PROFILE OF ESKOM

MISSION

Provide the means by which customers' electricity needs are satisfied in the most cost-effective way subject to resource constraints and the national interest.

STRATEGY

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

PHILOSOPHY

• Customer focus • Superior performance • Respect

Eskom, South Africa's national electricity utility, supplies more than half the total electricity consumed on the African continent, and is one of the world's top five electricity utilities in terms of sales volume. At the end of 1992, it had total assets of R42,5 billion, turnover for the year was R12,6 billion and net income was R1,5 billion.

Eskom is an independent, self-financing undertaking managed on business principles for the benefit of consumers. It has no shareholders, is a separate legal entity, and is funded entirely from debt and accumulated reserves. It is divided into functional groups and business units, which ensures functional and geographic decentralisation.

Eskom operates under the Eskom Act of 1987 and the Electricity Act of 1987. The utility's policies are determined by the Electricity Council, which consists of representatives of consumers' interests and independent experts. The Management Board is the executive body responsible for the day-to-day running of Eskom and is appointed by the Council.

Eskom's 25 power stations have a nominal capacity of 39 060 megawatts (MW). They include the only nuclear power station in Africa and the world's largest dry-cooled power stations. It is also a recognised authority on the use of coal of an extremely low grade for power generation.

The total network comprises 233 109 kilometres (km) of power lines, operating at voltages as high as 765 kilovolts (kV). Electricity is distributed country-wide and is exported to all neighbouring countries. Eskom imports power from Namibia when available.

Industry and commerce use 50% of the electricity generated in South Africa, mines 25%, households 16%, the railway system 4%, and other 5%.

Eskom supplies most mines and many industrial users direct whilst 46% of its electricity is sold to local authorities and neighbouring countries who re-sell it to end-users. On request from some local authorities and communities, Eskom's direct supply to households and small businesses is increasing.

Approximately two thirds of South Africa's population does not have electricity at home. Eskom's marketing thrust is towards bringing electricity, where appropriate and cost effective, to households and other consumers which are still using other energy sources.

Eskom affords equal opportunities to all its employees. Merit is the decisive factor in advancement and remuneration. All employees are encouraged to develop their potential through education and training. Special efforts are made in uplifting disadvantaged individuals in order to enhance their contribution within the organisation and society at large.

Eskom is committed to being an efficient and effective organisation to make electricity available to its customers at the lowest possible price. It is also committed to making electricity available to all in South Africa who want it and can afford it, and to supporting a regional transmission grid to encourage cooperation and accelerate economic growth in the subcontinent.

HIGHLIGHTS OF THE YEAR

	1992	1991	% Change 1991–92	% Average yearly change 1988–92
FINANCIAL				
Turnover, R million	**12 649**	11 726	7,9	12,4
Net income, R million	**1 489**	1 002	48,6	16,2
Fixed assets in commission, at cost, R million	**42 688**	39 990	6,7	10,8
Works under construction[1], R million	**3 115**	3 668	−15,1	−12,5
Net capital expenditure, R million	**3 611**	3 335	8,3	−1,5
Net interest-bearing debt, R million	**27 616**	27 266	1,3	5,2
Average price per kWh sold, cents	**9,16**	8,46	8,3	9,8
Average cost of coal burnt, rand per ton	**27,47**	25,70	6,9	9,9
OPERATIONS				
Electricity sold, GWh	**138 126**	138 687	−0,4	2,4
Coal burnt in power stations, Mt	**71,0**	70,5	0,7	1,5
Water consumed by power stations, Mℓ	**226 240**	237 660	−4,8	−3,8
Peak demand on integrated system, MW	**22 640**	22 342	1,3	2,5
	(08.07.92)	(21.06.91)		
ASSETS IN COMMISSION				
at 31 December				
Nominal capacity, MW	**39 060**	38 396	1,7	4,6
Net maximum capacity, MW	**36 846**	36 228	1,7	4,5
Power lines, km	**233 109**	226 817	2,8	4,5
STAFF EMPLOYED				
at 31 December, number	**44 166**[2]	46 637	−5,3	−4,9

1. Includes construction materials.
2. Includes 1 943 employees of Rotek Industries (Pty) Ltd.

IN 1992

ELECTRIFICATION

- Almost one million more people get electricity
- Eskom is now the largest electricity retailer in South Africa
- We have 260 electrification projects under way
- Eskom receives a National Productivity Institute gold award for Molopo electrification project

BUSINESS EFFICIENCY

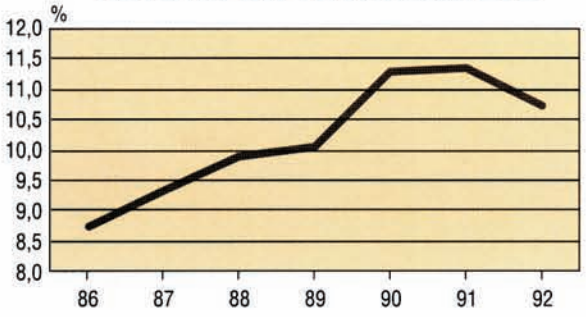
- Real price of electricity reduced by 4,9%
- Debt equity ratio improves from 2,49 in 1991 to 2,21
- Eskom's treasury recognised as one of the top ten international risk managers
- Eskom returns to international market with DM300 million Eurobond issue
- Generating plant performance improves further

HARMONISATION

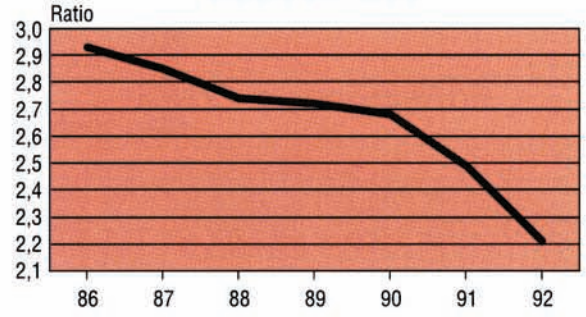
- Eskom opens up new channels of communication with its employees and their representatives
- Eskom is poised to play a role in Africa
- Eskom receives Professional Marketing Review's Corporate Care Award for Environmental Performance

1. Portion of investing activities funded by net cash flow from operating activities.

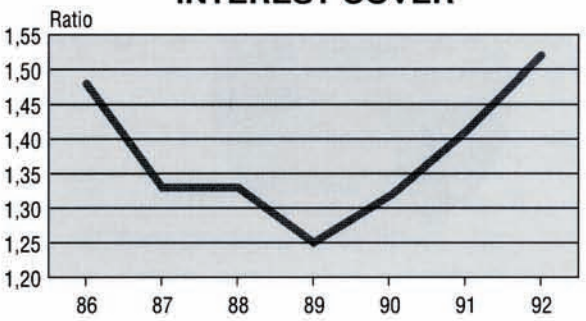
RETURN ON TOTAL ASSETS



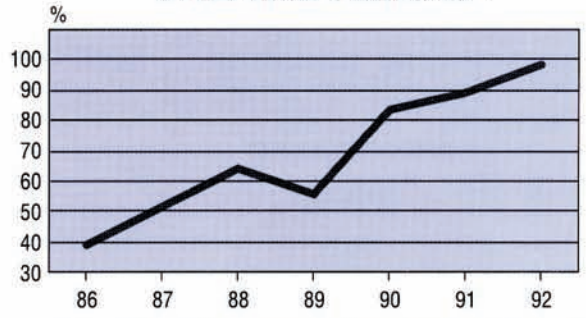
DEBT EQUITY



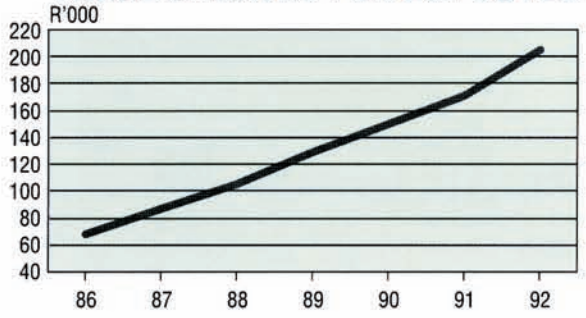
INTEREST COVER



INTERNAL FUNDING [1]



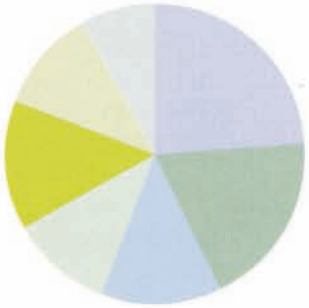
VALUE CREATED PER EMPLOYEE



AT A GLANCE
continued

1992

TURNOVER

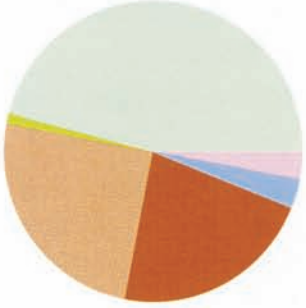


Net interest and finance charges 24%	R2 987 m
Primary energy 19%	R2 376 m
Administration 12%	R1 577 m
Maintenance 12%	R1 493 m
Depreciation 14%	R1 762 m
Reinvested in business 11%	R1 489 m
Other 8%	R965 m

REVENUE PER CATEGORY
(Excluding own use)

Bulk 45%	R5 673 m
Traction 4%	R444 m
Rural/farming 5%	R692 m
Mining 22%	R2 711 m
Industrial/commercial 22%	R2 841 m
Domestic 2%	R245 m

SALES PER CATEGORY
(Excluding own use)

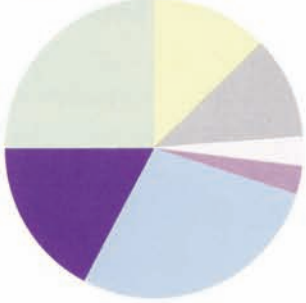


Bulk 46%	63 193 GWh
Traction 3%	3 568 GWh
Rural/farming 3%	4 038 GWh
Mining 22%	30 840 GWh
Industrial/commercial 25%	34 413 GWh
Domestic 1%	1 604 GWh

MINING SALES

Platinum 9%	2 696 GWh
Coal 8%	2 383 GWh
Other mining 4%	1 308 GWh
Copper 4%	1 208 GWh
Diamonds 3%	993 GWh
Gold and uranium 72%	22 252 GWh

MANUFACTURING INDUSTRY AND AGRICULTURE

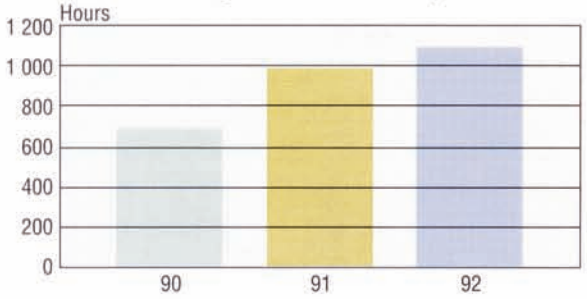


Other manufacturing 13%	4 907 GWh
Agriculture 11%	4 038 GWh
Non-metallic 3%	982 GWh
Paper, etc. 3%	1 267 GWh
Iron and steel 28%	10 885 GWh
Non-ferrous 17%	6 669 GWh
Chemicals and plastic 25%	9 703 GWh

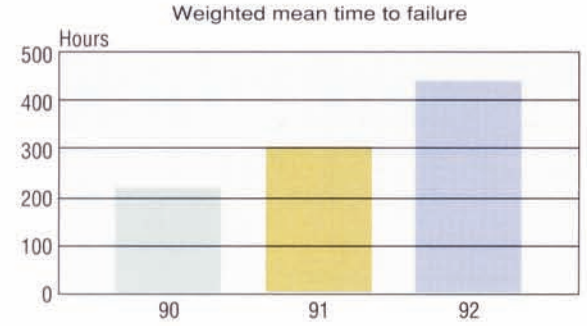
AT A GLANCE
continued

PLANT RELIABILITY

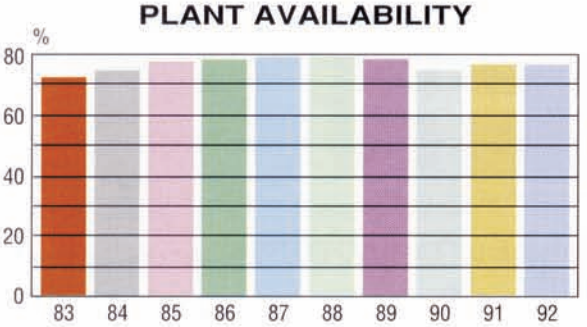
Weighted mean time to trip



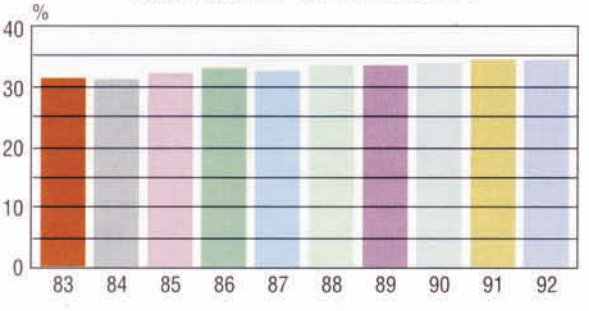
Weighted mean time to failure



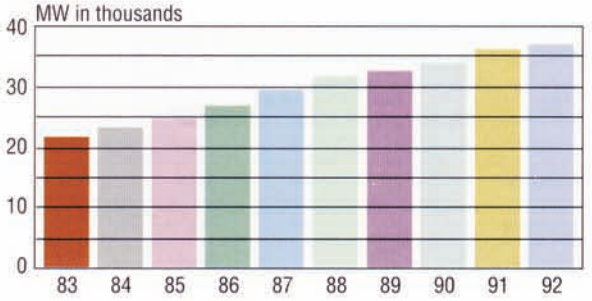
PLANT AVAILABILITY



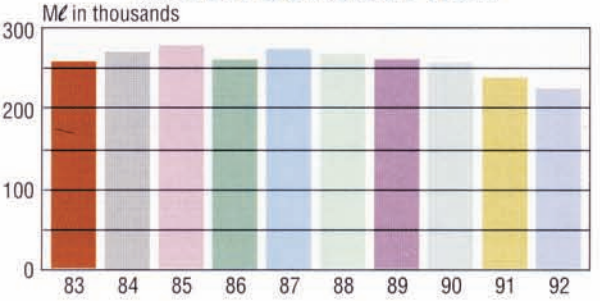
THERMAL EFFICIENCY



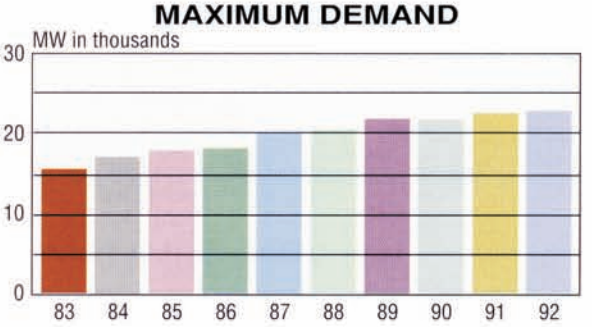
NET MAXIMUM CAPACITY



WATER CONSUMPTION

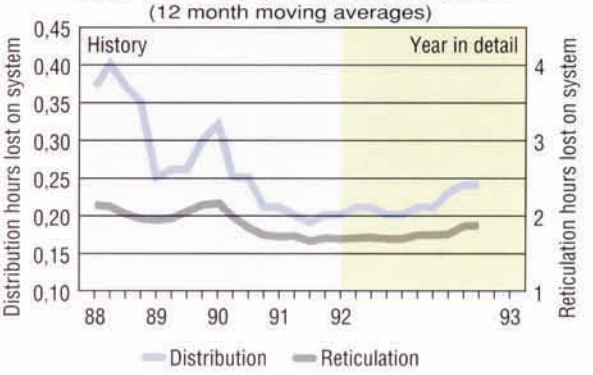


MAXIMUM DEMAND



SUPPLY LOSS INDICATORS

(12 month moving averages)



MAJOR ELECTRICITY UTILITIES IN THE WORLD

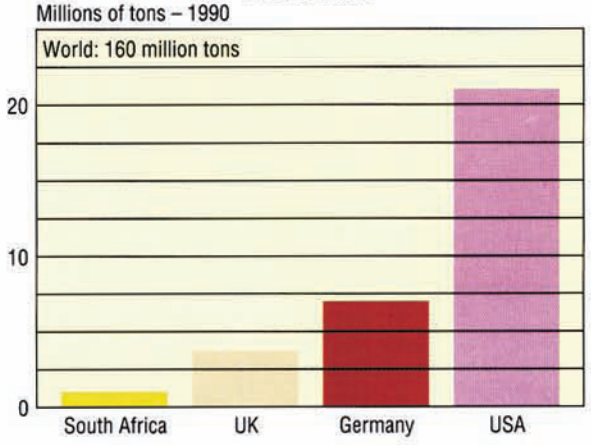
Source: Tokyo Electric Power Company Statistical Review – September 1991

Utility	Country	Sales GWh	Rating	Nominal capacity, MW	Rating
EDF	France	312 100	1	93 290	1
Tepco[1]	Japan	219 942	2	46 550	3
ENEL[2]	Italy	182 399	3	47 293	2
Eskom	South Africa	136 168	4	35 673	4
Hydro-Quebec	Canada	135 237	5	25 682	10
Ontario Hydro	Canada	130 875	6	31 150	7
National Power[1]	United Kingdom	121 800	7	28 300	8
RWE[3]	Germany	121 698	8	26 059	9
Kansai Electric Power Co[1]	Japan	120 585	9	31 378	6
TVA	USA	116 483	10	32 110	5

All data for the year ended 31 December 1990, except for the year ended as follows:
[1] 31 March 1991 [2] 31 December 1989 [3] 30 June 1990

