

Foreword

Demand for Eskom's Statistical Yearbook has grown consistently since it was first published ten years ago.

The gradual change in format and content of the Statistical Yearbook has been in response to feedback from the thousands of readers world-wide. The publication contains a wealth of information on electricity generation and supply, outlining Eskom's role in an African and international context.

Eskom is playing a pivotal role in electrification, which is one of the urgent needs for growth and development. It is committed to electrifying 1,75 million households between 1994 and 2000. The rest of the South African electricity industry is expected to connect an additional 800 000 connections. With this in mind, electrification statistics have been included since the 1993 edition of this publication.

The increasing popularity of this publication indicates a growing need for reliable and concrete data concerning the role of electricity in the economy of the region.

A special thank you to all the people who supplied us with up-to-date information timeously. Our thanks also to the users of this publication for their prompt replies, enabling us to keep our mailing list updated.

Allen Morgan
Chief Executive
31 July 1995

Contents

1	Foreword	46	North West
2	Contents	47	Northern Cape
3	Map: South African provincial boundaries	48	Northern Province
		48	Western Cape
	Eskom		
4	Statistical overview		Sub-Saharan Africa
6	Highlights of the year	50	Net maximum generating capacity
7	Financial statistics	50	Map: Sub-Saharan Africa
8	Summary of operations	51	Gross production of electricity
10	Power stations in service	52	Utilisation of net maximum generating capacity
11	Power stations decommissioned/disposed of during 1994	53	Production and trade of electricity
11	Generating sets on order	54	Angola
12	Power station operating statistics	56	Bophuthatswana
14	At a glance – generation	58	Botswana
15	Power stations with highest thermal efficiency 1994	60	Congo
15	Generating units with highest unit capability factor 1994	62	Kenya
16	At a glance – transmission	64	Lesotho
17	Transmission and distribution equipment in service	66	Malawi
17	Maximum one-hour demand	68	Mozambique
18	Electricity production and sales	70	Namibia
20	At a glance – electricity sales	72	Swaziland
21	Number of customers by category	74	Tanzania
22	Total electricity sold	76	Transkei
24	Revenue per kWh by customer category	78	Venda
26	Sales to mining sector, GWh	79	Zaire
28	Sales to industry, GWh	82	Zambia
29	Map: Business units	84	Zimbabwe
30	Map: Pretoria Distributor		
31	Map: Johannesburg Distributor		Africa
32	Map: Bloemfontein Distributor	87	Map: Countries
33	Map: Durban Distributor	88	Electricity supply statistics
34	Map: Cape Town Distributor		
	South Africa		World
35	Motive power employed – electricity	92	Selected electricity supply statistics
36	Electricity available for consumption		
37	Monthly data on electricity available for consumption		
38	Production and consumption of electricity	94	Glossary and abbreviations
39	Consumption of electricity	96	Conversion factors and equivalents
40	At a glance – electrification		
41	Electrification statistics		
41	Eastern Cape		
42	Eastern Transvaal		
43	Free State		
44	Gauteng		
45	Kwazulu Natal		

Municipal statistics not available at time of publication.

Copies of this Statistical Yearbook are distributed world-wide to utilities, business undertakings, banks, management consultants, consulting engineers, research institutions as well as industry and consumer associations.

