer price index, the CPI. Eskom, through its endeavours to pass lower than inflation price increases on to its customers, has contributed towards reducing the average inflation rate of our country. Eskom will achieve the price compact if inflation is 6,2% or above in 2000 .



### Exceeding electrification targets

In terms of our Reconstruction and Development Programme commitment, we undertook to electrify 1 750 000 homes by the end of the year 2000. I am proud to announce that we had actually exceeded that target by November 1999. Even in some of the most far-flung previously underserved rural areas, people now are enjoying the benefits of electricity for the first time.

### Environmental performance

Environmental imperatives have become part of our business culture and are factored into our everyday business decisions, and are not just an expression of good intentions. We conduct our business with the view to reduce any adverse environmental impact as much as is reasonably possible. Environmental performance is a key area of business, with special performance indicators and targets. Further information in this regard is provided in the Directors' Report, and also in our separate Environmental Report.

### Social responsibility

Eskom launched the Eskom Development Foundation in 1999 with an initial capital investment of R150 million. The aim of the foundation is to integrate Eskom's various corporate social investment initiatives. These initiatives include small business development, the Eskom Mathematics and Sciences Colleges of Education Project, community development, and the electrification of schools and clinics.

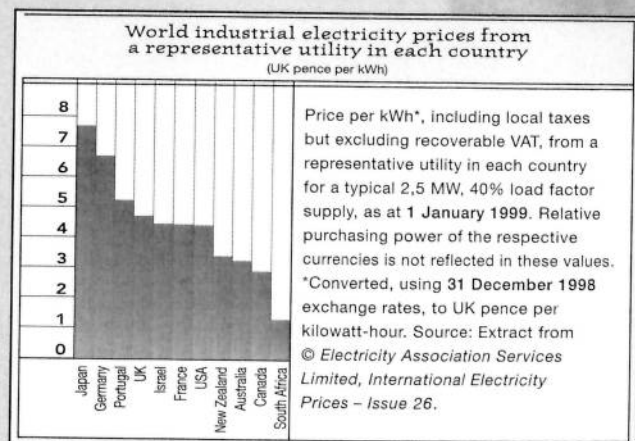
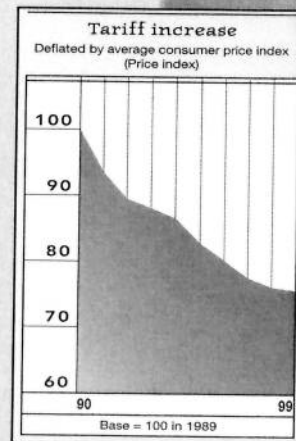
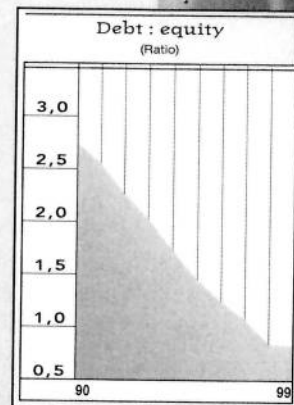
Over the past decade, Eskom has spent R800 million on social investment initiatives.

As a responsible corporate citizen, Eskom has a vision of being among the leading socially responsible organisations in the development of communities for growth and prosperity.

### African initiatives

The African continent is blessed with an abundance of natural resources, conducive to producing fossil, hydro and other renewable energy generation. The stage is set for viable industrial development that will bring positive economic growth.

We have chosen to focus on Africa because we have identified opportunities for rewarding partnerships, primarily on the energy front and capacity building. This is also in line with the African Renaissance vision that views the continent as being on the path to economic resurgence through countries' co-operative energies.



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Eskom believes that the enhancement of capacity building, as well as of energy and economic development, is necessary to raise the standard of living on the continent. Strengthening business partnerships with the energy sector, among others, will provide the impetus for economic development.

It is widely recognised that South Africa has the potential to stimulate industrial growth and economic prosperity in the southern African region and on the continent as a whole. The decision to launch itself into Africa was prompted by these realities, and is the reason for creating Eskom Enterprises.

#### PROJECTS

Some of the projects that materialised as a result of the organisation's commitment to work with its counterparts in Africa are briefly highlighted below.

#### *SA-Namibian line: a regional pool*

One of Eskom's achievements was the inauguration, on 25 August 1999, of the Aries-Kokerboom transmission line, linking South Africa and Namibia. This 600 km transmission line is a joint venture between Eskom and NamPower. President Thabo Mbeki and Namibian President, Sam Nujoma, opened the multi-million-rand power line aimed at alleviating Namibia's electricity shortfall. The 400 kV power line will boost the creation of a regional pool through which electricity can be traded between countries.

#### *Motraco*

Eskom is in partnership with Electricidade de Mocambique and the Swaziland Electricity Board in a joint venture company known as Motraco. The venture was formed for the construction, ownership and operation of two 400 kV

transmission lines, from Eskom's Arnot and Camden Power Stations in South Africa to the new Maputo substation in Mozambique, to supply the \$1,34 billion Mozambique Aluminium (MOZAL) smelter. The MOZAL smelter and the Motraco transmission lines anchor the Maputo development corridor, and MOZAL is expected to generate export earnings of \$400 million a year for Mozambique and the southern African region.

#### ESKOM ENTERPRISES

Eskom Enterprises was formed in 1999 to focus on non-regulated business activities in South Africa, and become involved in the energy and related services business internationally. This was necessary to ensure a sharper focus on the non-regulated business, and create a ramp for growth into other markets.

In the past year, Eskom Enterprises exchanged business contacts with similar utilities in Ghana; The Gambia; Uganda; Namibia; Morocco and other African countries. It has also identified opportunities in the refurbishment of turbines, as well as in mining, hydropower generation, process plant and metal smelter, and the upgrading of systems in general elsewhere on the African continent.

#### *Future challenges*

##### SHAREHOLDER'S COMPACT

A formal shareholder's compact is being prepared, which will be the basis for an agreement between government as shareholder and Eskom regarding performance objectives and targets into the future. This will ensure good governance, and will structure more effectively Eskom's relationship with government as shareholder.

##### RESTRUCTURING OF THE ELECTRICITY INDUSTRY

The nature of the whole electricity industry is being restructured in terms of the direction given by the government in its Energy White Paper. The first challenge for Eskom, however, is the restructuring of the distribution industry. This will see Eskom's Distribution Group separated from the organisation and merged with the distribution operations of those municipalities involved in the distribution of electricity. This move is in line with the government's energy policy, which sees the establishment of a maximum number of financially viable independent regional electricity distributors as the end-state model for the industry.

To oversee the restructuring process, the Electricity Distribution Industry Restructuring Committee has now been formed. It operates under the auspices of the Department of Minerals and Energy (DME), and involves the participation of various stakeholders, including Eskom.





*Niger nomad*

We are very encouraged by the manner in which this initiative is being handled. The DME has adopted an approach that is systematic and allows for a phased implementation process. Stakeholders are involved in this process, and external experts are to be appointed to guide and assist with effective implementation. I am very confident that the restructuring process will be carried out in a manner that does not prejudice existing strengths in the industry, and will enhance our ability to ensure the effective delivery of electricity to our customers.

Distribution has been preparing for the creation of the Electricity Distribution Industry (EDI) Holdings and, to this end, has been ringfenced within Eskom.

#### CORPORATISATION

The Eskom Amendment Act (No 126 of 1998) made the State the owner of Eskom and removed the tax exemptions that Eskom had previously enjoyed. Furthermore, the Act made provision for the Minister to take the necessary action to have Eskom incorporated as a limited liability company with share capital.

Eskom has reached agreement with the South African Revenue Services on most aspects regarding the application of the tax legislation to Eskom and I am pleased to announce that a due diligence exercise is already under way to identify issues that need to be addressed prior to Eskom becoming a company which is envisaged to take place during the course of the year 2000.

#### *Conclusion*

Indeed, 1999 was a year in which we delivered on our commitments. We have maintained and enhanced our business status, and we compare favourably with other organisations in areas such as profitability and the strength of our balance sheet. As we move into the future, we are gearing ourselves to exert a major influence as a catalyst for South African economic development.

If we all play our part, our continent will soon be a desirable destination for direct foreign investment and will be able to relate to other economies as a trading partner worthy of unconditional respect.

I give my special thanks to the former Minister of Public Enterprises, Princess Stella Sigcau, and the former Minister of Minerals and Energy, Penuell Maduna, for their valued support.

We have developed a close and cordial working relationship with the new Minister of Public Enterprises, Jeff Radebe. The new team is committed to, and is accelerating, the process of the restructuring of Eskom.

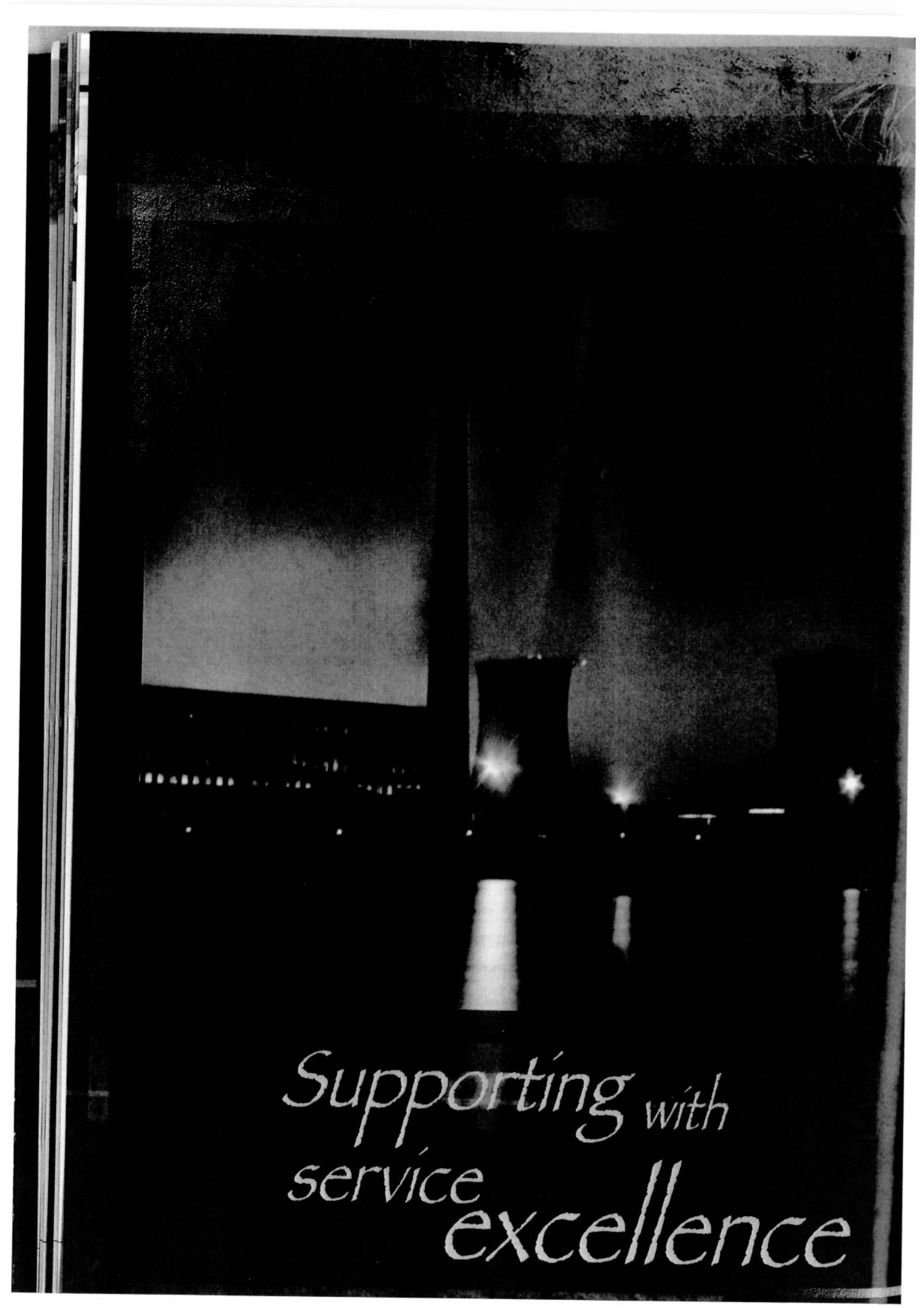
The Department of Minerals and Energy, under the leadership of Minister Phumzile Mlambo-Ngcuka, is also providing guidance in terms of the restructuring process. This will take place within the policy framework provided by the department's White Paper on Energy. Close co-operation between the two departments is necessary for the restructuring to be implemented successfully. Clearly, Eskom has made, and will continue to make, inputs into this process as it unfolds, in an effort to contribute to its success.

The wisdom of the Electricity Council has been very enriching. We must thank Mr P R Janisch, whose term of office expired, and Mr M Mkwana, who resigned in the year. The Management Board has shown immense insight in steering the organisation through turbulent times.

It is gratifying to note that Eskom has consolidated its efforts to position itself as the pre-eminent African energy and related services business of global stature.

**Reuel J Khoza**  
Chairman





*Supporting with  
service  
excellence*

Allen Morgan



# Chief Executive's report

## *Introduction*

Globalisation is one of the drivers that continues to shape Eskom's ongoing evolution. It underpins our strategic intent, namely *to be the pre-eminent energy and related services business, of global stature.*

Both globalisation and the strategic intent have been a source of inspiration to better performance, effectiveness and stable management and form the pillars of strength for transformation.

The changing environment in which we operate shows clearly that we will continually be faced with new competitors. The Government's White Paper on Energy Policy is clear that the introduction of competition will soon be a reality.

The strategic intent has led to a number of changes, all aimed at preparing Eskom to become an even more focused organisation in the next century.

The role of management in this has been to ensure that we are well prepared to compete effectively in international markets, while ensuring that we are sufficiently robust to withstand competition in the southern African market.

## *THE FINANCIAL POLICY*

Eskom continues to apply a financial policy of recovering the real (inflation-adjusted) cost of supplying electricity to customers each year and earning an appropriate real return on assets. This ensures that financial viability is maintained in the long term. The annual price increase is determined by the cost of supply, future requirements for expansion and the need, if any, to adjust the organisation's financial position. The strategy also ensures that price changes are gradual, predictable and stable. The preparation of current value financial statements demonstrates Eskom's use of current value accounting techniques to measure the effects of this policy, which is important considering the long-term nature and asset intensity of the business.

This policy has served Eskom well over the past nine years and, combined with the utilisation of Eskom's surplus generating capacity, has enabled Eskom to reduce the real price of electricity to customers while, at the same time, the financial health of the organisation has significantly improved, which is clearly shown by the continued improvement in the debt-equity ratio, which, at the end of 1999 stood at 0,83:1 compared to over 3:1 in 1985.

However, in a taxation and dividend-paying environment, a new financial policy will need to be introduced to meet the needs of government as Eskom's owner.

### *Year 2000*

It is with great satisfaction and pride that I can report on Eskom's successful transition into the year 2000.

In July 1999, Eskom was able to announce that it was year 2000 ready, and in a position to make a successful transition at year-end. A total of 613 projects were undertaken to remedy or replace non-compliant systems and devices.

Contingency planning was the major focus during the second half of 1999. An Eskom National Contingency Planning Workgroup, with representatives from Generation, Transmission and Distribution, had the responsibility of overseeing and co-ordinating contingency plans for the energy flow process. Six national risk scenarios were identified for which contingency plans were completed. Several tests of the plans were performed to ensure their practicality.

Eskom was actively involved in a number of external year 2000 initiatives. It supported the National Year 2000 Task Team set up by the Department of Provincial Affairs to assess the readiness of municipalities in five critical service areas. It also made its expertise available to municipalities that requested assistance.

The communication strategy was successful in providing accurate and consistent messages to stakeholders. This was achieved by means of advertisements, articles, special events, participation in radio and television programmes, and presentations to customer forums and discussion groups.

An extensive quality assurance drive was conducted during the programme. In all, seven external audits were carried out, supplemented by a further twenty-eight internal audits.

The smooth transition to the year 2000 bears testimony to Eskom's efforts. We began our Y2K programme in January 1997 and we have spent R77 million on direct costs addressing the Y2K problem, R30 million below budget.

### *Transformation and restructuring*

In February 1999, the former Minister of Public Enterprises, Princess Stella Sigcau, announced that Eskom would be restructured into regulated and non-regulated businesses, the latter under the name of Eskom Enterprises.

Eskom's management structure also changed with the appointment of two deputy chief executives: Thulani Gcabashe was appointed Deputy Chief Executive and Chairman of Eskom Enterprises (EE) and Bongani Khumalo was appointed Deputy Chief Executive: Restructuring and Transformation.

This restructuring helped to rationalise Eskom's regulated business for efficiency, while it leveraged core competencies for growth in non-regulated markets.

Due to low sales growth in local markets, it is imperative that Eskom generate new revenue by means of profitable ventures in markets beyond our borders.

### *Business performance*

#### FINANCIAL MANAGEMENT

Difficult trading conditions prevailed again this year, and we were impacted by a depressed national economy, low commodity prices and closures in the mining industry. However, Eskom's financial performance was most satisfactory. It was very encouraging to note the sales growth of 1,15% – a turnaround from the negative growth experienced in 1998.

Eskom's net revenue increased by 2,3% to R21 568 million. Changes in the sales mix and the low commodity prices for our commodity-linked sales negated to an extent the effect of the 4,5% tariff increase.

During the year, Eskom continued to improve efficiency and to streamline the business by allowing voluntary separations, the cost of which is reflected in the expenditure for the year.

Notwithstanding this additional cost, the net profit for the year was R2 168 million compared to R2 474 million in 1998.

The debt-equity ratio continued to improve from 0,89:1 in 1998 to 0,83:1 in 1999.

Operating expenditure increased by 11,7% during 1999. This increase was significantly impacted by the separation packages of R844 million (1998: R161 million), which had, as its objective, to improve future efficiency within the organisation.

Net interest and finance charges decreased from R3 358 million in 1998 to R2 373 million in 1999. This reduction is due to:



the changes in accounting policies in order to comply with International Accounting Standards; higher interest rates received on investments; and the reversal of an estimated interest provision, as more accurate information became available.

The total cost of supplying electricity increased from R18 600 million in 1998 to R19 400 million in 1999. This represents a 4,3% increase, which compares favourably with the average inflation rate of 5,2% during 1999.

#### PRODUCTIVITY

The business continued to focus on improving productivity. This, together with the improvement in the economic conditions during the year, enabled Eskom to achieve further productivity improvements totalling R75 million (before the cost impact of separations) from the business as a whole. Good cost management enabled a productivity gain of R136 million on controllable costs, which was driven through improvements in business efficiencies, as well as better utilisation of fixed capacity. This was, however, to a large extent, offset by Eskom's commitment to expanding the infrastructure through increased generating capacity and increased electrification connections.

The results also show that the business was deflationary in terms of the effective electricity price increase passed on to its customers. This resulted in the business absorbing R428 million for the benefit of the customer.

#### INTERNATIONAL BOND MARKET

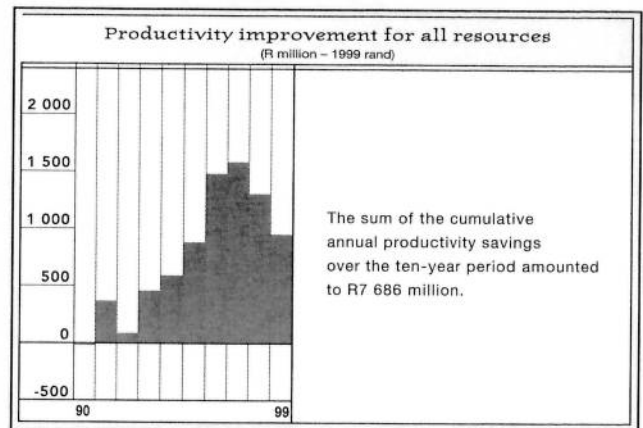
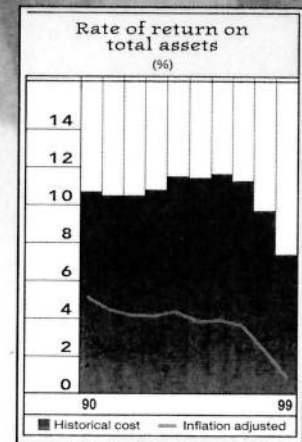
After an absence of seven years from the Eurobond market, Eskom marked its return with the launch of a three-year E200 million Eurobond issue.

#### INFORMATION MANAGEMENT

Eskom has identified the management of information as a strategic imperative. Considerable expenditure has been invested in a number of information technology initiatives to date.

It is recognised that the integration of all systems in a common information technology infrastructure to ensure optimum utilisation of the information asset is of utmost importance. For this reason a chief information officer has been appointed to head the Eskom Information System (Eskom IS) business unit in the Corporate head office.

Eskom IS is the custodian of the support function to the Information Systems Board, a permanent committee of the Management Board of Eskom that will regulate information management in Eskom. Eskom Groups have their own Group IS that will facilitate information management support for the groups. A target has been set by Eskom to develop its information infrastructure as the central system for the management of the organisation in the near future.



Young girl from Cote d' Ivoire



Himba woman



#### ELECTRIFICATION

Eskom committed itself to electrify 1 750 000 houses by the year 2000 which on this scale is a first in the world. The good news for South Africa is that Eskom met and exceeded this target a year ahead of schedule in 1999.

More than 42% of rural households in South Africa were electrified by the end of 1999 as part of the joint Government, electricity distribution industry and Eskom's commitment to electrify 2,5 million houses by 2000.

Since the start of the electrification initiative, Eskom has invested more than R7,5 billion in electrification projects. Progress has been impressive; before 1994, only 12% of the rural population had access to electricity compared to current levels.

To counter the problem of costs associated with greater distances from the established grid, there are new initiatives to promote the use of non-grid energy, such as solar power. In remote areas, where it is expensive to electrify the rural population by traditional means, solar energy is cost-effective.

Although we have exceeded the national electrification target, we have set ourselves a three-year target of a further 600 000 connections, giving more attention to rural areas.

#### HUMAN RESOURCES

In the light of Eskom's overall transformation process, Corporate Human Resources (HR) has embarked on a process of aligning the organisation's management of HR with business imperatives.

In order to realise this commitment to value-added measurable human resources, the Executive Director (Human Resources) and his team have agreed on five strategic priorities on which to focus their efforts.