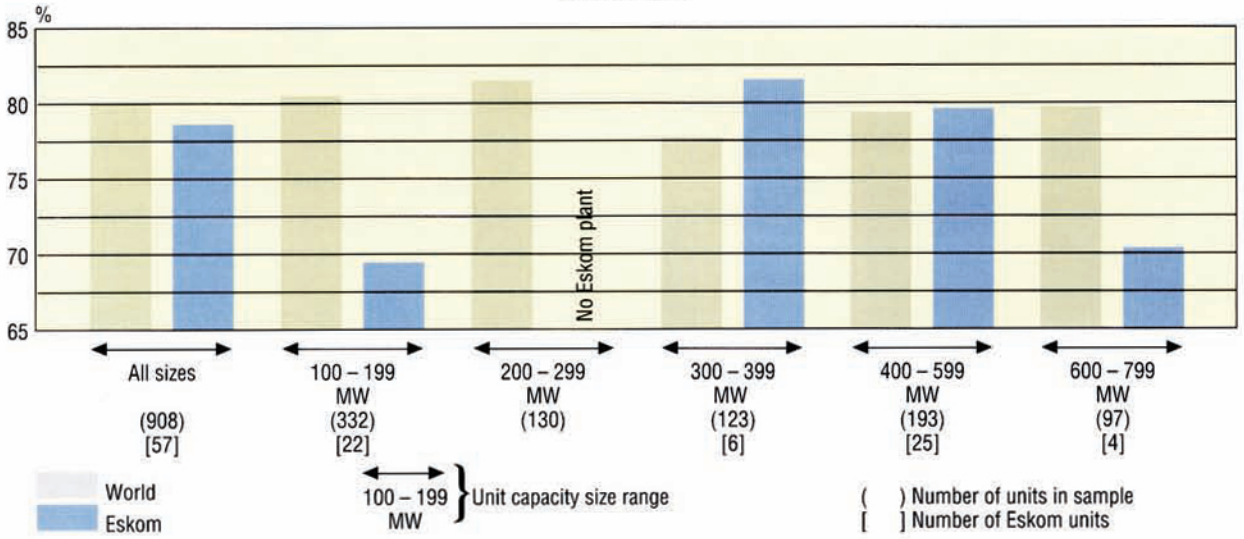
TOTAL MAN-MADE EMISSIONS

Sulphur dioxide
Source: Eskom



COAL-FIRED PLANT AVAILABILITY FACTORS

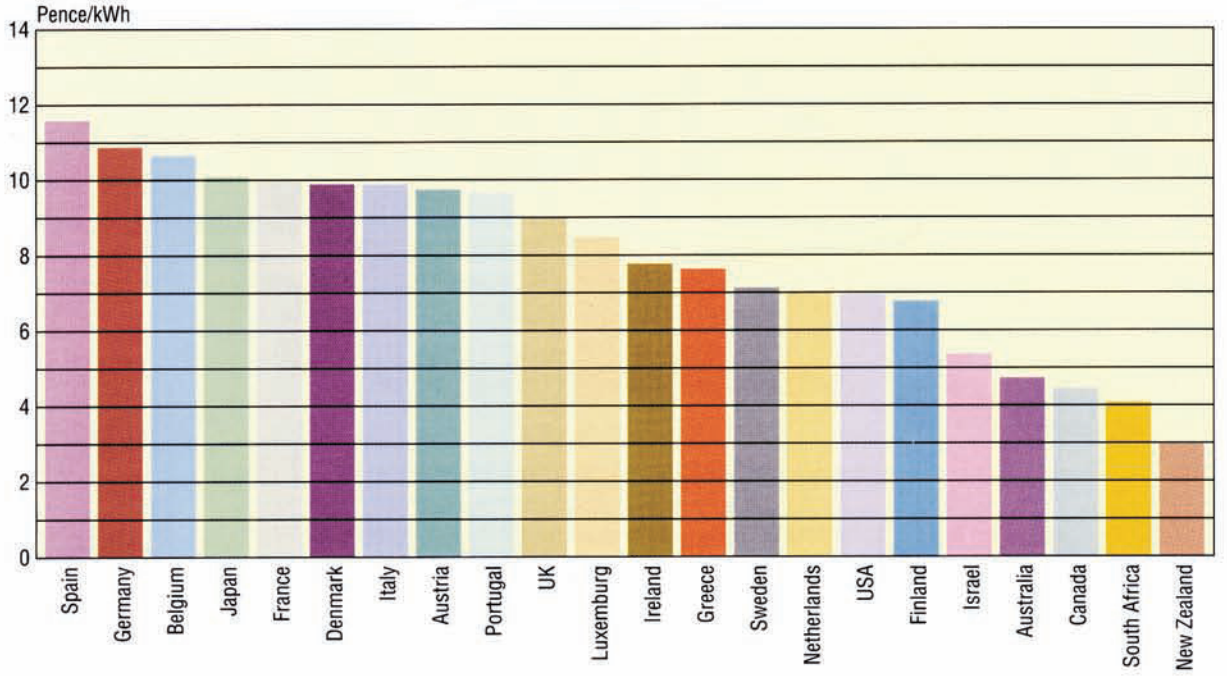
1986 – 1990
Source: Eskom



INTERNATIONAL COMPARISONS
continued

DOMESTIC ELECTRICITY PRICES

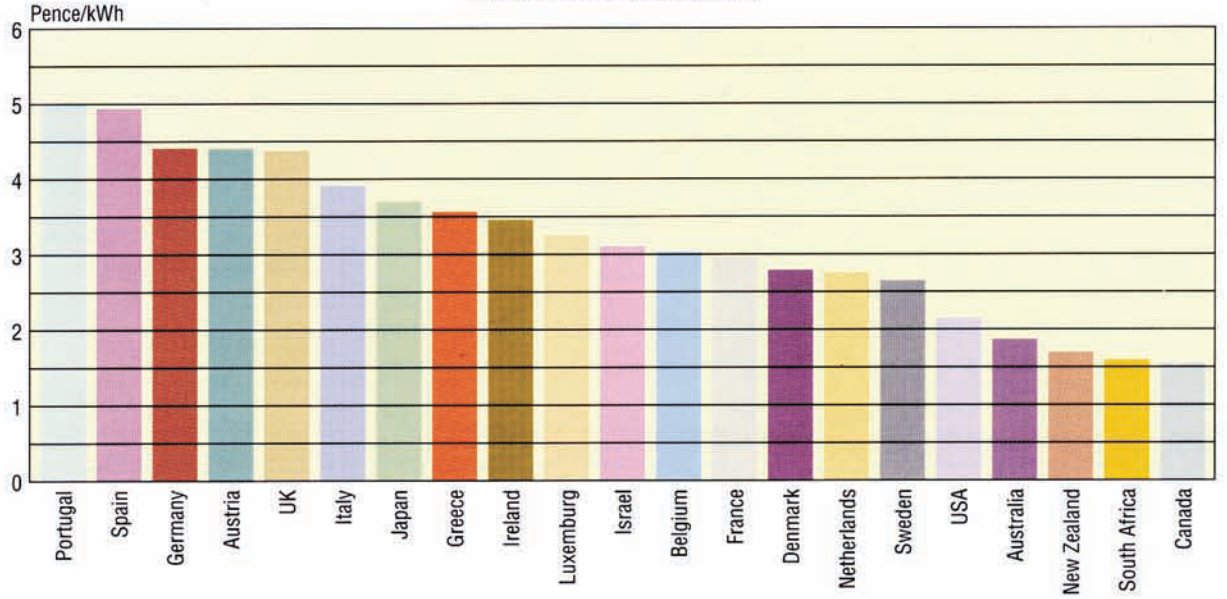
Source: Electricity Association (UK)



Price per kWh (converted using 31 December 1991 exchange rates), including local taxes and VAT, from a representative utility in each country for a customer on standard domestic tariff using 3 300 kWh/year, as at 1January 1992.

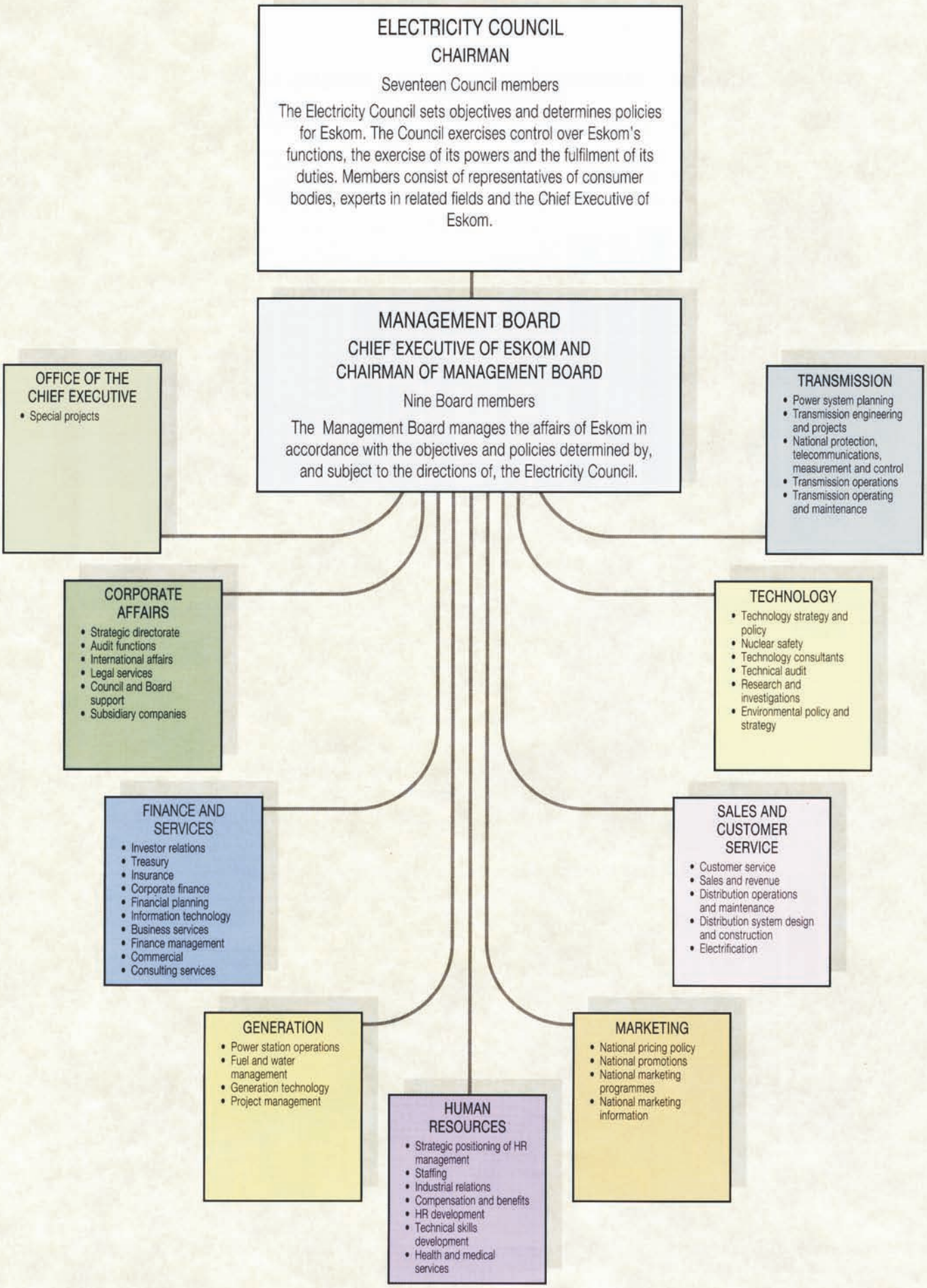
INDUSTRIAL ELECTRICITY PRICES

Source: Electricity Association (UK)



Price per kWh (converted using 31 December 1991 exchange rates), including local taxes but excluding recoverable VAT, from a representative utility in each country for a typical 10 MW, 80% load factor supply, as at 1 January 1992.

ORGANISATIONAL STRUCTURE



ELECTRICITY COUNCIL

DR J. B. MAREE OMSG SSAS (68)[5]

Chairman

Member of the State President's Economic Advisory Board and its Executive Commitee. Appointed to the Electricity Council in 1985.

G. P. CROESER (55)[1, 3]

Director general of the Department of Finance. Appointed to the Electricity Council in 1989.

DR J. W. L. DE VILLIERS OMSG (63)[4]

Chairman of the Atomic Energy Corporation. Appointed to the Electricity Council in 1985.

A. B. DICKMAN (62)[1, 3, 5]

Honorary professor of Economics at the Wits Business School. Appointed to the Electricity Council in 1985.

PROF. C. R. DLAMINI (41)[4]

Registrar Academic at the University of Zululand. Appointed to the Electricity Council in 1990.

DR D. KONAR (38)[1, 3]

Director of The Independent Development Trust. Appointed to the Electricity Council in 1985.

PROF. I. J. LAMBRECHTS (50)[1, 2, 3]

Professor of Business Economics at the University of Stellenbosch. Appointed to the Electricity Council in 1985.

B. J. LESSING (56)[4]

Chief executive of Spoornet. Appointed to the Electricity Council in 1988.

J. A. LOUBSER (61)[2, 4]

City electrical engineer of Benoni. Appointed to the Electricity Council in 1990.

F. J. MALAN (64)[2]

Chairman of the SA Agricultural Union's Electricity Committee. Appointed to the Electricity Council in 1985.

DR I. C. McRAE (63)[1, 2, 3, 4, 5]

Chief executive of Eskom and chairman of the Management Board. Appointed to the Electricity Council in 1985.

D. B. MOSTERT (55)[2, 5]

Group chief executive of Dorbyl. Appointed to the Electricity Council in 1990.

A. S. NKONYENI (56)

Vice-chairman of African Bank Limited. Appointed to the Electricity Council in 1991.

A. A. SEALEY (60)[2, 5]

Deputy chairman of Rand Mines Limited. Appointed to the Electricity Council in 1988.

DR V. E. SOLOMON (64)[1, 3]

(Alternate member to G.P. Croeser)

Chief director of Monetary Affairs. Appointed to the Electricity Council as alternate member in 1991.

DR G. P. N. VENTER (49)

Chief director in Department of Mineral and Energy Affairs. Appointed to the Electricity Council in 1992.

PROF. H. C. VILJOEN (55)[5]

Dean of the Faculty of Engineering at the University of Stellenbosch. Appointed to the Electricity Council in 1986.

R. C. WEBB (62)[2]

Director of companies. Appointed to the Electricity Council in 1985.

PROF. J. L. WEYERS (62)[2]

Vice-principal, Planning at Unisa. Appointed to the Electricity Council in 1986.

---

[1] on Audit Committee
[2] on Tariff and Marketing Committee
[3] on Accounts and Finance Committee
[4] on Tender Committee
[5] on Personnel and Remuneration Committee
[6] Executive director: Sales and Customer Service until October 1992

MANAGEMENT BOARD

DR I. C. McRAE (63)

Chairman

Chief executive of Eskom. Joined Eskom in 1947. Appointed to the Management Board in 1985.

B. T. CROOKES (43)

Executive director: Transmission. Joined Eskom in 1969. Appointed to the Management Board in 1991.

M. L. DAVIS (35)

Executive director: Finance and Services. Joined Eskom in 1986. Appointed to the Management Board in 1988.

R. A. FORBES (60)[6]

Executive director: Office of the Chief Executive. Joined Eskom in 1949. Appointed to the Management Board in 1985.

A. J. HAM (55)

Executive director: Technology. Joined Eskom in 1966. Appointed to the Management Board in 1987.

DR G. F. LINDEQUE (51)

Executive director: Human Resources. Joined Eskom in 1975. Appointed to the Management Board in 1987.

L. J. MESSERSCHMIDT (48)

Executive director: Marketing. Joined Eskom in 1967. Appointed to the Management Board in 1990.

A. J. MORGAN (45)

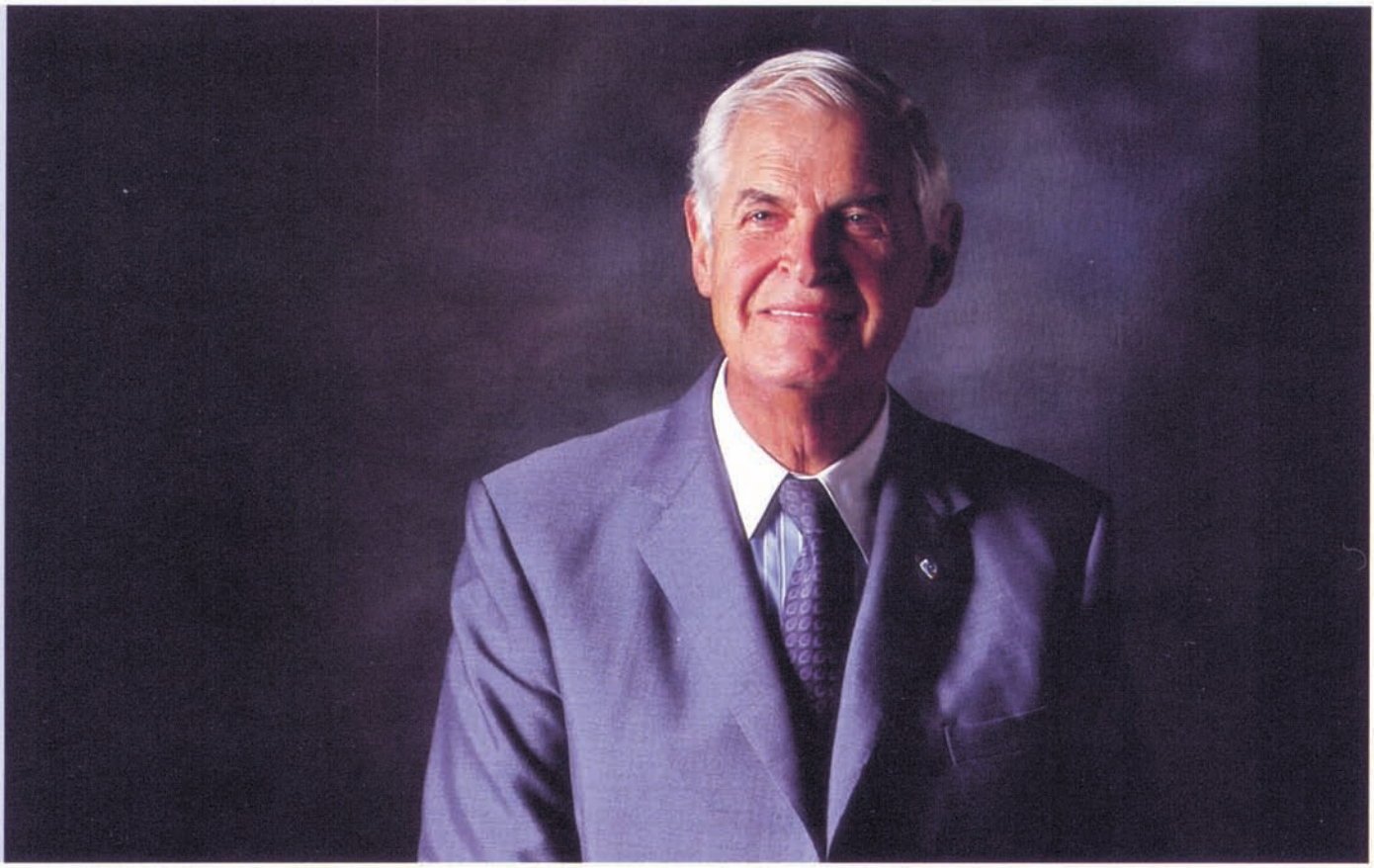
Executive director: Sales and Customer Service. Joined Eskom in 1971. Appointed to the Management Board in 1992.

P. M. SEMARK (48)

Executive director: Corporate Affairs. Joined Eskom in 1972. Appointed to the Management Board in 1987.

J. P. VAN DEN BERGH (46)

Executive director: Generation. Joined Eskom in 1970. Appointed to the Management Board in 1988.



"BIG ORGANISATIONS HAVE THREE CHALLENGES TO MEET. FIRSTLY, THEY HAVE TO BE AS EFFICIENT AND PRODUCTIVE AS THEIR INTERNATIONAL COUNTERPARTS. SECONDLY, THEY HAVE TO HAVE CAPABLE PEOPLE TO SHOULDER THE MANAGERIAL AND THE TECHNICAL TASKS. THIRDLY, THEY NEED TO HAVE RELEVANCE TO OUR SOCIETY. ESKOM MEETS ALL THREE CHALLENGES: IT IS A SOUND, WORLD-CLASS ORGANISATION; IT HAS A CONSIDERABLE TECHNICAL AND MANAGERIAL DEPTH AND IS CONSTANTLY STRENGTHENING ITS TALENT; FINALLY, IT IS IMPORTANT TO SOUTH AFRICA AND ITS FUTURE, AND THROUGH ITS PRODUCT AND ITS ACTIVITIES FORMS AN INTEGRAL PART OF THE COMMUNITIES IT SERVES"

CHAIRMAN'S REVIEW

Eskom had another year of solid performance and progress despite the fact that, in common with other organisations, it operated in difficult social, political and economic circumstances. As electricity sales are closely linked to the performance of the economy, the continued decline in the Gross Domestic Product left its mark.

The 1992 economic growth was approximately minus 2%, and the volume of electricity sold was almost 0,5% less than in the previous year. The turnover of R12 649 million was R923 million more than in 1991. Close attention to expense control, coupled with effective cash and risk management, ensured that an improved net income of R1 489 million was achieved.

During the year R3 611 million was incurred on net capital expenditure. Most of this was financed from internal cash flow and as a result the balance sheet continued to strengthen. In 1992 the debt equity ratio improved from 2,49 to 2,21.

As favourable conditions existed in the local capital market we were able to satisfy our loan requirements without any difficulty. By placing DM300 million five-year bonds we successfully floated our first public bond issue in the international capital market since 1985. Although we intend re-establishing our reputation in the international market as one of the most reliable issuers of bonds, an important consideration in our strategy is the relative cost of funds in the local and overseas markets. Further issues will thus only be undertaken as and when conditions are favourable.

Adjustments were made to the organisational structure and while certain facets of the new structure took a little time to settle down, it is now fully operative and we are already seeing higher efficiencies as a result.

Substantial progress was again made in achieving our three goals of supplying high-quality electricity at the lowest possible price, electrifying an increasing number of homes and keeping our business on a sound financial footing.

It is an urgent and important need for South Africa to have a healthy and growing economy. Our contribution continues to lie in, on the one hand, supporting consumers by means of low electricity prices as this helps them to be more efficient and more competitive on international markets and, on the other, stimulating the emerging business sector by making electricity available to more and more people.

Progress made in our electrification programme is pleasing and more new housing connections are being made than ever before. In fact we are now connecting 640 houses every day. One of electrification's most important spin-offs is job creation and the socio-economic upliftment of the disadvantaged. The significance of electrification in the development of South Africa and its people is underscored by the formation of a National Electrification Forum in which Eskom is an active participant. The Forum will develop strategies and a proposed distribution structure which will accelerate the national electrification process. Finance is clearly a constraint and the availability of development funds with preferential interest rates and repayment terms is important. The World Bank has carried out studies which confirm the importance of electrification, but funding by it will depend on the establishment of a consensus government.

By keeping communication channels open with all our stakeholders, we have managed to keep the turbulence in our society caused by the changing political situation from affecting our ability to supply the electricity needs of our customers. Ongoing discussions with our employees and their representatives have helped to maintain the focus on business issues of common interest.

Electricity having become entwined with other complex political issues, the recovery of the full amounts owing by black local authorities for the purchase of electricity remains a problem. In the light of the positive experience in Alexandra, Eskom agreed to take over the distribution responsibility in a number of the large black municipalities. During the year we became actively involved in Soweto and progress is being made in normalising the supply in this town. We

plan, within our manpower and technical resources, to continue to take over electricity supply to additional towns and by so doing to reduce the debt recovery problem.

Eskom is continuing to strengthen its international ties and to promote regional cooperation. Particularly pleasing is the closer linking of Zimbabwe to the South African electricity grid. A major interconnection between the two grids is being planned which, once completed, will relieve the power shortages Zimbabwe is currently experiencing. At the same time the supply to Botswana will be improved.

We are very conscious of the impact of our activities on the environment and we continuously consider possible improvements. Eskom has become a global participant in environmental management and its role in this important area is being recognised.

At the end of the year, Alusaf announced that it is proceeding with the establishment of a new aluminium plant. When this plant comes into operation in 1995 it will be a big export revenue producer. Their decision to expand was influenced by the fact that the cost of electricity in South Africa is one of the lowest in the world and that Eskom is prepared to take a business-like and flexible approach to tariffs applicable to large new customers.

Existing customers have a positive view of Eskom's service and tariffs and many who are not presently our customers would like Eskom to be their electricity supplier. This confidence in our organisation is a positive reflection of our focus on the needs of those who use our product.

CHALLENGES

As the new South Africa becomes a reality it imposes new challenges on big organisations. In my view there are three main challenges to be met. Firstly, big organisations will not only have to be financially sound, they will also have to be as efficient and productive as their international counterparts. Only in this way will we be able to meet the imperative of having to compete effectively on international markets.

To do this organisations will, secondly, have to ensure that they have sufficient capable people to shoulder both the managerial and the technical tasks. Active steps are necessary to identify and recruit people of talent and ambition from all sections of our population. Organisations will have to take a positive approach to equal opportunity employment, maintain a culture and atmosphere which will allow all races to advance to managerial levels and support the process with training and career planning.

Thirdly, large organisations need to have relevance to our society and demonstrate that, through the conduct of their business, they bring value, not only to their own stakeholders but also to the wider society. Their products and services will have to meet the emerging consumer needs and contribute to the well-being and progress of the community and particularly the disadvantaged.

It can be asked how Eskom is addressing these challenges.

As far as efficiency and productivity are concerned, Eskom is a sound, world-class organisation and in many areas it is an international leader. We supply our customers with inexpensive, high-quality electricity and we have sufficient capacity to ensure that electricity supply will not be a constraint to the future economic growth of our country.