South African provincial boundaries



Statistical overview

	1994	1993	1992
Financial, Rm			
Revenue	15 417	13 793	12 649
Net income	2 268	1 646	1 489
Property, plant and equipment in commission, at cost	48 247	45 623	42 688
Works under construction ^a	4 816	3 552	3 115
Net expenditure on property, plant and equipment	4 192	3 591	3 242
Net interest-bearing debt	27 884	28 027	27 616
Plant performance			
Total power station nominal capacity, MW	37 840	39 746	39 060
Total power station net maximum capacity, MW	35 926	37 636	36 846
Peak demand on integrated Eskom system, MW	24 798	23 169	22 640
Average energy availability (unit capability factor), % ^b	77,1 (79,9)	80,5 (81,7)	76,7
Generation load factor (after excess capacity management), % ^c	50,9 (58,3)	46,8 (56,4)	46,9 (54,6)
Integrated Eskom system load factor, %	72,8	75,1	73,5
Water consumed by Eskom power stations, Mℓ	213 220	223 650	226 240
Coal burnt, kt	76 883,0	75 926,4	71 037,9
Coal consumption, kg/kWh net	0,520	0,522	0,519
Average heat rate of coal-fired stations, MJ/kWh net	10,46	10,47	10,54
Average gross calorific value of coal (as received), MJ/kg	20,09	20,05	20,25
Overall thermal efficiency, net generation, %	34,4	34,4	34,2
Weighted average cost of coal burnt, R/t	29,98	28,48	27,47
Weighted average cost of coal burnt, c/kWh	1,5572	1,4860	1,4263
Electricity output			
Total electricity production in South Africa, GWh ^d	167 609	155 812	149 427
Total electricity production as a percentage of South African total	95,7	97,9	97,9
Total electricity for Eskom system (Eskom stations and purchased), GWh ^e	160 351	154 361	148 556
Total produced by Eskom stations, GWh	160 293	154 260	148 207
Subtotal from coal-fired stations, GWh	148 003	145 514	136 830
Subtotal from hydroelectric stations, GWh	1 074	146	752
Subtotal from pumped storage stations, GWh	1 517	1 345	1 333
Subtotal from gas-turbine stations, GWh	2	0	4
Subtotal from nuclear power station, GWh	9 697	7 255	9 288
Total purchased for Eskom system, GWh	58	101	349
Total consumed by Eskom power stations, GWh ^g	2 113	1 898	2 295
Total available for distribution, GWh	158 238	152 463	146 261
Electricity sales, GWh ^h	149 443	143 800	138 126
Growth in GWh sales, %	3,9	4,1	-0,4
Power station net maximum capacity, MW			
Subtotal coal fired (12 stations) ⁱ	31 744	33 488	32 698
Subtotal gas turbine (2 stations) ^j	342	368	368
Subtotal hydroelectric (2 stations) ^k	600	540	540
Subtotal pumped storage (2 stations) ^l	1 400	1 400	1 400
Subtotal nuclear (1 station)	1 840	1 840	1 840
Total power station net maximum capacity, MW	35 926	37 636	36 846
Employees			
Total number at 31 December	39 760	40 128	42 223
Sales (GWh) per employee	3,759	3,584	3,271

^a Includes construction materials. ^b Capacity hours available x 100/total capacity hours in year. ^c MWh produced x 100/(Average net maximum capacity x hours in year). ^d Electricity produced by Eskom, some industries and municipalities which generate all or part of their electricity requirements. ^e Includes Eskom electricity produced for neighbouring countries. ^f Correction. ^g In respect of pumped storage facilities and synchronous condenser mode of operation. See Note 1. ^h Difference between electricity available for distribution and sales is due to transmission losses.