These are:

- strategic alignment of HR,
- stakeholder relationships,
- ensuring management of the HIV/AIDS impact,
- providing people with transformation strategies, and
- skills development.

We also launched the Chief Executive Officer women graduates programme, which is aimed at increasing the number of women in managerial and professional positions. This is an intensive post-graduate programme from the University of Warwick, culminating in the award of an MSc in Engineering Business Management. During 1999, 38 black women participated in the programme and the first graduates are expected in 2001.

#### SAFETY

The direct involvement of the Operations Committee of the Management Board led to the introduction of several campaigns and interventions to address the basic causes of accidents. This contributed towards the overall reduction in the number of fatalities involving vehicles and electrical contact incidents.

Despite the good overall performance in health and safety, the incidence of electrical contacts did not respond as favourably to the strategies implemented. This remains an area of concern requiring more strict application of existing requirements. The reduction in vehicle-related fatalities is a direct result of a positive behavioural change brought about by the Advanced Driver Training Campaign.



## AWARDS

### ROAD SAFETY

#### Driver of the Decade

Eskom embarked on an internal safety drive, offering incentives to employees who demonstrate good driving behaviour. To check undesirable driving behaviour, driving courses, road safety and awareness campaigns were introduced and vehicle-tracking devices installed. Lucas Kleynhans, who has been driving for Eskom for 30 years without a single accident, was named the Driver of the Decade. I would like to congratulate Lucas on this remarkable achievement.

### PROFESSIONAL MANAGEMENT REVIEW (PMR) EMPOWER AWARDS

At the annual Professional Management Review (PMR) EmPower Awards, Eskom was announced the winner in the following four categories:

- Company that contributes most to Black Economic Empowerment
- Company that contributes most to Environmental Management
- Company that contributes most to Social Development
- Best State-Owned Company

This is the second consecutive year that Eskom received recognition from PMR as a model corporate citizen.

According to PMR editor, Eskom's external communication and advertising campaigns go a long way to positioning the organisation and to creating awareness and understanding regarding its contributions to social and economic development in South Africa.

### NOMINATION FOR FINANCIAL TIMES (FT) ENERGY AWARDS

The annual FT Energy Awards is a prestigious event at which energy companies from around the world are recognised for their achievements. It is considered an honour to be nominated for such an award.

Eskom was nominated for the award in the following two categories:

- The Best Electricity Company
- The Most Promising Pre-Commercial Technology Development.

The winners were Duke Power and Ballard Power Systems respectively.

### FINESSE AWARD

Eskom received a Laureate Award from the Computerworld Smithsonian Institution for its innovative use of information technology in a business context. The Finesse SAP R/3 solution provides improved financial and materials management practices.

### NATIONAL PRODUCTIVITY INSTITUTE (NPI) AWARD

Hendrina Power Station received the NPI Gold award for productivity improvement for the period 1994 to 1998.

### SAFETY AWARDS

Many business units received national health and safety awards in recognition of outstanding safety performance.

### NOSA TERRY TROPHY

The NOSA Terry Trophy was presented to Vanderkloof Power Station for operating 22 years without a disabling injury.

### NOSCAR AWARD

The NOSCAR Award went to Koeberg, Lethabo and Matla Power Stations for their excellent safety performance.

### NOSA 5 STAR AWARD

The NOSA 5 Star Award went to Arnot, Duvha, Matimba, Hendrina, Majuba and Tutuka Power Stations for meeting safety standards as stipulated by NOSA.

Matimba and Kendal Power Stations were also recognised for achieving two million and three million man-hours respectively without disabling injuries.

## *Technical performance*

### GENERATION

Eskom's Generation group maintained its exceptional plant performance of recent years by achieving an energy availability factor (which is an indicator of the ability to deliver energy to the customer) of above 90,0% against a target of 89,2%. This world-class performance was achieved for a generating system as opposed to individual units upon which targets are usually based.

Reliability of the Eskom generating units as measured by unplanned automatic grid separations, was once again better than the international best quartile. This unrelenting focus by Generation on superior performance benefits the customer through improved asset utilisation.

In 1999, the Generation Peaking business unit achieved the distinction of being rated as the best business unit, thereby surpassing the high levels of performance achieved by the coal-fired stations. On 1 April, as planned, Majuba Unit 4 was taken into commercial operation.

### Coal

The depressed growth in demand for electricity from 1998 has necessitated a review of coal purchases. Agreements have been further developed to secure more flexibility in terms of deliveries and equitable risk sharing, and will continue to be further developed with major coal suppliers.

Through co-operation between suppliers and ourselves, Eskom has been able to keep the unit cost of coal at budgeted levels. This has contributed significantly to containing Eskom's cost in difficult trading conditions.



*Ndebele woman*

### Water supply

The roll-out of the National Water Act (Act 36 of 1998) and its associated strategies such as the Water Pricing Strategy has had, and will have, a significant impact on Eskom's business, now and in the future. Eskom is recognised as a strategic water user in the Act and continues to give input for the implementation of this and other legislation. It further assists in planning strategic initiatives in its continuing endeavour to maximise its stakeholders' benefits.

### Nuclear fuel procurement

The aggressive purchasing strategy followed during the last few years, subsequent to the closure of the Atomic Energy Corporation's nuclear fuel fabrication plants near Pretoria, resulted in the average price (in R/MWh) of the nuclear fuel delivered to Koeberg Nuclear Power Station being substantially lower than average coal prices. To a large extent, this has helped Koeberg to remain competitive.

### Capacity management

The depressed economic conditions during 1999 limited the opportunity for electricity sales growth, which remained much lower than that required to optimise our surplus capacity.

This is of great concern, especially in the light of a large number of new power projects that are being considered in the southern African region.

It appears that, despite surplus regional capacity, regional governments and investors are still biased towards commodity production as opposed to industrial development projects.

It is anticipated that, in the foreseeable future, the demand profile will reflect relatively higher morning and evening peaks of short duration, as more domestic consumers are connected to the electricity grid. This will increase the requirement for demand-side measures, more flexible operation of generation sets. This is likely to impact fuel supply arrangements, as power stations are repositioned in the market.



## TRANSMISSION

In 1999, the performance in the quality and continuity of supply was improved. This is important because it directly impacts the quality of supply to our customer and is measured by the number of system minutes that were lost over a 12-month period. There were no incidents in 1999 (1998: 1) with a severity greater than one system minute lost, and only 3,08 system minutes lost (5,2 in 1998) with a severity of less than one system minute. This is a substantial improvement. During 1999, 55 interruptions were reported against a target of less than 56.

## DISTRIBUTION

### Satisfying customers' electricity needs

Although 1999 results for measuring customer satisfaction were above the target of 8, the results, in terms of individual segments, have deteriorated. During 1999, there was a noticeable decrease, with customers rating Eskom's overall service quality at 8,08 (1998: 8,37) for MaxiCare and 8,51 (1998: 8,78) for PreCare. This downward trend was most noticeable in the non-residential segments (industry, agriculture and commercial) where overall service quality was rated below 8 in the MaxiCare agriculture and commercial sectors. Whilst the overall ratings are above target, the analysed 1999 results are being addressed through action plans developed to prevent or remedy negative customer service perceptions, and in so doing, recover the positive perceptions held by customers in the past.

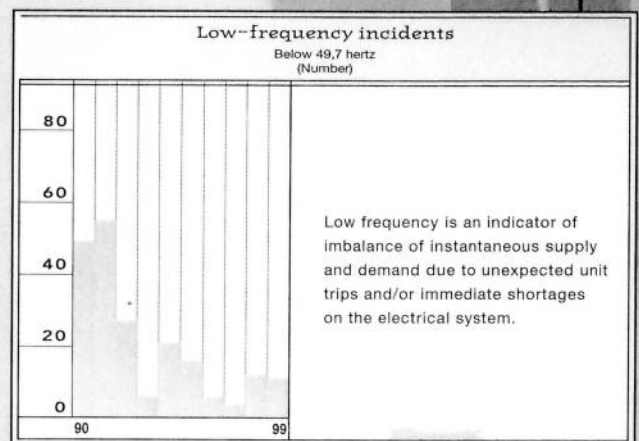
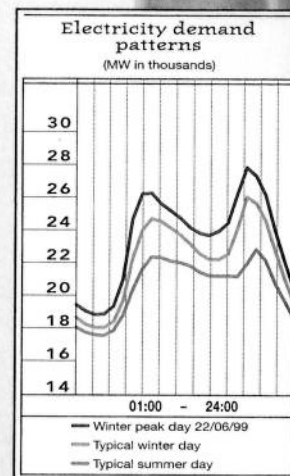
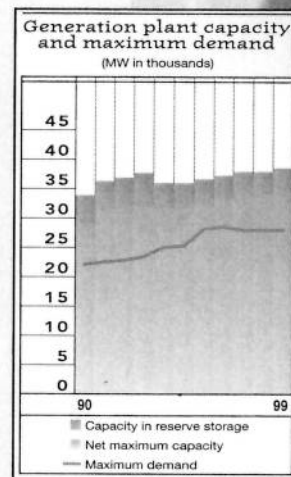
A project is under way to review all aspects of the MaxiCare and PreCare customer satisfaction, to ensure that the instruments remain valid and deliver actionable results to Eskom. The enhancements will ensure that the progress made over the past four years is not lost. Changes are to be implemented during 2000.

## Energisation

Eskom has achieved much success with a new energy supply concept, which combines different energy forms in a package to meet specific needs.

Called Energisation, the concept was designed for remote rural communities, and has been developed in conjunction with the liquefied petroleum gas industry.

The package used in the pilot programme included electricity and gas – electricity to power lights and radio or TV, while gas is used for heating water and for cooking.



### *Energy efficiency*

Eskom and Rand Water have signed a memorandum of understanding jointly to market the benefits of water and energy efficiency measures to new home-owners and housing developers.

The New Homes Water and Energy Efficiency Programme, which seeks to encourage homeowners and developers to use scarce resources efficiently, has been implemented.

### *Rotek Industries*

Rotek, Eskom's subsidiary, has issued an invitation for an equity partner as from March 2000. Eskom will retain a controlling interest in the company through Eskom Enterprises. It is envisaged that this will contribute significantly to improving the commercial focus within the company and would present significant scope for empowerment within the ambit of its non-core, non-regulated businesses.

### *Environmental management*

Eskom's commitment towards the environment is demonstrated in its adherence to the principle of the integration of environmental considerations into its business planning decisions. The Integrated Electricity Planning Steering Committee incorporates environmental assessments into its planning processes. Economic and social development remain a priority, with environmental issues factored into the process.



*Samburu man*

In 1999, Eskom made the policy decision to comply with ISO 14001 by 2002. Individual business units may apply for certification.

An integral part of any environmental management system is the element of disclosure. To this extent, Eskom publishes annually a separate Environmental Report. Certain areas are highlighted below.

### *EMISSIONS STRATEGY*

Eskom has set a target to reduce its particulate emission to 0,28 kg/MWh sent out over the next five years. Gaseous emissions, such as oxides of sulphur and nitrogen continue to be monitored through the regional ambient network, managed by Eskom. Data indications at this stage are that the ambient levels measure up to international standards. Eskom continues to conduct research in appropriate technology.

### *CLIMATE CHANGE*

South Africa is recognised as a developing country under the United Nations Framework Convention on Climate Change. Eskom is represented on South Africa's National Climate Change Committee and supports the objectives of the Convention. Eskom has initiated a regional vulnerability and adaptation study, with a view to launching this project specific to the electricity sectors in the southern region.

### *STAKEHOLDER RELATIONS*

Policy and legislative input and interventions continued, the key focus being on the National Waste Management Strategy, the National State of the Environment Report and Mpumalanga's environmental impact assessment policy and procedural initiative.

A memorandum of understanding between Eskom and the WWF Southern African Wild Life College has been signed, indicating our intent to continue with our capacity building in the southern African region.



### Research projects

The amount spent on technical research and development, including the pebble bed modular reactor (PBMR), increased from R105 million in 1998 to R185 million in 1999. It is estimated that in 1999 research provided a return of 5:1 in avoided costs and direct cost reductions. In addition, significant non-quantifiable benefits in social, environmental and customer satisfaction were realised.

The South African Power Utility Research Advisory Board continued to give an invaluable national perspective to Eskom's research portfolio. Eskom's research and development programme is strongly driven by the medium-term operational needs of the line groups and the longer-term strategic and environmental priorities of the southern and South African power sector. This we have firmly aligned to the vision of the African Renaissance.

#### HIGH-VOLTAGE DIRECT CURRENT

At present, 98% of electrical engineers are involved in high-voltage alternating-current (HVAC) work, with a resulting lack of skills in high-voltage direct-current (HVDC). Eskom and Siemens have therefore embarked on a joint research project to update capacities in respect of HVDC power transmission.

The results of the project will help engineers design new DC lines, as the standard practice of HVAC power transmission is not practically viable for the long distances involved in the development of the sub-Saharan power grid.

#### PEBBLE BED MODULAR REACTOR

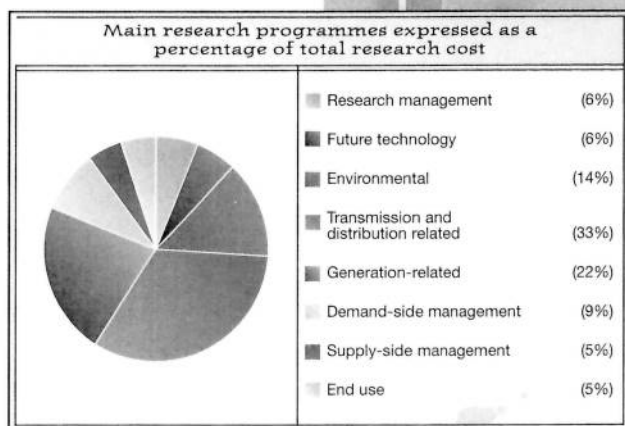
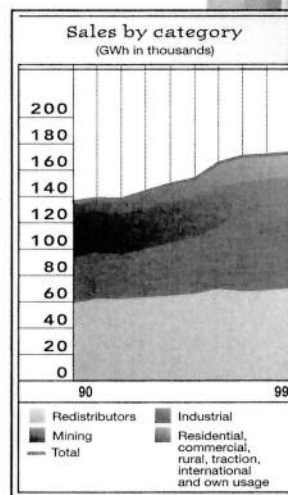
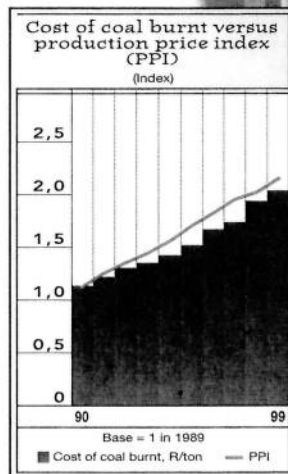
The PBMR is a promising nuclear technology development based on small (110 MW) nuclear power stations.

The safety of the PBMR is ensured by making it inherent in the built-in processes of the reactor, rather than having it "added on" in the form of engineered safety systems.

Thus, the PBMR has major safety advantages over more conventional nuclear plants. Research has shown that it also has major cost benefits, being considerably cheaper than other alternatives, such as wind power and gas.

International perception of the project received a boost when the PBMR was nominated for the Financial Times Energy Awards in the Most Promising Pre-commercial Technology Development category.

The project is still regarded as a research project, as it has not as yet been approved for production. Government approval and licensing requirements will have to be obtained before the project can move into the next phase.





## *Corporate social responsibility*

### NON-GRID ELECTRIFICATION

A programme that started out as the electrification of remote rural schools and then incorporated electrification of remote rural domestic dwellings using photovoltaic systems, has now been brought into the mainline electrification programme of the Department of Minerals and Energy, the National Electrification Co-ordinating Committee and other planning bodies for future electrification programmes in South Africa.

### NON-GRID ELECTRIFICATION OF SCHOOLS

Eskom's initial implementation using photovoltaic systems was on the RDP Schools Electrification Programme. To date, 1 500 schools have been electrified with photovoltaic systems. During 1999, a further 1 000 systems were ordered, to be funded by the European Union. Of these schools, 500 are located in Northern Province and 500 in the Eastern Cape. It is anticipated that by the end of the year 2000 most of these systems would have been installed.

### ESKOM-SHELL SOLAR HOME SYSTEMS (DOMESTIC ELECTRIFICATION PROGRAMME)

Eskom has entered into a joint venture with Shell to explore non-grid alternatives for home use.

### BLACK ECONOMIC EMPOWERMENT (BEE)

Eskom's performance with regard to BEE, from a procurement perspective, has been outstanding during the past three years. During the period 1997 to 1999 the expenditure increased from R286 million to R1 320 million, with a total of R2,3 billion contracted with BEE organisations.

Although Eskom does not provide finance to entrepreneurs, it facilitates access to capital, and supports emerging business people by identifying opportunities and offering assistance in business plan preparation.

Eskom has facilitated the establishment of numerous joint ventures and partnerships as well as the acquisition of shares by black entrepreneurs in major companies. These transactions involve a spectrum of sectors, such as the distribution transformer industry, coal mining, electronics, and the cable and conductor industry.

The process of establishing a major black-owned coal mining company supplying coal to Eskom, by virtue of taking over existing contracts from Ingwe and Anglo Coal, gained considerable impetus and support during 1999.

Supporting the development of emerging black-owned businesses contributes to a more balanced and stable economic environment for small businesses and their employees, which directly benefits a substantial portion of our core business.

Eskom has always believed that, to achieve success in the new South Africa, it must broaden economic opportunities for all South Africans.



## Acknowledgements

Eskom's creditable performance through a difficult year could not have been achieved without the determination and commitment of all Eskom employees. My fellow directors and I are, as always, immensely appreciative of all their efforts.

The Electricity Council members have provided valuable guidance and on behalf of Eskom, I thank them for their efforts. My colleagues on the Management Board have been remarkable for their dedication and determination to continue making Eskom a winning organisation.

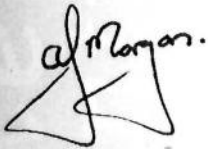
Eskom sadly lost a Board member, Bruce Crookes, executive director Generation, who passed away in September 1999. He was the doyen of the philosophy of maximising the technical and viable capability of Eskom's generation assets – as Generation performance this year clearly shows.

In 1999, Joe Matsau was appointed executive director Distribution and Mike Deats acted as executive director Generation, pending the selection of a successor. Ehud Matya was appointed executive director designate Generation in November 1999.

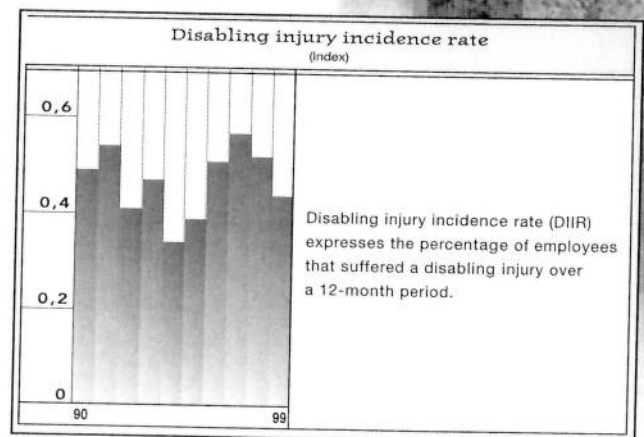
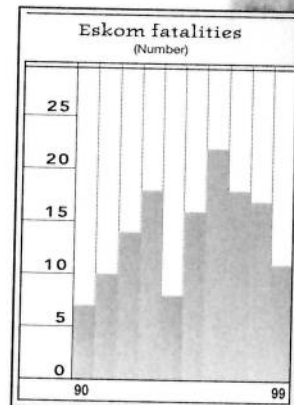
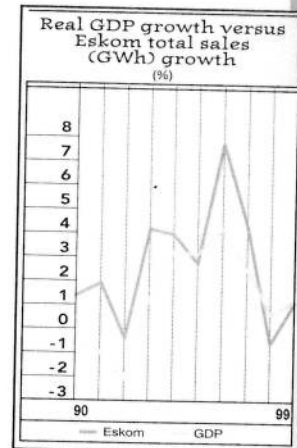
Three members of the Management Board, Jac Messerschmidt, Piet Faling and Sam Mosikili took early retirement, while Sifiso Dabengwa left for other opportunities. I thank them for the considerable contribution they all made to Eskom over many years.

The announcement regarding the appointment of the Chief Executive Designate was made in February 2000. Thulani Gcabashe was appointed and I congratulate my successor and wish him well for the future.

Eskom is well positioned and looks forward to meeting future challenges.



Allen J Morgan  
Chief Executive



# Five-year financial review

	1999 Rm	1998 Rm	1997 Rm	1996 Rm	1995 Rm
<b>Financial position<sup>1</sup></b>					
Total reserves	28 975	27 805	25 029	21 893	18 821
Long-term provisions	5 240	4 783	1 979	1 539	1 177
Financial market liabilities	37 283	38 424	34 345	32 610	33 911
Trade, other payables and provisions	3 995	4 073	3 930	4 173	3 589
Total assets	75 493	75 085	65 283	60 215	57 498
<b>Operations<sup>1</sup></b>					
Revenue	21 568	21 074	20 448	18 687	17 114
Operating expenditure	(17 027)	(15 242)	(14 016)	(12 421)	(11 315)
Net operating income	4 541	5 832	6 432	6 266	5 799
Interest income	1 261	1 156	1 008	1 366	1 131
Interest expenditure	(3 634)	(4 514)	(4 357)	(4 560)	(4 214)
Net profit for the year	2 168	2 474	3 083	3 072	2 716
<b>Cash flow</b>					
Cash generated by trading operations	8 305	10 229	9 555	8 809	9 631
Net interest received and interest paid	(2 159)	(2 721)	(2 766)	(2 631)	(2 848)
Cash flows from operations	6 146	7 508	6 789	6 178	6 783
Cash utilised in investment activities	(4 503)	(5 928)	(5 836)	(5 610)	(5 835)
Cash effects of financing activities	(4 285)	(637)	(468)	(1 907)	505
Debt raised	1 813	596	2 703	1 934	4 338
Debt repaid	(4 914)	(3 481)	(3 100)	(4 321)	(2 520)
(Increase)/decrease in long-term financial market investments	(1 184)	2 248	(71)	480	(1 313)
Net (decrease)/increase in cash and cash equivalents for the year	(2 642)	943	485	(1 339)	1 453
<b>Ratios</b>					
<b>Profitability and asset management</b>					
Return on total assets, % <sup>2</sup>	7,37	9,69	11,30	11,65	11,45
Real (inflation-adjusted) return on total assets, % <sup>2</sup>	0,90	2,34	3,62	3,89	3,82
<b>Gearing</b>					
Debt:equity	0,83	0,89	1,08	1,25	1,45
Interest cover	1,91	1,74	1,92	1,96	1,88
Value created per employee, R'000	416	381	360	330	293

### Definitions of ratios

Return on total assets – Net operating income expressed as a percentage of total assets<sup>2</sup>

Real (inflation-adjusted) return on total assets – Net-inflation adjusted operating income, after taking account of financial gearing adjustment, but before taking into account interest income and interest expenditure, as a percentage of total assets<sup>2</sup>

Debt : equity – Net financial market investments and liabilities divided by total reserves

Interest cover – Net operating income divided by net interest income and expenditure

Value created per employee – Value created divided by number of employees at 31 December as per value added statement

1. Figures for 1999 and 1998 as per new accounting policies.

2. 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.