Regarding manpower, we have a strong management team and considerable technical and managerial depth. We are constantly looking for talent within our organisation and filling skills gaps by recruiting from outside. Training, development and career planning are part of our life and we have for a considerable time been working at eliminating colour and gender as factors from our organisation. We have made a certain amount of progress and are being recognised for the successes that we have had in handling these often difficult issues. We are committed to the creation of an organisation in which the only measure of a person is merit and contribution to the achievement of corporate goals.

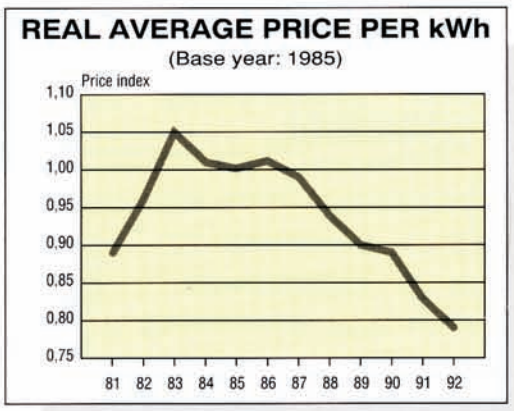
Turning to the question of relevance to our society, Eskom is important to South Africa and its future, and through its product and its activities forms an integral part of the communities it serves. We are very conscious of the elevating impact that access to electricity has on people's lives, and it is for this reason that every effort is being made to bring electricity to as many people as possible within our financial constraints.

We are keenly aware of the changes which are taking place around us and we are excited about the emerging new South Africa in which we intend to continue playing a pivotal and positive role.

OUTLOOK

I anticipate that the stagnation caused by political uncertainty and the drought, coupled with a sluggish world economy, will delay a meaningful recovery in the South African economy. Consequently we foresee only modest growth in electricity sales.

We announced a price increase of 8% for 1993, which is again below the expected inflation rate. In 1991 Eskom gave an undertaking to its customers to reduce the real price of electricity by 20% over a five-year period effective from 1992. A real price reduction of 4,9% has already been achieved in 1992.



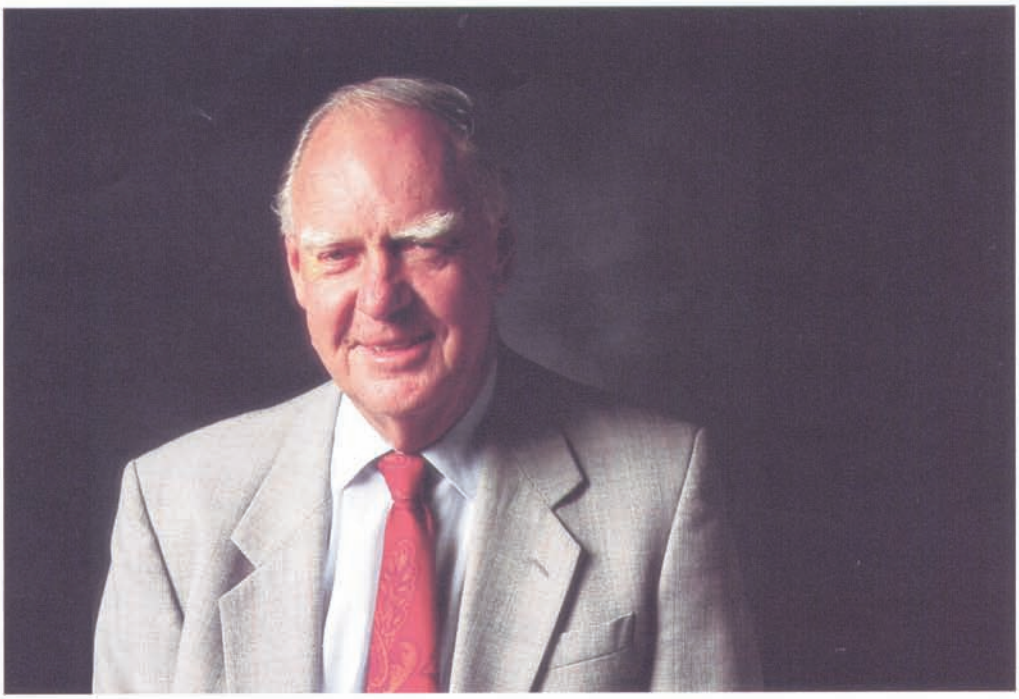
Having identified a number of areas where we can run our business even more efficiently we are confident that, despite the disappointing sales growth, the 20% reduction will be reached by the end of 1996. At the same time, financial soundness will be maintained and electrification progress will continue.

We shall continue to strive for higher efficiency and productivity and are committed to supplying consumers with the cheapest electricity in the world. While this may be a difficult target, I have little doubt that this, given our past performance, the goal-orientated management team and our loyal staff, is achieveable.

ACKNOWLEDGEMENTS

I wish to express my appreciaton to Minister Dawie de Villiers for his contributions, to my colleagues on the Electricity Council for their wise guidance of the organisation, to the Management Board under the able leadership of Dr McRae and to all the employees of Eskom for the substantial progress achieved in a difficult year. They have all contributed to the further building of a first-class organisation.

John Maree
4 March 1993



"ONLY A GRADUAL RECOVERY IN THE SOUTH AFRICAN ECONOMY IS EXPECTED FOR 1993. INFLATION WILL CONTINUE TO PLACE PRESSURE ON OPERATING COSTS. HOWEVER, I AM CONFIDENT THAT WE SHALL STILL BE ABLE TO ACHIEVE A REAL REDUCTION IN OPERATING COSTS PER UNIT OF ELECTRICITY. QUALITY OF SUPPLY AND PLANT PERFORMANCE WILL NOT BE COMPROMISED IN OUR EFFORTS TO BE MORE EFFICIENT. ESKOM WILL CONTINUE TO STRENGTHEN ITS FINANCIAL POSITION AND IS WELL PLACED TO HANDLE THE FUTURE AND MEET ALL THE CHALLENGES POSED BY THE CHANGING POLITICAL AND SOCIO-ECONOMIC ENVIRONMENT"

CHIEF EXECUTIVE'S REPORT

Eskom performed credibly in spite of poor economic conditions. The turnover of R12 649 million for the year reflects an increase of 7,9% over that of 1991.

The average price per kilowatt hour sold amounted to 9,16 cents, a mere 8,3% increase on 1991. Operating expenditure, amounting to R8 094 million, represents a 13% increase over 1991.

Net interest and finance charges amounted to R2 987 million which represents a decrease of 8% when compared with 1991. The net interest and finance charges were covered 1,52 times by net operating income and 2,5 times by cash flow from operating activities.

Further provisions for arrear debts, disclosed as abnormal items, reduced net income by R79 million (1991: R291 million).

Net income of R1 489 million is a 48,6% improvement on 1991. This increase is mainly due to obtaining the Soweto electricity network valued at R204 million, thereby reversing the provision for arrear debts previously provided, as well as to a change in the treasury hedging strategy which reduced foreign interest rate exposure, lowering interest and finance charges. Accumulated reserves consequently increased by R1 397 million to R11 985 million.

Net capital expenditure amounted to R3 611 million which is 8,3% higher than in 1991. Electrification expenditure amounting to R442 million or 12% of net capital expenditure represents 145 522 newly electrified households.

Cash flow from operating activities amounted to R6 625 million after R2 404 million was distributed to employees. The portion of investing activities funded by net cash flow from operating activities amounted to 98% (1991: 89%), continuing the favourable trend of previous years. This has further reduced our external funding requirements, thereby improving the debt equity ratio.

FUNDING PLAN

The launch of the E170 and E171 long-dated bonds with a total issued nominal value of R780 million was well received by the investors.

I wish to make special mention of the loyalty of our investors in rand bonds. Despite the sharp fluctuation of the financial rand and some selling of South African bonds, Eskom experienced no significant selling of its bonds during September/October 1992 by foreigners. The percentage of nominal value of Eskom local registered stock held by foreigners has in fact increased from 42% to 52%.

The inflow of funds from sales receipts was lower than budgeted. Contained operating and capital expenditure, partially offset by swap cash outflows, reduced the outflow of funds. The net effect was a R293 million reduction in the expected funding requirement. The funding plan is summarised below:

	1992			1993
	Planned Rm	Actual Rm	Variance Rm	Planned Rm
Local capital market	730	905	175	2 150
Money market	172	(163)	(335)	—
Investments realised	574	574	—	700
Foreign capital market	680	536	(144)	—
Foreign project finance	284	295	11	150
	2 440	2 147	(293)	3 000

As a result of the strategy to fund at longer maturity terms and at fixed interest rates, more funds than planned in 1992 were obtained from the local capital market at the expense of the money market. The raising of funds from the foreign capital market was curtailed as a result of the unstable political situation in South Africa.

The planned funding requirement for 1993 has increased to R3 000 million from R2 147 million in 1992 as a result of higher loan repayments and an increase in capital expenditure relating to electrification.

IMPROVED EFFICIENCY

The creation of distinct groups with full accountability for their respective line

activities is already showing considerable benefits. This, together with rationalisation in certain areas, has produced significant cost savings. Since 1988 total productivity improvements amount to R453 million. In 1992 there was a decline in productivity of R162 million. This was mainly due to the reduction in sales, the investment in electrification and takeovers of local authority networks – which although requiring large resources in the short term will yield long-term benefits – and the continuation of committed capital expenditure.

The five Eskom Distributors manage their business to best suit local market needs. The managers are fully responsible for the performance of their business and are empowered accordingly. There is a total focus on the customer and a renewed accent on economic growth creation.

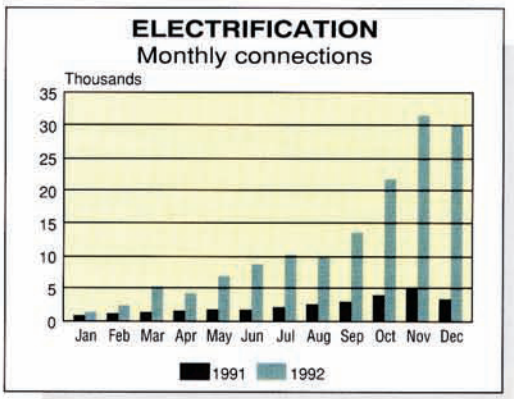
ELECTRICITY SALES

Eskom sales for 1992 were 138 126 GWh which represents a decline of 0,4% against a planned 3,3% growth. This is the first time since World War II that sales volumes have declined. In 1991 sales were 138 687 GWh, with a growth rate of 1,8% against 1990. Sales in 1992 were impacted by the poor performance of the economy which declined for the third successive year. Low gold and base metal world prices also contributed to the drop in sales to mining customers.

The vigorous marketing of electricity and growth incentives which Eskom has offered to industry and other supply authorities made a significant contribution towards counteracting the decline in sales. Marketing activities aimed at increasing sales contributed 5% to Eskom's 1992 sales.

ELECTRIFICATION PROGRESS

The number of direct Eskom customers increased from 278 033 in 1991 to 541 866 in 1992 and we now have the largest electricity customer base in the country. This massive 95% growth is due to three factors, namely the connection of new customers as part of our traditional business, the electrification of more houses under our electrification programme and the transfer of existing customers from local authorities to Eskom. While the transfer of customers is a reflection of the confidence that South Africa's population has in Eskom, electrification made the largest contribution to the growth in our customer base.



In 1992 Eskom's electrification initiatives have brought electricity into the homes and small businesses of almost one million people for the first time. We are committed to continuing with these initiatives and to bringing electricity to at least another five million people by 1997.

A number of agreements have already been concluded to transfer existing local authority supply rights to Eskom. The transfer to Eskom of existing customers in these areas will further increase Eskom's customer base, while the unserved areas that will be gained by Eskom in this way will increase our potential for electrification. In areas where Eskom has taken over and improved the quality of supply and customer service, the payment of accounts has shown a vast improvement. While non-payment in these areas is still a serious problem, slow but steady progress is being made in resolving this issue.

Eskom is an active participant in the National Electrification Forum. This body, which draws participants from a wide spectrum, can play a meaningful role in normalising the electricity supply to many areas and facilitating the acceleration of a national electrification programme.

Customer service continues to improve. In addition to the farming and industrial services, offices and service centres have been opened in both rural and urban areas to cater for the needs of customers, many of whom are using electricity for the first time. Eskom is addressing the issue of making appliances more affordable for new customers.

BUSINESS DEVELOPMENT

Unless there is a noticeable improvement in the economic variables of the country we do not anticipate any significant growth in sales. We will focus our efforts on capturing a larger share of the total energy market, with sales and marketing teams promoting the benefits of electricity among potential users in the industrial, agricultural and domestic markets. In the industrial and agricultural markets there is wide scope for conversion to electrical applications and processes. Conversion to electricity not only has financial benefits, but also brings about a technology upgrade.

New business opportunities are identified in collaboration with other stakeholders. Eskom's pricing agreement and investment in Alusaf's new multi-million rand aluminium smelter is just one example of this type of business development. A number of other agreements have also been entered into with major electricity consumers, such as ferro-alloy and steel producers, enabling these industries to compete more effectively in the international market. A number of other incentive schemes have been developed further to promote the use of electricity, including time-of-use tariff options. Since the experimental introduction of time-of-use tariffs in 1991, several hundreds of customers have switched to this option.

PLANT PERFORMANCE

A drive to bring Eskom in line with the performance of the world's leading utilities has started to bear fruit. Many plant performance indicators have shown a satisfactory trend and most exceeded the targets for the year. This was achieved primarily because we have taken advantage of the period of slow economic activity to do adequate maintenance on the plant. Small improvements to fine-tune power station performance were also made. The benefits of high plant performance include financial savings, less stress on the plant and components, improved plant lifespan and, above all, a better quality of supply to our customers.

The quality of electricity supply receives constant attention. A complete system audit and a vigorous maintenance programme are being pursued to correct plant weaknesses and maintain the reliability of the transmission system.

CAPACITY MANAGEMENT

The current net maximum capacity of 36 846 MW should be adequate to meet demand up to the year 2000, if demand grows according to the most optimistic scenario. The partial mothballing of Arnot Power Station in 1992 resulted in 990 MW being added to the 5 061 MW capacity in reserve storage or mothballed, now totalling 6 051 MW.

Construction on Phase 2 of the Majuba Power Station has been suspended due to adverse geological mining conditions. Investigations into the most cost-effective option will be concluded by the end of 1993. A one-year delay in the completion of a further three generating units can be accommodated by appropriate capacity planning and should not prejudice our ability to meet demand.

TECHNOLOGY DEVELOPMENT

The thrust of Eskom's technological research contributes to electricity being produced and distributed at the lowest unit cost. The impact of our activities on the environment is also carefully assessed and monitored.

We invested R44 million in broad-based utility-related research and development activities, representing 0,3% of turnover.

Our technological success continued in 1992 when two world firsts were patented. One is a technique to determine remnant life of high-temperature metallic components and the other an on-line

carbon dioxide analysis for use in steam water chemistry.

PRODUCTIVE EMPLOYEES

Eskom has embarked on a number of initiatives over recent years to create an adequately trained and harmonious workforce to meet the challenges posed by the fast-changing socio-political and business environment. These initiatives have centred around creating a climate in which the development, growth and potential of all employees are supported, diversity is valued and affirmative action is pursued. Merit is not subordinated to demands for advancement on the basis of colour or gender. Eskom is nevertheless creating opportunities for black and female advancement within the organisation, but it is up to individual staff members to reach out and take them.

Strategies are in place to deal with the optimal utilisation of employees and the retraining and redeployment of staff affected by restructuring. Various programmes are also in place to meet Eskom's demands for skilled employees, particularly in the technical and engineering fields, and to create awareness of the need for technical skills in the new South Africa. The artisans we have in training in Germany will do much to upgrade the status of artisans and create a centre of expertise for artisan training.

Our relationship with the trade unions remains on a sound footing. Eskom was relatively unaffected during a difficult year for labour relations in the country. A non-adversarial process of discussion and consultation between Eskom and the 10 trade unions representing the majority of its employees was established. The new process is intended to give trade unions an opportunity to influence decision-making.

INVESTING IN THE FUTURE

Positive results are being reaped from the concentration of Eskom's corporate social investments in areas which benefit education. In addition to the various programmes to increase the skills base in the country, we have bursars from all sectors of the population studying in the technical and engineering fields. Each year we are involved in the education of schoolchildren through a variety of programmes. These initiatives will increase the skills market and help create economically active and stable communities which will support the expansion of the consumer market. Other areas of investment include support of health education and facilities in areas where our employees reside. We make efforts to provide family accommodation and move away from hostels, which tend to alienate workers from the communities. A total of R24 million was spent on these corporate social investment programmes in 1992. This will increase in 1993.

Our commitment to environmental management is manifest in all Eskom's activities and is embodied in our policies and strategies (see pages 20 and 21).

INTERNATIONAL COOPERATION

Interaction with the rest of the world increased dramatically during 1992. We have signed cooperation agreements with various other utilities both in developed and developing countries, placing the emphasis on sharing experience and know-how. The establishment of a sub-Saharan grid is progressing slowly but steadily. There are many projects under way linking the different countries in the subcontinent and strengthening existing links. Eskom now has working relationships with 19 African countries.

LOOKING AHEAD

Only a gradual recovery in the South African economy is expected for 1993, and we have accordingly budgeted for a sales growth in the region of 2% for the coming year. Sales growth beyond 1993 is expected to improve moderately.

Inflation will continue to place pressure on operating costs, especially labour costs. However, I am confident that we shall still be able to achieve a real reduction in operating costs per unit of electricity for 1993 under these adverse economic conditions. Quality of supply and plant performance will not be compromised in our efforts to be more efficient.

As a result of the expected low sales growth and existing generating over-

capacity, capital expenditure is planned to reduce to R3 600 million in 1993.

Eskom will continue to improve its debt equity ratio in the future and further strengthen its financial position.

Eskom is well placed to handle the future and able to meet all the challenges posed by the changing political and socio-economic environment.

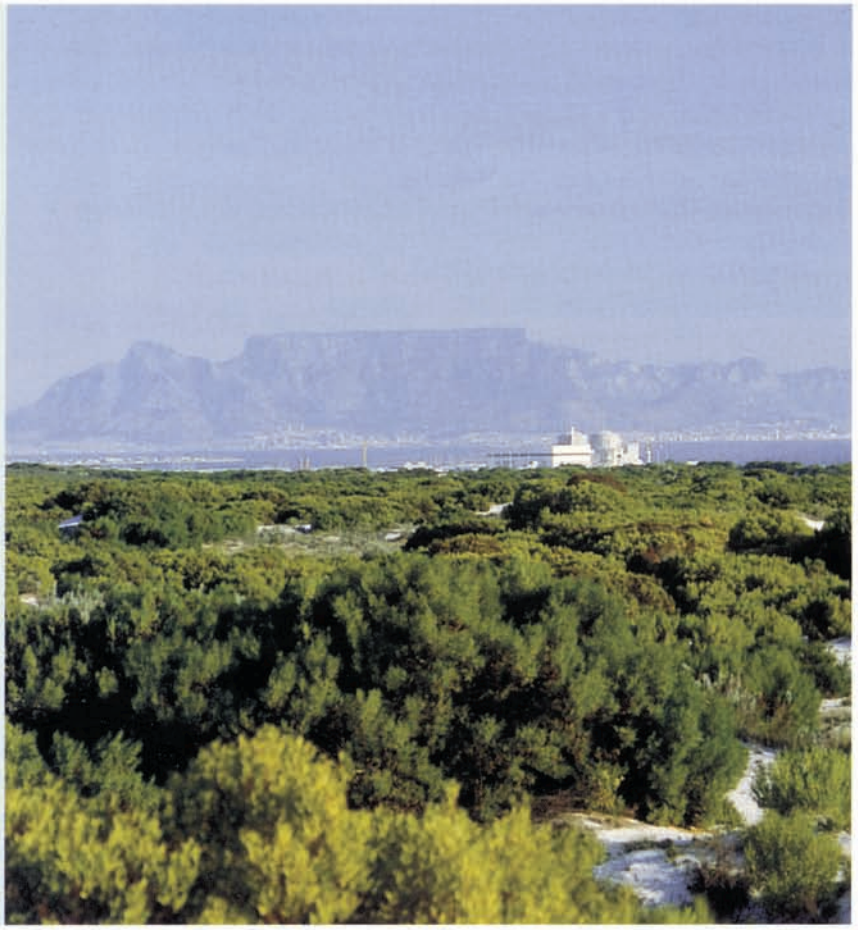
We have sufficient coal reserves to comfortably meet the country's electricity needs for the next 50 years. We are fortunate in that our surplus capacity gives us not only the benefit of low prices and the ability to meet any growth scenario, but also time to consider our various primary energy options for future expansion. We have the choice among coal, nuclear, hydro, gas and imported electricity. Coal, because of its low cost and availability, will remain our primary source of energy, but I predict that a diverse mix of all our options will be maintained.

We are increasingly aware of the diversity of requirements of our customers. We shall have to accommodate all these needs by maintaining a balance between the minimum variations from target voltages required by high-tech industries and users of electronic equipment and the need for the lowest possible price required by the less sophisticated consumers. I believe we are making good progress in this direction.

ACKNOWLEDGEMENTS

I wish to express my thanks to the Electricity Council and to Dr John Maree for their discerning judgement on the many complex issues facing us during the year. As always, my sincere appreciation to management and staff for their support and perseverance in what has been a difficult year. Last but not least, it is with regret that I acknowledge the retirement from the Management Board of a colleague of long standing, Randolph Forbes, after 44 years of service.

Ian McRae
4 March 1993



Above:
The Koeberg Nature Reserve was promulgated in 1992.

Right:
Flue-gas conditioning in the stack on the right hand ensures a visible reduction in particulate emissions.