	1991	1990	1989	1988	1987	1986	1985
Financial, Rm							
Revenue	11 726	10 736	9 271	8 159	7 046	5 845	4 625
Net income	988	845	728	816	702	781	738
Property, plant and equipment in commission, at cost	39 990	35 753	31 199	28 680	24 986	19 907	15 496
Works under construction ^a	3 668	5 771	6 638	5 512	6 075	7 753	8 552
Net expenditure on property, plant and equipment	3 335	3 662	3 993	3 969	3 895	3 755	4 757
Net interest-bearing debt	27 266	26 590	24 630	22 779	21 475	19 462	17 621
Plant performance							
Total power station nominal capacity, MW	38 396	35 673	34 141	33 176	31 261	28 086	25 716
Total power station net maximum capacity, MW	36 228	33 843	32 403	31 465	29 618	26 682	24 359
Peak demand on integrated Eskom system, MW	22 342	21 863	21 871	20 589	20 001	18 278	17 852
Average energy availability (unit capability factor), % ^b	76,1	75,0	78,1	79,1	79,2	78,5	77,5
Generation load factor (after excess capacity management), % ^c	49,8 (58,5)	50,5 (57,3)	51,1	52,3	54,3	55,5	58,0
Integrated Eskom system load factor, %	74,6	74,9	73,7	75,5	73,9	77,3	76,2
Water consumed by Eskom power stations, Mℓ	237 660	257 000	260 154	262 804	274 804	262 372	275 716
Coal burnt, kt	70 523,2	70 861,2	67 529,3	64 489,6	65 787,0	58 915,9	59 488,6
Coal consumption, kg/kWh net	0,520	0,526	0,521	0,521	0,535	0,515	0,522
Average heat rate of coal-fired stations, MJ/kWh net	10,49	10,66	10,72	10,71	11,00	10,95	11,26
Average gross calorific value of coal (as received), MJ/kg	20,21	20,26	20,20	20,44	20,48	21,19	21,52
Overall thermal efficiency, net generation, %	34,3	33,7	33,6	33,6	32,7	32,9	32,0
Weighted average cost of coal burnt, R/t	25,70	23,91	20,94	18,67	17,11	14,87	13,25
Weighted average cost of coal burnt, c/kWh	1,3354	1,2575	1,1023	0,9727	0,9155	0,7665	0,6916
Electricity output							
Total electricity production in South Africa, GWh ^d	148 919	147 069	146 162	140 802	134 751	130 056	126 206
Total electricity production as a percentage of South African total	98,0	97,4	96,7	97,0	96,1	95,1	94,5
Total electricity for Eskom system (Eskom stations and purchased), GWh ^e	148 934	146 320	143 548	139 197	132 774	126 766	122 494
Total produced by Eskom stations, GWh	148 671	146 047	143 204	138 837	132 507	126 511	121 987
Subtotal from coal-fired stations, GWh	135 743	134 744	128 304	123 777	122 947	114 298	113 941
Subtotal from hydroelectric stations, GWh	1 980	1 010	2 759	3 162	1 617	1 623	624
Subtotal from pumped storage stations, GWh	1 804	1 841	1 039	1 403	1 774	1 785	2 107
Subtotal from gas-turbine stations, GWh	0	3	3	2	2	2	0
Subtotal from nuclear power station, GWh	9 144	8 449	11 099	10 493	6 167	8 803 ^f	5 315
Total purchased for Eskom system, GWh	263	273	344	360	267	255	507
Total consumed by Eskom power stations, GWh ^g	2 933	2 953	2 265	2 567	3 229	3 018	3 265
Total available for distribution, GWh	146 001	143 367	141 283	136 630	129 545	123 748	119 229
Electricity sales, GWh ^h	138 698	136 185	134 358	129 620	122 524	117 353	112 306
Growth in GWh sales, %	1,8	1,4	3,7	5,8	4,4	4,5	5,1
Power station net maximum capacity, MW							
Subtotal coal fired (12 stations) ⁱ	32 058	29 673	28 233	27 295	25 848	22 912	20 637
Subtotal gas turbine (2 stations) ^j	390	390	390	390	390	390	342
Subtotal hydroelectric (2 stations) ^k	540	540	540	540	540	540	540
Subtotal pumped storage (2 stations) ^l	1 400	1 400	1 400	1 400	1 000	1 000	1 000
Subtotal nuclear (1 station)	1 840	1 840	1 840	1 840	1 840	1 840	1 840
Total power station net maximum capacity, MW	36 228	33 843	32 403	31 465	29 618	26 682	24 359
Employees							
Total number at 31 December	46 637	50 000	51 554	56 726	56 830	60 800	66 000
Sales (GWh) per employee	2,974	2,724	2,606	2,285	2,156	1,930	1,702

^a Base-load stations, except in the case of older, uneconomical plant which are used only for peak demands or in emergencies. ⁱ Used only for peaking or in emergencies. ^k Use restricted to peaking and emergencies and availability of water in Gariiep and Vanderkloof dams (previously known as Hendrik Verwoerd and P. K. le Roux dams). ^l Pumped storage are net users of electricity and are used for peaking. Water is pumped during off-peak periods to generate electricity during peak periods.