# Value added

for the year ended 31 December

Value added is the wealth created by Eskom through the generation, transmission, distribution and selling of electrical energy.

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.

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 Eskom.

	1999		1998	
	Rm	%	Rm	%
<b>Value created</b>				
Revenue and manpower cost capitalised	21 840		21 479	
Less: Cost of primary energy, materials, services and abnormal items	(7 695)		(7 260)	
	14 145	100	14 219	100
<b>Value distributed</b>				
To remunerate employees for their services <sup>1</sup>	6 051	43	5 119	36
To providers of finance for monies borrowed	2 373	17	3 358	24
	8 424	60	8 477	60
<b>Value retained</b>				
To maintain and develop operations	5 721	40	5 742	40
	14 145	100	14 219	100

Value created decreased by 0,5% compared with 1998. Similarly, value distributed to employees increased by 18,2% during the same period.

Value distributed to financiers and investors decreased from 24% to 17%.

The value retained in the business for the maintenance and replacement of assets has decreased by 0,4%.

The value retained is in line with the policy of strengthening Eskom's financial position for the benefit of existing and future electricity customers.

1. Including capitalised manpower costs amounting to R272 million (1998: R405 million)

for the year ended 31 December

# Productivity statement

Productivity statements provide 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 include 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, which include customers, employees and investors.

	1999 Rm	1998 Rm
Net profit for the year	2 168	2 474
<i>(Deduct)/Add back provisions and adjustments not impacting on overall productivity performance</i>	<i>(260)</i>	<i>148</i>
Adjusted net profit for the year	1 908	2 622
Adjusted net profit for the previous year	2 622	3 211
Change in net profit	(714)	(589)
Attributable to:		
Productivity improvement/(deterioration) before restructuring	75	(268)
Negative productivity from restructuring	(426)	-
Net productivity (deterioration)/improvement	(351)	(268)
Price under-recovery	(428)	(419)
Growth	65	98
Total change in net profit	(714)	(589)

The sustainable improvement in productivity continues to be a key focus area for the business. Although there was a net decline in productivity during 1999, the results indicate that before the impact of restructuring there were productivity gains of R75 million. The focus on improving productivity for the benefit of the customer is reflected in the way the organisation managed its controllable costs for the year. Despite the low sales growth there was an improvement in operating productivity of R104 million. The overall performance level, including the one-off impact of restructuring, was negative by R351 million. The main reason for this was Eskom's commitment to the expansion of the existing infrastructure through the increasing generating capacity and the electrification initiative as well as the resource requirements for transformation. The price under-recovery of R428 million indicates that the organisation was deflationary in terms of the electricity price increase during the year. This was achieved through Eskom's effective electricity price increase being lower than the impact of inflation on the business.

The productivity improvement of R97 million in the core business (excluding the impact of the electrification initiative and abnormal items) demonstrates the organisation's commitment to improving its performance for the benefit of the customer. This improvement was the result of better utilisation of existing capacity through increased sales as well as a positive contribution from improved efficiency.

Over the past ten years, Eskom's cumulative productivity saving, when expressed in 1999 rand, amounts to R7,7 billion.

The above performance figures have been reviewed by the National Productivity Institute (NPI). This 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 represents the overall performance of Eskom for 1999 when compared with 1998.



# Corporate governance

Eskom has long subscribed to the principles of openness, integrity and accountability and seeks to comply with the generally accepted corporate practices by which corporate entities in the developed world seek to govern themselves. Eskom's compliance with these corporate practices is as follows.

Eskom continues to comply with the King Report on Corporate Governance as well as the Eskom Act of 1987, the Reporting by Public Entities Act, 1992 and the Protocol on Corporate Governance in the Public Sector.

## *Governing bodies*

The Eskom Amendment Act, which came into effect on 18 December 1998, envisages the incorporation of Eskom into a company in the near future. This has not yet eventuated and Eskom's governance structures still exist in terms of the Eskom Act of 1987.

In the circumstances, Eskom continues to be governed by the Electricity Council (Council) and a Management Board (Board). The Council is responsible for determining policy and objectives and for exercising control. The Board is responsible for managing the affairs of Eskom in accordance with the policy and objectives determined by the Council. Although Eskom has a separate supervisory and management board structure, the Council and Board are considered to be fulfilling the role of directors and have a collective responsibility to provide effective corporate governance.

The members of the Council are appointed by the Minister of Public Enterprises. Appointments are for a maximum of five years or such shorter period as determined by the Minister at the time of appointment. With the exception of the Management Board representatives on the Council, all the members of the Council are non-executive and are representative of a wide range of stakeholders. In order to ensure that directors are able to fulfil their roles as directors, they are fully informed on their roles and responsibilities. In particular, with regard to Council members, an induction programme facilitates an understanding of Eskom's business by new members and includes a programme of visits to various sites. There is also an ongoing programme for all Council members. All Council members are actively involved in, and bring independent judgement to bear on, Council deliberations and decisions.

The Council meets regularly and monitors executive management through a structured approach to delegation,

reporting and accountability. This structured approach includes reliance on various Council subcommittees that are in a position to investigate and analyse thoroughly the direction taken by executive management in respect of key issues. The chairman also guides and monitors the input and contribution of the Council members.

The Board consists of a chairman and executive directors who are appointed by the Council. Initially the chief executive and the executive directors of Finance and Human Resources were appointed as Management Board representatives on the Council but this has now changed. The members of the Board, who are all executive, have normal employment contracts with Eskom. The continuation of their service is dependent on satisfactory performance on an ongoing basis.

In order to implement and manage the policies established by the Council, the Board and its subcommittees meet regularly.

## *Corporate secretariat*

A company secretary role has already been established through the appointment of the corporate council and the corporate secretariat department. Council and Board have access to the advice and services of Eskom's secretariat and are entitled to obtain independent professional advice, at Eskom's expense, should they deem this necessary. The Council and Board also rely on the secretariat to ensure that the matters that require the attention of the Council and Board are placed on relevant agendas for discussion. The Council and Board are also assisted by the secretariat to identify key issues that should form the focus of their attention.

Once Eskom has been incorporated as a company the governance structures



will be replaced by the appointment of a board of directors in terms of the Companies Act, 1973.

### *Ownership of Eskom*

Eskom's ownership has been clarified in the Eskom Amendment Act and the ownership of Eskom's equity now vests in the State.

### *Financial statements*

The Council and the Board of Eskom are responsible for the preparation and integrity of the annual financial statements and related financial information included in this annual report. The external auditors are responsible for independently auditing and reporting on the financial statements in conformity with generally accepted auditing standards.

The financial statements are prepared in accordance with generally accepted accounting practices and incorporate full and meaningful disclosure in line with Eskom's reporting philosophy. The financial statements are based on appropriate accounting policies consistently applied and supported by reasonable and prudent judgements and estimates.

### *Auditing*

The Audit Committee, which comprises Council members, members of the Finance Committee, co-opted members and the chief executive, is chaired by a Council member. Committee meetings are also attended by the executive director of Finance, the head of Corporate Audit, the external auditors and relevant corporate officials.

The Committee addresses appropriate policies, internal control, internal and external audit matters and such other issues as may be referred to it by the Council. The Committee meets regularly with management and the internal and external auditors. The head of Corporate Audit and the external auditors have unrestricted access to the chairman of the Committee.

The Audit Committee also ensures that the annual financial statements and annual report are reviewed with management and the external auditors before the approval by the Electricity Council.

Eskom's corporate audit function is an independent appraisal function, which performs, inter alia, the functions as set out in the Reporting by Public Entities Act, 1992.

### *Internal control*

The Council has ultimate responsibility for the system of internal controls. The controls throughout Eskom focus on those critical risk areas identified by operational risk management, confirmed by executive management and endorsed by the auditors. Controls relating to these critical risk areas are closely monitored by both management and the auditors, and these controls are augmented by approval frameworks, policies and organisational structures that provide for division of responsibilities and the careful selection and training of personnel.

The system contains self-monitoring mechanisms, and actions are taken to correct deficiencies as they are identified. The system is designed to provide reasonable but not absolute assurance, at appropriate cost, that assets are safeguarded and that transactions are executed and recorded in accordance with Eskom's policies and procedures.

Corporate Audit provides the Audit Committee and executive management with assurance that the internal controls are sufficient to manage the risks that could hinder the achievement of the business objectives.

The executive directors performed a self-assessment on the control environment in November 1995, which was updated during 1998. Corporate Audit applies the updated risk self-assessment framework as the basis for its risk-based audit approach and plan.



*Woman from the  
Democratic Republic of the Congo*



### **Remuneration**

The remuneration of Council members is determined by the Minister of Public Enterprises with the concurrence of the Minister of Finance.

The remuneration of the Board is determined by the Council Remuneration and Personnel Committee. This Committee is chaired by the chairperson of the Council and comprises the chief executive and four other Council members. The chief executive's remuneration is also dealt with by the committee, excluding the chief executive, and is done in consultation with the minister.

The Remuneration and Personnel Committee takes account of external market surveys and other relevant information sources in determining levels of remuneration that appropriately reward senior executives for their contributions to Eskom's performance.

### **Employee participation**

Employees and organised labour participate in the determination of Eskom's policies and objectives through their representation on the Council and through a variety of participative structures established to involve employee representatives in the business of Eskom. Employees also participate in normal management and leadership communication.

### **Code of ethics**

Eskom has a written code of ethics, endorsed by the Council and the Board, and all employees are made aware of its contents. The Audit Committee fulfils the functions of an ethics council, which oversees the ongoing efforts to maintain ethical behaviour in all Eskom's business activities.

The chief executive is the custodian of ethics and business processes and controls, and the promulgator of ethics throughout the organisation. Corporate Audit carries out periodic audits to monitor adherence and compliance to the ethics policy.

### **Environmental impact control**

The chief executive, as chairman of the Management Board Environmental Steering Committee, bears responsibility for Eskom's overall environmental performance. This committee has delegated authority to the corporate environ-

mental affairs manager for ensuring due environmental performance through policies, directives, standards and strategic direction.

The groups within Eskom are charged with implementing these environmental policies, directives, standards and strategic direction. They have assigned accountabilities for the environment to specific functional areas. These accountabilities are supported by the inclusion of environmental key performance indicators in the relevant compacts.

Regular cyclical environmental audits are carried out on all the line groups and are verified independently. Such audits are also undertaken in the event of an environmentally related incident.

### **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 developed to world-class standards and continue to be relevant to Eskom's business as it evolves.

# Annual financial statements

for the year ended 31 December

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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.

	1999	1998
French franc	1,06	1,04
German mark	0,32	0,29
Pound sterling	0,10	0,10
Swiss franc	0,26	0,23
Japanese yen	16,62	19,39
US dollar	0,16	0,17
Euro	0,16	-

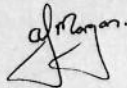


# Approval of annual financial statements

The annual financial statements for the year ended 31 December 1999, set out on pages 34 to 91, have been approved by the Management Board and Electricity Council and signed on their behalf on 2 March 2000 by



Reuel J Khoza  
Chairman of the Electricity Council



Allen J Morgan  
Member of the Electricity Council,  
Chief Executive of Eskom and  
Chairman of the Management Board

## Report of the independent auditors

### To the Minister of Public Enterprises

We have audited the annual financial statements of Eskom set out on pages 34 to 89 for the year ended 31 December 1999. The annual financial statements are the responsibility of Eskom's directors. Our responsibility is to express an opinion on the annual financial statements.

### Scope

We conducted our audit in accordance with statements of South African Auditing Standards issued by the South African Institute of Chartered Accountants. These 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, in all material respects, the relevant requirements of the Reporting by Public Entities Act, 1992, 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.

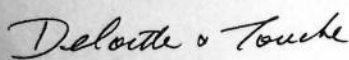
We believe that our audit provides a reasonable basis for our opinion.

### Audit opinion

In our opinion:

- the financial statements fairly present, in all material respects, the financial position of Eskom at 31 December 1999, and the results of its operations and cash flows for the year then ended, in accordance with statements of Generally Accepted Accounting Practice issued by the Accounting Practices Board of the South African Institute of Chartered Accountants, Schedule 4 of the Companies Act, 1973, and International Accounting Standards issued by the International Accounting Standards Committee (excluding the preparation of consolidated annual financial statements), the Eskom Act of 1987, and other reporting requirements as set out in the Reporting by Public Entities Act, 1992, as amended, and the regulations thereto;
- the information furnished in terms of sections 6 and 7 of the Reporting by Public Entities Act, 1992 (Act No 93 of 1992) is fair in all material respects and, where applicable, consistent with that of the preceding year; and
- the transactions of Eskom that were examined during the course of our audit were made in accordance with applicable laws and instructions and, in all material respects, are in accordance with mandatory functions of Eskom, as determined by law or otherwise.

We have examined the inflation-adjusted financial information set out on pages 90 to 91. In our opinion the statements have been properly prepared on the basis set out in the notes thereto.



Deloitte & Touche



KPMG Inc



Nkonki Sizwe Ntsaluba

Registered Accountants and Auditors  
Chartered Accountants (SA)

Johannesburg, 2 March 2000



# Directors' report

## *Introduction*

This report, in terms of the Reporting by Public Entities Act, Act 93 of 1992, as amended, and the Companies Act, Act 61 of 1973, addresses the performance of Eskom and relevant statutory information requirements.

The Electricity Council and the Management Board fulfil the role of directors and have pleasure in presenting their report and the audited financial statements for the year ended 31 December 1999. In the opinion of the directors, the financial statements fairly present the financial position of Eskom at 31 December 1999 and the results of its operations and cash flow information for the year then ended. The directors have no reason to believe that the business will not be a going concern in the year ahead.

## *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 operationally regulated in terms of licences granted by the National Electricity Regulator (NER), the Eskom Act of 1987, as amended, and the Electricity Act of 1987.

The objective of Eskom is to provide the means and systems by which the electricity needs of the consumer may be satisfied in the most cost-effective manner, subject to resource constraints and the national interest, and to perform such other functions as may be assigned to it by or under the Eskom Act or the Electricity Act. Eskom supports the Government's Reconstruction and Development Programme (RDP) commitments. Relevant details are discussed in this report.

### OBJECTIVES

A medium-term business plan setting out Eskom's strategic direction, as well as critical key indicators to manage the business effectively, is developed in consultation with key stakeholders, utilising input from all business units. The Electricity Council and the Management Board approve the medium-term business plan. The predetermined strategic and operational objectives have also been approved by the Electricity Council and Management Board.

Annual budgets are prepared based on the strategic direction set out in the medium-term business plan. The 1999 budget, which included key performance indicators (KPIs), was approved at the end of 1998 and revised early in 1999. KPIs are used to measure performance against budget and are reported to the Electricity Council and the Management Board on a regular basis in the Eskom and line (Eskom groups) business reports. Eskom's objectives are included in the line group objectives with relevant KPIs and are communicated and measured at all relevant staff levels. These objectives and indicators are discussed in detail in this Directors' report.

### HIGH-LEVEL PERFORMANCE FOR THE YEAR

An overview of Eskom's performance against its objectives is contained in the table below. The detailed performance is described in the remainder of this Directors' report.



<i>Objectives</i>	<i>Key performance indicators</i>	<i>Targets</i>	<i>Performance results</i>	
1. Reconfiguring the business <sup>1</sup>	<ul style="list-style-type: none"> <li>• Changes to move from utility to company identified and effected, and action plans developed</li> <li>• Changes to implement electricity industry restructuring identified and effected, and action plans developed</li> <li>• Shareholder compact is in place</li> <li>• Business functions regrouped in accordance with established framework</li> </ul>		<p>In progress, target date during 2000</p> <p>Good progress made</p> <p>Agreement in principle on compact</p> <p>Resources will be transferred during 2000</p>	
2. Eskom Enterprises <sup>2</sup> Reposition the non-regulated business to maximise the value from existing subsidiaries	<ul style="list-style-type: none"> <li>• Eskom Enterprises established</li> <li>• Appropriate capital, structures, staff and existing Eskom activities that meet business case criteria transferred</li> </ul>		<p>Achieved</p> <p>Will be transferred during 2000</p>	
3. Black economic empowerment Encourage black <sup>3</sup> enterprise development	<ul style="list-style-type: none"> <li>• Procurement expenditure on black<sup>3</sup> economic empowerment, R million</li> </ul>	R963 million	<p>Target exceeded</p> <p>Information gathering processes need to be further refined</p>	
4. Human resource mobilisation	<ul style="list-style-type: none"> <li>• Educate, train and upgrade sufficient people at all levels to meet future managerial, technical and other professional staff needs</li> <li>• Managing the impact of HIV/AIDS</li> <li>• Employee access to accommodation</li> <li>• Improve consultative processes and structures</li> </ul>	<ul style="list-style-type: none"> <li>• ABET learner days, number</li> <li>• ABET overall pass rate, %</li> <li>• Personal development plans in place for A and B bands<sup>4</sup> to address competency gaps</li> <li>• Reward systems updated, developed and implemented</li> <li>• Black bursars and trainees that completed training, number</li> <li>• Intellectual capital managed and retained</li> <li>• Possible future impact of HIV/AIDS on the business determined</li> <li>• Scenarios and related action plans developed</li> <li>• Eskom policy on home loans and rental subsidies in place</li> <li>• Consultative processes and structures revised and implemented</li> </ul>	<p>140 000</p> <p>65%</p> <p>370</p>	<p>Provided 113 300 days</p> <p>Target exceeded</p> <p>Achieved</p> <p>Progress made</p> <p>Target exceeded</p> <p>Good progress made</p> <p>Surveillance study completed. Impact is being determined</p> <p>Preventive strategies are being developed</p> <p>Policy in place</p> <p>Good progress made</p> <p>New agreement to be finalised</p>

1. The achievement of this objective depends on the agreement and approval of the relevant stakeholders as well as the prerequisite actions needed to effect this process by the other parties

2. The achievement of this objective depends on the agreement and approval of the relevant stakeholders

3. Blacks, Asians and Coloureds

4. Denotes level on Paterson job grading system

# Directors' report

continued

<i>Objectives</i>	<i>Key performance indicators</i>	<i>Targets</i>	<i>Performance results</i>
<p>5. <b>Implementing employment equity</b></p> <ul style="list-style-type: none"> <li>• Change the staff profile so that 50% of management, professional and supervisory staff shall be black South Africans by the end of 2000</li> <li>• Change the profile to include 20% women and 0,5% disabled persons by the end of 2004</li> </ul>	<ul style="list-style-type: none"> <li>• Black management, professional and supervisory staff at 31 December, %</li> <li>• Women, %</li> <li>• Disabled persons, %</li> </ul>	<p>Cumulative: 44%</p> <p>Cumulative: 15%</p> <p>No target for 1999</p>	<p>Target exceeded</p> <p>On track</p> <p>Focus area for change</p>
<p>6. <b>Reducing the real price of electricity</b></p> <p>Reduce the real price of electricity by 15% by the end of 2000</p>	<ul style="list-style-type: none"> <li>• Cumulative difference between the Eskom annual price increases and the average consumer price indices since 1 January 1995, %</li> </ul>	<p>Cumulative: 15% by end of 2000</p>	<p>Achieved 14,3% to date</p>
<p>7. <b>Electrification</b></p> <p>Electrify 1 750 000 homes by 2000</p>	<ul style="list-style-type: none"> <li>• Homes electrified since 1 January 1994, number</li> </ul>	<p>1999: 298 497</p> <p>Cumulative: 1 750 000</p>	<p>Target exceeded</p> <p>Target exceeded</p>
<p>8. <b>Limiting environmental impact</b></p> <p>Protecting the environment</p>	<p>Indicators including, amongst others, the following:</p> <ul style="list-style-type: none"> <li>• Reported contraventions, number</li> <li>• Specific water consumption, ¢/kWh</li> <li>• Particulate emissions, kg/MWh sent out</li> <li>• Radiation exposure, less than mSv per annum</li> </ul>	<p>0</p> <p>1,43</p> <p>0,55</p> <p>0,25</p>	<p>Nine contraventions Remains a focus area</p> <p>Achieved</p> <p>Achieved</p> <p>Achieved</p>
<p>9. <b>Maintain financial independence</b></p> <p>Financing the RDP commitments from South African and own resources, and from overseas development funding</p>	<ul style="list-style-type: none"> <li>• Financial independence maintained, resources accessed without recourse to Government</li> </ul>		<p>Achieved</p>



<i>Objectives</i>	<i>Key performance indicators</i>	<i>Targets</i>	<i>Performance results</i>
<b>10. Technical performance</b> Excellent technical performance	<ul style="list-style-type: none"> <li>• Sustainability index consisting of 24 relevant measures, %</li> <li>• Safety <ul style="list-style-type: none"> <li>– Disabling injury incidence rate, less than index</li> <li>– Work-related fatalities, less than previous years', with a downward trend</li> </ul> </li> <li>• Generation plant performance <ul style="list-style-type: none"> <li>– Unit capability factor, %</li> <li>– Unplanned automatic grid separations (system), number</li> </ul> </li> <li>• Transmission system performance Supply interruptions: <ul style="list-style-type: none"> <li>– With severity greater than or equal to one system minute, number</li> <li>– System minutes, minutes per year</li> </ul> </li> <li>• Distribution system performance <ul style="list-style-type: none"> <li>– System average interruption duration index</li> <li>– System average interruption frequency index</li> </ul> </li> <li>• Customer satisfaction levels, PreCare and MaxiCare indicators</li> </ul>	<ul style="list-style-type: none"> <li>80%</li> <li>0,40</li> <li>90%</li> <li>2,3</li> <li>0</li> <li>6,2</li> <li>20</li> <li>9</li> <li>8</li> </ul>	<ul style="list-style-type: none"> <li>Achieved 76,7% Remains a focus area</li> <li>0,44 (0,52 in 1998)</li> <li>11 (17 in 1998) Safety improved, but remains a major area of concern</li> <li>Target exceeded Target exceeded</li> <li>Achieved</li> <li>Target exceeded</li> <li>30</li> <li>13 Identified as major areas of concern</li> <li>Achieved overall Individual areas of concern being addressed</li> </ul>
<b>11. Financial performance</b> • Operating and capital resources are used economically, efficiently and effectively • Maintain financial viability over the long term	<ul style="list-style-type: none"> <li>• Productivity improvement for the year, %</li> <li>• Total electricity cost, R/MWh</li> <li>• Employee numbers</li> <li>• External sales growth, %</li> <li>• Net profit for the year, Rm</li> <li>• Debt-equity ratio</li> </ul>	<ul style="list-style-type: none"> <li>0,3%</li> <li>R113,38</li> <li>35 270</li> <li>1,1%</li> <li>R2 130</li> <li>0,77</li> </ul>	<ul style="list-style-type: none"> <li>Improvement 0,4%</li> <li>R112,07<sup>1</sup></li> <li>Achieved</li> <li>Achieved</li> <li>Profit R2 168<sup>1</sup></li> <li>Ratio 0,83<sup>1</sup></li> </ul>
<b>12. Year 2000</b> Be year 2000 ready to cope with the millennium switch	<ul style="list-style-type: none"> <li>• Electricity supply interruptions to customers due to computer date-related malfunctioning on 1 January 2000</li> <li>• Year 2000 readiness process completed</li> <li>• Contingency plans for any reasonable outstanding year 2000 related risks in place</li> <li>• Stakeholders informed, in accordance with the year 2000 communication strategy, from July 1999 onwards</li> </ul>	<ul style="list-style-type: none"> <li>None</li> <li>30 June 1999</li> <li>30 September 1999</li> <li>Ongoing</li> </ul>	<ul style="list-style-type: none"> <li>Achieved</li> <li>Achieved</li> <li>Achieved</li> <li>Done</li> </ul>

1. After accounting policy changes

## 1. Reconfiguring the business

Significant progress was made in reconfiguring the business. Reconfiguring the business comprises the initiative by the Department of Public Enterprises to incorporate Eskom as a company in a broader electricity industry restructuring as well as certain internal restructuring.