Eskom recognises and supports South Africa's need for sustainable economic development. In responding to this we will address the challenges that were set by the United Nations Conference on Environment and Development (UNCED) by demonstrating environmental conduct which is compatible with international concerns and with codes of practice for developing countries.

The major initiatives taken during 1992 to achieve these goals embraced all levels of management, from the strategic to the operational.

ENVIRONMENTAL SCENARIOS

Environmental issues have been incorporated into Eskom's scenario planning. This places Eskom in a position where environmental issues, trends and pressures are fully considered from the outset and allows us to adapt to and influence a variety of potential and desired futures.

ENVIRONMENTAL POLICY AND STRATEGY

Environmental policies and strategies relating to energy, air, water, waste, land and wildlife conservation have been established and reviewed.

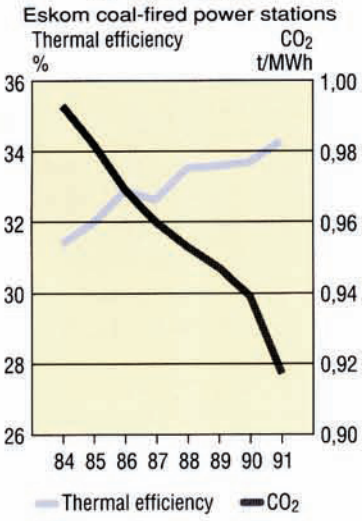
These uphold the principles of integrated environmental management and effective and efficient use of renewable and non-renewable natural resources. These strategies are being translated into progressive targets to ensure continuous improvement of environmental performance.

Long-term strategies have also been developed to address energy efficiency and conservation. These will be pursued through opportunities such as pricing incentives, electrification, remote area power supplies by means of photovoltaic systems, the assessment and introduction of advanced coal combustion technologies and appliance labelling.

ENVIRONMENTAL AUDITING

A representative environmental audit programme was carried out on power stations, substations, transmission lines

REDUCTION OF CARBON DIOXIDE EMISSIONS THROUGH THERMAL EFFICIENCY



and projects during 1992. This followed the 1990 environmental management audit, and expanded on it to include an evaluation of compliance with legal and self-imposed environmental standards.

The major findings include the following:

- There was limited evidence of the considered implementation of corporate environmental policies and guidelines. Most instances of compliance arose indirectly as a result of pursuing core business action.
- Insufficient attention is paid to environmental training and awareness.
- Contingency plans are insufficiently implemented.
- The communication of environmental issues needs to be improved both internally and externally.
- Particulate emission reduction remains a most significant area of concern and continues to be seen as a priority within Eskom.
- Numerous site-specific problems relating to water, waste and land management were identified.

Based on the findings, corrective action plans have been formulated and implemented. Implementation will be monitored continually.

INDUSTRIAL ENVIRONMENTAL FORUM OF SOUTHERN AFRICA

Eskom continues to play an active role in the Industrial Environmental Forum (IEF) of Southern Africa. One of the major focus areas for the IEF is to promote environmental education and awareness to ensure that members are fully briefed on emerging environmental management trends. A key result of this has been the creation of a working group to facilitate the formulation of internationally accepted South African standards for environmental management systems.

Through the IEF, Eskom has linked into the programmes of several influential international businesses and environmental associations which will be key players in deciding the allocation of international funds for projects on sustainable development.

RESEARCH, INVESTIGATIONS AND ASSESSMENT

Eskom continued with its research into air and rain quality monitoring and modelling. The focus on environmental impact research related to air, water forestry, health and rehabilitation techniques continued. Eskom scientists participated in the international Southern African Fire/Atmosphere Research Initiative (SAFARI) and the Vaal Triangle Air Pollution Study. Progress was also made in dust control on ash dumps and in the use of herbicides for vegetation control. Research into the environmental benefits of the Eskom electrification programme produced meaningful results.

Environmental impact assessments were conducted to secure servitudes for transmission lines, including the Eskom line that will strengthen supplies to Botswana.

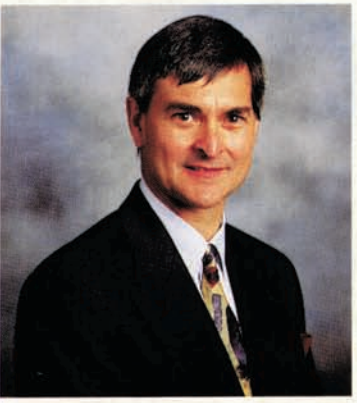
FINANCIAL COMMITMENT

During 1992 the major expenditure was on upgrading particulate emission control equipment to comply with legal standards. Contracts worth R200 million were placed for fabric filters for three units at Duvha and Majuba power stations. Eskom's third flue-gas conditioning plant (to enhance particulate extraction) was commissioned at Matla Power Station at a cost of approximately R15 million. The use of these technologies has contributed significantly to the overall reduction in Eskom's particulate emissions.

To complement these achievements a policy to regulate particulate emissions was developed. This requires that plant that does not comply with legal requirements can be taken out of service until compliance is achieved. The infrastructure to monitor and implement this is being developed.

OPERATIONAL REPORT

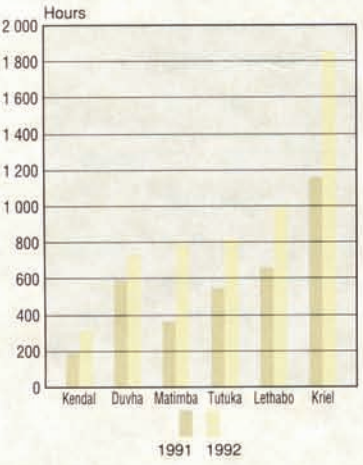
JOHAN VAN DEN BERGH



Executive Director
GENERATION

" Our mission is to produce electricity at the lowest possible cost and to ensure that we have the capability to do so. Overheads are being kept to a minimum while we concentrate on further improving effectiveness and efficiency of operations and maintenance of plant. "

PLANT RELIABILITY
WMTTF – monthly record



Right:
Another 686 MW generating unit was commissioned at Kendal Power Station.

GENERATION

The Generation Group's results reflect the attention devoted to improved plant performance and plant reliability.

We have directly addressed the particular issue of reliability of generating plant for some three years in three primary areas, namely plant, processes and people. Dividends are already becoming evident. New records for base-load plant in both reliability indicators, weighted mean time to trip (WMTTT) and weighted mean time to failure (WMTTF), were reached, peaking at 1 386 hours and 565 hours respectively.

Other indicators, i.e. forced outage rate and system availability, also showed an improvement of 13% and 0,8% compared with 1991.

The overall thermal efficiency for coal-fired stations was 0,1 percentage points lower than 1991, and equal to the target value of 34,2%. The marginally lower efficiency is due to increased production from the dry-cooled stations which are designed to operate at a lower efficiency than wet-cooled stations.

The benefits of such high plant performance include financial savings, less stress on the plant and components, improved plant lifespan and a better quality of supply to our customers. The result has been a lower cost of generation.

A policy to regulate particulate stack emissions was developed and implemented. Its purpose is to pursue and achieve particulate stack emission levels at all operating and generating power stations to meet the legal licence requirements.

The planned installation of fabric filters at Duvha and Majuba power stations is a tangible measure of Eskom's commitment to the environment.

CAPACITY

The net maximum generating capacity was 36 846 MW. This should be adequate to meet demand until the year 2000. The need to manage capital expenditure and cost of generation effectively is reflected by the partial mothballing of Arnot Power Station.

PRIMARY ENERGY

Eskom coal-fired power stations burnt 71 million tons of coal to produce a net 136 830 GWh in 1992. Total production was 148 207 GWh, most of the balance being produced by the nuclear power station.

Total primary energy costs, i.e. the cost of energy resources inclusive of raw water, nuclear and oil fuel, increased by 7,9% compared to 1991.

Eskom's coal suppliers continued to improve productivity with very commendable results. Consequently, the cost per ton of coal purchased and the cost per ton of coal burnt increased by only 8% and 6,9% respectively.

Water supply costs per kilolitre increased by 5% over 1991 while overall specific water consumption (litres used per net unit of electricity generated) by the power stations reduced by 5% compared to 1991. This reflects Eskom's ongoing commitment to improve the efficiency with which it uses this vital natural resource.

Nuclear fuel delivered to Koeberg during 1992 is 2% cheaper in real terms than fuel delivered in 1991. Contracts entered into during 1992 for the supply of nuclear fuel constitute a reduction in nuclear fuel costs of 15%, which will manifest in fuel delivered to Koeberg over the next three years.

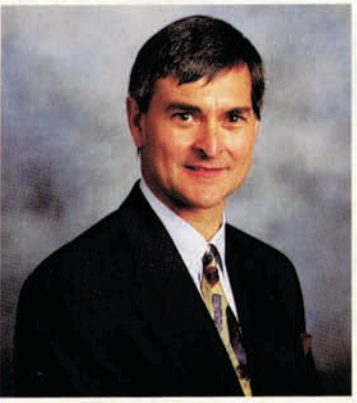
NUCLEAR PERFORMANCE

Koeberg Power Station produced 9 288 GWh during 1992.

A review of nuclear safety at Koeberg Power Station was conducted by the World Association of Nuclear Operators. The review concluded that Koeberg has good safety practices of benefit to other nuclear utilities, but some areas for improvement were identified and are being addressed.

OPERATIONAL REPORT

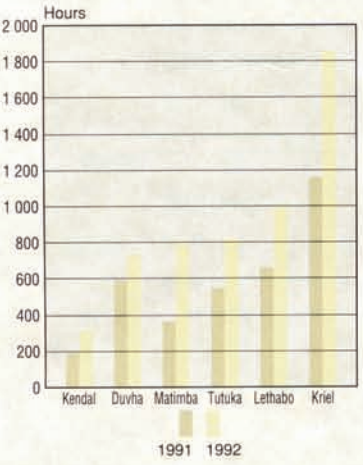
JOHAN VAN DEN BERGH



Executive Director
GENERATION

" Our mission is to produce electricity at the lowest possible cost and to ensure that we have the capability to do so. Overheads are being kept to a minimum while we concentrate on further improving effectiveness and efficiency of operations and maintenance of plant. "

PLANT RELIABILITY
WMTTF – monthly record



Right:
Another 686 MW generating unit was commissioned at Kendal Power Station.

GENERATION

The Generation Group's results reflect the attention devoted to improved plant performance and plant reliability.

We have directly addressed the particular issue of reliability of generating plant for some three years in three primary areas, namely plant, processes and people. Dividends are already becoming evident. New records for base-load plant in both reliability indicators, weighted mean time to trip (WMTTT) and weighted mean time to failure (WMTTF), were reached, peaking at 1 386 hours and 565 hours respectively.

Other indicators, i.e. forced outage rate and system availability, also showed an improvement of 13% and 0,8% compared with 1991.

The overall thermal efficiency for coal-fired stations was 0,1 percentage points lower than 1991, and equal to the target value of 34,2%. The marginally lower efficiency is due to increased production from the dry-cooled stations which are designed to operate at a lower efficiency than wet-cooled stations.

The benefits of such high plant performance include financial savings, less stress on the plant and components, improved plant lifespan and a better quality of supply to our customers. The result has been a lower cost of generation.

A policy to regulate particulate stack emissions was developed and implemented. Its purpose is to pursue and achieve particulate stack emission levels at all operating and generating power stations to meet the legal licence requirements.

The planned installation of fabric filters at Duvha and Majuba power stations is a tangible measure of Eskom's commitment to the environment.

CAPACITY

The net maximum generating capacity was 36 846 MW. This should be adequate to meet demand until the year 2000. The need to manage capital expenditure and cost of generation effectively is reflected by the partial mothballing of Arnot Power Station.

PRIMARY ENERGY

Eskom coal-fired power stations burnt 71 million tons of coal to produce a net 136 830 GWh in 1992. Total production was 148 207 GWh, most of the balance being produced by the nuclear power station.

Total primary energy costs, i.e. the cost of energy resources inclusive of raw water, nuclear and oil fuel, increased by 7,9% compared to 1991.

Eskom's coal suppliers continued to improve productivity with very commendable results. Consequently, the cost per ton of coal purchased and the cost per ton of coal burnt increased by only 8% and 6,9% respectively.

Water supply costs per kilolitre increased by 5% over 1991 while overall specific water consumption (litres used per net unit of electricity generated) by the power stations reduced by 5% compared to 1991. This reflects Eskom's ongoing commitment to improve the efficiency with which it uses this vital natural resource.

Nuclear fuel delivered to Koeberg during 1992 is 2% cheaper in real terms than fuel delivered in 1991. Contracts entered into during 1992 for the supply of nuclear fuel constitute a reduction in nuclear fuel costs of 15%, which will manifest in fuel delivered to Koeberg over the next three years.

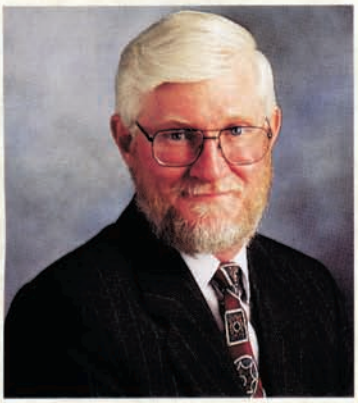
NUCLEAR PERFORMANCE

Koeberg Power Station produced 9 288 GWh during 1992.

A review of nuclear safety at Koeberg Power Station was conducted by the World Association of Nuclear Operators. The review concluded that Koeberg has good safety practices of benefit to other nuclear utilities, but some areas for improvement were identified and are being addressed.

OPERATIONAL REPORT

BRUCE CROOKES

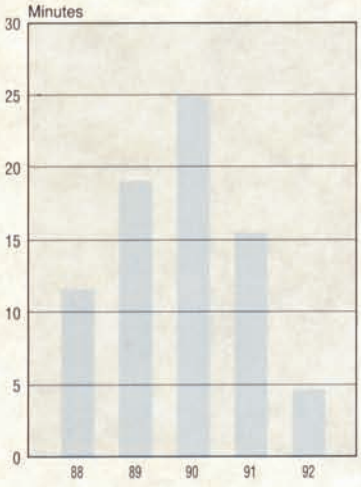


Executive Director
TRANSMISSION

" Our mission is to obtain and transmit bulk electricity to the satisfaction of our customers. Our role in the longer term is to effectively reduce the price of electricity by creating competition between generators of electricity. "

CONTINUITY OF SUPPLY

Total transmission system interruption time



Right:
Pre-emptive maintenance is largely responsible for a general improvement in the performance of transmission plant.

TRANSMISSION

Eskom's interconnected transmission system, a vast network of high-voltage substations and transmission lines which carries bulk electricity at voltages of up to 765 kV, continued to expand in 1992. Some 1 297 km of transmission lines have been added, bringing the total to 24 616 km.

Two new 275/132 kV substations were established. One of these allows the provision of a 132 kV supply to Zimbabwe, the first direct connection with that country's grid.

INTERREGIONAL PROJECTS

A number of interregional projects have been initiated or are in the discussion phase. The 132 kV supply from Spitskop to Botswana is being strengthened. This will also allow additional energy to be supplied to Zimbabwe. A 400 kV transmission line from Matimba Power Station to Bulawayo is in the planning phase. This interconnection will allow up to 400 MW power interchange between South Africa and Zimbabwe.

MEETING CUSTOMER NEEDS

The transmission grid was used to supply 146 261 GWh of electricity to distributors and neighbouring utilities. While a decline in electrical energy sales was experienced, a new system demand record of 22 640 MW occurred.

With the exception of 349 GWh of electricity imported from Namibia when surplus hydro-energy was available from Ruacana, all the energy sent out came from Eskom power stations. Electricity exports to neighbouring countries totalled 6 179 GWh, an increase of 4,3% on the previous year.

The severe drought had a major impact on the hydro-generation available from the Orange River and in neighbouring countries. Eskom was in a position to use its thermal generation to meet the electricity needs of its customers to the extent that transmission capacity allowed.

The total annual supply interruption time on the transmission system improved by 70% on 1991.

There has also been a significant improvement in the number of low-frequency incidents, down to 27 from 1991's 55.

In November, customer supplies throughout the country were however affected when a number of generators were simultaneously disconnected from the system. This unusual incident had a severity rating almost twice that of the entire transmission system for the whole year.

There has been a general improvement in the performance of transmission plant relative to 1991. This success can be attributed to a comprehensive policy of pre-emptive maintenance and quick response.

Pollution accentuated by the drought resulted in problems for several Natal customers. Polluted insulators were washed at great expense to reduce this problem in the absence of rain. The problems were further compounded by increased sugar cane fires in spite of excellent cooperation from the farming community. Remedial action currently in hand is the re-insulation of the problem lines to meet the adverse environmental conditions. This work will be completed during 1993. We are also moving towards cane-free servitudes to reduce interruptions caused by fires.

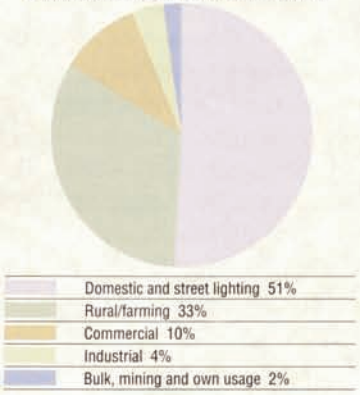
A concerted effort is being made to ensure adequate monitoring of substation plant and equipment and to carry out necessary maintenance in accordance with the condition of the plant. Potential trouble spots are identified by way of a series of technical audits. The use of specialised techniques and measuring devices has been invaluable in identifying weaknesses and providing pointers to allow corrective action to be taken. Both substations and lines have been able to benefit from information derived from these devices. All efforts are underpinned by making appropriate use of the latest line and substation technology.

ALLEN MORGAN

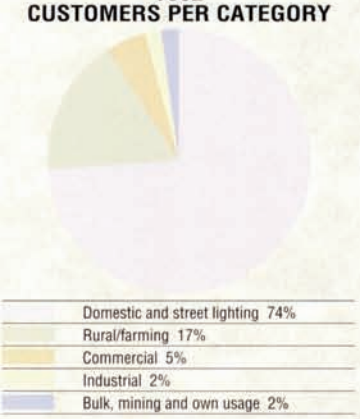
Executive Director
SALES AND CUSTOMER SERVICE

" Our Group aims to satisfy our customers' electricity needs and promote the growth of electricity sales. We are also geared to meet the challenge of electrification and to promote growth in South Africa while reducing costs to ensure the lowest price of electricity. "

1991 CUSTOMERS PER CATEGORY



1992 CUSTOMERS PER CATEGORY



Right:
One of Eskom's 145 522 new customers to receive electricity.

SALES AND CUSTOMER SERVICE

The mission of Eskom's Sales and Customer Service business is to satisfy the customers' electricity needs in the most cost-effective way. This is achieved by making electricity accessible to all and stimulating the effective use of electrical products and services.

SALES PERFORMANCE

As a result of the adverse economic conditions, sales declined in most sectors of the market. Industrial, commercial and mining were down 2,9% in volume compared to 1991. Domestic, however, increased by 40,9% due to new connections and the take-over of certain areas previously supplied in bulk via local authorities.

Sales to the mining sector were particularly disappointing as it suffered at the hands of stringent cost-control measures in the face of the low gold price. The ferrochrome industry was also hard hit and sales fell by 35%.

CUSTOMERS

The Eskom customer base has increased dramatically from 278 033 customers in 1991 to 541 866 customers in 1992. This 95% increase is the result of electrifying 145 522 homes and small businesses in previously unelectrified areas and the transfer of existing customers in local authority areas to Eskom. Eskom's five Distributors performed extremely well in meeting the tough electrification targets for 1992. During the five years ahead Eskom plans to connect another 791 500 new customers. As part of this commitment 260 electrification projects are currently under way, involving more than 180 000 households and small businesses.

The Lebowa Cabinet approved in principle that Eskom should take over the distribution of electricity in Lebowa early in 1993. Negotiations with the KwaNdebele Government are continuing for a similar take-over. In addition, Eskom became the electricity distributor in 38 local authority areas that had previously operated their own systems, the largest of which is Soweto.

Gezicor, a joint venture between Eskom and Gazankulu, commenced operating as the electricity distributor in Gazankulu.

CUSTOMER SERVICE

Customers' electricity needs are served by Sales and Customer Service units which focus on specific markets, market segments and customer categories within their respective allocated areas. These units, situated in South Africa's major urban centres, are the service arms of Eskom's five Distributors.

QUALITY OF SUPPLY

The availability of supply is constantly under surveillance and has shown an improving trend during the year. The system availability at distribution level exceeded 99,9% and at reticulation level it exceeded 99,7%. This was achieved despite factors and incidents beyond our control. The escalating theft of copper conductors from overhead lines has had a major impact on our service and a special task force has been set up to combat the theft. With the help of the public, who have been made aware of the problem, the occurrence of this type of crime is expected to decline.

We are currently developing a measurement of supply quality which will help us to improve our service to specific groupings of customers, based on their needs.

ELECTRICITY DISTRIBUTION INDUSTRY

Eskom is a key stakeholder in the electricity distribution industry. We believe that cooperation with other players in the industry is essential for the health of our industry. We have forged alliances with electricity supply authorities and other stakeholders. We have also assisted in the marketing and selling of electricity to the mutual benefit of suppliers and customers. This has had a positive influence on the viability, efficiency and effectiveness of the electricity distribution industry.

OPERATIONAL REPORT

JAC MESSERSCHMIDT

Executive Director
MARKETING

" Our business is the marketing of electricity as the most convenient and practical form of energy. We aim to identify and anticipate customer requirements and to satisfy them profitably for everyone. We promote the effective use of electricity, which contributes to keeping its price down. "

AVAILABLE TARIFF/ PRICING OPTIONS

Tariff	Electricity usage pattern	Max. demand
A	Large supply – Sustained demand	> 25 kVA
B	Small commercial supply – Urban	<100 kVA
C	Domestic supply – Urban	—
D	Small supply – Rural	<100 kVA
E	Large supply – Off-peak demand	> 25 kVA
F	Large supply – Intermittent demand	> 25 kVA
S1	Small supply – Prepayment	—
S2	Small supply – Prepayment	—
S3	Small supply – Prepayment	—
T1	Time-of-use	>100 kVA
T2	Time-of-use	>100 kVA < 5 MVA
CIS*	Various	Various

* Customer incentive schemes

Right:
This shop owner uses a prepayment meter and sells prepayment tokens to her community.