Highlights of the year

	1994	1993	Change %	Average yearly change 1990-94 %
Financial				
Revenue, Rm	15 417	13 793	11,8	10,7
Net income, Rm	2 268	1 646	37,8	25,5
Property, plant and equipment in commission, at cost, Rm				
Works under construction, Rm ^a	4 816	3 552	35,6	-6,2
Net expenditure on property, plant and equipment, Rm	4 192	3 591	16,7	1,3
Net interest-bearing debt, Rm	27 884	28 027	-0,5	2,5
Average price per kWh sold, cents	10,32	9,59	7,6	8,4
Average total cost per kWh sold, cents	8,80	8,45	4,2	6,7
Operations				
Electricity sales, GWh	149 443	143 800	3,9	2,2
Coal burnt in power stations, Mt	76,9	75,9	1,3	2,6
Water consumed by power stations, Mℓ	213 220	223 650	-4,7	-3,9
Peak demand on integrated system, MW	24 798	23 169	7,0	2,5
	(26.07.94)	(22.06.93)		
Assets in commission at 31 December				
Nominal capacity, MW	37 840	39 746	-4,8	2,1
Net maximum capacity, MW	35 926	37 636	-4,5	2,1
Power lines (all voltages), km	239 457	238 964	0,2	2,5
Staff employed at 31 December, number ^b				
	39 760	40 128	-0,9	-5,1
Customers at 31 December, number				
	1 207 053	872 509	38,3	39,4

^a Includes construction materials.

^b Excludes employees of subsidiary companies.

Financial statistics

	1994	1993	1992	1991	1990
Revenue, Rm	15 417	13 793	12 649	11 726	10 736
Annual increase, %	11,8	9,0	7,9	9,2	15,8
Average price per kWh sold, cents	10,32	9,59	9,16	8,46	7,88
Annual increase, %	7,6	4,7	8,3	7,4	14,2
Charges against revenue					
Total operating expenditure, Rm	9 963	9 000	8 173	7 450 ^a	6 461 ^a
Annual increase, %	10,7	10,1	9,7	15,3	14,5
Depreciation, Rm	2 105	1 884	1 762	1 630	1 441
Annual increase, %	11,7	6,9	8,1	13,1	5,6
Net interest and finance charges, Rm	3 186	3 147	2 987	3 240	3 302
Annual increase, %	1,2	5,4	-7,8	-1,9	13,9
Retained income for the year, Rm	2 168	1 852	1 397	988	845
Assets					
Property, plant and equipment (at book value), Rm	40 711	38 605	36 895	35 405	34 030
Property, plant and equipment in commission (net – after depreciation), Rm	33 715 ^b	33 017 ^b	31 746 ^b	30 661	28 047
Works under construction and construction materials, Rm	4 816	3 552	3 115	3 668	5 771
Non-current assets, Rm	4 074	3 762	3 501	2 387	2 501
Coal, maintenance and consumables, Rm	758	731	851	1 433	1 312
Debtors, Rm	1 821	1 299	1 208	1 020	874
Financing					
Net interest-bearing debt, Rm	27 884	28 027	27 616	27 266	26 590
Interest-free liabilities, Rm	2 637	2 137	2 340	2 014	2 196
Reserves, Rm	16 105	13 837	12 191	10 702	9 700
Debt-equity ratio	1,73	2,03	2,27	2,55	2,74

^a Excludes abnormal items.

^b Excluding plant at mothballed stations.