### Incorporation of Eskom

Eskom has not yet been incorporated as a company but it is expected that this will occur in 2000. In preparation for the incorporation, a project team has been established, and terms of reference and a project timetable are being finalised. The process of due diligence has commenced and will continue into 2000. Consultation with key stakeholders will be a crucial part of the process.

### Taxation of Eskom

The South African Revenue Services (SARS) has indicated that Eskom's income tax status will most probably change with effect from 1 January 2000 and Eskom will become liable for income tax from that date.

Eskom has been preparing itself in readiness for becoming a taxpayer, but there are certain fundamental outstanding issues that still need to be addressed. Eskom has been discussing with the SARS an appropriate tax framework suitable for Eskom's business. Certain aspects of the existing tax laws are not appropriate to Eskom's business and these issues need to be addressed in a manner that does not prejudice Eskom or the customer. It will therefore be necessary to take into account Eskom's obligations in terms of electrification, the need for stable and predictable price increases, as well as what may be required in terms of a dividend to establish a proper framework for taxing Eskom.

### Electricity industry restructuring

The industry restructuring is currently concentrating on the electricity distribution industry (EDI) restructuring. In line with a Cabinet decision, and under the auspices of the Department of Minerals and Energy, an Electricity Distribution Industry Restructuring Committee has been formed to plan and implement the process. Eskom, together with various other stakeholders, forms part of this committee.

The Distribution business of Eskom was ringfenced as required by the NER. It has been restructured into seven regions to enhance efficiencies in the business. In addition, the setup is sufficiently flexible to accommodate any further changes in terms of the EDI restructuring.

### Eskom's future performance

It is clear that certain trade-offs will have to be made with regard to Eskom's performance into the future. Eskom has suggested that a shareholder's compact be used as a tool to manage and identify effectively the choices to be made. The compact should create a business model for governance. The concept of the shareholder's compact has been discussed with the key stakeholders, primarily Government, and there is in-principle agreement.

The shareholder's compact will give direction from Government, as the shareholder, as to what it requires from Eskom in terms of strategic objectives, key policies and performance parameters and targets. It will take into account Government policies such as the Energy Policy, Employment Equity, Protocol on Corporate Governance in the Public Sector, the Public Finance Management Act and any other policies deemed relevant or appropriate. It will also prioritise the financial demands of such policies on Eskom so that the long-term health will not be prejudiced.

It is intended that the compact be entered into with the Minister of Public Enterprises as the representative of Government as shareholder.



### Strategic intent

In addition to certain initiatives by the Department of Public Enterprises, Eskom had also embarked upon internal initiatives to improve its performance and position itself appropriately for the future. Eskom has therefore developed a new strategic intent to position Eskom as the pre-eminent African energy and related services business, with global stature.

In 1999, the focus was on finalising the strategic intent and having it widely communicated and understood within the organisation. This has established a basis for implementing initiatives to achieve the strategic intent that will continue into 2000.

### Regrouping (redeployment of resources)

During the latter half of 1999, approximately 7 500 employees were successfully regrouped. It involved changing the reporting relationships of organisational units and individuals to accommodate the repositioning of the Management Board portfolios of Services, Technology, and Marketing and Communication, as well as the transfer of staff from various functions to Eskom Enterprises. Only a limited number of people were physically relocated. The key thrust was to devolve service-oriented activities from centralised management structures to the local management where the activities are performed.

The underlying reasons for the exercise were to improve efficiency and to minimise future stranded resources due to probable future restructuring, particularly in respect of the EDI as envisaged in the parliamentary White Paper on Energy Policy. The exercise was done in close collaboration with organised labour and involvement from the Ministry of Public Enterprises. The regrouping of functions was facilitated by the Central Co-ordinating Committee under the auspices of the Restructuring and Transformation Committee that was the accountable body to oversee the exercise.

## 2. Eskom Enterprises

As part of the Government's initiative to restructure Eskom, Eskom Enterprises (Pty) Limited was registered in February 1999 as a wholly owned subsidiary of Eskom. It was formed to accommodate all the non-regulated energy-related activities of Eskom in South Africa, and all its other energy-related activities outside South Africa.

Eskom Enterprises will leverage the competencies and facilities of Eskom and focus on the following lines of business:

- Infrastructure development, asset creation, project management, consulting services, and research and development
- Management contracts for energy business operations, operating, maintenance and refurbishment contracts and the purchase of operating entities
- Specialised energy utility services and equity investment in related services
- Key opportunities in related or strategic businesses, including telecommunications and information technology

Eskom Enterprises is focusing its efforts on Africa in support of the South African Government's African Renaissance initiative. During 1999, projects were initiated in several countries in Africa, and a minimum of 20 potential projects were under evaluation by the end of 1999. Attractive equity investment opportunities were identified and will be pursued after capitalisation in 2000, subject to approval by the shareholder.

Business cases were prepared and evaluated for those entities identified for transfer from Eskom to Eskom Enterprises. In addition, due diligence studies were carried out on the entities to ensure technical, commercial, legal and financial soundness.

A comprehensive business plan, shareholder's compact and capitalisation proposal will be completed and submitted to the shareholder for approval early in 2000.

# Directors' report

*continued*

Eskom implemented a holistic HIV programme in 1995, which has increased the awareness level and enabled the successful completion of the surveillance study. The programme includes special programmes for high-risk groups, AIDS awareness and education, involvement of infected people, community outreach programmes as well as national and international participation and sponsors. The programme has been chosen for the Best Practice Series in South Africa and has gained international recognition.

## Employee access to accommodation

Eskom is committed to enabling all employees to have access to accommodation. Eskom has a housing policy in place, providing all employees with access to funding for accommodation. Implementation of Eskom's accommodation policy in respect of family housing is in progress as planned. Market-related rentals are being phased in according to schedule. Private rental subsidies are being utilised by 1 480 (1998: 1 927) employees, while home ownership numbered 22 536 (1998: 23 285) out of 34 027 (1998: 37 311) employees.

## Employee participation

In response to the turbulent relationships which characterised 1998, management and trade unions took a conscious decision to seek ways of improving the rules of partnership. The Unfolding Vision and Recognition Agreements were consolidated into a single draft document by a work group consisting of senior management and trade union officials during the year. Technical and legal improvements are being finalised to enable parties to enter into a renewed agreement. Participative structures were reinstated in the current agreements with labour while waiting for the renewed agreements. The 1999 salary increases were implemented promptly within a reasonable period, without industrial action.

1999 has been a year of reconciliation between Eskom management and recognised trade unions. This is illustrated by the decline in the number of workdays lost as a result of industrial action from 10 694 in 1998 to 669 in 1999.

## 5. Implementing employment equity

Eskom continues to make progress towards achieving the employment equity target that 50% of all management, professional and supervisory staff will be black by the end of 2000. Eskom is on track to meet this commitment and by the end of 1999, 45% (1998: 39%) of these categories was black.

Eskom has also formulated equity targets to be achieved in the next five years in support of the Employment Equity Act. Eskom has set itself a target that 20% of staff will be women and 0,5% will be people with a disability by 2004. Gender and disability equity are treated as focus areas under Eskom's draft equity policy. At the end of 1999, 15,7% (1998: 13,9%) of Eskom's management, professional and supervisory staff and 14,9% (1998: 14,3%) on all levels, were women.

## 6. Reducing the real price of electricity

Eskom continued to reduce the real price of electricity during 1999, in accordance with its 1994 RDP commitment to reduce the real price of electricity by 15% by the end of 2000.

The 1999 general price increase, as approved by the NER, was 0,7 percentage points (1998: 1,9 percentage points) below the rate of inflation as measured by the average consumer price index (CPI). The cumulative real price reduction since 1995 amounted to 14,3% (1998: 13,6%) at the end of 1999. Provided the average CPI for 2000 is equal to or above 6,2%, Eskom will achieve the price compact. Through its commitment towards reducing the real price of electricity, Eskom has contributed to reducing the average inflation rate of the country.



## 7. Electrification

In 1994 Eskom undertook to electrify 1 750 000 homes by the year 2000 in terms of its RDP commitment. By December 1999, 1 750 750 (1998: 1 451 503) homes had been electrified since 1 January 1994, thereby achieving this target one year ahead of schedule.

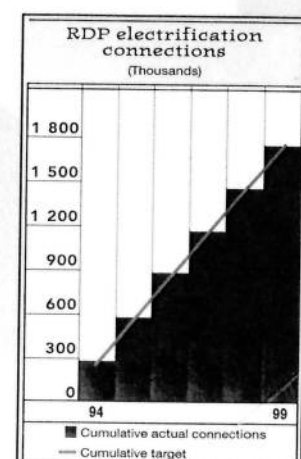
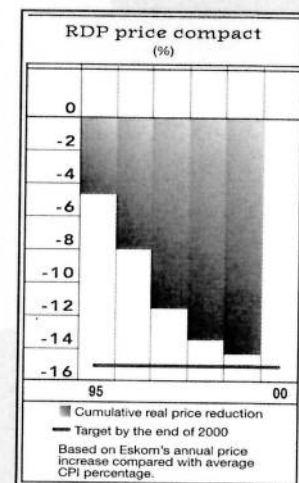
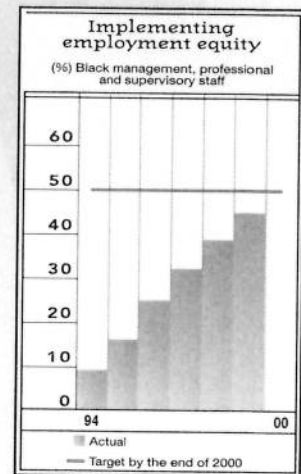
Since the inception of Eskom's electrification programme in 1991, a total of 2 135 661 homes have been electrified. Although the farmworker incentive scheme has been in operation since 1992, only connections where incentives have been paid since 1997 are regarded as part of the electrification target of 1 750 000 homes.

Eskom made R329 million available in 1999 (1998: R315 million) to facilitate electrification by local authorities. This fund was administered by the NER and distribution had been made in conjunction with the Development Bank of Southern Africa.

<i>Electrification</i>	<i>Target 1999</i>	<i>Actual 1999</i>	<i>Actual 1998</i>
Number of direct connections, excluding farmworkers	292 197	293 006	280 977
Capital expenditure, Rm	872	850	845
Capital cost per connection, R	2 985	2 899	3 008
Average monthly operating cost per customer, excluding primary energy, depreciation and interest, R	19	19	19
Average monthly sales per prepayment customer, kWh	113	95	107
Average monthly revenue per prepayment customer, R	32	27	27
Number of farmworker connections	6 300	6 241	10 375
Farmworker incentives paid, Rm	6	6	10

Efforts to reduce further the capital expenditure and monthly operating costs continue.

The average monthly sales per prepayment customer decreased during 1999 compared with 1998 and remain significantly lower than the amount required to generate positive returns or even to break even in terms of total operating and capital expenditure. A factor contributing towards the lower prepaid sales per customer was an increase in meter failure that resulted in free supply. Faulty meters are scheduled to be replaced during 2000. Furthermore, electrification was extended to more rural areas, where consumption is low because of lower disposable income.



# Directors' report

continued

## Government initiative

In terms of the Energy White Paper, Government is to establish a National Electrification Fund to fund electrification. Draft legislation has been prepared for the introduction of an electrification levy and the establishment of the Fund. A board is envisaged that is representative of all electricity industry stakeholders and has the responsibility to ensure that Government's electrification objectives are met.

The Fund will subsidise a portion of the capital cost of connections made towards meeting electrification targets. Allocation of funds will be made in terms of Government's criteria. The establishment of the Fund will make the current subsidisation of the electricity industry transparent. It is not an additional mechanism for obtaining finances for electrification.

## Schools' electrification

<i>Funds applied for the electrification of schools</i>	<i>Budget</i>		<i>Actual</i>		<i>Actual</i>	
	<i>1999</i>		<i>1999</i>		<i>1998</i>	
	<i>Number</i>	<i>Rm</i>	<i>Number</i>	<i>Rm</i>	<i>Number</i>	<i>Rm</i>
<b>Grid schools</b>						
Eskom Development Foundation	416	21,7	483	14,1	445	15,0
<b>Non-grid schools</b>						
Eskom Development Foundation	-	-	3	0,3	-	-
Netherlands government grant	12	0,4	12	0,4	90	6,0
European Union	600	59,0	36	3,4	-	-

The balance received from the Eskom Development Foundation for the electrification of schools was used for special projects at the request of Government and Eskom.

During 1999, five (1998: four) community centres and seven clinics (1998: one clinic) were electrified from Eskom's Development Foundation funds. In addition, Eskom managed projects for the Department of Health and certain transitional local councils, whereby six clinics and eleven schools were electrified.

With regard to the European Union funding, installations could only start in November 1999 due to the three-month delay by the European Union in placing international contracts for electrification items, which delayed delivery from the international suppliers. At the end of 1999, the electrification of 564 schools, at a cost of R27,4 million, was in progress.

## 8. Limiting environmental impact

Eskom continues to strive towards integrating environmental considerations into its business planning and decision-making processes. During May 1999, Eskom conducted its first National Environmental Conference. Technical environmental training of Eskom environmental practitioners and technical staff on oil spillage clean-ups was held in conjunction with the Electric Power Research Institute.

A policy decision was made that Eskom's line groups were to be ISO 14001 compliant by 2002. The individual groups will prepare action plans by mid-2000, setting out their goals and objectives to achieve the 2002 target. An internal audit will be conducted on action plans in 2001 to assess the extent of compliance.

During 1999, approximately R108 million (1998: R131 million) was spent on capital and approximately R211 million (1998: R185 million) on operating environmental activities, primarily in the Generation Group. The capital expenditure variance is mainly due to a reduced number of projects, and the operating expenditure variance can be attributed to a better reporting process. The process by which environmental expenditure is identified will be further improved.



Eskom remains committed to researching and minimising negative environmental impacts. Included in the total research and development costs for 1999 was an amount of R11 million (1998: R9 million) spent on environment-related research.

The environmental audit function continues to measure environmental performance, as well as compliance with legislation and Eskom's environmental policies and standards. During 1999, an audit was performed on the environmental management system in the Transmission group, a benchmark study was conducted on the environmental audit function in Eskom, and three of the Eskom-tied collieries were audited. Areas for improvement were identified. Corrective actions were taken to implement improvements. Where appropriate, cleaning and rehabilitation of contaminated sites have been initiated and action plans taken to manage oil spills.

During 1999, Eskom's power stations consumed 227 306 Mℓ of water to produce 181 818 GWh of electricity, resulting in specific water consumption of 1,25 ℓ/kWh sent out (1998: 1,23 ℓ/kWh). This rise in the specific consumption of the power stations can be ascribed to a slightly higher proportion of electricity being generated by wet-cooled power stations. Eskom is presently also in the process of commissioning wet-cooled units at both Arnot and Majuba power stations.

Relative particulate emissions are slightly higher at 0,37 kg/MWh sent out than the previous year of 0,36 kg/MWh sent out, but still well within Eskom's target of 0,55 kg/MWh sent out. The slight increase is mainly due to a lower quality of the coal (ie higher ash content) burnt at some of the power stations. The 1999 performance is within the targets of the five-year plan for further reductions. Improvements to the ash removal systems are planned for 2000 at a number of power stations to ensure that the targets of the five-year plan are met.

Ambient air quality monitoring is continuing in the eastern highveld regions of the country. Ozone levels, SOx<sup>1</sup> and NOx<sup>2</sup> and particulates from all sources, including industrialised, domestic and natural activities, are monitored on a continuous basis. Results indicate that the annual concentrations at all sites are within the guideline limits set by the Department of Environmental Affairs and Tourism.

Eskom's policy is to comply with legislation and, where appropriate in the interest of the sustainability of the business, to set standards where no legislation exists. A review of the environmental component of the sustainability was undertaken to ensure performance tracking of the key areas of the business. The standards and alarms were revised. During 1999, nine contraventions were reported, compared with nine during 1998. Areas of non-conformance to legislation included oil and ash water spillage and the removal of protected vegetation without a permit. Reported incidents have been investigated and appropriate preventative actions to reduce the potential for recurrence have been implemented.

<i><b>Environmental performance indicators</b></i>	<i><b>Target</b></i>	<i><b>Actual</b></i>	<i><b>Actual</b></i>
	<i><b>1999</b></i>	<i><b>1999</b></i>	<i><b>1998</b></i>
Total particulate emissions, kt	n.a <sup>5</sup>	67,08	65,21
Relative particulate emissions, kg/MWh sent out	0,55 <sup>3</sup>	0,37	0,36
Radiation exposure, mSv	0,25 <sup>4</sup>	0,0006	0,0006
Net water consumption, Mℓ	n.a <sup>5</sup>	227 306	225 300
Specific water consumption, ℓ/kWh sent out	1,43 <sup>3</sup>	1,25	1,23
Reported contraventions	0	9	9

1. Oxides of sulphur

2. Oxides of nitrogen

3. Target based on alarm levels contained in the sustainability index

4. Regulatory limit set

5. No targets set for these indicators

## 9. Maintain financial independence

Except for the funding received from external sources for the electrification of schools noted previously, all other commitments for the funding of RDP activities were funded from South African and Eskom's own resources.

## 10. Technical performance

### Sustainability index

The sustainability index combines 24 weighted indicators into a composite index. These indicators include the key indicators discussed below as well as specific refined indicators. The purpose of the measure is to reflect overall technical performance and is used to balance low-cost production against long-term reliability. The sustainability index, through its monitoring and alarm system, ensures the long-term technical smooth running of Eskom in a sustainable way. Senior management performance is evaluated against this index.

During the first half of the year management was concerned as the index continued to deteriorate. This was mainly as a result of the low scores achieved for quality of supply, interruption performance, the customers' perception of Eskom and conventional safety (Eskom fatalities). Management interventions have resulted in subsequent improvement. Good progress was made in addressing specific areas on quality of supply. Customer perception for most customer segments appears to have reached a turning point and is now slowly starting to improve. Top management intervention has also resulted in significant year-on-year improvement in safety.

In the Generation group, where availability, reliability, long-term plant health and nuclear safety are measured, a score of 100% was achieved. In the Transmission group, the score was 88% for measures that included system stability, plant health, interruption performance and quality of supply. The Distribution group measures customer perceptions, in addition to the indicators listed above for Transmission, and achieved 45%. The safety and environmental measures, being the responsibility of all groups, was 66,5%. This resulted in an overall unadjusted index score of 75,3%.

The interruption performance for Distribution was negatively influenced in certain regions because of system modification and year 2000 workload. This indicator was statistically adjusted based on the results of the unaffected regions. This resulted in an adjustment of 1,4% to give a final score of 76,7% (1998: 75,4%) against the target of 80%.

### Safety

The direct involvement of the Operations Committee of the Management Board resulted in the introduction of several campaigns and interventions to address the basic causes of accidents. These contributed to the overall reduction in the number of fatalities involving vehicles and electrical contact incidents. These health and safety interventions are yielding positive results.

The disabling injury incidence rate (DIIR) for 1999 reduced to 0,44 (1998: 0,52) against a target of 0,40 and the number of work-related fatalities showed a considerable decrease from 17 in 1998 to 11 in 1999, although vehicle accidents still accounted for six fatalities in 1999 (1998: five). Eskom's electrical contact fatalities numbered three (1998: four). The off-duty vehicle-related fatalities of 18 in 1999 are substantially lower than the 47 in 1998.

In spite of the good overall performance in health and safety, the incidence of electrical contacts did not respond as favourably to the strategies implemented and remains an area of concern requiring stricter application of existing requirements.

The reduction in vehicle-related fatalities is a direct result of a positive behavioural change brought about by the Advanced Driver Training Campaign. Transfer of knowledge and skills imparted by the campaign and the resultant attitude change were also beneficial to health and safety in general. This is borne out by the lower incidence of disabling and off-the-job injuries.



During the year, an audit was conducted on the systems that monitor the training, testing and authorisation of staff working on electrical plant and equipment, in terms of Eskom's operating regulations for high-voltage systems and the Occupational Health and Safety Act, because of the importance thereof. The auditors found general compliance that staff are trained, tested and authorised.