MARKETING

Eskom's marketing strategy is aimed at achieving strategic objectives of growth in the energy market and encouraging the effective use of electricity. These factors contribute to the reduction of the real price of electricity and ensure an economically sustainable growth of all market sectors.

MARKET PERFORMANCE

A significant number of industrial customers were attracted by the benefits of new process technology using electricity, either in place of other energy forms or in new applications.

Five new process technologies in particular were promoted to customers with the help of demonstration equipment. These are the following:

- Infra-red process heating
- Infra-red space heating
- Steam heating and raising
- Industrial element heating
- Hot water heating

In addition, innovative pricing options have facilitated growth by a contribution of R155 million and helped shape loads in a mutually beneficial manner. Through the reduction in costs and better utilisation of capacity, customers enjoyed lower electricity prices.

By the end of 1992 we had 242 customers on time-of-use, which represents some 3% of our large customers and almost 1 000 MW in maximum demand.

Customer incentive schemes achieved additional sales of just over 7 000 GWh in 1992. This was 25% more than additional sales in 1991.

The development and promotion of new local industrial projects are encouraged both nationally and internationally through customised contracts. We target electricity intensive industries which hold the most potential for either expansion or the establishment of new ventures. The most significant achievement to date was the customised electricity supply contract for Alusaf's new smelting plant. This contract allows the price of electricity to vary in proportion to changes in the price of aluminium but is designed to yield the same revenue in the long term as the standard tariff.

Significant progress has been made in gaining acceptance for national domestic electricity tariffs. More retail outlets selling tokens for prepayment meters are being established in newly electrified areas, and a national electricity sales system has been established for this.

In 1992 we launched Industrelek, a customer service concept for industrial and commercial customers. This follows on Agrelek, the already well-established service to farmers.

Nine service centres, at which customers can receive advice and see demonstrations of new technologies and processes, are being established under the banner of Elektroroute.

In the domestic sector, Electrowise was launched as a marketing programme for newly electrified households, to encourage the acquisition of appliances and their safe and effective use. This ensures that customers quickly derive benefits from electricity by encouraging home industries in support of small business development, which makes more people economically active and results in job creation.

ENERGY EFFECTIVE USAGE

The effective use of the earth's irreplaceable natural resources is everybody's responsibility, embraced by Eskom's integrated electricity planning. The aim is to influence the demand and supply sides of the market, thus helping with the timing of investment in new plant. An important building block of this approach is already in place in the form of time-of-use pricing for large customers. A similar concept is under development for small customers.

FINANCE AND SERVICES

MICK DAVIS

Executive Director
FINANCE AND SERVICES

" Our role is to formulate the financial policies and provide the infrastructure to enable managers to make, implement and evaluate sound business decisions and provide value-added, competitive support services at an affordable cost. "

Eskom, being a self-funding entity, aims to maintain a sound financial position by earning a real return on assets. The pricing strategy is to ensure a declining real price of electricity by maintaining price increases below the ruling inflation rate and ensuring stable and predictable price increases. Thus the annual price increase is determined by the costs of supply, the current financial position and future funding requirements for expansion.

FINANCIAL AND TREASURY MANAGEMENT

The financial risks to which Eskom is exposed have considerable impact on Eskom as well as the South African financial markets. Consequently, we employ sophisticated financial risk management techniques to ensure that Eskom's financing needs are met in the most cost-effective manner.

Sensitivity to a 1% increase in South African interest rates is now approximately R52 million at current increased borrowing levels for a full calendar year, compared with R40 million in 1991. This has been achieved at a favourable average net cost of borrowing for the year of 13,3%.

In recognition of Eskom's innovative and comprehensive financial risk management programme, Eskom was named in 1992 as one of the top ten international risk managers of the year.

RISK MANAGEMENT

We have combined insurance, fire, accident and occupational hygiene under one risk management structure. The objective is to protect the staff and physical assets and at the same time reduce the total cost associated with these risks to the organisation.

Self-insurance is at such a level that only cover against catastrophe needs to be purchased in the insurance market. Adequate funding provisions exist for exposure to losses for which Eskom is responsible. Steps are also under way to form our own insurance company.

PURCHASING AND MATERIALS MANAGEMENT

Our goal is to purchase materials at a price escalation which is on average below the electricity price increase. In order to achieve this, we have developed cooperative purchasing agreements with suppliers. As a result, the average material price inflation for the year was below the electricity price increase, and for the major items a price reduction of 3% was achieved.

Eskom has also entered into joint ventures with the Foundation for African Business and Consumer Services and the National African Federated Chambers of Commerce and Industries to allow small businesses to participate in Eskom's electrification programmes. This has resulted in a number of small electrical companies or other contractors being formed or expanded. These now have supply contracts with Eskom.

BUSINESS SERVICES

During the year, all support services were centralised to our group in order to reduce the cost burden, with significant results. The services range from catering and accommodation through horticulture to printing and transport.

INFORMATION AND INFORMATION TECHNOLOGY

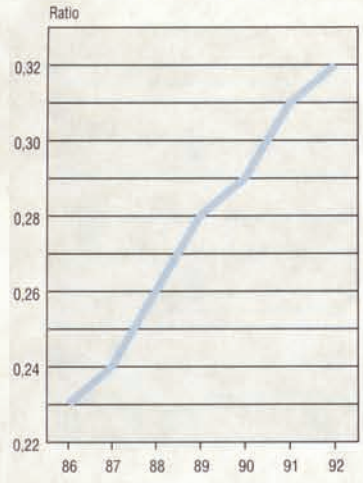
Information obtained from data is only useful for decision-making if it is readily available and meaningful.

We are in the process of determining the future information requirements to support the various business processes.

In support of the information management strategy, the new long-term information technology requirements of Eskom have recently been formulated.

The result of these projects will enhance Eskom's ability to respond to the challenges of the 1990s and beyond.

NET ASSET TURN



Right:
Eskom's horticulture department helps make working surroundings more pleasant.

OPERATIONAL REPORT

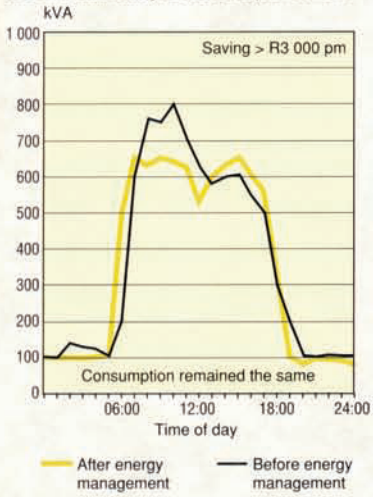
ALEX HAM

Executive Director
TECHNOLOGY

" The Technology Group pioneers investigations and research to ensure that all research and technology at Eskom contributes to electricity being produced and distributed at the lowest unit cost and in the most environmentally responsible manner. "

DEMAND PROFILE

Energy management:
A cost saving is achieved by the consumer by rescheduling the time of switch-on of electrical loads in a small factory to reduce the peak demand.



Right:
This rural school's electricity is supplied by an experimental wind-and-solar generator.

TECHNOLOGY

The current focus of the Technology Group is mainly, though not exclusively, on viable technology and environmental improvements to power stations and transmission and distribution systems. During 1992 we consolidated and optimised our expertise and resources to provide advice to the rest of the organisation, current and future electricity consumers, as well as other utilities worldwide.

TECHNOLOGY POLICY

The Technology Group, in cooperation with customers and stakeholders, continuously scans, evaluates and tracks new technological and environmental developments worldwide, with the view to position Eskom for existing market demands and future economic trends. This knowledge is transferred to Eskom by formulating policies, strategies and standards which are implemented by the various groups. The past year saw the review, identification and formulation of a number of policies. In 1993 we shall continue with this process and establish performance targets and objectives.

RESEARCH AND INVESTIGATION

Eskom's technology development and research is partly driven by needs defined and prioritised by the Group's customers. The other motive is improvement of current technology. We have identified about 50 focus areas served by specialist teams. The desired benefits to Eskom of timeously achieving the objectives are realistically determined up-front.

We also research uses of electricity in the commercial, industrial, mining and domestic sectors to support and promote the use of electricity. A load research programme quantifies what electricity is used for and at what times. This provides essential inputs to the formulation of new tariffs and advice to customers on load management to cut their energy costs.

Some 960 test and investigation projects were completed in 1992. One of the most significant is a fundamental coal combustion research programme which enables Eskom to predict very accurately the in-service combustion behaviour of any type of combustible material. Two other projects, a comprehensive study of the vibration and failure modes on overhead lines and another on accelerated ageing of electricity dispensers, are ensuring that the life of these components is extended significantly. New non-polluting processes are being developed for the destruction of hazardous waste products generated by several industries.

Extensive research is continuing in the area of renewable energy such as solar, wind and micro hydro. Several projects were undertaken in areas remote from the electricity grid. Coupled with this is the development of low-cost reticulation technology to connect users to the grid.

The group participated in the international SAFARI air quality investigation in southern Africa, as well as other collaborative environmental research projects.

TECHNICAL AUDIT

The integrity and performance of Eskom's technical assets is tracked by assessing the effectiveness of design, operations and maintenance. This process spans the full life cycle from initial planning and feasibility studies through to decommissioning and dismantling. Such audits contribute significantly to the effective utilisation and maintenance of these valuable assets.

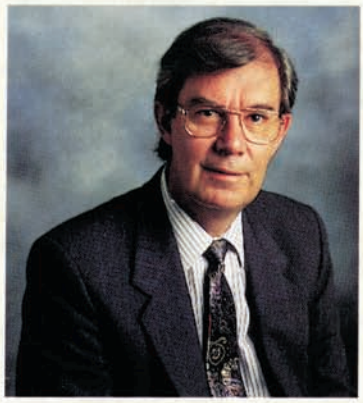
Environmental auditing is handled as an integral part of the organisation's technical audit and quality assurance effort.

NUCLEAR SAFETY

In 1992 we undertook independent safety assessments of Eskom's nuclear operations and extended Eskom's specialist probabilistic risk assessment capability.

OPERATIONAL REPORT

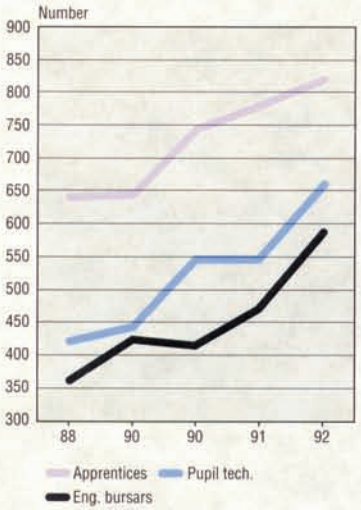
GEORGE LINDEQUE



Executive Director
HUMAN RESOURCES

" Eskom's human resources management aims to establish an adequately skilled and motivated workforce to carry the organisation into the next century. To achieve this the management of human resources is the responsibility of every manager. "

APPRENTICES, PUPIL TECHNICIANS AND ENGINEERING BURSARS



Right:
Eskom and trade unions are establishing a process which will enable unions to participate in decision-making.

HUMAN RESOURCES

The emphasis on human resources development ensures that Eskom is equipped to meet the challenges posed by rapidly changing conditions. The organisation is positioned to meet the skills needs of its developing business areas, and employees are prepared to face constant change with confidence.

We invest in excess of R200 million a year in the development and training of our staff.

Eskom has various programmes to influence the mismatch between skills created by educational institutions and those demanded by industry, by way of career guidance involving teachers and pupils.

A teachers' enrichment programme was implemented in 1992, equipping teachers with communication, presentation and study skills. Workshops to emphasise the importance of mathematics and science at school level were well attended by teachers.

Various bursary and training programmes are in place to meet Eskom's demand for skilled employees and allow it to become largely self-sufficient in critical skills by the year 2000. These include engineers, technicians, artisans and information technologists.

Bursars at universities number 794 of which 588 study engineering. Engineers in training totalled 177 and pupil technicians 660 in 1992. We have 819 engineering apprentices in training.

A further 34 bridging bursaries were awarded to educationally disadvantaged students. Several students who received these bursaries at the start of the programme in 1988 completed their studies in 1992. There are a further 50 students studying for engineering degrees under this programme.

In addition to the above, 7 500 staff members were trained internally to enhance their technical skills.

More than 1 000 employees who had become redundant as a result of the restructuring have been retrained and redeployed into alternative positions. More than 100 blacks at professional and managerial levels are also participating in accelerated development activities to equip them for leadership roles in the organisation.

Our commitment to affirmative action to redress the imbalances between black and white and female and male employees was endorsed by the setting of targets at the beginning of 1992. Merit remains the criterion for advancement and the potential of suitable individuals is released through intensive educational, training and development programmes.

Our efforts to raise the literacy level of our employees have resulted in 60% of our staff being literate. The focus has now shifted from literacy training to adult basic development. Employees can develop their proficiency in subjects such as English, mathematics, science and business education, using adult learning principles.

The Eskom Managers' Challenge, a leadership development initiative for Eskom managers, was also attended by delegates from utilities in Kenya, Malawi, Lesotho, Zambia and Tanzania.

INDUSTRIAL RELATIONS

The high degree of responsibility displayed by the majority of Eskom employees and trade unions resulted in Eskom being relatively unaffected during a difficult year for labour relations in the country.

The industrial relations climate within Eskom was generally good and there were no serious disputes. However, the restructuring programme was perceived by trade unions to be unilateral, with the primary objective of deliberately reducing employment levels. This led to minor protest action by some trade unions.

In order to prevent such misunderstandings in future, Eskom and the ten trade unions representing the majority of its workforce are in the process of establishing an alternative, non-adversarial process of discussion and consultation. Joint Eskom/trade union task groups are investigating issues of mutual concern. This is an important initiative towards trade union involvement in determining the future of our business by influencing decision-making.

OPERATIONAL REPORT

PAUL SEMARK

Executive Director
CORPORATE AFFAIRS

" We try to facilitate Eskom's understanding and anticipation of the socio-political and economic world in which it does business, and the world's understanding of Eskom. We not only adjust to the present and prepare for the future: we play an active role in shaping both. "

FORMAL COOPERATION AGREEMENTS

Utility	Country
NGC/EME	UK
Taipower	Republic of China
RWE	Germany
Unión Eléctrica Fenosa	Spain
EDF	France
EDP	Portugal
ENEL	Italy
SNEL	Zaire
EECI	Ivory Coast
TANESCO	Tanzania
ZESCO	Zambia
Ministry of Mines, Energy and Hydro Resources	Republic of the Congo

Right:
The TANESCO technical delegation at work at Eskom head office.

CORPORATE AFFAIRS

During the past year the success of our efforts to interpret the pressures of the business environment was manifest in our managers' improved ability to anticipate the future, reflected in sound decision-making. Management has an increasingly comprehensive picture of opportunities and threats and of the initiatives essential for creating the future that is desired.

COMMUNICATION

Our communication strategies and programmes are aimed at creating the unification of purpose between Eskom and its stakeholders necessary for Eskom to continue achieving its objectives. Locally, the focus was on positioning Eskom in terms of the expectations of its customers, the public at large and the business community. Various initiatives were directed at employees to help them adjust to the changing environment in South Africa. These included the promotion of cross-cultural understanding.

Internationally, Eskom was positioned as a major contributor to economic growth in South Africa and as an investment opportunity.

INTERNATIONAL RELATIONS

Eskom is an international player in the energy field. In this it is assisted by its European offices which facilitate interaction and keep the organisation abreast of international practices and developments. Eskom sees its future as being closely linked with that of the sub-continent. It is thus poised to play a role in the development of the infrastructure of the subcontinent and acts as a facilitator of high-level contact between interested parties from developed countries and southern Africa.

After some years of relative isolation, we recognise that there is plenty we can learn from practices elsewhere – as well as a few areas in which we have much to offer. We have therefore started to develop relationships with many other organisations with whom we anticipate mutually rewarding interaction. Investigations are under way with a view to establishing a joint venture between Eskom and several European electricity utilities to assist Eskom in its electrification programme. We are also working closely with the World Bank and other development agencies on various prospective South and southern African development or rehabilitation projects. Eskom's international relations continue to expand. Protocols to facilitate the exchange of technology and management processes for mutual benefit were signed with eight power companies in 1992. Eskom now has access to the latest developments in all related fields, as well as various options for handling joint ventures if required. Good working relationships were established with the energy ministries and power companies in all southern African countries.

Eskom remains an active participant in many international organisations. This allows the organisation to interact directly and indirectly with international development agencies, foreign politicians and major international consultants, in the interest of South African and sub-Saharan economic development.

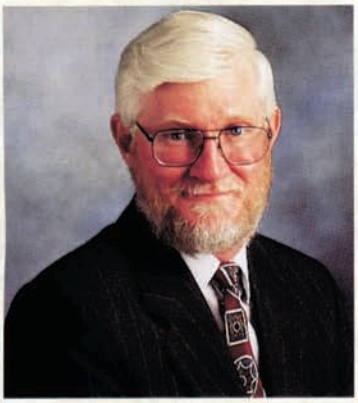
We are willing to cooperate with others in order to build a common future together. We wish to accommodate the needs of our customers and stakeholders, allowing their level of satisfaction to be our measure of success and of the quality of our products.

LEGAL GUIDANCE

Employees' growing awareness of their rights in anticipation of the country's first bill of rights was supported by legal aid clinics at several places in South Africa, including some universities. A "street law" programme was also instituted and sponsored to make the law more understandable and user friendly to employees.

OPERATIONAL REPORT

BRUCE CROOKES

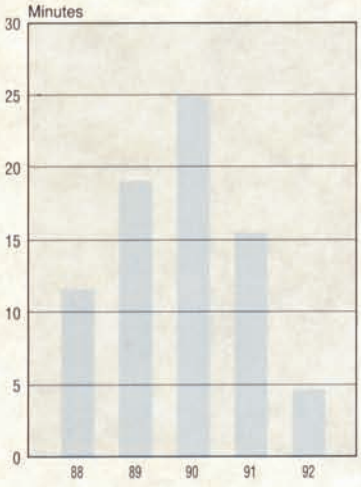


Executive Director
TRANSMISSION

" Our mission is to obtain and transmit bulk electricity to the satisfaction of our customers. Our role in the longer term is to effectively reduce the price of electricity by creating competition between generators of electricity. "

CONTINUITY OF SUPPLY

Total transmission system interruption time



Right:
Pre-emptive maintenance is largely responsible for a general improvement in the performance of transmission plant.

TRANSMISSION

Eskom's interconnected transmission system, a vast network of high-voltage substations and transmission lines which carries bulk electricity at voltages of up to 765 kV, continued to expand in 1992. Some 1 297 km of transmission lines have been added, bringing the total to 24 616 km.

Two new 275/132 kV substations were established. One of these allows the provision of a 132 kV supply to Zimbabwe, the first direct connection with that country's grid.

INTERREGIONAL PROJECTS

A number of interregional projects have been initiated or are in the discussion phase. The 132 kV supply from Spitskop to Botswana is being strengthened. This will also allow additional energy to be supplied to Zimbabwe. A 400 kV transmission line from Matimba Power Station to Bulawayo is in the planning phase. This interconnection will allow up to 400 MW power interchange between South Africa and Zimbabwe.

MEETING CUSTOMER NEEDS

The transmission grid was used to supply 146 261 GWh of electricity to distributors and neighbouring utilities. While a decline in electrical energy sales was experienced, a new system demand record of 22 640 MW occurred.

With the exception of 349 GWh of electricity imported from Namibia when surplus hydro-energy was available from Ruacana, all the energy sent out came from Eskom power stations. Electricity exports to neighbouring countries totalled 6 179 GWh, an increase of 4,3% on the previous year.

The severe drought had a major impact on the hydro-generation available from the Orange River and in neighbouring countries. Eskom was in a position to use its thermal generation to meet the electricity needs of its customers to the extent that transmission capacity allowed.

The total annual supply interruption time on the transmission system improved by 70% on 1991.

There has also been a significant improvement in the number of low-frequency incidents, down to 27 from 1991's 55.

In November, customer supplies throughout the country were however affected when a number of generators were simultaneously disconnected from the system. This unusual incident had a severity rating almost twice that of the entire transmission system for the whole year.

There has been a general improvement in the performance of transmission plant relative to 1991. This success can be attributed to a comprehensive policy of pre-emptive maintenance and quick response.

Pollution accentuated by the drought resulted in problems for several Natal customers. Polluted insulators were washed at great expense to reduce this problem in the absence of rain. The problems were further compounded by increased sugar cane fires in spite of excellent cooperation from the farming community. Remedial action currently in hand is the re-insulation of the problem lines to meet the adverse environmental conditions. This work will be completed during 1993. We are also moving towards cane-free servitudes to reduce interruptions caused by fires.

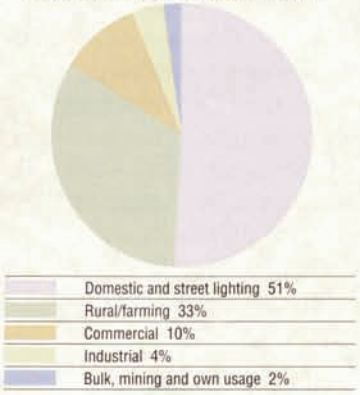
A concerted effort is being made to ensure adequate monitoring of substation plant and equipment and to carry out necessary maintenance in accordance with the condition of the plant. Potential trouble spots are identified by way of a series of technical audits. The use of specialised techniques and measuring devices has been invaluable in identifying weaknesses and providing pointers to allow corrective action to be taken. Both substations and lines have been able to benefit from information derived from these devices. All efforts are underpinned by making appropriate use of the latest line and substation technology.