Summary of operations

Year	Coal-fired power stations					Cost of coal burnt	
	Coal burnt					Weighted average R/t	c/kWh net ^a
	kt	Average gross calorific value (as received) MJ/kg	Consumption kg/kWh net	Average heat rate MJ/kWh net	Overall thermal efficiency %		
1955	8 999,7	22,89	0,788	18,04	20,0	1,52	0,1201
1956	9 688,5	22,96	0,765	17,56	20,5	1,62	0,1236
1957	10 220,6	22,79	0,750	17,09	21,1	1,69	0,1266
1958	10 784,1	22,73	0,743	16,89	21,3	1,77	0,1312
1959	11 548,7	22,44	0,732	16,43	21,9	1,82	0,1329
1960	12 512,6	22,52	0,723	16,28	22,1	2,03	0,1466
1961	13 194,9	22,39	0,722	16,17	22,3	2,10	0,1516
1962	13 955,5	22,22	0,719	15,98	22,5	2,09	0,1507
1963	14 721,1	22,15	0,708	15,68	23,0	2,11	0,1492
1964	15 654,7	22,15	0,692	15,33	23,5	2,07	0,1430
1965	16 726,7	22,39	0,680	15,23	23,6	2,09	0,1423
1966	16 982,3	22,20	0,666	14,79	24,4	2,23	0,1486
1967	18 307,7	22,44	0,645	14,47	24,9	2,30	0,1482
1968	19 133,9	22,63	0,620	14,03	25,6	2,33	0,1446
1969	19 982,9	22,73	0,595	13,52	26,6	2,37	0,1412
1970	21 630,6	22,97	0,580	13,32	27,0	2,26	0,1308
1971	23 416,2	23,30	0,576	13,42	26,8	2,25	0,1297
1972	24 952,8	22,89	0,571	13,07	27,5	2,25	0,1285
1973	27 907,9	22,47	0,563	12,65	28,5	2,39	0,1348
1974	30 891,4	22,42	0,560	12,56	28,7	2,92	0,1637
1975	34 231,7	22,21	0,567	12,59	28,6	4,05	0,2295
1976	37 257,4	21,87	0,579	12,66	28,4	5,39	0,3122
1977	37 505,6	21,78	0,576	12,55	28,7	6,22	0,3582
1978	39 589,5	21,61	0,574	12,44	28,9	6,67	0,3824
1979	43 264,9	21,22	0,581	12,33	29,2	6,96	0,4045
1980	46 755,0	21,34	0,568	12,16	29,6	8,12	0,4614
1981	53 903,7	21,25	0,563	12,01	30,0	9,71	0,5473
1982	55 198,4	21,39	0,551	11,82	30,5	11,75	0,6471
1983	55 010,2	21,11	0,546	11,57	31,1	12,44	0,6793
1984	58 703,6	21,38	0,533	11,45	31,4	12,55	0,6692
1985	59 488,6	21,52	0,522	11,26	32,0	13,25	0,6916
1986	58 915,9	21,19	0,515	10,95	32,9	14,87	0,7665
1987	65 787,0	20,48	0,535	11,00	32,7	17,11	0,9155
1988	64 489,6	20,44	0,521	10,71	33,6	18,67	0,9727
1989	67 529,3	20,20	0,526	10,72	33,6	20,94	1,1023
1990	70 861,2	20,26	0,526	10,66	33,7	23,91	1,2575
1991	70 523,2	20,21	0,520	10,49	34,3	25,70	1,3354
1992	71 037,9	20,25	0,519	10,54	34,2	27,47	1,4263
1993	75 926,4	20,05	0,522	10,47	34,4	28,48	1,4860
1994	76 883,0	20,09	0,520	10,46	34,4	29,98	1,5572

^a MWh net x 100/(average net maximum capacity x hours in year).

^b Gas-turbine stations only as from 1994.

^c After excess capacity management.

Power station output (net)