The majority of sites have been audited in terms of Eskom's risk auditing system.

A team of experienced nuclear professionals from the World Association of Nuclear Operators (WANO) was invited by Eskom to conduct a joint review of Koeberg nuclear power station's safety practices in May 1999. No areas of critical concern were identified. The team acknowledged that Koeberg was well positioned in terms of internationally accepted practices.

Koeberg's nuclear safety indicators provide a quantitative indication of plant performance in the area of nuclear safety, plant reliability and personnel safety. Three of the indicators, namely safety system performance, unit capability factor and cumulative radiation exposure, are amongst the world's top quartile performing plants.

#### Generation plant performance

##### *Generation plant unit capability factor (UCF)*

The Generation group continued to maintain exceptional plant performance in 1999 by achieving a UCF of 92,5% (1998: 92,7%) against a target of 90,0%.

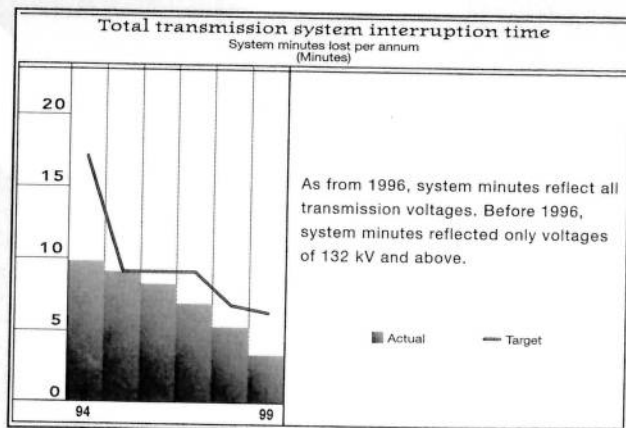
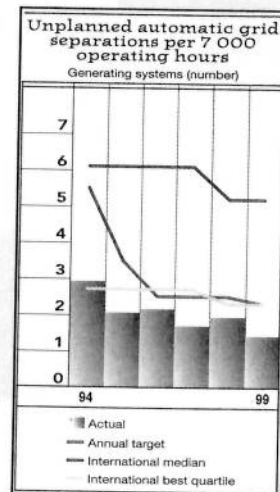
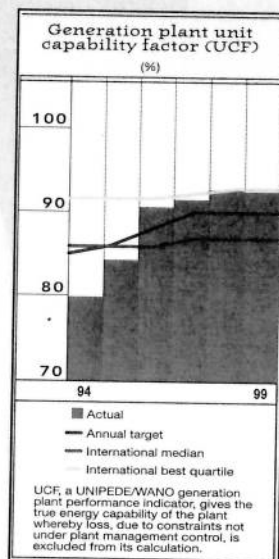
##### *Unplanned automatic grid separations (UAGS)*

UAGS, a UNIPED WANO generation 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 1999, the reliability of the Eskom generating units improved to 1,4 (1998: 1,9) interruptions against a target of 2,3.

#### Maintaining transmission system performance

During 1999, the performance in respect of the quality of supply and the continuity of supply improved. The transmission system's performance in terms of continuity of supply is measured by the number of system minutes that were lost over a 12-month period. In 1999, there were no incidents (1998: one) with a severity greater than one system minute. The overall transmission system performance is reflected in the graph. This is an important measure, as it impacts directly on the continuity of supply to consumers. During 1999, the business registered 3,08 (1998: 5,2) system minutes lost against a target of 6,2 and reported 55 (1998: 43) interruptions, against a target of less than 55 interruptions for the year.

The overall performance against the quality of supply key performance indicators was good. Transmission is still faced with the challenge of keeping the voltage regulation and the X-type within the required limits.



# Directors' report

continued

## Distribution system performance

The Distribution group measures reliability of the systems as reflected in the table below.

	<b>Target</b>	<b>Actual</b>	<b>Actual</b>
	<b>1999</b>	<b>1999</b>	<b>1998</b>
Composite supply loss index	Below 9,00	8,36	9,07
System average interruption duration index	Below 20,00	29,94	25,09
System average interruption frequency index	Below 9,00	12,97	11,61

The composite supply loss index measures the hours that the total system was not available during a specific period. The number of outages, the duration of outages and the load affected influence the index. The 1999 performance figures indicate that Distribution met the target for this system-related KPI.

The system average interruption duration index provides a measure of the hours lost per connected customer during a year. The number and duration of outages, as well as the number of connected customers, have an effect on the index. Similarly, the system average interruption frequency index measures the average number of times the supply of each connected customer was interrupted during a year. The number of outages and connected customers influence this indicator.

The negative trends in these customer-related KPIs can be attributed to the following factors:

- The impact of the increase in the number of customers, which are typically prepaid customers at the end of weak networks, resulting in poorer performance of these networks
- Deteriorating performance on the system due to factors such as the ageing of plant
- Outages resulting from heavy rain and flood experienced during 1999 compared to the previous year

The reasons for the trends will be described and actioned once the new management system, which was developed during 1999, is fully implemented in all regions.

All performance figures reported at the end of December 1999 are based on year end projections for the last three months of the year. The old performance management system was phased out in September and is being replaced by NEPS, the new performance management system, the implementation of which is continuing in all the regions. Projections were made based on a reliable method.

## Satisfying customers' electricity needs

Eskom developed a statistical measurement tool that identifies customers' needs and measures customers' satisfaction with the service delivered. MaxiCare<sup>1</sup> and PreCare<sup>2</sup> surveys are conducted on a monthly basis by an independent organisation, and results are analysed and reported to Eskom.

Although in total the 1999 figures are above the target of 8, results have deteriorated in terms of individual segments. There was a noticeable decrease in satisfaction, with customers rating Eskom's overall service quality at 8,08 (1998: 8,37) for MaxiCare and 8,51 (1998: 8,78) for PreCare. This downward trend was most noticeable in the non-residential segments (industry, agriculture and commercial), where overall service quality was rated below 8 in the MaxiCare agriculture and commercial sectors.

The decline in satisfaction coincided with the implementation of the Customer Relationship Process (CRP) whereby Eskom's interface with customers was changed in order to align the organisation for improved service delivery in future. This process resulted in changes to every system, process, job and person. These changes initially impacted negatively on customer perceptions. The analysed results are being addressed through action plans to remedy and turn around negative customer service

1. Customers that have been receiving electricity for longer than six months  
2. New customers or customers with revised contracts



perceptions. Strategies implemented include the development of a new outage management system and bill layout as well as regular newsletters to customers that provide information regarding specific service issues.

In order to ensure that the customer satisfaction measurement tool remains valid, it is regularly revised. An enhancement project, which reviewed all aspects of the MaxiCare and PreCare customer satisfaction measurement tool, was completed and was due for implementation during 1999. Management decided not to implement the enhancements as it was not cost-effective and the downward trend experienced during 1999 needed to be addressed. Implementation of the enhancements will be considered during 2000.

Suburbia is no longer being measured as these customers are usually supplied via municipalities. The majority of Eskom's direct residential customers are in townships, which are still being measured. Most of the suburbia customers in Eskom's database are household points of farmers, who are being covered as part of agriculture.

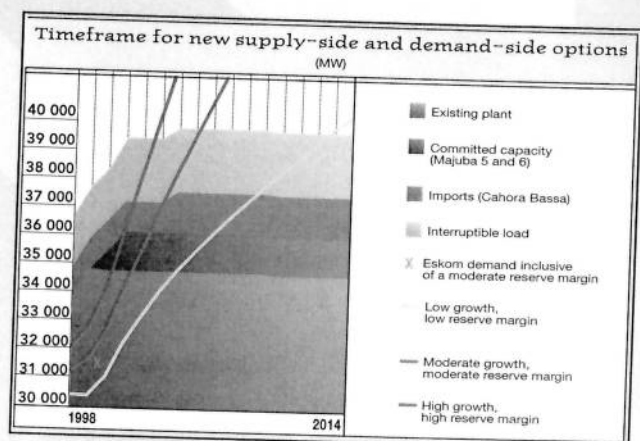
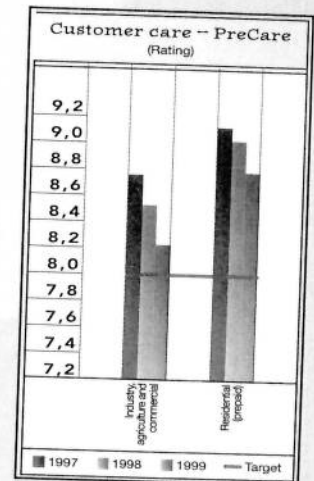
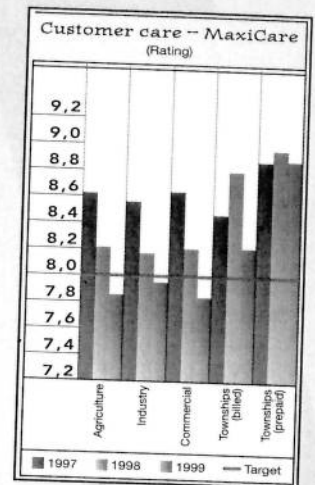
No PreCare industry, agriculture and commercial measurements were conducted for the period June to December 1999. The graph reflects the period January to May 1999. Suitable PreCare sampling reports were not available due to the implementation of CRP in Eskom. A report with the necessary details from the customer database is currently being developed.

#### Capacity planning and management

Eskom's Integrated Electricity Planning (IEP) process provides strategic projections of supply-side and demand-side options that will need 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.

The most recent IEP was completed in October 1999. This plan provides many economically and environmentally acceptable options for flexible and timely decision-making. It was developed from a risk analysis of a set of plans that were engineered to meet various scenarios. The focus was on providing as robust a plan as possible, taking into account Eskom's investment and cost minimisation 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 of implementing new demand-side or new supply-side options over the scenario range in the graph.



# Directors' report

continued

With moderate growth in the demand for electricity and a moderate reserve margin, new demand-side or supply-side options are required for commercial service from 2005. Eskom is using this planning window of opportunity to research and generate data on a variety of new options, such as pebble bed modular reactors (PBMR), bulk solar, wind and energy efficiency.

The low energy demand experienced during the year has resulted in a further increase in the system operating reserve margin to 24% in 1999, against a desired level of 13%.

## Energy purchases

Eskom continued to review its fuel supply options and plant operating methodology with a view to reducing costs and improving efficiency and flexibility in the short, medium and long term.

## Coal

The import of energy from Cahora Bassa resulted in a displacement of generation at the coal-fired stations. To accommodate already high stockpile levels, production was significantly reduced at New Denmark, Kriel and New Vaal collieries. This has had a negative effect on the unit cost of these collieries. All other tied collieries performed either at improved or at better than expected levels. Coal stock at year end was 20 Mt, representing 64 days of burn.

During 1999, Eskom purchased 92 million tons of coal (1998: 94 million tons) against a budget of 93 million tons. Of this, 1,3 million tons was purchased from black economic empowerment suppliers at a total cost of R45 million, inclusive of transport.

The average cost of coal burnt during 1999 was R42,79 per ton (1998: R40,69 per ton), which was in line with the budget of R42,48, despite reduced coal deliveries, which negatively impacted the unit cost of coal.

## Hydro

Eskom continues to explore the development of new hydro-schemes for the generation of electricity in co-operation with the Department of Water Affairs and Forestry and neighbouring countries. Feasibility studies for two new pumped storage schemes are to be completed by mid-2000.

## Nuclear

The transition from local to international sourcing of nuclear fuel has been smoothly managed and has further contributed to ensuring that Koeberg remains a cost-competitive generator.

The 1999 primary energy cost for Koeberg, inclusive of the provision for spent fuel management, was R20,16 per MWh, which represents a real reduction of 2% against 1998 costs.

The new Nuclear Energy Act of 1999 allows for the implementation of a more streamlined governmental nuclear contract approval process. When it is implemented, it would assist Eskom to further maximise the advantages from the international nuclear fuel supply market.

## Majuba Colliery

In 1993, the Majuba Colliery was permanently closed due to geological problems and the resultant potential high coal costs. During 1993 and late 1994, load forecasts reflected that there was no need for additional coal to Majuba at that stage. Since then four units of Majuba have been commissioned, which necessitates the progression of the coal supply arrangements. Negotiations with Ingwe, which emerged after Randcoal was unbundled, are still in progress and it is envisaged that the negotiations could be completed during 2000. Included in the future fuel account are significant amounts relating to the Majuba fuel supplies to date which will be finally dealt with once these procurement arrangements have been finalised. Refer to note 5 in the financial statements.



## Research and development

Expenditure on technical research and development amounted to R93 million (1998: R85 million excluding R20 million spent on the PBMR), which is 0,4% of revenue, and a further R8 million (1998: R10 million) was spent on marketing research and development. The costs incurred on the PBMR during 1999 amounted to R92 million, are now being capitalised. During 1999, research and development activities resulted in 14 major outputs, including an infrared pigment-curing system, an international first, for use in the textile industry, and completion of the fluidised bed combustion and gassification rig design. Construction of the latter facility has started. The research will enable Eskom to better understand coal combustion and thereby optimise its use in power stations.

There is substantial confidence in the technical, commercial and export potential of the PBMR, a small nuclear power station. All the technology adopted for the base-line design has been demonstrated adequately to avoid any fundamental technical risk. There has been detailed involvement of overseas experts to support other key technology areas. Independent reviews of the technical and commercial aspects included a market survey of 19 countries. This indicated a substantially larger overseas market than used for the economic evaluations. This is because of the strong cost advantage of this design.

## 11. Financial performance

### Business efficiency

The productivity results for the year are as follows:

	<i>Budget</i> 1999 <i>Rm</i>	<i>Actual</i> 1999 <i>Rm</i>	<i>Actual</i> 1998 <i>Rm</i>
<b>Productivity – resource view</b>	30	75	(268)
Primary energy	(18)	(32)	(19)
Manpower	145	189	58
Other operating expenses	(13)	(21)	(146)
Capital	(84)	(61)	(161)
<b>Productivity – business view</b>	30	75	(268)
Core business	160	97	(208)
Electrification and takeovers	(84)	(54)	60
Other	(46)	32	(120)
<b>Productivity – capacity and efficiency view</b>	30	75	(268)
Capacity utilisation	181	140	22
Efficiency	(151)	(65)	(290)

The actual figures for 1999 exclude restructuring costs. Refer to the productivity statement on page 28.

Before restructuring costs, the business recorded a productivity improvement of 0,4% during 1999 when compared with 1998. In financial terms, this improvement saved the business R75 million (1998: negative R268). This turnaround in performance was achieved through an improvement in the sales volumes compared to the previous year as well as a focus on improving the management of resource usage. The improvement in efficiency is reflected in the reduction of the negative effects of R225 million when compared with 1998.

The above results also indicate that there were productivity savings achieved in the core business of R97 million, representing 0,6%, through the responsible management of controllable costs during the period. Significant positive contributions were made by manpower.

# Directors' report

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Through a continuous focus on capital expenditure the business also ensured that productivity was less negative compared with the previous year as well as the budget. The reason for the negative performance can mainly be attributed to the electrification initiative and increased investment in generating capacity. The electrification initiative did not maintain last year's improvement into the current year. The main reason for this was the relatively low recorded growth in sales volumes for electrification during the year of 2,1%. The business also increased its generating capacity during the year despite a period of relatively low sales growth. Both these investments should result in benefits in the long term.

Manpower made a significant positive contribution to overall performance during the year of R189 million. The main reason for this improvement was the reduction in employee numbers as well as the benefits of the past investment in the training and development of staff.

## High-level performance

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

	<i>Budget</i> 1999 Rm	<i>Actual</i> 1999 Rm	<i>Actual</i> 1998 Rm
<b>Sales, GWh</b>			
Total external sales	173 096	173 113	171 145
Transmission international	2 921	3 128	3 197
Commodity-linked pricing agreements	20 036	20 443	19 228
Other distribution	150 139	149 542	148 720
External sales growth, %	1,14	1,15	(0,60)
<b>Revenue, Rm</b>			
Transmission international	261	267	257
Commodity-linked pricing agreements	1 672	1 666	1 773
Other distribution	19 823	19 590	19 002
External revenue	21 756	21 523	21 032
Internal revenue	43	45	42
Total revenue	21 799	21 568	21 074
<b>Other results</b>			
Operating expenditure, Rm	16 622	17 027	15 242
Interest income, Rm	n.a <sup>1</sup>	1 261	1 156
Interest expenditure, Rm	n.a <sup>1</sup>	3 634	4 514
Average total cost of electricity, R/MWh <sup>2</sup>	113,38	112,07	108,68
Net profit on historical cost basis for the year, Rm	2 130	2 168	2 474
Net (loss)/profit on inflation-adjusted basis, Rm	n.a <sup>3</sup>	(1 377)	(932)
Real (inflation-adjusted) rate of return, %	n.a <sup>3</sup>	0,90	2,34
Debt-equity ratio	0,77	0,83	0,89
Employees, number	35 270	34 027	37 311

1. Net interest income and expenditure budget: R3 004 million

2. Based on external sales

3. No targets set



The external revenue variance is mainly due to negative mix and price variances. The unfavourable variance in operating expenditure for the year resulted mainly because of the cost of voluntary separations, which exceeded the budget, but which will have a positive effect on future results.

Net interest and finance charges for the year are R631 million less than the budget. This is mainly as a result of the changes in accounting policies in order to comply with International Accounting Standards and the reversal of an amount of R251 million to interest income as a result of an estimate for which more accurate information is now available.

The inflation-adjusted net loss increased by R445 million and can mainly be ascribed to the low historic net income.

#### Segment reporting

Eskom's revenue is obtained from selling electricity. The annual revenue requirement is determined on the total revenue streams from all customer categories as a whole. Eskom recovers all costs of supplying electricity to its customer base and earns a positive real return on assets. There is a small risk differential between the geographical spread of its customers, except for customers outside South Africa, which are not significant in relation to total revenue. It is not therefore considered meaningful to provide segment information for assessing the risks and returns of the organisation.

#### Revenue management

The trade debtors at year end can be summarised as follows:

	<i>Actual</i> 1999 <i>Rm</i>	<i>Actual</i> 1998 <i>Rm</i>
<b>Trade debtors</b>	2 398	2 204
Customers identified as problem accounts	1 983	1 781
Other	2 365	2 149
Provision for doubtful and bad debts, including interest	(1 950)	(1 726)
<b>Doubtful and bad debts for the year</b>	287	157
Problem accounts	143	134
International accounts	126	-
Other	18	23

To assist local authorities with bulk debt accumulated prior to 30 June 1995, Eskom offered local authorities an agreement whereby these arrears would be written off provided current accounts were paid in full. This has had a very positive impact on payment levels. Steps are being taken against those local authorities that have not met their commitments.

Included in the provision for doubtful and bad debts is an amount owed by the Zimbabwe Electricity Supply Authority (ZESA) for energy exported. The difficult economic conditions experienced by ZESA and the Zimbabwean economy necessitated the raising of a provision by Eskom.

#### Performance of subsidiary companies

The Public Finance Management Act, effective from April 2000, states that all subsidiaries of a public entity in terms of that Act also qualify as a public entity. Detailed public reporting will therefore commence in respect of 2000.

# Directors' report

continued

## *Rotek Industries (Pty) Limited*

The operating results for the year are summarised as follows:

	<i>Budget</i> 1999 Rm	<i>Actual</i> 1999 Rm	<i>Actual</i> 1998 Rm
Revenue	782	848	775
Eskom	485	571	506
Non-Eskom	297	277	269
(Loss)/profit before interest	26	(8)	18
Interest	(31)	(24)	(30)
(Loss)/profit after interest	(5)	(32)	(12)

Rotek Industries (Pty) Limited has four operating divisions involved in the engineering, transport, construction and property sectors. Trading conditions in these industries were very competitive throughout the year, with few new infrastructural development projects on offer. Nevertheless, satisfactory capacity utilisation was achieved in most operations and further progress was made in developing the export markets served by the company.

The increased revenue in 1999 was mainly because of sales growth in the electrical division of Roshcon and the general engineering market served by Rotek Engineering. All the divisions were profitable at operating level except for the Specialised Maintenance Services division which offset the profits by its major losses incurred. The losses were caused by low contract prices, inadequate project management and high overhead expenditure. The various operating units of this division have either been closed or transferred to other business units in the Rotek group, with the only remaining activity the management of certain bulk water services where Eskom is the major customer.

No real growth in turnover is being budgeted for in the coming year, but there will be a substantial improvement in profitability following the curtailment of trading in the loss-making division referred to above. Although borrowings remained relatively unchanged, interest rates were much lower than in the previous year resulting in reduced interest costs. The company will continue to endeavour to increase its share of the non-Eskom market in the industries in which it operates.

## *Eskom Finance Company (Pty) Limited*

Eskom is committed to enabling all Eskom employees to have access to accommodation. Eskom Finance Company (Pty) Limited grants home loans to Eskom employees at favourable interest rates.

The operating results for the year are summarised below:

	<i>Budget</i> 1999 Rm	<i>Actual</i> 1999 Rm	<i>Actual</i> 1998 Rm
Financing income	402	378	350
Financing costs	(395)	(362)	(349)
Net financing income	7	16	1
Sundry income less administration costs	(3)	4	1
Profit for the year	4	20	2

During 1999, the total value added to Eskom and its employees was R53 million (1998: R102 million). The value added represents the total cost savings and the benefits enjoyed by Eskom and its employees due to engaging Eskom Finance Company (Pty) Limited in home ownership administration and the granting of home loans to Eskom employees.



### *Escap Limited*

Escap Limited was created in 1993 to reduce Eskom's overall cost of risk 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.

	<i>Budget</i> 1999 <i>Rm</i>	<i>Actual</i> 1999 <i>Rm</i>	<i>Actual</i> 1998 <i>Rm</i>
Premium income	303	298	224
Reinsurance premium expenditure	(109)	(104)	(98)
Net premium income	194	194	126
Insurance expenditure	(218)	(211)	(124)
Underwriting (loss)/surplus	(24)	(17)	2
Investment income	34	57	36
Taxation	-	(24)	(47)
Profit/(loss) for the year	10	16	(9)
Operating cost as percentage of net premium income	11%	12%	13%

Escap has negotiated stop loss agreements with Gallium Insurance Company Limited, a wholly owned reinsurance subsidiary of Eskom, to limit the amount of claims that the Eskom General Insurance Fund (EGIF) and Escap will retain. These stop loss limits have ensured that EGIF and Escap are able to limit the claims expense to an acceptable level.