ALLEN MORGAN

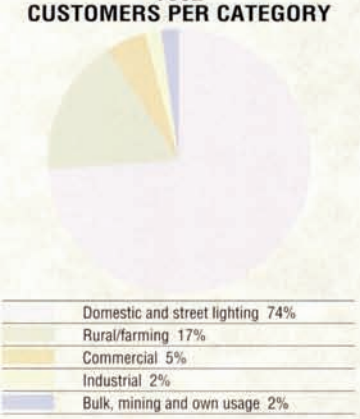
Executive Director
SALES AND CUSTOMER SERVICE

" Our Group aims to satisfy our customers' electricity needs and promote the growth of electricity sales. We are also geared to meet the challenge of electrification and to promote growth in South Africa while reducing costs to ensure the lowest price of electricity. "

1991 CUSTOMERS PER CATEGORY



1992 CUSTOMERS PER CATEGORY



Right:
One of Eskom's 145 522 new customers to receive electricity.

SALES AND CUSTOMER SERVICE

The mission of Eskom's Sales and Customer Service business is to satisfy the customers' electricity needs in the most cost-effective way. This is achieved by making electricity accessible to all and stimulating the effective use of electrical products and services.

SALES PERFORMANCE

As a result of the adverse economic conditions, sales declined in most sectors of the market. Industrial, commercial and mining were down 2,9% in volume compared to 1991. Domestic, however, increased by 40,9% due to new connections and the take-over of certain areas previously supplied in bulk via local authorities.

Sales to the mining sector were particularly disappointing as it suffered at the hands of stringent cost-control measures in the face of the low gold price. The ferrochrome industry was also hard hit and sales fell by 35%.

CUSTOMERS

The Eskom customer base has increased dramatically from 278 033 customers in 1991 to 541 866 customers in 1992. This 95% increase is the result of electrifying 145 522 homes and small businesses in previously unelectrified areas and the transfer of existing customers in local authority areas to Eskom. Eskom's five Distributors performed extremely well in meeting the tough electrification targets for 1992. During the five years ahead Eskom plans to connect another 791 500 new customers. As part of this commitment 260 electrification projects are currently under way, involving more than 180 000 households and small businesses.

The Lebowa Cabinet approved in principle that Eskom should take over the distribution of electricity in Lebowa early in 1993. Negotiations with the KwaNdebele Government are continuing for a similar take-over. In addition, Eskom became the electricity distributor in 38 local authority areas that had previously operated their own systems, the largest of which is Soweto.

Gezicor, a joint venture between Eskom and Gazankulu, commenced operating as the electricity distributor in Gazankulu.

CUSTOMER SERVICE

Customers' electricity needs are served by Sales and Customer Service units which focus on specific markets, market segments and customer categories within their respective allocated areas. These units, situated in South Africa's major urban centres, are the service arms of Eskom's five Distributors.

QUALITY OF SUPPLY

The availability of supply is constantly under surveillance and has shown an improving trend during the year. The system availability at distribution level exceeded 99,9% and at reticulation level it exceeded 99,7%. This was achieved despite factors and incidents beyond our control. The escalating theft of copper conductors from overhead lines has had a major impact on our service and a special task force has been set up to combat the theft. With the help of the public, who have been made aware of the problem, the occurrence of this type of crime is expected to decline.

We are currently developing a measurement of supply quality which will help us to improve our service to specific groupings of customers, based on their needs.

ELECTRICITY DISTRIBUTION INDUSTRY

Eskom is a key stakeholder in the electricity distribution industry. We believe that cooperation with other players in the industry is essential for the health of our industry. We have forged alliances with electricity supply authorities and other stakeholders. We have also assisted in the marketing and selling of electricity to the mutual benefit of suppliers and customers. This has had a positive influence on the viability, efficiency and effectiveness of the electricity distribution industry.

OPERATIONAL REPORT

JAC MESSERSCHMIDT

Executive Director
MARKETING

" Our business is the marketing of electricity as the most convenient and practical form of energy. We aim to identify and anticipate customer requirements and to satisfy them profitably for everyone. We promote the effective use of electricity, which contributes to keeping its price down. "

AVAILABLE TARIFF/ PRICING OPTIONS

Tariff	Electricity usage pattern	Max. demand
A	Large supply – Sustained demand	> 25 kVA
B	Small commercial supply – Urban	<100 kVA
C	Domestic supply – Urban	—
D	Small supply – Rural	<100 kVA
E	Large supply – Off-peak demand	> 25 kVA
F	Large supply – Intermittent demand	> 25 kVA
S1	Small supply – Prepayment	—
S2	Small supply – Prepayment	—
S3	Small supply – Prepayment	—
T1	Time-of-use	>100 kVA
T2	Time-of-use	>100 kVA < 5 MVA
CIS*	Various	Various

* Customer incentive schemes

Right:
This shop owner uses a prepayment meter and sells prepayment tokens to her community.

MARKETING

Eskom's marketing strategy is aimed at achieving strategic objectives of growth in the energy market and encouraging the effective use of electricity. These factors contribute to the reduction of the real price of electricity and ensure an economically sustainable growth of all market sectors.

MARKET PERFORMANCE

A significant number of industrial customers were attracted by the benefits of new process technology using electricity, either in place of other energy forms or in new applications.

Five new process technologies in particular were promoted to customers with the help of demonstration equipment. These are the following:

- Infra-red process heating
- Infra-red space heating
- Steam heating and raising
- Industrial element heating
- Hot water heating

In addition, innovative pricing options have facilitated growth by a contribution of R155 million and helped shape loads in a mutually beneficial manner. Through the reduction in costs and better utilisation of capacity, customers enjoyed lower electricity prices.

By the end of 1992 we had 242 customers on time-of-use, which represents some 3% of our large customers and almost 1 000 MW in maximum demand.

Customer incentive schemes achieved additional sales of just over 7 000 GWh in 1992. This was 25% more than additional sales in 1991.

The development and promotion of new local industrial projects are encouraged both nationally and internationally through customised contracts. We target electricity intensive industries which hold the most potential for either expansion or the establishment of new ventures. The most significant achievement to date was the customised electricity supply contract for Alusaf's new smelting plant. This contract allows the price of electricity to vary in proportion to changes in the price of aluminium but is designed to yield the same revenue in the long term as the standard tariff.

Significant progress has been made in gaining acceptance for national domestic electricity tariffs. More retail outlets selling tokens for prepayment meters are being established in newly electrified areas, and a national electricity sales system has been established for this.

In 1992 we launched Industrelek, a customer service concept for industrial and commercial customers. This follows on Agrelek, the already well-established service to farmers.

Nine service centres, at which customers can receive advice and see demonstrations of new technologies and processes, are being established under the banner of Elektroroute.

In the domestic sector, Electrowise was launched as a marketing programme for newly electrified households, to encourage the acquisition of appliances and their safe and effective use. This ensures that customers quickly derive benefits from electricity by encouraging home industries in support of small business development, which makes more people economically active and results in job creation.

ENERGY EFFECTIVE USAGE

The effective use of the earth's irreplaceable natural resources is everybody's responsibility, embraced by Eskom's integrated electricity planning. The aim is to influence the demand and supply sides of the market, thus helping with the timing of investment in new plant. An important building block of this approach is already in place in the form of time-of-use pricing for large customers. A similar concept is under development for small customers.

FINANCE AND SERVICES

MICK DAVIS

Executive Director
FINANCE AND SERVICES

" Our role is to formulate the financial policies and provide the infrastructure to enable managers to make, implement and evaluate sound business decisions and provide value-added, competitive support services at an affordable cost. "

Eskom, being a self-funding entity, aims to maintain a sound financial position by earning a real return on assets. The pricing strategy is to ensure a declining real price of electricity by maintaining price increases below the ruling inflation rate and ensuring stable and predictable price increases. Thus the annual price increase is determined by the costs of supply, the current financial position and future funding requirements for expansion.

FINANCIAL AND TREASURY MANAGEMENT

The financial risks to which Eskom is exposed have considerable impact on Eskom as well as the South African financial markets. Consequently, we employ sophisticated financial risk management techniques to ensure that Eskom's financing needs are met in the most cost-effective manner.

Sensitivity to a 1% increase in South African interest rates is now approximately R52 million at current increased borrowing levels for a full calendar year, compared with R40 million in 1991. This has been achieved at a favourable average net cost of borrowing for the year of 13,3%.

In recognition of Eskom's innovative and comprehensive financial risk management programme, Eskom was named in 1992 as one of the top ten international risk managers of the year.

RISK MANAGEMENT

We have combined insurance, fire, accident and occupational hygiene under one risk management structure. The objective is to protect the staff and physical assets and at the same time reduce the total cost associated with these risks to the organisation.

Self-insurance is at such a level that only cover against catastrophe needs to be purchased in the insurance market. Adequate funding provisions exist for exposure to losses for which Eskom is responsible. Steps are also under way to form our own insurance company.

PURCHASING AND MATERIALS MANAGEMENT

Our goal is to purchase materials at a price escalation which is on average below the electricity price increase. In order to achieve this, we have developed cooperative purchasing agreements with suppliers. As a result, the average material price inflation for the year was below the electricity price increase, and for the major items a price reduction of 3% was achieved.

Eskom has also entered into joint ventures with the Foundation for African Business and Consumer Services and the National African Federated Chambers of Commerce and Industries to allow small businesses to participate in Eskom's electrification programmes. This has resulted in a number of small electrical companies or other contractors being formed or expanded. These now have supply contracts with Eskom.

BUSINESS SERVICES

During the year, all support services were centralised to our group in order to reduce the cost burden, with significant results. The services range from catering and accommodation through horticulture to printing and transport.

INFORMATION AND INFORMATION TECHNOLOGY

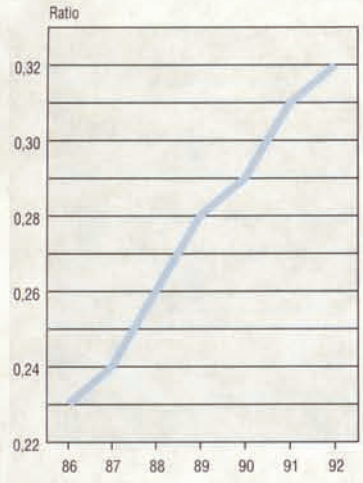
Information obtained from data is only useful for decision-making if it is readily available and meaningful.

We are in the process of determining the future information requirements to support the various business processes.

In support of the information management strategy, the new long-term information technology requirements of Eskom have recently been formulated.

The result of these projects will enhance Eskom's ability to respond to the challenges of the 1990s and beyond.

NET ASSET TURN



Right:
Eskom's horticulture department helps make working surroundings more pleasant.

OPERATIONAL REPORT

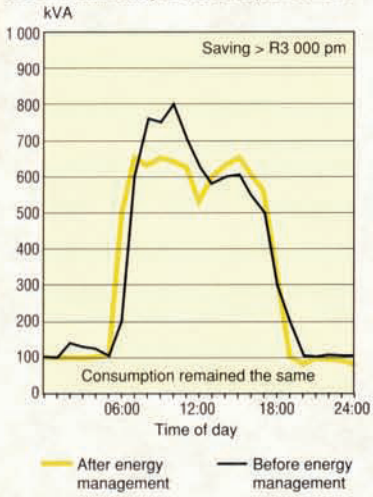
ALEX HAM

Executive Director
TECHNOLOGY

" The Technology Group pioneers investigations and research to ensure that all research and technology at Eskom contributes to electricity being produced and distributed at the lowest unit cost and in the most environmentally responsible manner. "

DEMAND PROFILE

Energy management:
A cost saving is achieved by the consumer by rescheduling the time of switch-on of electrical loads in a small factory to reduce the peak demand.



Right:
This rural school's electricity is supplied by an experimental wind-and-solar generator.

TECHNOLOGY

The current focus of the Technology Group is mainly, though not exclusively, on viable technology and environmental improvements to power stations and transmission and distribution systems. During 1992 we consolidated and optimised our expertise and resources to provide advice to the rest of the organisation, current and future electricity consumers, as well as other utilities worldwide.

TECHNOLOGY POLICY

The Technology Group, in cooperation with customers and stakeholders, continuously scans, evaluates and tracks new technological and environmental developments worldwide, with the view to position Eskom for existing market demands and future economic trends. This knowledge is transferred to Eskom by formulating policies, strategies and standards which are implemented by the various groups. The past year saw the review, identification and formulation of a number of policies. In 1993 we shall continue with this process and establish performance targets and objectives.

RESEARCH AND INVESTIGATION

Eskom's technology development and research is partly driven by needs defined and prioritised by the Group's customers. The other motive is improvement of current technology. We have identified about 50 focus areas served by specialist teams. The desired benefits to Eskom of timeously achieving the objectives are realistically determined up-front.

We also research uses of electricity in the commercial, industrial, mining and domestic sectors to support and promote the use of electricity. A load research programme quantifies what electricity is used for and at what times. This provides essential inputs to the formulation of new tariffs and advice to customers on load management to cut their energy costs.

Some 960 test and investigation projects were completed in 1992. One of the most significant is a fundamental coal combustion research programme which enables Eskom to predict very accurately the in-service combustion behaviour of any type of combustible material. Two other projects, a comprehensive study of the vibration and failure modes on overhead lines and another on accelerated ageing of electricity dispensers, are ensuring that the life of these components is extended significantly. New non-polluting processes are being developed for the destruction of hazardous waste products generated by several industries.

Extensive research is continuing in the area of renewable energy such as solar, wind and micro hydro. Several projects were undertaken in areas remote from the electricity grid. Coupled with this is the development of low-cost reticulation technology to connect users to the grid.

The group participated in the international SAFARI air quality investigation in southern Africa, as well as other collaborative environmental research projects.

TECHNICAL AUDIT

The integrity and performance of Eskom's technical assets is tracked by assessing the effectiveness of design, operations and maintenance. This process spans the full life cycle from initial planning and feasibility studies through to decommissioning and dismantling. Such audits contribute significantly to the effective utilisation and maintenance of these valuable assets.

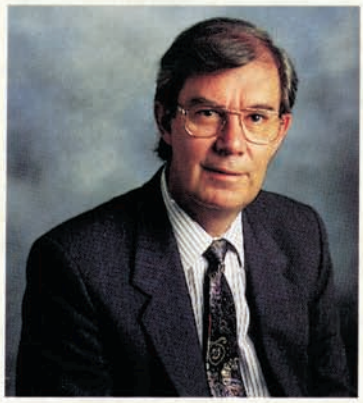
Environmental auditing is handled as an integral part of the organisation's technical audit and quality assurance effort.

NUCLEAR SAFETY

In 1992 we undertook independent safety assessments of Eskom's nuclear operations and extended Eskom's specialist probabilistic risk assessment capability.

OPERATIONAL REPORT

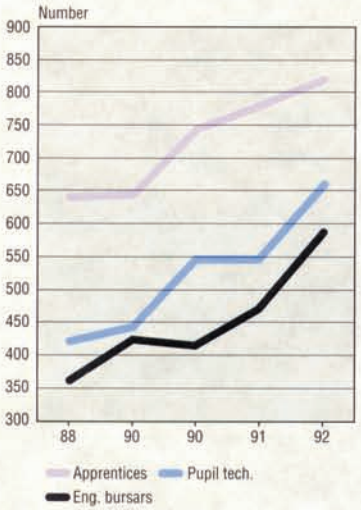
GEORGE LINDEQUE



Executive Director
HUMAN RESOURCES

" Eskom's human resources management aims to establish an adequately skilled and motivated workforce to carry the organisation into the next century. To achieve this the management of human resources is the responsibility of every manager. "

APPRENTICES, PUPIL TECHNICIANS AND ENGINEERING BURSARS



Right:
Eskom and trade unions are establishing a process which will enable unions to participate in decision-making.

HUMAN RESOURCES

The emphasis on human resources development ensures that Eskom is equipped to meet the challenges posed by rapidly changing conditions. The organisation is positioned to meet the skills needs of its developing business areas, and employees are prepared to face constant change with confidence.

We invest in excess of R200 million a year in the development and training of our staff.

Eskom has various programmes to influence the mismatch between skills created by educational institutions and those demanded by industry, by way of career guidance involving teachers and pupils.

A teachers' enrichment programme was implemented in 1992, equipping teachers with communication, presentation and study skills. Workshops to emphasise the importance of mathematics and science at school level were well attended by teachers.

Various bursary and training programmes are in place to meet Eskom's demand for skilled employees and allow it to become largely self-sufficient in critical skills by the year 2000. These include engineers, technicians, artisans and information technologists.

Bursars at universities number 794 of which 588 study engineering. Engineers in training totalled 177 and pupil technicians 660 in 1992. We have 819 engineering apprentices in training.

A further 34 bridging bursaries were awarded to educationally disadvantaged students. Several students who received these bursaries at the start of the programme in 1988 completed their studies in 1992. There are a further 50 students studying for engineering degrees under this programme.

In addition to the above, 7 500 staff members were trained internally to enhance their technical skills.

More than 1 000 employees who had become redundant as a result of the restructuring have been retrained and redeployed into alternative positions. More than 100 blacks at professional and managerial levels are also participating in accelerated development activities to equip them for leadership roles in the organisation.

Our commitment to affirmative action to redress the imbalances between black and white and female and male employees was endorsed by the setting of targets at the beginning of 1992. Merit remains the criterion for advancement and the potential of suitable individuals is released through intensive educational, training and development programmes.

Our efforts to raise the literacy level of our employees have resulted in 60% of our staff being literate. The focus has now shifted from literacy training to adult basic development. Employees can develop their proficiency in subjects such as English, mathematics, science and business education, using adult learning principles.

The Eskom Managers' Challenge, a leadership development initiative for Eskom managers, was also attended by delegates from utilities in Kenya, Malawi, Lesotho, Zambia and Tanzania.

INDUSTRIAL RELATIONS

The high degree of responsibility displayed by the majority of Eskom employees and trade unions resulted in Eskom being relatively unaffected during a difficult year for labour relations in the country.

The industrial relations climate within Eskom was generally good and there were no serious disputes. However, the restructuring programme was perceived by trade unions to be unilateral, with the primary objective of deliberately reducing employment levels. This led to minor protest action by some trade unions.

In order to prevent such misunderstandings in future, Eskom and the ten trade unions representing the majority of its workforce are in the process of establishing an alternative, non-adversarial process of discussion and consultation. Joint Eskom/trade union task groups are investigating issues of mutual concern. This is an important initiative towards trade union involvement in determining the future of our business by influencing decision-making.

OPERATIONAL REPORT

PAUL SEMARK

Executive Director
CORPORATE AFFAIRS

" We try to facilitate Eskom's understanding and anticipation of the socio-political and economic world in which it does business, and the world's understanding of Eskom. We not only adjust to the present and prepare for the future: we play an active role in shaping both. "

FORMAL COOPERATION AGREEMENTS

Utility	Country
NGC/EME	UK
Taipower	Republic of China
RWE	Germany
Unión Eléctrica Fenosa	Spain
EDF	France
EDP	Portugal
ENEL	Italy
SNEL	Zaire
EECI	Ivory Coast
TANESCO	Tanzania
ZESCO	Zambia
Ministry of Mines, Energy and Hydro Resources	Republic of the Congo

Right:
The TANESCO technical delegation at work at Eskom head office.

CORPORATE AFFAIRS

During the past year the success of our efforts to interpret the pressures of the business environment was manifest in our managers' improved ability to anticipate the future, reflected in sound decision-making. Management has an increasingly comprehensive picture of opportunities and threats and of the initiatives essential for creating the future that is desired.

COMMUNICATION

Our communication strategies and programmes are aimed at creating the unification of purpose between Eskom and its stakeholders necessary for Eskom to continue achieving its objectives. Locally, the focus was on positioning Eskom in terms of the expectations of its customers, the public at large and the business community. Various initiatives were directed at employees to help them adjust to the changing environment in South Africa. These included the promotion of cross-cultural understanding.

Internationally, Eskom was positioned as a major contributor to economic growth in South Africa and as an investment opportunity.

INTERNATIONAL RELATIONS

Eskom is an international player in the energy field. In this it is assisted by its European offices which facilitate interaction and keep the organisation abreast of international practices and developments. Eskom sees its future as being closely linked with that of the sub-continent. It is thus poised to play a role in the development of the infrastructure of the subcontinent and acts as a facilitator of high-level contact between interested parties from developed countries and southern Africa.

After some years of relative isolation, we recognise that there is plenty we can learn from practices elsewhere – as well as a few areas in which we have much to offer. We have therefore started to develop relationships with many other organisations with whom we anticipate mutually rewarding interaction. Investigations are under way with a view to establishing a joint venture between Eskom and several European electricity utilities to assist Eskom in its electrification programme. We are also working closely with the World Bank and other development agencies on various prospective South and southern African development or rehabilitation projects. Eskom's international relations continue to expand. Protocols to facilitate the exchange of technology and management processes for mutual benefit were signed with eight power companies in 1992. Eskom now has access to the latest developments in all related fields, as well as various options for handling joint ventures if required. Good working relationships were established with the energy ministries and power companies in all southern African countries.

Eskom remains an active participant in many international organisations. This allows the organisation to interact directly and indirectly with international development agencies, foreign politicians and major international consultants, in the interest of South African and sub-Saharan economic development.

We are willing to cooperate with others in order to build a common future together. We wish to accommodate the needs of our customers and stakeholders, allowing their level of satisfaction to be our measure of success and of the quality of our products.

LEGAL GUIDANCE

Employees' growing awareness of their rights in anticipation of the country's first bill of rights was supported by legal aid clinics at several places in South Africa, including some universities. A "street law" programme was also instituted and sponsored to make the law more understandable and user friendly to employees.