Coal-fired stations GWh	Hydro-electric stations GWh	Pumped storage stations GWh	Diesel and gas-turbine stations ^b GWh	Nuclear stations GWh	Total power station output GWh	Total power station net maximum capacity MW	Average station load factor net basis ^a %
11 419	6	–	–	–	11 425	2 145	65,9
12 663	7	–	–	–	12 670	2 498	61,2
13 634	6	–	–	–	13 640	2 555	61,1
14 511	5	–	–	–	14 516	2 748	62,0
15 774	3	–	–	–	15 777	2 983	62,6
17 306	2	–	–	–	17 308	3 091	65,2
18 282	2	–	–	–	18 284	3 226	66,2
19 401	3	–	–	–	19 404	3 406	65,8
20 789	4	–	–	–	20 793	3 788	65,7
22 634	5	–	–	–	22 639	4 077	65,2
24 583	–	–	–	–	24 583	4 181	67,4
25 504	–	–	–	–	25 504	4 377	67,1
28 371	–	–	–	–	28 371	5 328	66,8
30 843	–	–	–	–	30 843	5 800	62,9
33 598	–	–	–	–	33 598	6 441	62,1
37 321	–	–	–	–	37 321	7 060	62,9
40 645	94	–	–	–	40 739	8 373	61,3
43 662	813	–	–	–	44 475	8 849	59,6
49 570	189	–	–	–	49 759	9 482	62,5
55 141	1 110	–	–	–	56 251	10 002	66,3
60 400	1 098	–	–	–	61 498	10 522	68,6
64 309	1 853	–	26	–	66 188	11 688	66,8
65 114	1 924	–	12	–	67 050	12 756	61,9
69 004	1 887	–	11	–	70 902	13 595	60,7
74 485	1 144	–	14	–	75 643	15 056	60,9
82 342	992	–	28	–	83 362	17 339	57,8
95 675	1 653	415	81	–	97 824	18 989	62,2
100 217	1 016	1 519	17	–	102 769	20 523	59,3
100 738	595	1 957	5	–	103 295	21 673	55,6
110 094	560	1 994	8	3 925	116 581	23 168	58,1
113 941	624	2 107	0	5 315	121 987	24 359	58,0
114 298	1 623	1 785	2	8 803	126 511	26 682	55,5
122 947	1 617	1 774	2	6 167	132 507	29 618	54,3
123 777	3 162	1 403	2	10 493	138 837	31 465	52,3
128 304	2 759	1 039	3	11 099	143 204	32 403	51,1 ^c
134 744	1 010	1 841	3	8 449	146 047	33 843	57,3 ^c
135 743	1 980	1 804	–	9 144	148 671	36 228	58,5 ^c
136 830	752	1 333	4	9 288	148 207	36 846	54,6 ^c
145 514	146	1 345	–	7 255	154 260	37 636	56,4 ^c
148 003	1 074	1 517	2	9 697	160 293	35 926	58,3 ^c

Power stations in service

at 31 December 1994

Name of station	Location	Number and rating of generator sets MW	Total nominal capacity MW	Total net maximum capacity MW ^a	Generators in reserve storage	
					Number	Total rating MW
Coal fired						
Arnot ^b	Middelburg, E Tvl	6 x 350	2 100	1 955	3	990
Camden ^c	Ermelo	8 x 200	1 600	1 520	8	1 520
Duvha ^b	Witbank	6 x 600	3 600	3 450	–	–
Grootvlei ^c	Balfour	6 x 200	1 200	1 130	6	1 130
Hendrina ^b	Hendrina	10 x 200	2 000	1 900	–	–
Kendal ^{b d}	Witbank	6 x 686	4 116	3 840	–	–
Komati ^c	Middelburg, E Tvl	5 x 100	500	473	5	473
		4 x 125	500	418	4	418
Kriel ^b	Bethal	6 x 500	3 000	2 850	–	–
Lethabo ^b	Sasolburg	6 x 618	3 708	3 558	–	–
Matimba ^{b d}	Ellisras	6 x 665	3 990	3 690	–	–
Matla ^b	Bethal	6 x 600	3 600	3 450	–	–
Tutuka ^b	Standerton	6 x 609	3 654	3 510	–	–
Subtotal coal fired (12)			33 568	31 744	26	4 531
Gas turbine^e						
Acacia	Cape Town	3 x 57	171	171	–	–
Port Rex	East London	3 x 57	171	171	–	–
Subtotal gas turbine (2)			342	342	–	–
Hydroelectric^f						
Gariep	Norvalspont	4 x 90	360	360	–	–
Vanderkloof	Petrusville	2 x 120	240	240	–	–
Subtotal hydroelectric (2)			600	600	–	–
Pumped storage^g						
Drakensberg	Bergville	4 x 250	1 000	1 000	–	–
Palmiet	Grabouw	2 x 200	400	400	–	–
Subtotal pumped storage (2)			1 400	1 400	–	–
Nuclear						
Koeberg	Cape Town	2 x 965	1 930	1 840	–	–
Total Eskom stations in service (19)			37 840	35 926	26	4 531

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

^b Base-load station.

^c In reserve storage.

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

^e Stations used for peaking or emergency supplies.

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

^g 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.

Power stations decommissioned/disposed of during 1994

	Type	Total nominal capacity MW	Total net maximum capacity MW
Highveld	Coal fired	480	412
Ingagane	Coal fired	500	465
Paratus *	Diesel	26	26
Salt River	Coal fired	240	228
Taaibos	Coal fired	480	440
Wilge	Coal fired	240	199
Total		1 966	1 770

* Disposed of.