### *The Eskom Development Foundation*

The Eskom Development Foundation was incorporated as a Section 21 company on 15 December 1998, and launched on 7 October 1999. A management committee and a chief executive officer were appointed by the board of directors of the Foundation, with full delegated authority to manage the fund and the day-to-day activities of the Foundation respectively.

The objective of the Foundation is to carry out the Eskom social investment initiatives through the vehicles of its activities in community development, small business development, electrification of schools and clinics, education and donations.

The following amounts were spent during 1999:

	<i>Budget</i> 1999 <i>Rm</i>	<i>Actual</i> 1999 <i>Rm</i>	<i>Actual</i> 1998 <i>Rm</i>
Electrification of schools and clinics	21	21	15
Community development	28	19	20
Small business development	15	2	10
Eskom Maths and Science College Education Programme	8	4	-
Donations	7	5	8

During 1999 the directors focused on ringfencing and developing a co-ordinated management approach. The year was characterised by policy formulation, setting strategy and targets, and shaping the Foundation. This entailed maximising the synergies between divisions to better address primarily skills development, job creation through SMME development and the development of women, particularly rural and disabled women. The Foundation is therefore well poised for improved delivery and better implementation of its strategies in the second year of its establishment.

# Directors' report

continued

## Corporate governance and ethics

Eskom continues to comply with the major recommendations of the King Report. The behaviour of employees and management is monitored in terms of the Code of Ethics. Additional information on corporate governance and ethics appears on pages 29 to 31 of this report.

The Public Finance Management Act, effective from 1 April 2000, replaces the current Reporting by Public Entities Act. Eskom is already complying with most of the financial management requirements of the new Act. It will, however, reassess disclosure requirements and reporting responsibilities to the Government in terms of the new Act.

## Risk management

Risk policies are in place to manage treasury and other business-related risks. Treasury-related risks are discussed in note 18 to the financial statements. Eskom's Corporate Risk Services department manages other business-related risks, its mission being to provide the most cost-effective risk management solutions in order to reduce incidents and the cost of claims.

Eskom's technical audit initiative and incident investigations have created a culture in which the organisation learns from its mistakes. All major incidents have been investigated to establish their root causes in order to ensure continual optimisation of operational performance. The technical and environmental risks in the organisation have been investigated and identified.

## 12. Information management

Eskom has identified the management of information as a strategic issue. Considerable expenditure has been invested in a number of information technology initiatives to date. The most significant information technology initiatives were:

### Year 2000

In July 1999 Eskom was able to announce that it was year 2000 ready and in a position to make a successful transition at year end. A total of 613 projects were undertaken to remedy or replace non-compliant systems and devices.

During the second half of 1999 the major focus was on contingency planning. An Eskom National Contingency Planning Workgroup, including representatives from Generation, Transmission and Distribution, were responsible for overseeing and co-ordinating contingency plans for the energy flow process. Six national risk scenarios were identified, and contingency plans were completed for these. Several tests of the plans were performed to ensure their practicality.

Eskom was actively involved in a number of external year 2000 initiatives. It actively supported the National Year 2000 Task Team set up by the Department of Provincial Affairs to assess the readiness of municipalities in five critical service areas. It also made its expertise available to municipalities that requested assistance.

The communication strategy was successful in providing accurate and consistent messages to stakeholders. This was achieved by means of advertisements, articles, special events, participation in radio and television programmes, and presentations to customer forums and discussion groups.

An extensive quality assurance drive was conducted during the programme. In all, seven external audits were carried out, supplemented by a further 28 internal audits.

The year 2000 was ushered in without incident. Notwithstanding this, the directors continue to be alert to the potential risks and uncertainties surrounding the year 2000 issue. As at the date of this report, the directors are not aware of any significant factors that have arisen, or that may arise, which will affect the activities of the business. However, the situation is still being monitored. Any future costs associated with this issue cannot be quantified, but are not expected to be significant.

By the end of 1999, R77 million (1998: R35 million) of the total budgeted direct project cost of R107 million had been spent.



### Customer relationship process (CRP)

Eskom replaced its old customer service systems with a new system developed in-house. The new system was rolled out in stages from August 1998 to May 1999, by which time all Eskom customers had been converted. It has multiple interfaces with other systems, including meter-reading systems, call centres, works management systems and Eskom's new financial and commercial system, SAP/R3.

The design and implementation of the CRP, an interactive real-time system, has revealed certain financial reporting shortcomings that complicated the reconciliation process between the financial system and the CRP. A task team has been appointed to address all areas of concern.

## 13. Other

### Regulation

During 1999 the relationship between Eskom and the NER developed into an effective and constructive working arrangement. In addition, interaction on certain key strategic issues facing the EDI continued, with a view to sharing views and information.

To be efficient and effective, the electricity industry needs to be regulated in terms of a clear framework. The perceived current regulatory vacuum and the role of the NER require further clarification. The method and basis of regulation of the electricity industry also need to be specified. These issues are being addressed with the NER as well as with the Department of Minerals and Energy. A regulatory bill is being developed to address these issues.

### Tariff restructuring

Tariff restructuring is primarily driven by Eskom's objective of making tariffs more cost-reflective. This is also a key requirement of Government, as reflected in the Energy White Paper. The cost-of-supply study performed during 1998 gave a good preliminary indication of the extent to which tariffs need to be adjusted to become more cost-reflective. A degree of cross-subsidisation will probably always be required in South Africa in order to deliver affordable electricity to certain sectors of the customer base. Restructuring of tariffs therefore continued during 1999, resulting in reduced rates for high-voltage customers and increased rates for subsidised rural and residential customers.

Eskom developed proposals on the structure of a possible future wholesale electricity tariff. These proposals have been presented to the NER for comment. The NER undertook to pursue the development and introduction of a wholesale electricity tariff with all stakeholders.

## *Information required under schedule 4 of the Companies Act*

### SHARE CAPITAL AND DIVIDENDS

Eskom does not have share capital and, as a result, no dividends have been paid or proposed. Equity consists of reserves.

### CAPITAL EXPENDITURE

Net capital expenditure on property, plant, equipment and intangible assets of R4 027 million (1998: R4 521 million) included expenditure of R621 million (1998: R832 million) on Majuba power station and R850 million (1998: R845 million) on electrification.

### SUBSIDIARIES, ASSOCIATES, JOINT VENTURES AND INVESTMENTS

Details of Eskom's principal subsidiaries, significant associates and joint ventures are set out in schedule 1 on page 88.

### DIRECTORATE AND SECRETARIAT

The names of the directors and the address of Eskom's Secretariat appear on pages 4 to 7 of this report. Changes in the composition of the Electricity Council and the Management Board appear on pages 4 to 7 of this report.

### POST BALANCE SHEET EVENTS

The Public Finance Management Act, which comes into effect on 1 April 2000, replaces the Reporting by Public Entities Act. It is expected that Eskom will be corporatised into a company in 2000 and will probably also start paying income tax in 2000.

### AUDIT COMMITTEE INFORMATION

The names of Audit Committee members are reflected on pages 4 to 5. Four meetings were held during 1999.



at 31 December

# Balance sheet

	Notes	1999 Rm	1998 Rm
<b>Assets</b>			
<b>Non-current assets</b>		<b>64 488</b>	<b>64 389</b>
Property, plant and equipment	3	50 344	49 917
Intangible assets	4	307	245
Future fuel supplies	5	2 914	2 835
Long-term financial market investments	6	8 192	8 792
Investment in subsidiary, associate and joint-venture companies	7	2 731	2 600
<b>Current assets</b>		<b>11 005</b>	<b>10 696</b>
Inventories	8	2 233	1 873
Trade and other receivables	9	3 823	3 853
Short-term financial market investments	6	4 949	4 970
<b>Total assets</b>		<b>75 493</b>	<b>75 085</b>
<b>Equity and liabilities</b>			
<b>Capital and reserves</b>		<b>28 975</b>	<b>27 805</b>
Non-distributable reserves		850	1 638
Distributable reserves		28 125	26 167
<b>Non-current liabilities</b>		<b>32 941</b>	<b>34 250</b>
Long-term financial market liabilities	6	27 701	29 467
Long-term provisions	10	5 240	4 783
<b>Current liabilities</b>		<b>13 577</b>	<b>13 030</b>
Trade and other payables	11	2 918	3 029
Short-term financial market liabilities	6	9 582	8 957
Provisions		1 077	1 044
<b>Total equity and liabilities</b>		<b>75 493</b>	<b>75 085</b>



for the year ended 31 December

# Income statement

	Notes	1999 Rm	1998 Rm
Revenue	15	21 568	21 074
Operating expenditure	16	(17 027)	(15 242)
Net operating income		4 541	5 832
Interest income	17	1 261	1 156
Interest expenditure	18	(3 634)	(4 514)
Net profit for the year		2 168	2 474

# Cash flow statement

for the year ended 31 December

	Notes	1999 Rm	1998 Rm
Cash flows from operations		6 146	7 508
Cash generated by trading operations	21	8 305	10 229
Interest received	22	1 979	1 160
Interest paid	23	(4 138)	(3 881)
Cash utilised in investment activities	24	(4 503)	(5 928)
Cash effects of financing activities		(4 285)	(637)
Debt raised		1 813	596
Debt repaid		(4 914)	(3 481)
(Increase)/decrease in long-term financial market investments		(1 184)	2 248
Net (decrease)/increase in cash and cash equivalents for the year	25	(2 642)	943



# Statement of changes in equity

for the year ended 31 December

	Non-distributable reserves			Distributable reserves		
	Negative goodwill	Foreign revaluation	Total	Insurance	Accumulated profit	Total
	Rm	Rm	Rm	Rm	Rm	Rm
Balance at 31 December 1997						
Previously reported	53	-	53	150	24 826	24 976
Effect of accounting policies changes (Refer note 2)	-	882	882	-	(1 526)	(1 526)
Transfer of net unrealised revaluation gains/(losses) from distributable reserves to non-distributable reserves	-	(44)	(44)	-	44	44
Restated balance	53	838	891	150	23 344	23 494
Increase in negative goodwill	234	-	234	-	-	-
Negative goodwill amortised during the year	(42)	-	(42)	-	-	-
Net revaluation gains/(losses) relating to hedges of future anticipated transactions	-	754	754	-	-	-
Net profit for the year	-	-	-	-	2 474	2 474
Transfer of net unrealised revaluation gains/(losses) from distributable reserves to non-distributable reserves	-	(199)	(199)	-	199	199
Balance at 31 December 1998	245	1 393	1 638	150	26 017	26 167
Increase in negative goodwill	147	-	147	-	-	-
Negative goodwill amortised during the year	(34)	-	(34)	-	-	-
Net revaluation gains/(losses) relating to hedges of future anticipated transactions	-	(1 111)	(1 111)	-	-	-
Net profit for the year	-	-	-	-	2 168	2 168
Transfer of net unrealised revaluation gains/(losses) from distributable reserves to non-distributable reserves	-	210	210	-	(210)	(210)
Balance at 31 December 1999	358	492	850	150	27 975	28 125

Negative goodwill arises from the takeover of the electricity operations in the former TBVC<sup>1</sup> states and SGTs<sup>2</sup>.

The assets and liabilities of Transkei Electricity Corporation were taken over by Eskom on 1 January 1998, Gezicor (Pty) Limited and Venda Electricity Corporation on 10 June 1999 and Transitional Electricity Distributor on 1 September 1999, for no consideration. The electricity assets and liabilities of the Gazankulu, Lebowa and Kwandebele governments were also taken over for no consideration on 10 June 1999.

The foreign revaluation reserve includes gains and losses on the fair value revaluation of foreign exchange contracts designated as cash flow hedges for future anticipated foreign currency denominated transactions.

The variable revaluation exists until 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.

1. Transkei, Bophuthatswana, Venda and Ciskei

2. Self-governing territories



# Notes to the annual financial statements

for the year ended 31 December

## 1. Accounting policies

### Basis of preparation

In terms of the Eskom Act of 1987, and as determined by the Electricity Council, the financial statements are prepared in accordance with the applicable requirements of the Companies Act of 1973 and conform with statements of South African generally accepted accounting practice. Except for the preparation of consolidated annual financial statements which will be implemented with effect from 1 January 2000, the annual financial statements comply with International Accounting Standards (IAS). Investments in subsidiary, associate and joint-venture companies are not consolidated or equity-accounted as the future organisational structure and composition of Eskom that is currently being formulated would make presentation of consolidated financial information impracticable. Information relating to the unconsolidated subsidiary companies is disclosed in schedule 1.

The financial statements are prepared on the historical cost basis, except for foreign loans, foreign exchange contracts and trading assets and liabilities which are restated at balance sheet date at the closing rates.

The following principal accounting policies, except for the changes discussed in note 2, 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.

### Property, plant and equipment

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

Land is not depreciated. Plant at mothballed power stations is also not being depreciated.

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

<i>Class</i>	<i>Years</i>
Buildings and facilities	10 to 40
Plant – Generation	25 or 35
– Transmission	25
– Distribution	
Electrification	15
Other	25
Test and telecommunication equipment	3 to 5
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.

### Intangible assets

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

# Notes to the annual financial statements

for the year ended 31 December

## I. Accounting policies

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### Intangible assets

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



# Notes to the annual financial statements

for the year ended 31 December

*continued*

## **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 enterprise.

## **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, as indicated in the property, plant and equipment accounting policy. Lease finance charges are included in interest expenditure as they become due.

## **Future fuel supplies**

Certain long-term fuel supply contracts require advance payments or loans to suppliers.

### *Nuclear fuel*

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

### *Coal*

Advances to suppliers, together with related borrowing costs thereon, are deferred and amortised against the cost of coal supplies on the basis of quantities of coal burnt.

## **Financial instruments**

### *Derivative financial instruments*

The premiums received or paid on derivative financial instruments designated as hedges are amortised over the lives of the instruments except for foreign exchange contracts. Gains or losses on these instruments are deferred and recognised on the same basis as the hedged transactions.

Derivative financial instruments held for trading purposes are marked to market, and the resultant gains and losses are included in interest expenditure.

### *Financial market investments*

Financial market investments are stated at cost, which is adjusted for amortised discount or premium using the yield to redemption method, where applicable. Gains and losses are recognised on realisation.

Trading assets are stated at fair value and resultant gains and losses are included in interest. The fair value is determined by marking to market these positions, using independently sourced market rates.

### *Financial market liabilities*

Locally issued bonds and other local debt issued for non-trading purposes are recorded at the consideration received. Locally issued bonds and other local loans are adjusted for amortised discounts or premiums. The discounts or premiums are amortised over the period of the relevant loan, using the yield to redemption method.

Locally issued bonds and other local debt issued or held for trading purposes are stated at fair value. Trading gains or losses, with the exception of market-making debt, are included in interest. Gains and losses on market-making debt are recognised over the period to redemption of the most actively traded bond.

#### *Foreign currency financial instruments*

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

Foreign loans issued for non-trading 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 net profit or loss for the period. Foreign loans are adjusted for amortised discounts or premiums. The discounts or premiums are amortised over the period of the relevant loan, using the yield to redemption method.

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

Foreign exchange contracts designated as cash flow hedges for future anticipated foreign currency denominated transactions, are measured to fair value with the resultant gains or losses being recognised in equity. Foreign exchange contracts designated as fair value hedges for recognised foreign denominated transactions, are measured to fair value with the resultant gains or losses being charged to net profit or loss for the period.

If the hedged firm commitment of forecasted transactions results in the recognition of an asset or liability, then 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 net profit or loss in the period when the commitment or forecasted transaction affects profits or losses.

#### *Trade and other receivables*

Trade and other receivables are stated at cost less provision for doubtful debts. Bad debts are written off.

#### *Trade and other payables*

Local trade and other payables are stated at nominal value.

#### **Unlisted investments**

Unlisted investments are stated at cost less amounts provided for diminution in value.

#### **Inventories**

##### *Coal, maintenance and consumables*

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

##### *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.



# Notes to the annual financial statements

for the year ended 31 December

continued

## Takeovers of electricity operations in the former TBVC<sup>1</sup> states and SGTs<sup>2</sup>

Electricity operations in the former TBVC<sup>1</sup> states and SGTs<sup>2</sup> taken over by Eskom are accounted for on the purchase method. The results of the operations of the acquired entity are included from the date of takeover. The assets, other than network assets, and liabilities are valued at fair value. Network assets are valued at the estimated or actual historical cost of the assets, reduced by the accumulated depreciation for the expired portion of the useful life of the assets at takeover date in terms of the Eskom asset useful life policy.

Any excess of the value of the net assets acquired over the cost of the take-over is described as a negative goodwill. Any excess of the cost of the takeover, compared with the value of the net assets acquired, is described as goodwill.

Goodwill and negative goodwill arising on acquisition are written off to the income statement over the life of the assets, on a straight-line basis, over a period not exceeding 20 years.

## Insurance reserve

The insurance reserve is held to cover potential abnormal self-insured losses not covered externally. The value of the reserve is based on management's assessment of the possible exposure.

## Decommissioning and nuclear waste management

### *Nuclear plant*

A provision is made, over the life of the plant, for the decommissioning of nuclear plant and 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.

### *Other plant*

Provision is made, over the estimated remaining life of the plant, for the costs of decommissioning other plant if it is expected that such costs will exceed the net proceeds from the disposal of associated land and the salvage value of the plant.

## Cross-border lease

Gains realised on cross-border lease transactions are deferred. These gains are amortised over the period that Eskom is exposed to risk, and are allocated to the income statement on the same basis as the risk exposure profile.

## Retirement benefits

Retirement benefits are provided for all employees through the Eskom Pension and Provident Fund, a defined benefit 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 cost of gratuities is accounted for over the estimated working life of the employees based on the assessment of independent actuaries.

1. Transkei, Bophuthatswana, Venda and Ciskei  
2. Self-governing territories

Post-retirement medical benefits are provided for employees through various medical aid schemes. Provision is made for such benefits in the income statement for the estimated costs over the expected period to retirement of the employees. The cost of providing the benefits is determined by using the projected unit credit method, with actuarial valuations being carried out at each balance sheet date. Actuarial gains and losses which 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 benefit as adjusted for unrecognised actuarial gains and losses.

#### **Revenue**

Revenue comprises electricity revenue and excludes value-added tax. Revenue is recognised when electricity is consumed by the customer.

#### **Interest income**

Interest income comprises interest receivable on loans, advances, trade, receivables and income from financial market investments.

#### **Research and development**

Research costs are expensed in the period in which they are incurred.

Development expenditure is recognised as an expense in the period in which it is incurred, except if future benefits are expected. In this case, an intangible asset is recognised and the development costs are capitalised and amortised on a straight-line basis over the period of the expected benefits.

#### **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.

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# Notes to the annual financial statements

for the year ended 31 December

continued

	1999 Rm	1998 Rm
<b>2. Changes in accounting policies</b>		
2.1 Retirement benefits		
During the year Eskom adopted IAS 19, Employee Benefits (revised 1998).		
Gratuities paid to retiring employees are no longer expensed in the period paid. In terms of the amended policy gratuities are accounted for over the estimated working life of the employees. The new standard has been adopted retrospectively.		
Post-retirement medical benefits are provided for employees through the various medical aid schemes. Provision is made for such benefits in the income statement by accounting for the estimated costs over the expected service to retirement of the employees. Previously, the estimated present value of the unprovided anticipated expenditure at the beginning of 1994 was being provided for over a period not exceeding ten years. During the year it was decided to adopt the new standard retrospectively.		
The comparative amounts have been restated. The effect of the changes is as follows:		
Distributable reserves		
Restatement of the opening balance of accumulated profit	-	(1 774)
Increase/(decrease) in net profit for the year	45	(80)

	1999 Rm	1998 Rm
<p>2.2 Revenue</p> <p>During the year Eskom changed its accounting policy on revenue recognition.</p> <p>Revenue is no longer recognised at the time customers are invoiced. Revenue is now recognised at the time electricity is consumed by the customers.</p> <p>In terms of the change in the above accounting policy the comparatives have been restated. The effect of the change is as follows:</p> <p>Distributable reserves</p> <p>Restatement of the opening balance of accumulated profit</p> <p>Increase/(decrease) in net profit for the year</p>	<p>—</p> <p>5</p>	<p>292</p> <p>3</p>
<p>2.3 Foreign currency and financial instruments</p> <p>During the year Eskom adopted IAS 21, The Effects of Changes on Foreign Exchange Rates.</p> <p>Foreign currency denominated transactions previously recognised at the exchange rates specified in the forward exchange contracts are now recognised at the exchange rate prevailing at the transaction date. Foreign denominated monetary assets and liabilities previously translated at the forward rates of the underlying forward exchange contracts, are now translated at the exchange rates ruling at the balance sheet date.</p>		



# Notes to the annual financial statements

for the year ended 31 December

continued

	1999 Rm	1998 Rm
<b>2. Changes in accounting policies</b>		
<i>(continued)</i>		
2.3 Foreign currency and financial instruments <i>(continued)</i>		
Foreign exchange contracts 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. Foreign exchange contracts designated as fair value hedges for recognised foreign denominated transactions, are measured at fair value, with the resultant gains or losses being recognised in net profit or loss for the period.		
In terms of the above change in accounting policy the comparatives have been restated. The effect of the changes is as follows:		
Distributable reserves		
Restatement of the opening balance of accumulated profit	–	(44)
Increase/(decrease) in net profit for the year	210	(199)
Non-distributable reserves		
Restatement of opening balance of foreign revaluation reserve	–	882
(Decrease)/increase in net gains not recognised in the income statement	(1 111)	754
<b>Total change in accounting policies</b>		
Distributable reserves		
Restatement of the opening balance of accumulated profit	–	(1 526)
Increase/(decrease) in net profit for the year	260	(276)
Non-distributable reserves		
Restatement of opening balance of foreign revaluation reserve	–	882
(Decrease)/increase in net gains not recognised in the income statement	(1 111)	754

### 3. Property, plant and equipment

1999

	Cost Rm	Accumulated depreciation Rm	Book value Rm
Land	244	–	244
Buildings and facilities	2 445	1 173	1 272
Plant – Generation	39 818	15 774	24 044
– Transmission	8 676	3 177	5 499
– Distribution	19 198	5 747	13 451
Electrification	7 494	2 002	5 492
Other	11 704	3 745	7 959
Test and telecommunication equipment	1 355	953	402
Equipment and vehicles	2 754	1 887	867
Leased equipment	32	8	24
Total in commission	74 522	28 719	45 803
Plant at mothballed power stations	747	532	215
Works under construction	4 266	–	4 266
Construction materials	60	–	60
	79 595	29 251	50 344

1998

Land	246	–	246
Buildings and facilities	2 464	1 096	1 368
Plant – Generation	38 119	14 322	23 797
– Transmission	7 730	2 657	5 073
– Distribution	16 883	4 752	12 131
Electrification	5 544	1 198	4 346
Other	11 339	3 554	7 785
Test and telecommunication equipment	1 234	807	427
Equipment and vehicles	2 362	1 643	719
Leased equipment	–	–	–
Total in commission	69 038	25 277	43 761
Plant at mothballed power stations	2 015	532	1 483
Works under construction	4 611	–	4 611
Construction materials	62	–	62
	75 726	25 809	49 917



# Notes to the annual financial statements

for the year ended 31 December

continued

	1999 Rm	1998 Rm
<b>3. Property, plant and equipment</b>		
<i>(continued)</i>		
<i>Reconciliation of movements</i>		
Book value at beginning of the year	49 917	48 678
Additions	4 016	4 533
Disposals	(68)	(69)
Depreciation	(3 521)	(3 225)
Book value at end of the year	50 344	49 917
Borrowing costs are capitalised at a capitalisation rate of 14,38% (1998: 13,73%).		
Details of land and buildings are available for examination at the head office.		
Included in generation plant are assets leased to an international lessor and leased back under cross-border lease agreements with a book value of	7 610	5 968
The present value of lease and leaseback commitments was settled in full at commencement of the transactions.		
The cross-border lease transactions 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 leases will expire and the assets will return to Eskom.		
<i>Valuation of assets</i>		
Eskom's annual revenue requirement is determined in accordance with its financial policy and on the basis of the total revenue streams from all customer categories as a whole. Cross-subsidisation, therefore, exists between certain customer categories, depending on customers' electricity consumption levels, geographical location and voltage supply levels. On this basis, the directors believe that no adjustment is required to the value of assets relating to any particular customer category, since Eskom fully recovers all costs of supplying electricity to its customer base as a whole and earns an appropriate return on assets.		