SEVEN YEAR FINANCIAL REVIEW

31 December	**1992**	1991	1990	1989	1988	1987	1986
	Rm	Rm	Rm	Rm	Rm	Rm	Rm
Balance sheet							
Accumulated reserves	**11 985**	10 588	9 600	8 755	8 127	7 311	6 609
Other reserves and provisions	**514**	377	331	302	177	155	—
Net interest-bearing debt	**27 616**	27 266	26 590	24 630	22 779	21 304	19 348
Total funding	**40 115**	38 231	36 521	33 687	31 083	28 770	25 957
Fixed assets	**36 895**	35 405	34 030	31 728	29 169	26 970	24 363
Non-current assets	**2 936**	2 387	2 501	2 185	2 244	2 068	1 780
Current assets	**2 624**	2 453	2 186	2 179	1 972	1 434	1 350
Total assets	**42 455**	40 245	38 717	36 092	33 385	30 472	27 493
Interest-free liabilities	**2 340**	2 014	2 196	2 405	2 302	1 702	1 536
Net assets	**40 115**	38 231	36 521	33 687	31 083	28 770	25 957
Income statement							
Turnover	**12 649**	11 726	10 736	9 271	8 159	7 046	5 845
Operating expenditure	**8 094**	7 159	6 366	5 644	4 858	4 207	3 445
Net operating income	**4 555**	4 567	4 370	3 627	3 301	2 839	2 400
Net interest and finance charges	**2 987**	3 240	3 302	2 899	2 485	2 137	1 619
Net income before abnormal items	**1 568**	1 327	1 068	728	816	702	781
Abnormal items	**(79)**	(325)	(223)	—	—	—	—
Net income	**1 489**	1 002	845	728	816	702	781
Cash flow statement							
Cash flow from operating activities	**6 625**	5 825	5 892	5 106	4 913	4 090	3 328
Net financing charges	**(2 647)**	(2 854)	(2 835)	(2 884)	(2 372)	(2 379)	(2 125)
Net cash flow from operating activities	**3 978**	2 971	3 057	2 222	2 541	1 711	1 203
Net cash utilised in investing activities	**(4 041)**	(3 335)	(3 662)	(3 993)	(3 969)	(3 301)	(3 095)
Net cash required	**(63)**	(364)	(605)	(1 771)	(1 428)	(1 590)	(1 892)
Loans and facilities raised	**3 778**	2 903	5 457	5 137	3 569	3 518	2 425
Loans and facilities repaid	**(1 748)**	(2 158)	(3 502)	(1 635)	(801)	(1 871)	(491)
Net investments and deposits made	**(1 967)**	(381)	(1 350)	(1 731)	(1 340)	(57)	(42)
Net cash raised	**63**	364	605	1 771	1 428	1 590	1 892
Ratios							
Profitability and asset management							
Net asset turn	**0,32**	0,31	0,29	0,28	0,26	0,24	0,23
Return on total assets, %	**10,73**	11,35	11,29	10,05	9,89	9,32	8,73
Gearing							
Debt equity	**2,21**	2,49	2,68	2,72	2,74	2,85	2,93
Interest cover	**1,52**	1,41	1,32	1,25	1,33	1,33	1,48
Value created per employee, R'000	**205**	171	150	129	105	87	68

Definitions of ratios

Net asset turn
Turnover divided by net assets

Return on total assets
Net operating income expressed as a percentage of total assets

Debt equity
Net interest-bearing debt divided by accumulated reserves and other reserves and provisions

Interest cover
Net operating income divided by net interest and finance charges

Value created per employee
Value created divided by number of Eskom employees at 31 December

VALUE ADDED STATEMENT

for the year ended 31 December

Value added is the wealth created by Eskom through the generation, 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.

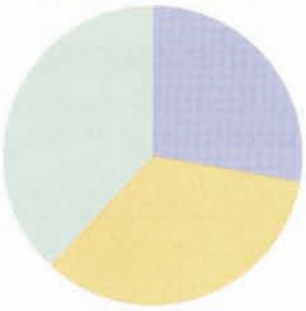
	1992 Rm	**%**	1991 Rm	%
Value created				
Turnover	**12 649**		11 726	
Less: Cost of primary energy, materials, services and abnormal items	**4 007**		3 731	
	8 642	**100**	7 995	100
Value distributed				
To remunerate employees for their services	**2 404**	**28**	2 123	27
To providers of finance for monies borrowed	**2 987**	**34**	3 240	40
	5 391	**62**	5 363	67
Value retained				
To maintain and develop operations	**3 251**	**38**	2 632	33
	8 642	**100**	7 995	100

Value created increased by 8% over 1991. Value distributed to employees increased by 13% over 1991 and now represents 28% of value distributed.

Declining interest and finance charges have resulted in value distributed to providers of finance reducing from 40% in 1991 to 34% in 1992.

In line with the current policy of strengthening Eskom's financial position for the benefit of existing and future customers, 38% (1991: 33%) of value created has been retained in the business for replacement of assets and to further improve the debt equity ratio.

1992
VALUE DISTRIBUTED AND RETAINED



Employees 28%	R2 404 m
Providers of finance 34%	R2 987 m
Retained 38%	R3 251 m

ANNUAL FINANCIAL STATEMENTS

CONTENTS

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 in terms of selected currencies.

	1992	1991
French franc	**1,80**	1,92
German mark	**0,53**	0,55
Pound sterling	**0,22**	0,19
Swiss franc	**0,48**	0,50
US dollar	**0,33**	0,36

RESPONSIBILITY FOR THE ANNUAL FINANCIAL STATEMENTS

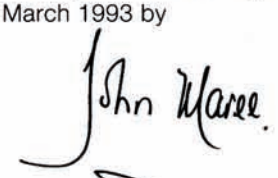
The Management Board of Eskom is responsible for the preparation, integrity and objectivity of the annual financial statements and other information included in this annual report.

Eskom maintains a system of internal accounting and administrative controls focused on critical risk areas which are identified by management. This system, which includes monitoring by a staff of internal auditors, is designed to provide assurance, at appropriate cost, that assets are safeguarded and that transactions are executed and recorded in accordance with Eskom's policies and procedures. It is further supported by the careful selection of competent financial managers, the establishment of organisational structures which provide an appropriate delegation of authority and division of responsibilities and the communication of policies and standards of business conduct throughout Eskom.

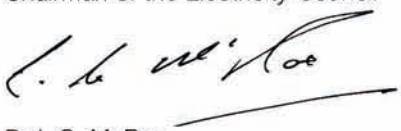
External auditors independently review and report on Eskom's annual financial statements and underlying financial controls.

The Electricity Council has appointed four of its members to an audit committee. This committee meets at least twice a year with management, the internal auditors and the external auditors to review the activities of each in discharging their responsibilities. Both the internal and external auditors have unrestricted access to the Audit Committee to discuss the results of their examinations and the adequacy of Eskom's internal accounting controls.

The annual financial statements for the year ended 31 December 1992, set out on pagess 34 to 47, which have been prepared by the Management Board, were approved by the Electricity Council and signed on its behalf on 4 March 1993 by



Dr J. B. Mareè
Chairman of the Electricity Council



Dr I. C. McRae
Member of the Electricity Council,
Chief Executive of Eskom and
Chairman of the Management Board

REPORT OF THE INDEPENDENT AUDITORS

To the Minister for Public Enterprises

We have audited the annual financial statements set out on pages 34 to 47.

We conducted our audit in accordance with generally accepted auditing standards. These standards require that we plan and perform the audit to obtain reasonable assurance that, in all material respects, fair presentation is achieved in the financial statements. Our audit included an evaluation of the appropriateness of the accounting policies, an examination, on a test basis, of evidence supporting the amounts and disclosures included in the financial statements, an assessment of the reasonableness of significant estimates and a consideration of the appropriateness of the overall financial statement presentation. We consider that our audit procedures were appropriate in the circumstances to express our audit opinion presented below.

In our opinion these financial statements fairly present the financial position of Eskom at 31 December 1992 and the results of its operations and cash flow information for the year then ended in conformity with generally accepted accounting practice and as required by the Eskom Act of 1987.

Deloitte & Touche
Chartered Accountants (SA)
Auditors

KPMG Aiken & Peat
Chartered Accountants (SA)
Auditors

Johannesburg
4 March 1993

ACCOUNTING POLICIES

BASIS OF PREPARATION

In terms of the Eskom Act, and as determined by the Electricity Council, the financial statements are prepared in accordance with the applicable requirements of the Companies Act in conformity with generally accepted accounting practice. The financial statements are prepared on the historical cost basis, except for financial instruments and investments held for trading purposes which are stated at fair value (market value or, where not listed, at valuation). The following principal accounting policies are consistent in all material respects with those applied during the previous year.

INSURANCE RESERVE

The insurance reserve is held to provide for abnormal losses. The reserve is increased annually by any excess of internal premiums, at market-related rates, over claims not covered by external insurance, after taking into account premiums paid to outside insurers.

DECOMMISSIONING OF GENERATING PLANT

Provision for the estimated costs of decommissioning nuclear plant is charged to operating expenditure over its estimated useful life.
Provision is not made for the costs of decommissioning other plant unless it is expected that decommissioning costs will exceed the net proceeds from the disposal of associated land and the salvage value of the plant.

LOAN DISCOUNT

Discounts or premiums on local registered stock in issue are amortised over the period of such loans using the yield to redemption method.

FOREIGN CURRENCIES

Transactions in foreign currencies are recorded at the spot rate on transaction date or at the spot rate specified in the related forward exchange contract. Monetary assets, liabilities and commitments in foreign currencies are translated at the forward rates of the underlying forward exchange contracts or at the rates of exchange ruling at year end. The unamortised forward exchange contract costs are included in foreign debt.
Forward exchange contract costs are recognised over the periods of the related contracts. These costs, as well as profits and losses on foreign currency transactions, are included in interest and finance charges.

DERIVATIVE FINANCIAL INSTRUMENTS

The premiums received or paid on derivative financial instruments designated as hedges are amortised over the lives of the instruments. Profits and losses on these instruments are deferred and recognised on the same basis as the hedged transactions.
Derivative financial instruments held for trading purposes are stated at fair value and the resultant profits and losses are included in interest and finance charges.

INVESTMENTS

Non-trading investments included in net interest-bearing debt are stated at cost which is adjusted for amortised discount on the yield to redemption method where applicable. Profits and losses are recognised on realisation and included in interest and finance charges.
Trading investments are stated at fair value and the resultant profits and losses are included in interest and finance charges.
Unlisted investments included in non-current assets are stated at cost less amounts provided for diminution in value.

FIXED ASSETS AND DEPRECIATION

Fixed assets are stated at cost of acquisition or construction, less depreciation thereon.
Land is not depreciated. Rights are fully depreciated on acquisition.
Other fixed assets in commission are depreciated on the straight-line basis over their estimated useful lives.
Plant at mothballed power stations is not being depreciated.
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 net interest which is capitalised at the average cost of capital employed.
Construction materials are stated at weighted average cost.
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.

LEASED ASSETS

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

FUTURE FUEL SUPPLIES

Certain long-term supply contracts require advance payments to suppliers of coal. These payments, together with interest capitalised thereon, are deferred and amortised against the cost of coal on the basis of quantities of coal purchased.

FUEL AND STORES

Nuclear fuel is valued at cost on the first-in-first-out basis. The charge to operating expenditure is based on estimated fuel consumption.
Other fuel and stores are valued at weighted average cost. Provision for obsolescence is made where appropriate.

PROVISION FOR ARREAR DEBTS

Provision is made for arrear debts which are considered irrecoverable. Bad debts are written off when incurred.

TURNOVER

Turnover comprises electricity revenue and excludes value-added tax. Revenue is recognised at the time customers are invoiced.

RESEARCH AND DEVELOPMENT

Research and development costs are charged to operating expenditure when incurred.

TAXATION

In terms of Section 24 of the Eskom Act, Eskom is exempt from South African normal taxation on income.

RETIREMENT BENEFITS

Eskom provides retirement benefits for its employees through the Eskom Pension and Provident Fund, a defined benefit fund, which is registered in terms of the Pension Funds Act, 1956 (as amended). Contributions to the Fund are based on a percentage of salaries and are expensed in the period in which they are incurred. Gratuities paid to retiring employees are expensed in the period in which they are paid.

BALANCE SHEET

At 31 December	Notes	1992	1991
		Rm	Rm
CAPITAL EMPLOYED			
Accumulated reserves		**11 985**	10 588
Other reserves and provisions	1	**514**	377
		12 499	10 965
Net interest-bearing debt	2		
Long term		**24 438**	24 172
Short term		**3 178**	3 094
		27 616	27 266
		40 115	38 231
EMPLOYMENT OF CAPITAL			
Fixed assets	3	**36 895**	35 405
Non-current assets	4	**2 936**	2 387
		39 831	37 792
Current assets			
Fuel and stores	5	**1 416**	1 433
Debtors		**1 208**	1 020
		2 624	2 453
Total assets		**42 455**	40 245
Interest-free liabilities			
Creditors		**1 820**	1 547
Net interest payable	6	**520**	467
		2 340	2 014
		40 115	38 231

INCOME STATEMENT

For the year ended 31 December	Notes	**1992**	1991
		Rm	Rm
Turnover	7	**12 649**	11 726
Operating expenditure	8	**8 094**	7 159
Net operating income		**4 555**	4 567
Net interest and finance charges	9	**2 987**	3 240
Net income before abnormal items		**1 568**	1 327
Abnormal items	10	**(79)**	(325)
Net income		**1 489**	1 002
Transfer to insurance reserve		**(92)**	(14)
Retained income for the year		**1 397**	988
Accumulated reserves at beginning of year		**10 588**	9 600
Accumulated reserves at end of year		**11 985**	10 588

CASH FLOW STATEMENT

For the year ended 31 December	Notes	**1992**	1991
		Rm	Rm
Cash flow from operating and investing activities			
Cash flow from operating activities	14.1	**6 625**	5 825
Net financing charges	14.2	**(2 647)**	(2 854)
Net cash flow from operating activities		**3 978**	2 971
Net cash utilised in investing activities	14.3	**(4 041)**	(3 335)
Net cash required		**(63)**	(364)
Net cash from funding activities			
Loans and facilities raised	14.4	**3 778**	2 903
Loans and facilities repaid	14.5	**(1 748)**	(2 158)
Net investments and deposits made		**(1 967)**	(381)
Net cash raised		**63**	364

For the year ended 31 December	**1992**	1991
	Rm	Rm
1. Other reserves and provisions		
Insurance reserve	**206**	114
Balance at beginning of year	**114**	100
Excess of premiums over claims for the year	**92**	14
Provision for decommissioning costs	**308**	263
	514	377
2. Net interest-bearing debt		
Eskom's funding is managed in a single pool consisting of debt and investments. Funds received from swap cash flows and prefunding activities are invested, pending their use for repayments of loans and for funding of operating and capital expenditure.		
The manner in which Eskom's funding is managed is most appropriately disclosed as follows:		
Interest-bearing debt	**34 028**	31 711
Investments and deposits	**(6 412)**	(4 445)
Net interest-bearing debt	**27 616**	27 266
Net interest-bearing debt consists of:		
2.1 Long term		
Eskom local registered stock	**23 584**	22 517
Loan discount	**(3 895)**	(4 003)
	19 689	18 514
Foreign debt	**7 492**	7 775
Other local debt	**–**	22
	27 181	26 311
Investments		
Republic of South Africa, municipal and other stocks and deposits	**(2 743)**	(2 139)
Fair value R2 803 million (1991: R2 127 million)		
	24 438	24 172
2.2 Short term		
Eskom local registered stock	**1 014**	908
Loan discount	**(26)**	(16)
	988	892
Foreign debt	**1 707**	1 501
Other local debt	**4 152**	3 007
	6 847	5 400
Investments		
Deposits and other	**(3 669)**	(2 306)
Fair value R3 669 million (1991: R2 306 million)		
	3 178	3 094
Short-term debt includes credits and short-term advances of a revolving nature amounting to	**4 211**	3 148

For the year ended 31 December

2. Net interest-bearing debt *(continued)*

2.3 The maturity structure of net interest-bearing debt is as follows:

	Total	Within 1 year	After 1 year within 5 years	After 5 years within 10 years	After 10 years
	Rm	Rm	Rm	Rm	Rm
1992					
Local debt	**24 829**	**5 140**	**4 406**	**3 437**	**11 846**
Foreign debt	**9 199**	**1 707**	**5 709**	**1 764**	**19**
Interest-bearing debt	**34 028**	**6 847**	**10 115**	**5 201**	**11 865**
Investments and deposits	**(6 412)**	**(3 669)**	**(1 142)**	**(559)**	**(1 042)**
Net interest-bearing debt	**27 616**	**3 178**	**8 973**	**4 642**	**10 823**
1991					
Net interest-bearing debt	27 266	3 094	9 915	2 809	11 448

The weighted average maturity period of interest-bearing debt is 8,4 years (1991: 9,0 years).

		1992 Rm	1991 Rm
2.4	The authorised nominal value of local registered stock is (Refer Schedule 1.)	**59 999**	32 933
2.5	The rand equivalent of foreign debt by major currency is as follows:		
	US dollar	**5 191**	5 507
	German mark	**3 259**	2 888
	Other	**749**	881
		9 199	9 276

All significant foreign currency exposures were appropriately hedged at 31 December 1992.

2.6 The average annual rate of net interest and finance charges on net interest-bearing debt amounted to 13,3% (1991: 14,5%).

For the year ended 31 December

3. Fixed assets

	Cost	Accumulated depreciation	Book value
	Rm	Rm	Rm
1992			
Land and rights	**321**	**76**	**245**
Buildings and facilities	**2 096**	**712**	**1 384**
Plant – Generation	**27 987**	**6 522**	**21 465**
– Transmission	**4 767**	**1 209**	**3 558**
– Distribution	**6 114**	**1 452**	**4 662**
Test and telecommunication equipment	**346**	**226**	**120**
Equipment and vehicles	**945**	**636**	**309**
Leased equipment	**112**	**109**	**3**
Total in commission	**42 688**	**10 942**	**31 746**
Plant at mothballed power stations	**2 557**	**523**	**2 034**
Works under construction	**2 935**	**—**	**2 935**
Construction materials	**180**	**—**	**180**
	48 360	**11 465**	**36 895**
1991			
Land and rights	342	70	272
Buildings and facilities	2 204	673	1 531
Plant – Generation	26 768	5 469	21 299
– Transmission	4 281	1 027	3 254
– Distribution	5 093	1 234	3 859
Test and telecommunication equipment	314	187	127
Equipment and vehicles	876	572	304
Leased equipment	112	97	15
Total in commission	39 990	9 329	30 661
Plant at mothballed power stations	1 590	514	1 076
Works under construction	3 541	—	3 541
Construction materials	127	—	127
	45 248	9 843	35 405

Completion of the Majuba Power Station near Volksrust is being impeded by adverse geological conditions at the feeder Randcoal Majuba Colliery. Eskom has suspended construction of three of the six generating units pending further investigations. Investigations into the most cost-effective option will be concluded by the end of 1993.