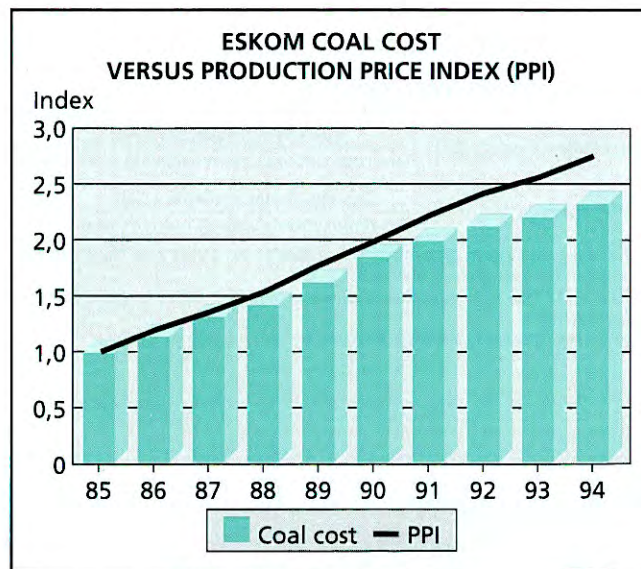
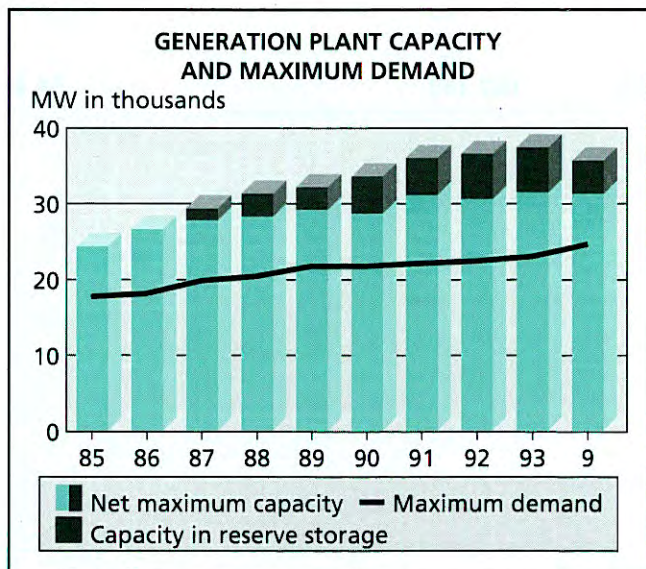
Generating sets on order

at 31 December 1994

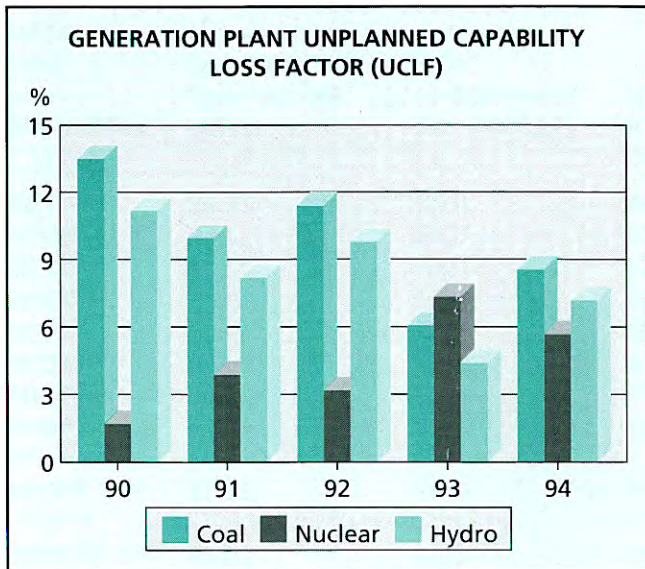
Name, type and location of power station	Number and nominal capacity of sets of sets MW	Net maximum capacity of sets MW	Total nominal capacity of station MW	Total net maximum capacity of station MW	Number of sets in service (on order)	Total nominal capacity of sets on order	Total net maximum capacity of sets on order	Year of completion first (last) set ^a
Majuba, coal fired	3 x 657	3 x 612						
Volksrust	3 x 713 ^b	3 x 669 ^b	4 110 ^b	3 843 ^b	0 (6)	4 110 ^b	3 843 ^b	1996 (2001)
Total generating sets on order, MW						4 110 ^b	3 843 ^b	