	Cost Rm	Accumulated depreciation Rm	Book value Rm
<b>4. Intangible assets</b>			
<b>1999</b>			
Total	556	249	307
<b>1998</b>			
Total	435	190	245
		<b>1999</b>	<b>1998</b>
		Rm	Rm
<i>Reconciliation of movements</i>			
Book value at beginning of the year		245	154
Additions		94	137
Disposals		-	(3)
Depreciation		(32)	(43)
Book value at end of the year		307	245
<b>5. Future fuel supplies</b>			
Coal		2 748	2 734
Nuclear		166	101
		2 914	2 835
<p>A cumulative amount of R196 million (1998: R86 million) relating to nuclear fuel was charged to the foreign revaluation reserve in terms of the accounting policy on foreign currency and financial instruments in respect of cash flow hedges.</p>			



# Notes to the annual financial statements

for the year ended 31 December

continued

	1999	1998
<b>6. Financial instruments</b>		
6.1 Financial market investments		
Eskom's funding is managed in a single pool of financial market assets and liabilities. Financial market investments are primarily held for liquidity and prefunding purposes.		
	Short-term	
	Total Rm	Total Rm
Forward exchange contracts at fair value	-	-
Liquidity investments	-	73
Other securities	472	85
Trading account assets at fair value	2 223	4 103
Jobbing	109	409
Repurchase agreements	-	2 261
Market making	2 114	1 433
Cash and bank	86	144
Other deposits	2 168	565
	4 949	4 970
6.2 Financial market liabilities		
Local debt	6 271	7 792
Issued bonds	155	2 378
Other issued securities	32	279
Issued money market securities	3 122	3 604
Trading account liabilities at fair value		
Jobbing	47	18
Repurchase agreements	737	1
Market making	2 178	1 512
Foreign debt	3 311	1 165
US dollar	1 158	644
German mark	384	471
Japanese yen	1 736	-
Other	33	50
	9 582	8 957
Net financial market liabilities and investments	4 633	3 987
Total net interest-bearing debt		
6.3 Key interest rate risk indicators for non-trading instruments		
The ratio for domestic : foreign interest rate mix	67:33	69:31
The ratio for fixed : floating interest rate mix	85:15	90:10

				1999	1998	1999
Long-term						
After 1 year within 5 years Rm	5 to 10 years Rm	After 10 years Rm	Total Rm	Total Rm	Total Rm	Range of yields %
-	3 777	-	3 777	4 856		13,61 - 20,10
787	696	2 071	3 554	3 378		13,61 - 20,10
-	-	-	-	558		
-	-	-	-	-		
-	-	-	-	-		
-	-	861	861	-		5,50 - 14,66
-	-	-	-	-		10,75 - 11,25
787	4 473	2 932	8 192	8 792		
4 118	10 297	5 437	19 852	19 578		
3 386	9 815	2 432	15 633	15 424		2,25 - 17,05
732	482	3 005	4 219	3 940		11,90 - 16,52
-	-	-	-	214		10,85 - 12,61
-	-	-	-	-		
-	-	-	-	-		
-	-	-	-	-		
6 649	1 200	-	7 849	9 889		
815	-	-	815	2 305		5,48 - 13,00
376	32	-	408	926		4,06 - 11,00
2 684	1 143	-	3 827	6 529		3,10 - 4,65
2 774	25	-	2 799	129		4,00 - 8,52
10 767	11 497	5 437	27 701	29 467		
			19 509	20 675		
			24 142	24 662		



# Notes to the annual financial statements

for the year ended 31 December

continued

	1999	1998
<b>6. Financial instruments (continued)</b>		
6.4 The average annual rate of interest and finance charges on net financial market instruments amounted to, %	12,56	14,53
6.5 The weighted average maturity period of financial market instruments is, years	6,97	8,89
Short-term financial market liabilities include credits and short-term loans of a revolving nature amounting to, Rm	5 822	3 859
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 The nominal value of all locally issued Eskom bonds is, Rm		
Authorised	56 593	56 402
Issued	17 866	18 483
6.8 Financial market liabilities and interest thereon are secured by a first claim against revenue and assets.		
6.9 A portion of foreign debt is guaranteed by the Government of the Republic of South Africa.		
6.10 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 utilised includes domestic and foreign interest rate swap agreements, forward rate agreements, forward exchange contracts, commodity option contracts, bond option contracts and commodity futures contracts.		

	1999 Rm	1998 Rm
The table below details derivative values, which are included in financial market assets and liabilities:		
Derivatives used for risk management purposes at amortised historic cost (assets/(liabilities))		
Interest rate products	10	(2)
Foreign exchange products (fair value)	811	1 541
Commodity products	(4)	(3)
	817	1 536
Derivatives used for trading purposes at fair value (assets/(liabilities))		
Interest rate products	(5)	(17)
<b>7. Investment in subsidiary, associate and joint-venture companies</b>		
Subsidiary companies (refer schedule 1)	2 526	2 429
Associate and joint-venture companies (refer schedule 1)	62	44
Amounts owed by electricity utilities	109	90
Other	34	37
	2 731	2 600
Directors' valuation of investment in subsidiary, associate and joint-venture companies and amounts owed by electricity utilities	2 697	2 563
<b>8. Inventories</b>		
Coal	1 062	812
Nuclear	457	491
Maintenance and consumables	714	570
	2 233	1 873
<b>9. Trade and other receivables</b>		
Trade	2 398	2 204
Interest receivable	739	1 146
Other	686	503
	3 823	3 853



# Notes to the annual financial statements

for the year ended 31 December

continued

	1999 Rm	1998 Rm
<b>10. Long-term provisions</b>		
<b>Decommissioning and nuclear waste management</b>		
<i>Nuclear plant</i>		
Balance at beginning of the year	1 038	940
Provision for the year	209	111
	1 247	1 051
Expenditure incurred	83	13
Balance at end of the year	1 164	1 038
<i>Other plant</i>		
Balance at beginning of the year	543	464
Provision for the year	173	84
	716	548
Expenditure incurred	78	5
Balance at end of the year	638	543
<b>Post-retirement medical benefits</b>		
Balance at beginning of the year		
Previously reported	1 843	575
Effect of change in accounting policy (refer note 2)	–	1 015
Restated balance	1 843	1 590
Provision for the year	330	302
	2 173	1 892
Expenditure incurred	53	49
Balance at end of the year	2 120	1 843
<b>Gratuities</b>		
Balance at beginning of the year		
Previously reported	854	5
Effect of change in accounting policy (refer note 2)	–	759
Restated balance	854	764
Provision for the year	171	155
	1 025	919
Expenditure incurred	182	65
Balance at end of the year	843	854
<b>Gains on cross-border leases</b>		
Balance at beginning of the year	374	392
Amortisation during the year	34	18
Balance at end of the year	340	374

	1999 Rm	1998 Rm
<p>The gains arise 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 gains resulted. The gains will be recognised as income in accordance with the disclosed accounting policy.</p>		
<b>Letter of credit facility</b>		
Balance at beginning of the year	131	–
Arising during the year	–	131
Revaluation	13	5
Foreign exchange profit/(loss)	6	10
	150	146
Payments during the year	15	15
Balance at end of the year	135	131
<p>The letter of credit facility arises 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.</p>		
<b>Total long-term provisions</b>	<b>5 240</b>	<b>4 783</b>
<b>11. Trade and other payables</b>		
Trade and other payables	1 961	1 757
Interest payable	957	1 272
	2 918	3 029
<p>Unsettled deals previously included in trade and other payables are now included under financial instruments.</p>		



# Notes to the annual financial statements

for the year ended 31 December

continued

	1999 Rm	1998 Rm
<b>12. Commitments</b>		
12.1 Capital expenditure		
Estimated capital expenditure	4 086	3 285
Contracted	1 266	1 557
Approved, not yet contracted	2 820	1 728
This expenditure will be financed from debt and internally generated funds and is expected to be incurred as follows:	4 086	3 285
Within one year	2 469	2 283
Thereafter	1 617	1 002
12.2 Derivative financial instruments		
The range of derivative instruments utilised includes domestic and foreign interest rate swap agreements, forward rate agreements, forward exchange contracts, commodity option contracts, bond option contracts and commodity futures contracts.		
No material losses are anticipated as a result of these transactions.		
12.3 Supply of water		
Eskom has entered into long-term agreements with the Department of Water Affairs and Forestry to reimburse the department for the cost incurred in supplying water to Eskom. This cost is regarded as part of the cost of primary energy and is included in operating expenditure.		
12.4 Coal		
Eskom has entered into long-term agreements with suppliers for coal purchases. The annual cost of coal is regarded as part of primary energy costs and is included in operating expenditure.		
<b>13. Contingent liabilities</b>		
13.1 Eskom has guaranteed any amounts that may become due and payable by Gallium Insurance Company Limited in terms of its reinsurance agreement.	120	120
13.2 Guarantees and suretyship, issued on behalf of group companies and third parties, amount to	30	122
13.3 Eskom has guaranteed the debt raised by Motraco – Mozambique Transmission Company SARL. At 31 December the outstanding commitment was	322	–

	1999 Rm	1998 Rm
13.4 The tariff dispute between Eskom and Hidroelectrica de Cahora Bassa, which has been referred to international arbitrators, has an estimated possible exposure at 31 December of	102	-
13.5 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.		
13.6 Eskom has underwritten the solvency margin of its subsidiary company, Escap Limited, in accordance with the requirements of the Insurance Act. There was no solvency shortfall at year end.		
13.7 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.		
<p>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.</p> <p>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.</p> <p>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.</p> <p>At 31 December 1999 the amount guaranteed is US dollar 350 million (1998: US dollar 199 million)</p>		

# Notes to the annual financial statements

for the year ended 31 December

continued

## 14. Retirement benefits

14.1 The Eskom Pension and Provident Fund, a defined benefit fund, is registered in terms of the Pension Funds Act, 1956. 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 Eskom in funds under the control of the trustees.

The last valuation was performed at 31 December 1999. The Fund is actuarially valued annually. The actuarial present value of promised retirement benefits at 31 December 1999 was R14 060 million (1998: R12 888 million), while the fair value of the Fund's assets at this date was R14 660 million (1998: R12 849 million), indicating an estimated surplus of R600 million (1998: R39 million deficit).

The principal actuarial assumptions used for actuarial valuation purposes were, %:

Long-term interest rate	13,00	13,00
Real rate of return – pre-retirement	2,50	2,50
– post-retirement	4,50	4,50
Salary inflation rate	10,30	10,30
Future pension increases	8,50	8,50

14.2 Eskom has anticipated expenditure in terms of continued contributions to medical aid subscriptions in respect of employees who retire. The estimated present value of the anticipated expenditure, for both in-service and continuation members, was recalculated by independent actuaries during 1999. An independent actuarial valuation is performed annually.

The amount provided is as follows:

Present value of obligation	2 120	1 843
Unrecognised actuarial gains/(losses)	–	–

Total provision

2 120	1 843
-------	-------

The principal actuarial assumptions used for actuarial valuation purposes were, %:

Long-term interest rate	13,50	13,50
Expected rate of salary increases	9,00	9,00
Medical aid inflation	11,50	11,50



### 15. *Commodity-linked pricing agreements*

Eskom has entered into a number of long-term commodity-linked pricing agreements to supply electricity to the aluminium, ferrochrome and similar electricity-intensive industries in order to increase Eskom's sales base. These agreements, which constitute approximately 11,6% (1998: 11,3%) of Eskom's sales, link sales revenue to international commodity prices (eg ferrochrome and aluminium) and the rand/dollar exchange rate, in addition to the normal pricing determinants.

The basic principle contained in these agreements is that, over the duration of the contracts, the revenue generated by Eskom should approximate the revenue generated under a standard industrial tariff agreement. Electricity tariffs charged to ferrochrome producers fluctuate between predetermined contractual minimum and maximum levels. Electricity tariffs charged to aluminium producers with commodity-linked tariff agreements were hedged by means of a zero cost collar. The agreements for ferrochrome and aluminium are for a maximum period of 7 and 21 years respectively.

The average revenue expressed in cents per kWh for 1999 under these contracts amounted to approximately 76% (1998: 91%) of the revenue that would have been generated under standard industrial tariff agreements.

### 16. *Operating expenditure*

	1999 Rm	1998 Rm
Primary energy	4 748	4 368
Materials	384	368
Contracts	1 442	1 411
Staff costs	5 779	4 714
Salaries and other staff costs	4 765	3 798
Pension contributions	353	313
Gratuities	171	155
Training and development (only manpower-related costs)	160	146
Post-retirement medical benefits	330	302
Current service cost	81	87
Interest cost	249	215
Depreciation	3 553	3 268
Rights	20	23
Computer software	12	20
Buildings and facilities	104	83
Plant	2 862	2 693
Test and telecommunication equipment	161	132
Equipment and vehicles	386	317
Leased equipment	8	-
Subtotal operating expenditure	15 906	14 129

# Notes to the annual financial statements

for the year ended 31 December

continued

	1999 Rm	1998 Rm
<b>16. Operating expenditure (continued)</b>		
Subtotal operating expenditure	15 906	14 129
Amortisation of negative goodwill	(34)	(42)
Managerial, technical and other fees	100	62
Net profit on disposal of property, plant, equipment and intangible assets	(15)	(77)
Doubtful and bad debts	287	157
Research and development	102	115
Contribution to Eskom Development Foundation	-	150
Contribution to Business Initiative for Job Creation and Human Capacity Development	-	50
Decommissioning and nuclear waste management provision	382	195
Nuclear plant	209	111
Other plant	173	84
Auditors' remuneration	11	8
Statutory audit		
Normal recurring	6	6
Non-recurring	5	2
Directors' emoluments	27	18
Other operating expenditure	261	477
<b>Total operating expenditure</b>	<b>17 027</b>	<b>15 242</b>
Directors' emoluments	27	18
Executive directors		
Services as directors	14	14
Other benefits	2	2
Compensation in respect of retirement from office	9	-
Non-executive directors	25	16
Services as directors	2	2
<p>Included in executive directors' other benefits are Eskom's contributions to the Eskom Pension and Provident Fund, the Executive Group Life Insurance Scheme and medical aid contributions.</p> <p>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. Non-executive directors are not bound by service contracts.</p>		
<b>17. Interest income</b>		
Interest and discount amortised on financial market investments	881	803
Trading net income	21	23
Interest receivable from subsidiary and associate companies	359	330
	<b>1 261</b>	<b>1 156</b>

	1999 Rm	1998 Rm
<b>18. Interest expenditure</b>		
Interest and discount amortised	3 885	4 816
Locally issued bonds	2 361	3 033
Other local debt	631	349
Foreign debt	893	1 434
Other net financial profits and losses		
Exchange differences	(2)	21
Amounts capitalised	(249)	(323)
	<b>3 634</b>	<b>4 514</b>

### 19. Market risk management

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 G30<sup>1</sup> 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 utilised for risk and accounting evaluations are obtained from independent external sources.

To ensure impartiality, the risk assessment and compliance functions within the centralised treasury have direct access and reporting responsibility to the Executive director: Finance.

#### Risk management

Based on the information supplied by the risk assessment function, the 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.

#### Market risks and broad management strategies

##### 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 utilises derivative instruments, including options, futures and forward agreements, to manage the exposure to these commodities.

1. Group of 30 leading international bankers



# Notes to the annual financial statements

for the year ended 31 December

continued

## 19. Market risk management (continued)

### 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 Executive director: Finance, 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, %

	1999 Rm	1998 Rm
	41	28
	53	67
	6	5
	100	100

Information on trade debtors is contained under revenue management in the directors' report on page 53.

### 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. Eskom's fixed/floating interest rate ratio approximates 85:15 (1998: 90:10), indicating limited exposure to interest rate fluctuations. Derivative instruments which are utilised to maintain this position include interest rate swaps and forward rate agreements.

### *Funding requirement*

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 requirement may change, depending on the future financial framework (with respect to taxation and dividend payments) still to be finalised with Government and the impact, if any, of the restructuring of the electricity industry. Eskom borrowed R1 031 million (1998: R1 870 million) from the domestic and foreign markets during 1999.

### **20. Taxation**

In terms of section 10(1)(cA)(i) of the Income Tax Act, Eskom is exempt from income tax.

### **21. Cash generated by trading operations**

	1999 Rm	1998 Rm
Net operating income	4 541	5 832
Non-cash items	4 265	4 545
Depreciation	3 553	3 268
Amortisation of future fuel coal	157	136
Net profit on disposal of property, plant, equipment and intangible assets	(15)	(77)
Net decommissioning and nuclear waste management provision		
– Nuclear plant	126	98
– Other plant	95	79
Negative goodwill	113	193
Net movement on cross-border lease transactions	(30)	505
Post-retirement medical benefits	277	253
Gratuities	(11)	90
Changes in working capital	8 806	10 377
Inventories	(501)	(148)
Receivables	(360)	(264)
Payables	(377)	(192)
	236	308
	8 305	10 229

# Notes to the annual financial statements

Year ended 31 December

continued

	1999 Rm	1998 Rm
<b>22. Interest received</b>		
Interest income		
Non-cash items	1 261	1 156
	718	4
Interest receivable	407	(135)
Discount amortised	323	141
Other	(12)	(2)
	1 979	1 160
<b>23. Interest paid</b>		
Interest expenditure		
Non-cash items	(3 634)	(4 514)
	(504)	633
Interest accrued	(315)	(88)
Discount amortised	(36)	277
Other	(153)	444
	(4 138)	(3 881)
<b>24. Cash utilised in investment activities</b>		
Expenditure on property, plant and equipment	(4 016)	(4 533)
Expenditure on intangible assets	(94)	(137)
Proceeds from disposals	(4 110)	(4 670)
	83	149
Net expenditure on property, plant, equipment and intangible assets	(4 027)	(4 521)
Future fuel supplies – coal	(170)	(278)
– nuclear	(175)	(63)
Investment in subsidiary, associate and joint-venture companies	(131)	(1 066)
	(4 503)	(5 928)
<b>25. Cash and cash equivalents</b>		
Cash and bank, and money market assets	3 421	3 799
Commercial paper bills	(5 874)	(3 610)
Total cash and cash equivalents at end of the year	(2 453)	189
Total cash and cash equivalents at beginning of the year	189	(754)
Net (decrease)/increase in cash and cash equivalents for the year	(2 642)	943



	1999 Rm	1998 Rm
<b>26. Related-party information</b>		
The aggregate amounts brought to account in respect of the following significant transactions and each class of related party involved were:		
<b>Controlled entities</b>		
<i>Transactions with related parties</i>		
Insurance premiums paid	298	224
Loans advanced to	1 713	2 174
Loan repayments from	1 620	1 114
Purchase of maintenance, transport, construction and other services	571	506
<i>Aggregate amounts receivable on loans to related parties at balance sheet date</i>		
Current	1 733	1 634
Non-current	1 078	1 035
<i>Aggregate amounts payable to related parties at balance sheet date</i>		
Current	-	3
Non-current	332	69
<i>Retained profit for the year includes aggregate amounts attributable to transactions in respect of</i>		
Interest income	381	342
Interest paid	6	5
<b>Associate entities and joint-venture companies</b>		
<i>Transactions with related parties</i>		
Electricity revenue	12	42
The above transactions were made on commercial terms and conditions at market rates.		
The investments in controlled entities, associate and joint-venture companies are set out in schedule 1.		