For the year ended 31 December	**1992**	1991
	Rm	Rm
4. Non-current assets		
Future fuel supplies	**1 934**	1 775
Unlisted investments (Refer Schedule 2.)	**871**	437
Housing loans to employees – secured by first mortgages	**72**	112
Debtors for reticulation systems	**59**	63
	2 936	2 387
5. Fuel and stores		
Fuel	**861**	927
Maintenance and consumable stores	**555**	506
	1 416	1 433
6. Net interest payable		
Interest payable	**691**	567
Interest receivable	**(171)**	(100)
	520	467
7. Turnover		
Bulk	**5 674**	5 155
Industrial	**3 575**	3 400
Mining	**2 711**	2 570
Traction	**444**	420
Domestic and lighting	**245**	181
	12 649	11 726
8. Operating expenditure		
Operating expenditure includes:		
Audit fees	**2**	2
Depreciation	**1 762**	1 630
Rights	**7**	6
Buildings and facilities	**85**	76
Plant	**1 498**	1 386
Test and telecommunication equipment	**40**	31
Equipment and vehicles	**120**	112
Leased equipment	**12**	19
Managerial, technical and other fees	**27**	24
Operating lease charges on equipment	**1**	1
(Profit)/loss on disposal of fixed assets	**(10)**	7
Provision for decommissioning costs	**45**	32

For the year ended 31 December	**1992**	1991
	Rm	Rm
9. Net interest and finance charges		
Interest paid and discount amortised	**4 491**	4 660
Local registered stock	**3 030**	2 736
Foreign debt	**1 082**	1 344
Other local debt	**379**	580
Interest received and discount amortised	**(1 006)**	(828)
	3 485	3 832
Amounts capitalised	**(498)**	(592)
	2 987	3 240
Interest received includes amounts from		
Subsidiary company	**17**	—
Associate company	**115**	57
10. Abnormal items		
Provision arising on the mothballing of power stations and suspension of operations at associated collieries	**—**	(34)
Provision for arrear debts	**(283)**	(291)
Reversal of provision for arrear debts previously provided	**204**	—
	(79)	(325)
11. Commitments		
11.1 Commitments in respect of capital expenditure		
Estimated capital expenditure contracted for This expenditure will be financed from debt and internally generated funds and is expected to be incurred as follows:	**4 249**	4 773
within one year	**1 189**	1 634
thereafter	**3 060**	3 139
11.2 Commitments in respect of derivative financial instruments		
Option contracts, commodity futures contracts, interest rate swaps and interest rate caps have been entered into. No material losses are anticipated as a result of these transactions.		
11.3 Commitment in respect of undrawn financing facility		
Payable to Alusaf Limited:	**270**	—
within one year	**120**	—
thereafter	**150**	—

For the year ended 31 December	**1992**	1991
	Rm	Rm
12. Contingent liabilities		
12.1 Guarantees issued to financial institutions as security for housing loans granted to employees	**15**	20
12.2 In terms of the shareholders' agreement, signed between the members of an associate finance company, Eskom has guaranteed the amounts due by the associate to other members of the company, amounting to	**503**	693
12.3 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. Retirement benefits		
The Eskom Pension and Provident Fund is valued at intervals of not more than three years. Any deficit will be funded by the payment of actuarially determined lump sums or by future contributions. The last actuarial valuation was performed at 31 December 1991 when the consulting actuaries reported that the Fund was in a sound financial position. No events have had a significant effect on the Fund's financial position since this evaluation.		
14. Cash flow information		
14.1 Cash flow from operating activities		
Net operating income	**4 555**	4 567
Abnormal items	**(79)**	(325)
	4 476	4 242
Non-cash items	**1 994**	1 857
Depreciation	**1 762**	1 630
Fuel amortisation	**197**	188
(Profit)/loss on disposal of fixed assets	**(10)**	7
Provision for decommissioning costs	**45**	32
Cash generated by operations	**6 470**	6 099
Cash released from/(applied to) working capital	**155**	(274)
Fuel and stores	**70**	35
Debtors	**(188)**	(51)
Creditors	**273**	(258)
	6 625	5 825

For the year ended 31 December	**1992**	1991
	Rm	Rm
14. Cash flow information *(continued)*		
14.2 Net financing charges		
Net interest and finance charges	**(2 987)**	(3 240)
Non-cash items	**340**	386
Forward exchange contract costs	**86**	145
Net discount amortised – local registered stock	**201**	165
Net interest payable	**53**	76
	(2 647)	(2 854)
14.3 Net cash utilised in investing activities		
Expenditure on land, buildings and plant	**(3 346)**	(2 939)
Expenditure on equipment and vehicles	**(87)**	(122)
	(3 433)	(3 061)
Proceeds from disposals	**191**	48
Net expenditure on fixed assets	**(3 242)**	(3 013)
Expenditure on future fuel supplies	**(409)**	(365)
Net housing loans to employees	**40**	43
Net capital expenditure	**(3 611)**	(3 335)
Unlisted investments	**(434)**	—
Debtors for reticulation systems	**4**	—
	(4 041)	(3 335)
14.4 Loans and facilities raised		
Local registered stock	**1 811**	2 176
Foreign debt	**844**	720
Other local debt	**1 123**	7
	3 778	2 903
14.5 Loans and facilities repaid		
Local registered stock	**(741)**	(441)
Foreign debt	**(1 007)**	(1 352)
Other local debt	**—**	(365)
	(1 748)	(2 158)

SCHEDULE 1

LOCAL REGISTERED STOCK

At 31 December 1992

Loan	Authorised nominal value 31/12/92 Rm	Coupon rate %	Capital repayment dates	Interest payment dates	Issued nominal value **31/12/92 Rm**	Issued nominal value 31/12/91 Rm
61	—	6,875	1992	Mar/Sep	—	22
64	—	6,5	1992	Mar/Sep	—	8
65	—	6,875	1992	Mar/Sep	—	29
70	10	6,5	1993	Mar/Sep	**8**	8
71	70	6,875	1993	Mar/Sep	**51**	61
75	22	6,5	1993	Apr/Oct	**14**	17
76	48	6,875	1993	Apr/Oct	**41**	41
78	20	6,5	1994	Apr/Oct	**18**	18
79	30	6,875	1994	Apr/Oct	**24**	30
81	10	6,5	1994	Apr/Oct	**9**	10
82	25	6,875	1994	Apr/Oct	**23**	24
83	18	7,5	1995	Apr/Oct	**17**	17
84	3	7	1995	Apr/Oct	**3**	3
85	35	8,75	1995	May/Nov	**21**	29
86	10	8,5	1995	May/Nov	**7**	7
87	45	9,25	1996	Jan/Jul	**20**	19
88	10	8,75	1996	Jan/Jul	**5**	7
89	20	9,25	1996	Jun/Dec	**8**	7
90	30	9,25	1996	Jun/Dec	**15**	9
91	10	8,75	1996	Jun/Dec	**2**	1
92	20	9,25	1997	Jun/Dec	**12**	13
93	22	9,125	1997	May/Nov	**10**	5
94	5	8,75	1997	May/Nov	**2**	2
95	25	8,5	1997	Jun/Dec	**5**	3
96	28	8,25	1997	May/Nov	**12**	13
97	7	8	1997	May/Nov	**5**	4
98	45	8,25	1997	May/Nov	**34**	34
99	30	8,25	1998	Jun/Dec	**19**	10
100	20	8,375	1998	Jun/Dec	**17**	6
101	5	8	1998	Jun/Dec	**3**	3
103	24	8	1998	Feb/Aug	**19**	20
104	6	7,625	1998	Feb/Aug	**5**	5
106	45	8	1998	Jun/Dec	**23**	13
107	27	9	1999	Feb/Aug	**22**	22
108	3	8,5	1999	Feb/Aug	**—**	—
110	30	9,5	1999	Jan/Jul	**23**	23
111	9	10,75	2000	Jan/Jul	**4**	4
112	29	10,75	2000	Jan/Jul	**18**	20
113	40	10,75	2000	Feb/Aug	**34**	34
114	25	10,75	2000	Jun/Dec	**18**	18
115	5	10,25	2000	Jun/Dec	**3**	4
C/fwd	866				**574**	623

Loan	Authorised nominal value 31/12/92 Rm	Coupon rate %	Capital repayment dates	Interest payment dates	Issued nominal value **31/12/92 Rm**	Issued nominal value 31/12/91 Rm
B/fwd	866				**574**	623
116	30	10,75	2000	Feb/Aug	**21**	24
118	55	11	2000	Apr/Oct	**50**	53
119	6	10,75	1995	Apr/Oct	**2**	—
121	40	11,4	2001	Mar/Sep	**33**	35
122	2	11,1	1986/96	Mar/Sep	**1**	1
123	40	12,75	1996	May/Nov	**37**	39
126	40	12,5	2001	Jun/Dec	**34**	39
127	150	12,6	1999	Mar/Sep	**122**	132
131	250	11,15	2002	Apr/Oct	**12**	12
132	250	11,75	2002	Apr/Oct	**48**	70
134	170	10,75	2003	May/Nov	**10**	11
135	270	11,3	2003	May/Nov	**29**	40
138	150	9,7	2003	Feb/Aug	**8**	9
139	340	10,25	2003	Feb/Aug	**14**	39
141	130	8,65	2004	Mar/Sep	**10**	28
142	350	9,15	2004	Mar/Sep	**65**	85
144	130	9,05	2005	Feb/Aug	**10**	11
145	270	9,55	2005	Feb/Aug	**41**	15
147	—	9,05	1992	Jun/Dec	**—**	42
148	100	9,05	2005	Jun/Dec	**3**	48
149	230	9,55	2005	Jun/Dec	**6**	44
151	275	10,95	2004	May/Nov	**4**	9
152	100	12,8	1993	Apr/Oct	**68**	83
153	400	12,95	2006	Apr/Oct	**357**	310
154	220	10	2007	May/Nov	**165**	157
155	170	13,2	2007	May/Nov	**165**	162
157	415	14,25	2008	May/Nov	**402**	407
158	2 000	9,25	1994	Mar/Sep	**1 768**	1 184
159	325	12	2008	Mar/Sep	**307**	191
160	350	11	2009	May/Nov	**214**	250
163	125	10,5	2004	Jun/Dec	**99**	101
164	—	14	1992	Jun/Dec	**—**	807
165	2 000	11	1995	Feb/Aug	**832**	791
166	1 250	11	1993	Apr/Oct	**833**	797
167	3 000	12	1996	May/Nov	**1 742**	1 470
168	16 000	11	2008	Jun/Dec	**12 973**	13 386
169	3 000	15	1998	Apr/Oct	**2 759**	1 920
170	20 000	13,5	2020	Feb/Aug	**642**	—
171	6 500	—	2002	—	**138**	—
	59 999				**24 598**	23 425

SCHEDULE 2

UNLISTED INVESTMENTS

At 31 December 1992

The following unlisted investments are included under non-current assets. (Refer Note 4.) These investments are recorded at cost less amounts provided for diminution in value and have not been consolidated or equity accounted since their assets and operating results are not material in relation to Eskom's assets and operating results.

Name	Nature of operation	Issued/ stated capital R	Effective holding **31/12/92** %	31/12/91 %	Investment **31/12/92** **Rm**	31/12/91 Rm	Indebtedness **31/12/92** **Rm**	31/12/91 Rm
SUBSIDIARY COMPANY								
Rotek Industries (Pty) Ltd	Maintenance and service	4 000	**100**	100	**—**	—	**154**	—
					—	—	**154**	—
ASSOCIATE COMPANIES								
Ash Resources (Pty) Ltd*	Ash processing	200	**25**	25	**—**	3	**—**	1
Clinker Supplies (Pty) Ltd*	Ash processing	100 000	**50**	50	**—**	—	**—**	2
Eskom Finance Company (Pty) Ltd	Finance (employee housing loans)	4 000	**20**	20	**—**	—	**678**	426
Gezicor (Pty) Ltd	Electricity reticulation	1 000	**50**	—	**—**	—	**4**	—
Kescor (Pty) Ltd	Electricity reticulation	1 000	**50**	50	**—**	—	**3**	3
Kwanobuhle Electricity Supply Company (Pty) Ltd	Electricity reticulation	40 000	**50**	50	**2**	2	**—**	—
					2	5	**685**	432
OTHER								
Alusaf Ltd – loan		—	**—**	—	**—**	—	**30**	—
					2	5	**869**	432
Indebtedness					**869**	432		
					871	437		

* Held indirectly

1. Statistical overview

	1992	1991	1990	1989	1988	1987	1986	1985	1984	1983
Sales										
Total sold, GWh[1]	**138 126**	138 687	136 168	134 347	129 493	122 524	117 353	112 306	106 904	98 251
Growth in GWh sales, percent	**–0,4**	1,8	1,4	3,7	5,7	4,4	4,5	5,1	8,8	2,2
Electricity output										
Total electricity production in South Africa, GWh[2]	**149 427**	148 919	147 069	146 162	140 802	134 751	130 056	126 206	120 835	112 366
Eskom electricity production as percentage of South African total	**97,9**	98,0	97,5	96,7	97,0	96,1	95,1	94,5	94,3	93,8
Total electricity for Eskom system (Eskom stations and purchased), GWh[3]	**148 556**	148 934	146 320	143 548	139 197	132 774	126 766	122 494	117 086	108 321
Total produced by Eskom stations, GWh	**148 207**	148 671	146 047	143 204	138 837	132 507	126 511	121 987	116 581	103 295
Subtotal from coal-fired stations, GWh	**136 830**	135 743	134 744	128 304	123 777	122 947	114 298	113 941	110 094	100 738
Subtotal from hydro-electric stations, GWh	**752**	1 980	1 010	2 759	3 162	1 617	1 623	624	560	595
Subtotal from pumped storage stations, GWh	**1 333**	1 804	1 841	1 039	1 403	1 774	1 785	2 107	1 994	1 957
Subtotal from diesel and gas turbine stations, GWh	**4**	—	3	3	2	2	2	—	8	5
Subtotal from nuclear power station, GWh	**9 288**	9 144	8 449	11 099	10 493	6 167	8 803	5 315	3 925	—
Total purchased for Eskom system, GWh	**349**	263	273	344	360	267	255	507	505	5 026
Total consumed by Eskom, GWh[4]	**2 295**	2 933	2 953	2 265	2 567	3 229	3 018	3 265	3 188	2 917
Total available for distribution, GWh	**146 261**	146 001	143 367	141 283	136 630	129 545	123 748	119 229	113 898	105 404
Plant performance										
Total power station nominal capacity, MW	**39 060**	38 396	35 673	34 141	33 176	31 261	28 086	25 716	24 514	22 949
Total power station capacity, net maximum capacity, MW	**36 846**	36 228	33 843	32 403	31 465	29 618	26 682	24 359	23 168	21 673
Peak demand on integrated Eskom system, MW	**22 640**	22 342	21 863	21 871	20 589	20 001	18 278	17 852	17 296	15 639
Average station availability, percent[5]	**76,7**	76,1	75,0	78,1	79,1	79,2	78,5	77,5	74,9	71,9
Generation load factor (after excess capacity management), percent[6]	**46,9 (54,6)**	49,8 (58,5)	50,5 (57,3)	51,1	52,3	54,3	55,5	58,0	58,1	55,6
Integrated Eskom system load factor, percent	**73,5**	74,6	74,9	73,7	75,5	73,9	77,3	76,2	75,0	76,9
Coal burnt, thousands of tons	**71 037,9**	70 523,2	70 861,2	67 529,3	64 489,6	65 787,0	58 915,9	59 488,6	58 703,6	55 010,2
Coal consumption, kg/kWh net	**0,519**	0,520	0,526	0,523	0,521	0,535	0,515	0,522	0,533	0,546
Average heat rate of coal-fired stations, MJ/kWh net	**10,54**	10,49	10,66	10,72	10,71	11,00	10,95	11,26	11,45	11,57
Average gross calorific value of coal (as received), MJ/kg	**20,25**	20,21	20,26	20,20	20,44	20,48	21,19	21,52	21,38	21,11
Overall thermal efficiency, percent	**34,2**	34,3	33,7	33,6	33,6	32,7	32,9	32,0	31,4	31,1
Average cost of coal burnt, R/ton	**27,47**	25,70	23,91	20,9	18,67	17,11	14,87	13,25	12,55	12,44
Average cost of coal burnt, c/kWh	**1,4263**	1,3354	1,2575	1,1023	0,9727	0,9155	0,7665	0,6916	0,6692	0,6793
Employees										
Total number at 31 December[7]	**42 223**	46 637	50 000	51 554	56 726	56 830	60 800	66 000	64 560	62 420
GWh sold per employee	**3,271**	2,974	2,723	2,606	2,283	2,156	1,930	1,702	1,656	1,574
Sales to countries in southern Africa, GWh										
Bophuthatswana	**3 532,3**	3 294,7	2 972,0	2 453,1	2 295,7	2 124,5	1 805,9	1 750,4	1 490,1	1 242,9
Botswana	**100,4**	105,8	84,2	57,8	53,4	77,5	232,3	222,4	185,7	159,7
Ciskei	**404,4**	389,3	369,0	353,8	299,8	250,7	191,4	164,5	133,7	104,4
Mozambique	**435,5**	383,3	321,6	307,1	340,4	329,2	303,8	227,8	283,5	293,2
Lesotho	**240,6**	205,7	192,3	181,9	170,9	156,2	134,6	123,7	116,8	110,9
Swaziland	**567,0**	356,6	409,5	274,0	290,3	253,5	277,1	227,2	250,2	333,4
Namibia	**457,5**	822,7	586,3	556,6	452,9	613,6	411,1	223,8	186,9	422,2
Transkei	**292,3**	254,2	191,0	109,7	126,9	110,6	84,9	99,8	138,7	160,2
Venda	**135,6**	107,6	107,6	92,7	73,8	59,8	54,0	45,0	35,0	27,1
Zimbabwe	**13,8**	6,2	13,2	14,6	16,5	16,5	15,6	11,5	12,5	13,1
	6 179,2	5 926,1	5 246,7	4 401,1	4 120,6	3 992,0	3 510,7	3 096,1	2 833,0	2 867,1

1. Difference between electricity available for distribution and electricity sold is due to transmission losses. 2. Electricity production by Eskom and by some industries and municipalities which generate all or part of their electricity requirements. 3. Includes Eskom electricity produced and delivered to neighbouring countries.

4. In respect of pumped storage facilities and synchronous condenser mode of operation. See Table 2, Note 6. 5. Capacity hours available x 100/total capacity hours in year. 6. kWh produced x 100/(average net maximum capacity x hours in year). 7. Excluding 1 943 employees of Rotek Industries (Pty) Ltd for 1992 only.

TABLES
continued

2. Power stations in commission at 31 December 1992

Name of station	Location	Number and capacity of generator sets MW	Total nominal capacity MW	Total net maximum capacity MW[1]	Generators in reserve storage Number	Generators in reserve storage Total rating MW
Coal-fired stations						
Arnot[2]	Middelburg, Tvl	6 x 350	2 100	1 955	3	990
Camden[3]	Ermelo	8 x 200	1 600	1 520	8	1 520
Duvha[2]	Witbank	6 x 600	3 600	3 450	—	—
Grootvlei[3]	Balfour	6 x 200	1 200	1 130	6	1 130
Hendrina[2]	Hendrina	10 x 200	2 000	1 900	—	—
Highveld[3]	Sasolburg	8 x 60	480	412	8	412
Ingagane[3]	Newcastle	5 x 100	500	465	5	465
Kendal[2, 7]	Witbank	5 x 686	3 430	3 200	—	—
Komati[3]	Middelburg, Tvl	5 x 100; 4 x 125	1 000	891	9	891
Kriel[2]	Bethal	6 x 500	3 000	2 700	—	—
Lethabo[2]	Sasolburg	6 x 618	3 708	3 558	—	—
Matimba[2, 7]	Ellisras	6 x 665	3 990	3 690	—	—
Matla[2]	Bethal	6 x 600	3 600	3 450	—	—
Salt River[4]	Cape Town	4 x 30; 2 x 60	240	228	4	114
Taaibos[3]	Sasolburg	8 x 60	480	440	8	440
Tutuka[2]	Standerton	6 x 609	3 654	3 510	—	—
Wilge[4]	Witbank	2 x 30; 3 x 60	240	199	3	89
Subtotal coal-fired stations (17)			34 822	32 698	54	6 051
Gas turbine and diesel stations[4]						
Acacia	Cape Town	3 x 57	171	171	—	—
Port Rex	East London	3 x 57	171	171	—	—
Paratus	Walvis Bay	4 x 6,4	26	26	—	—
Subtotal gas turbine and diesel stations (3)			368	368	—	—
Hydro-electric stations[5]						
Hendrik Verwoerd	Norvalspont	4 x 80	320	320	—	—
Vanderkloof	Petrusville	2 x 110	220	220	—	—
Subtotal hydro-electric stations (2)			540	540	—	—
Pumped storage schemes[6]						
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	—	—
Nuclear power station						
Koeberg	Cape Town	2 x 965	1 930	1 840	—	—
Total in service, 25 Eskom stations			39 060	36 846	54	6 051

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. Base-load station. 3. Mothballed. 4. Stations used for peaking or emergency supplies. 5. Use restricted to peaking and emergencies and availability of water in Hendrik Verwoerd and P.K. le Roux dams. 6. Pumped storage facilities are net users of electricity and are used for peaking. Water is pumped during off-peak periods to generate electricity during peak periods. 7. Dry-cooled unit specifications are based on design back-pressure and ambient air temperature.

3. Generating set taken into service during 1992

	Total nominal capacity, MW	Total net max. capacity, MW
Kendal, set 5	686	640
Total	686	640

4. Generating sets on order at 31 December 1992

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	Total net max. capacity of sets on order	Year of completion first (last) set
Kendal, coal fired								
Kendal	6 x 686	6 x 640	4 116	3 840	5 (1)	686	640	1988 (1993)
Majuba, coal fired	3 x 657	3 x 612						
Volksrust	3 x 711	3 x 667	4 104	3 837	0 (6)	4 104	3 837	1996 (2001)
Total generating sets on order						4 790	4 477	

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

5. Transmission and distribution equipment in service at 31 December

		1992	1991
Main transmission system, km	765 kV[1]	**871**	871
	533 kV DC (monopolar)	**1 030**	1 030
	400 kV[2]	**13 782**	13 187
	275 kV	**7 199**	6 992
	220 kV	**1 243**	1 239
	132 kV[3]	**491**	—
Distribution lines, km	165 – 132 kV	**16 910**	17 011
	88 – 33 kV	**21 099**	21 063
Reticulation lines, km	22 kV and lower	**170 484**	165 424
Total all lines, km		**233 109**	226 817
Cables, km	165 – 132 kV	**56**	67
	88 – 33 kV	**313**	330
	22 kV and lower	**4 740**	4 126
Total all cables, km		**5 109**	4 523
Transformers	Capacity MVA	**164 865**	148 438
	Number	**141 407**	135 316

1. One of the two 765 kV lines between Alpha and Beta substations is being temporarily run at 400 kV. 2. A further 283 km of 765 kV line is being temporarily run at 400 kV. 3. Sundry 132 kV lines have been absorbed by Transmission owing to their particular application.

6. Sales of electricity to categories of customers

Category	Number of customers	GWh sold **1992**	GWh sold 1991	Increase % 91-92	Average price c/kWh sold **1992**	Average price c/kWh sold 1991
Bulk	722	**63 193**	62 482	1,1	**8,978**	8,255
Domestic and street lighting *	397 562	**1 604**	1 138	40,9	**15,277**	15,882
Commercial	17 918	**379**	344	10,2	**15,587**	14,284
Industrial	2 682	**34 034**	35 470	–4,0	**8,173**	7,724
Mining	583	**30 840**	31 366	–1,7	**8,791**	8,119
Rural/farming	122 097	**4 038**	3 711	8,8	**17,130**	15,940
Traction	36	**3 568**	3 685	–3,2	**12,437**	11,406
Own usage	266	**470**	491	–4,3	**9,069**	8,365
	541 866	**138 126**	138 687	–0,4	**9,157**	8,455

** Increase in this category is mainly due to Eskom's electrification drive and the take-over of electricity supply to certain local authorities which were previously supplied in bulk.*

7. Analysis of registered holders of Eskom local registered stock at 31 December

	% of issued nominal value **1992**	% of issued nominal value 1991
Insurance companies, pension and provident funds	**15**	20
Corporate bodies	**9**	9
Nominee companies	**52**	49
Private individuals	**24**	22
	100	100

HEAD OFFICE

Megawatt Park, Maxwell Drive, Sandton. Telephone: (011) 800-8111

POSTAL ADDRESS

PO Box 1091, Johannesburg 2000

Copies of this report may be obtained from the Communication Manager at the above address.
This publication is also available in Afrikaans.

Published by Eskom's Communication Department. Designed and produced by Design Unit. Photos supplied by Eskom Visual Services. Typesetting and reproduction by Typesetting and Repro Services. Printed by Hortors.