# Schedule 1: Investment in subsidiary, associate and joint-venture companies

at 31 December

Name	Nature of operation	Issued/ stated capital R	Effective holding		Investment		Indebtedness	
			1999 %	1998 %	1999 Rm	1998 Rm	1999 Rm	1998 Rm
The following unlisted investments are included in investment in subsidiary, associate and joint-venture companies (refer Note 7)								
<b>Subsidiary companies</b>								
Eskom Finance Company (Pty) Limited	Finance (employee housing loans)	4 000	100	100	-	-	2 240	2 138
Escap Limited	Insurance	29 500 000	100	100	30	30	-	-
Gallium Insurance Company Limited	Insurance	4 000 000	100	100	4	4	-	-
Rotek Industries (Pty) Limited	Maintenance and service	4 000	100	100	-	-	226	257
Eskom Enterprises (Pty) Limited	Non-regulated electricity supply industry activities and electricity supply and related services outside the Republic	100	100	-	-	-	26	-
					34	34	2 492	2 395
<b>Total investment in subsidiary companies</b>							2 526	2 429
<b>Associate and joint venture companies</b>								
Gezicor (Pty) Limited <sup>1</sup>	Electricity reticulation	1 000	-	50	-	-	-	-
Phambili Nombane (Pty) Limited	Electricity reticulation	3 000 000	33	33	1	1	-	-
TED (Pty) Limited <sup>1</sup>								
(Transitional Electricity Distributor)	Electricity reticulation	1 000	-	50	-	-	-	-
Uitenhage Electricity Supply Company (Pty) Limited	Electricity reticulation	60 000	33	33	-	-	-	-
Motraco - Mozambique	Management of							
Transmission Company SARL	electricity transmission system and supply of electricity	39 500 000 <sup>2</sup>	33	33	-	-	51	41
Eskom-Shell Solar Home Systems (Pty) Limited	Electrification	100	50	50	-	-	10	2
Trans Africa Projects (Pty) Limited	Construction	4 000	50	50	-	-	-	-
Trans Africa Projects Limited	Construction	100 000 <sup>2</sup>	50	50	-	-	-	-
					1	1	61	43
<b>Total investment in associate and joint-venture companies</b>							62	44

Certain immaterial subsidiaries, associate companies and other investments are not disclosed above.

1. The assets and liabilities of Gezicor (Pty) Limited and TED (Pty) Limited were taken over during the year and the companies will be deregistered.  
2. Authorised capital in US dollar.

### *Unconsolidated subsidiary companies*

Aggregate abridged financial statements

#### **Assets**

##### *Non-current assets*

Property, plant and equipment

Advances

Investments

##### *Current assets*

Amounts due from reinsurers

Inventories

Trade and other receivables

Cash and bank

Total assets

#### **Equity and liabilities**

##### *Capital and reserves*

Non-distributable reserve

Cost of unlisted shares in subsidiary companies

Pre-acquisition reserve

Post-acquisition deficit at beginning of the year

Net profit for the year

##### *Non-current liabilities*

Loans by holding company

Long-term liabilities

Insurance provisions

Deferred taxation

##### *Current liabilities*

Outstanding claims

Trade and other payables

Current portion of long-term loans

Taxation

Bank

Total equity and liabilities

	1999 Rm	1998 Rm
<b>Assets</b>		
<i>Non-current assets</i>	3 072	2 615
Property, plant and equipment	247	233
Advances	2 238	2 178
Investments	587	204
<i>Current assets</i>	854	979
Amounts due from reinsurers	321	286
Inventories	46	56
Trade and other receivables	244	323
Cash and bank	243	314
Total assets	3 926	3 594
<b>Equity and liabilities</b>		
<i>Capital and reserves</i>	59	(50)
Non-distributable reserve	11	5
Cost of unlisted shares in subsidiary companies	34	34
Pre-acquisition reserve	(37)	(37)
Post-acquisition deficit at beginning of the year	(52)	(104)
Net profit for the year	103	52
<i>Non-current liabilities</i>	3 008	2 957
Loans by holding company	2 787	2 655
Long-term liabilities	22	26
Insurance provisions	197	248
Deferred taxation	2	28
<i>Current liabilities</i>	859	687
Outstanding claims	474	388
Trade and other payables	321	279
Current portion of long-term loans	6	6
Taxation	34	-
Bank	24	14
Total equity and liabilities	3 926	3 594



# 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 current value financial statements which are based on guideline AC201, issued by the South African Institute of Chartered Accountants, and also comply with the International Accounting Standard IAS15.

In reflecting on the impacts of inflation, Eskom has adjusted the most significant of these effects by revaluing the property, plant, equipment and intangible assets and charging the related additional depreciation to the income statement. To the extent that further adjustment is necessary, especially as regards the effect of inflation on future fuel supplies and maintenance and consumables inventory 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 AC 201 and in accordance with South African generally accepted accounting practice.

## **Summarised income statement**

Historic cost net profit for the year  
 Inflation adjustments  
     Additional depreciation  
     Cost of sales  
     Gearing adjustment  
 Inflation-adjusted net (loss)/profit for the year

1999 Rm	1998 Rm
2 168	2 474
(3 545)	(3 406)
(4 233)	(4 207)
(227)	(196)
915	997
(1 377)	(932)

### Summarised balance sheet

	Historic	Adjustments	Current value	
	1999 Rm	1999 Rm	1999 Rm	1998 Rm
<b>Assets</b>				
Property, plant, equipment and intangible assets	50 651	46 741	97 392	91 183
Long and short-term financial market investments	13 141	—	13 141	13 762
Other non-current assets	5 645	2 679	8 324	8 022
Other current assets	6 056	10	6 066	5 736
	75 493	49 430	124 923	118 703
<b>Equity and liabilities</b>				
Capital and reserves	28 975	49 430	78 405	71 423
Long and short-term financial market liabilities	37 283	—	37 283	38 424
Long-term provisions	5 240	—	5 240	4 783
Other current liabilities	3 995	—	3 995	4 073
	75 493	49 430	124 923	118 703
<p>prior year adjustment as well as changes to the comparatives have been made to account for the changes in accounting policies as discussed in note 2.</p>				
<b>Ratios<sup>1</sup></b>				
Average production price index, %			5,71	3,53
Return on total assets (after taking account of financial gearing adjustment), %			0,90	2,34
Debt : equity			0,31	0,35
Interest cover			0,42	0,72
Financial gearing adjustment, %			20,52	22,66

<sup>1</sup> Calculated on the basis described in the five-year financial review.

# Tables

## 1. Statistical overview

	1999	1998	1997
<b>Sales</b>			
Total sold, GWh <sup>1</sup>	173 423 <sup>2</sup>	171 454 <sup>2</sup>	172 550 <sup>2</sup>
Growth in GWh sales, %	1,1 <sup>3</sup>	(0,6) <sup>3</sup>	4,3 <sup>3</sup>
<b>Electricity output</b>			
Total electricity for Eskom system (Eskom stations and purchased), GWh <sup>4</sup>	188 475	185 583	187 850
Total produced by Eskom stations, GWh (net)	181 818	183 093	187 811
Coal-fired stations, GWh (net)	165 665	165 473	170 464
Hydroelectric stations, GWh (net)	726	1 595	2 092
Pumped storage stations, GWh (net)	2 590	2 420	2 608
Gas turbine stations, GWh (net)	–	3	–
Nuclear power station, GWh (net)	12 837	13 601	12 647
Total purchased for Eskom system, GWh	6 657	2 490	39
Total consumed by Eskom, GWh <sup>5</sup>	3 507	3 299	3 511
Total available for distribution, GWh <sup>1</sup>	184 968	182 284	184 339
<b>Plant performance</b>			
Total power station nominal capacity, MW	40 585	39 872	39 154
Total power station net maximum capacity, MW <sup>6</sup>	38 517	37 848	37 175
Peak demand on integrated Eskom system, MW	27 813	27 803	28 329
Average energy availability – UCF (after excess capacity), percent <sup>7</sup>	92,5 (93,3)	91,6 (92,5)	90,4 (91,5)
Generation load factor (after excess capacity management), percent <sup>8</sup>	54,9 (61,2)	55,3 (61,6)	57,7 (65,0)
Integrated Eskom system load factor, percent	75,9	74,8	74,3
Coal burnt, thousands of tons	88 470	87 225	90 169
Overall thermal efficiency, percent	34,4	34,2	34,5
Line losses, percent	6,2	5,9	6,4
<b>Employees</b>			
Total number at 31 December <sup>9</sup>	34 027	37 311	39 241
GWh sold per employee	5,097	4,595	4,397
<b>Sales to countries in southern Africa, GWh</b>			
Transmission international	3 128	3 197	5 513
Botswana	934	689	748
Mozambique	68	385	680
Namibia	562	602	1 295
Zimbabwe	1 564	1 521	2 790
<b>Distribution international</b>			
Lesotho <sup>10</sup>	55	209	318
Swaziland	701	687	608
	3 884	4 093	6 439

1. Difference between electricity available for distribution and electricity sold (includes internal sales) is due to transmission and other losses.
2. Includes sales in respect of Department of Water Affairs and Forestry (DWAF) not stated in previous years.
3. 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 9. Since 1993, energy consumption for water pumped for DWAF has been excluded from this total.
6. Includes reserve stored and Transkei generators.
7. Capacity hours available x 100/total capacity hours in year.
8. kWh produced x 100/(average net maximum capacity x hours in year).
9. Excludes employees of subsidiary companies.
10. Lesotho started its own generation in 1999.



	1995	1994	1993	1992	1991	1990
1996						
70 <sup>2</sup>	153 547 <sup>2</sup>	149 443	143 800	138 126	138 687	136 168
7,7 <sup>3</sup>	2,7	3,9	4,1	(0,4)	1,8	1,4
84	165 006	160 351	154 361	148 556	148 934	146 320
55	164 834	160 293	154 260	148 207	148 671	146 047
41	151 730	148 003	145 514	136 830	135 743	134 744
19	529	1 074	146	752	1 980	1 010
20	1 274	1 517	1 345	1 333	1 804	1 841
-	-	2	-	4	-	3
75	11 301	9 697	7 255	9 288	9 144	8 449
29	172	58	101	349	263	273
30	1 866	2 113	1 898	2 295	2 933	2 953
54	163 140	158 238	152 463	146 261	146 001	143 367
97	37 840	37 840	39 746	39 060	38 396	35 673
33	35 951	35 926	37 636	36 846	36 228	33 843
37	25 133	24 798	23 169	22 640	22 342	21 863
6)	81,6 (84,3)	77,1 (79,9)	80,5 (81,7)	76,7	76,1	75,0
9)	52,3 (59,0)	50,9 (58,3)	46,8 (56,4)	46,9 (54,6)	49,8 (58,5)	50,5 (57,3)
5	74,1	72,8	75,1	73,5	74,6	74,9
01	79 377	76 883	75 926	71 038	70 523	70 861
5	34,4	34,4	34,4	34,2	34,3	33,7
9	5,9	5,6	5,7	5,6	5,0	5,0
7	39 952	39 760	40 128	42 223	46 637	50 000
9	3,843	3,759	3,584	3,271	2,974	2,723
8	2 044	1 741	1 779	1 007	1 318	1 005
5	340	205	121	100	106	84
6	600	559	510	436	383	322
0	950	813	999	457	823	586
7	154	164	149	14	6	13
6	942	887	811	808	562	602
5	324	310	281	241	206	192
1	618	577	530	567	356	410
4	2 986	2 628	2 590	1 815	1 880	1 607



# Tables

continued

## 2. Power stations in commission at 31 December 1999

Name of station	Location	Number and capacity of generator sets MW	Total nominal capacity MW <sup>1</sup>	Total net maximum capacity MW <sup>1</sup>	Generators in reserve storage		Other generation Total rating MW <sup>2</sup>
					Number	Total rating MW	
<b>Coal-fired stations</b>							
Arnot <sup>3</sup>	Middelburg, Mpumalanga	6 x 350	2 100	1 650	1	330	—
Camden <sup>4</sup>	Ermelo	8 x 200	1 600	—	8	1 520	—
Duvha <sup>5</sup>	Witbank	6 x 600	3 600	3 450	—	—	—
Grootvlei <sup>4</sup>	Balfour	6 x 200	1 200	—	6	1 130	—
Hendrina <sup>3</sup>	Hendrina	10 x 200	2 000	1 900	—	—	—
Kendal <sup>3, 5</sup>	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 <sup>3</sup>	Sasolburg	6 x 618	3 708	3 558	—	—	—
Majuba <sup>6</sup>	Volksrust	3 x 657; 1 x 713	2 684	2 505	—	—	—
Matimba <sup>3, 5</sup>	Ellisras	6 x 665	3 990	3 690	—	—	—
Matla <sup>3</sup>	Bethal	6 x 600	3 600	3 450	—	—	—
Tutuka <sup>3</sup>	Standerton	6 x 609	3 654	3 510	—	—	—
Subtotal coal-fired stations (13)			36 252	30 403	24	3 871	—
<b>Gas turbine stations<sup>7</sup></b>							
Acacia	Cape Town	3 x 57	171	171	—	—	—
Port Rex	East London	3 x 57	171	171	—	—	—
Subtotal gas turbine stations (2)			342	342	—	—	—
<b>Hydroelectric stations</b>							
Colley Wobbles	Mbashe River	3 x 14	42	—	—	—	42
First Falls	Umtata River	2 x 3	6	—	—	—	6
Gariep <sup>8</sup>	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 <sup>9</sup>	Petrusville	2 x 120	240	240	—	—	—
Subtotal hydroelectric stations (6)			661	600	—	—	61
<b>Pumped storage schemes<sup>9</sup></b>							
Drakensberg	Bergville	4 x 250	1 000	1 000	—	—	—
Palmiet	Grabouw	2 x 200	400	400	—	—	—
Subtotal pumped storage schemes (2)			1 400	1 400	—	—	—
<b>Nuclear power station</b>							
Koeberg <sup>3</sup>	Cape Town	2 x 965	1 930	1 840	—	—	—
<b>Total Eskom stations in commission (24)</b>			<b>40 585</b>	<b>34 585</b>	<b>24</b>	<b>3 871</b>	<b>61</b>

1. Difference between nominal and net maximum capacity reflects auxiliary power consumption and reduced capacity caused by age of plant and/or low coal quality.

2. Operational but not included for capacity management purposes.

3. Base-load station.

4. In long-term reserve storage (mothballed).

5. Dry-cooled unit specifications are based on design back-pressure and ambient air temperature.

6. Unit 4 commissioned in April 1999 and Unit 5 to be commissioned in April 2000.

7. Stations used for peaking or emergency supplies.

8. Use restricted to peaking, emergencies and availability of water in Gariep and Vanderkloof dams.

9. 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. Generating sets on order at 31 December 1999

Name, type and location of power station	Number and nominal capacity of sets MW	Net max. capacity of sets MW	Total nominal capacity of station MW	Total net max. capacity of station MW	Number of sets in service (on order)	Total nominal capacity of sets on order MW	Total net max. capacity of sets on order MW	Year of completion first (last) set <sup>1</sup>
Majuba, coal-fired								
Volkstrust	2 x 713	2 x 669	4 110	3 843	4(2)	1 426	1 338	1996(2001)
<b>Total generating sets on order</b>						<b>1 426</b>	<b>1 338</b>	

1. Dates on which sets on order will be put into commercial service may change, depending on growth in electricity demand.

### 4. Transmission and distribution equipment in service at 31 December 1999

		1999	1998	Change
Main transmission system, km	765 kV	870	870	-
	533 kV DC (monopolar)	1 031	1 035	(4)
	400 kV	15 039	15 187	(148)
	275 kV	7 298	7 409	(111)
	220 kV	1 239	1 239	-
	132 kV	984	703	281
<b>Total transmission lines, km<sup>1</sup></b>		<b>26 461</b>	<b>26 443</b>	<b>18</b>
Distribution lines, km	165 - 132 kV	19 884	19 583	301
	88 - 33 kV	20 822	20 816	6
<b>Total distribution lines, km</b>		<b>40 706</b>	<b>40 399</b>	<b>307</b>
Reticulation lines, km	22 kV and lower	227 158	214 168	12 990
<b>Total all lines, km</b>		<b>294 325</b>	<b>281 010</b>	<b>13 315</b>
Cables, km	165 - 132 kV	48	47	1
	88 - 33 kV	243	243	-
	22 kV and lower	6 172	6 172	-
<b>Total all cables, km</b>		<b>6 463</b>	<b>6 462</b>	<b>1</b>
Transformers	Transmission, MVA <sup>2</sup>	126 090	126 090	-
	Distribution and reticulation, MVA	76 835	75 063	1 772
<b>Total transformer capacity, MVA</b>		<b>202 925</b>	<b>201 153</b>	<b>1 772</b>
Transformers	Transmission, number	2 539	2 539	-
	Distribution and reticulation, number	253 527	244 162	9 365
<b>Total transformers, number</b>		<b>256 066</b>	<b>246 701</b>	<b>9 365</b>

1. Transmission line lengths as per GIS (Geographic Information System) distances.  
 2. Base of definition: transformers rated >30 MVA and primary voltage >132 kV.



# Tables

continued

## 5. Sales of electricity to categories of customers

Category	Number of customers		Change 98 - 99 %	GWh sold		Change 98 - 99 %
	1999	1998		1999	1998	
Redistributors	789	736	7,2	70 345	68 666	2,4
Residential	2 668 507	2 376 069	12,3	6 057	5 989	1,1
Commercial	32 524	27 273	19,3	768	801	(4,1)
Industrial	9 610	10 354	(7,2)	54 240	53 683	1,0
Mining	1 121	750	49,5	31 505	31 645	(0,4)
Rural	142 958	148 369	(3,6)	3 890	3 725	4,4
Traction	12	40	(70,0)	3 180	3 439	(7,5)
Transmission international <sup>1</sup>	4	4	-	3 128	3 197	(2,2)
Own usage	319	61	423,0	309	309	-
	2 855 844	2 563 656	11,4	173 422	171 454	1,1 <sup>2</sup>

1. Transmission international category comprises the national power utilities in Botswana, Mozambique, Namibia and Zimbabwe.  
2. The GWh sold growth from 1998 to 1999 is also 1,1% if own usage is excluded.

## 6. Net revenue per category of customer

Category	Net revenue Rm		Change 98 - 99 %	Average net price c/kWh sold		Change 98 - 99 %
	1999	1998		1999	1998	
Redistributors	8 333	7 986	4,3	11,85	11,63	1,9
Residential <sup>1</sup>	1 536	1 362	12,8	25,36	22,74	11,5
Commercial	171	151	13,2	22,27	18,85	18,1
Industrial	5 727	5 914	(3,2)	10,56	11,02	(4,2)
Mining	3 972	3 866	2,7	12,61	12,22	3,2
Rural	1 034	984	5,1	26,58	26,42	0,6
Traction	483	512	(5,7)	15,19	14,90	2,0
Transmission international <sup>2</sup>	267	257	3,9	8,54	8,04	6,2
Own usage	45	42	7,4	14,56	13,56	7,4
	21 568	21 074	2,3	12,44	12,29	1,2 <sup>3</sup>

1. Prepayments included under Residential.

2. Transmission international category comprises the national power utilities in Botswana, Mozambique, Namibia and Zimbabwe.

3. General price increase with effect from 1 January 1999 equal to 4,5%.

## 7. Analysis of registered holders of Eskom locally issued bonds at 31 December

	% of issued nominal value	
	1999	1998
Insurance companies, pension and provident funds	1	1
Corporate bodies	1	1
Nominee companies	87	86
Private individuals	11	12
	100	100

# International comparisons

## Major electricity utilities in the world

Utility	Country	Sales GWh	Rating by sales	Nominal capacity MW	Rating by capacity
EDF	France	383 700	1	102 000	1
TEPCO	Japan	267 047	2	56 874	2
ENEL	Italy	211 455	3	53 986	3
Korea Electric Power Co	S Korea	193 470	4	41 042	4
Eskom	S Africa	173 422	5	40 585	5
Hydro-Quebec	Canada	162 533	6	31 397	8
Ontario Hydro	Canada	139 727	7	30 284	9
TVA	USA	139 697	8	28 147	10
Kansai Electric Power Co	Japan	138 817	9	37 776	6
Texas Utilities Electric	USA	131 640	10	21 640	13
RWE	Germany	124 308	11	20 460	14
Taiwan Power Co	Taiwan	118 299	12	25 735	11
Chubu Electric Power Co	Japan	118 168	13	31 769	7
Consolidated Edison	USA	91 275	14	24 996	12
Florida Power & Light Co	USA	89 362	15	18 509	15

All data for the year ended 31 December 1999, except for the following:

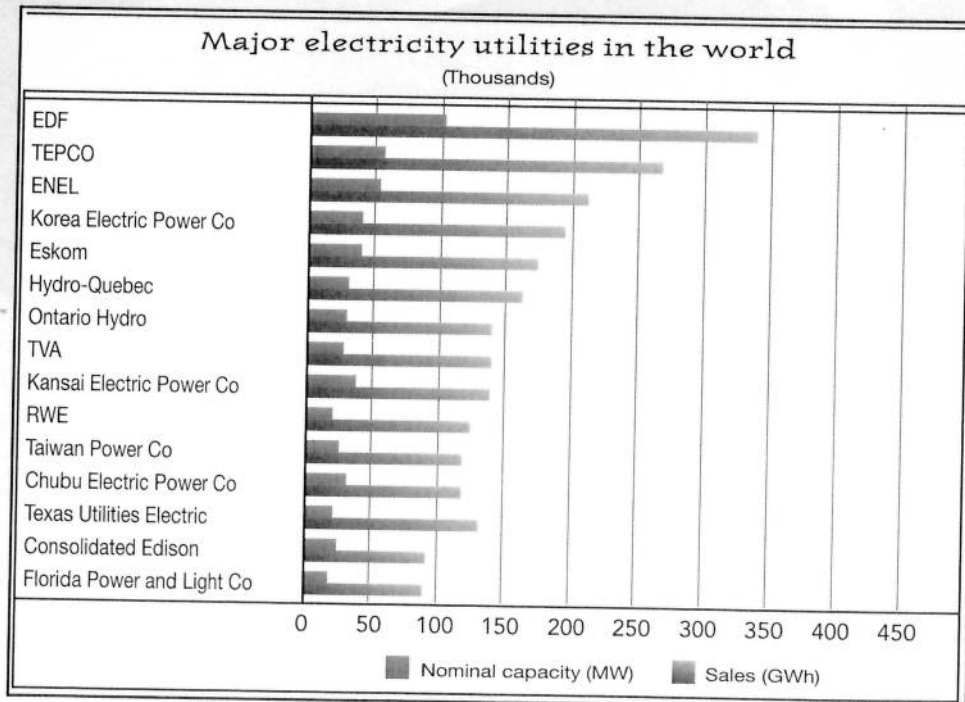
EDF December 1998

ENEL December 1995

TVA September 1997

RWE June 1996

Taiwan June 1997



# Southern African grid



### RSA supply options

- Coal (PF, FBC, IGCC)
- Nuclear (PBMR)
- Hydro/Pumped storage
- Gas (Mossgas)
- MSW, LGF
- Solar
- Wind
- Co-gen/Syngas/Ref

### Legend

- Existing grid system
- - - Possible future grid system
- - - International boundaries
- Hydroelectric power station
- Thermal power station
- ◆ Interconnecting substation
- Nuclear power station

Power Pool and generation expansion 2001-2011