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

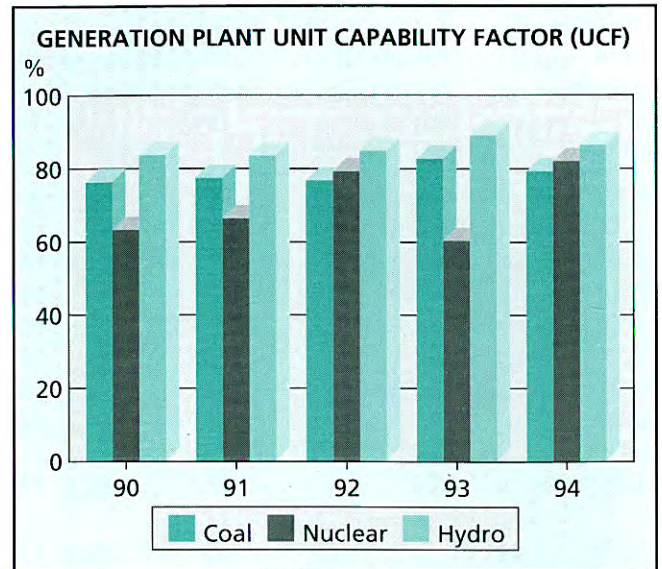
^b Revised.



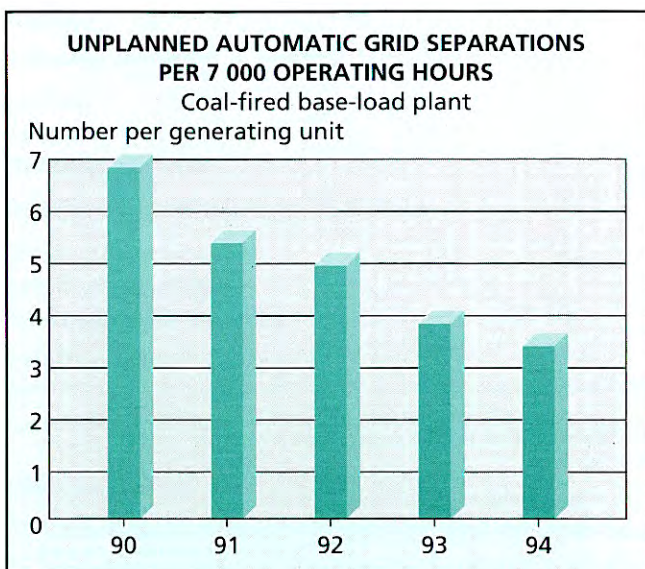
At a glance – generation



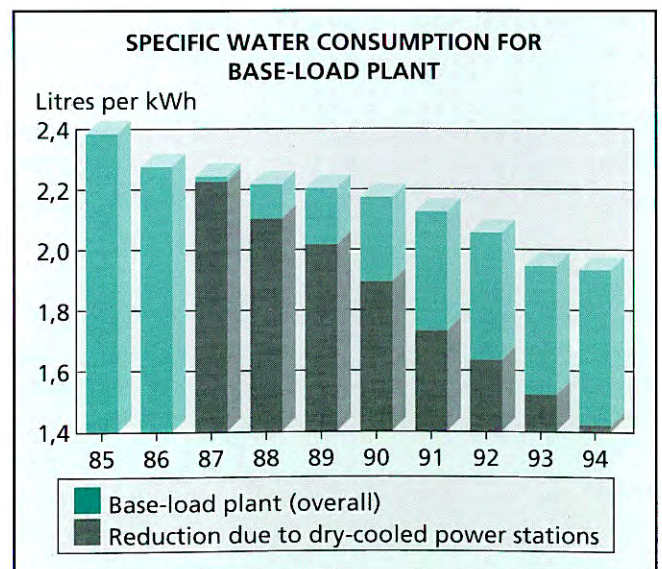
A UNIPEDE/WEC/WANO generation plant performance indicator. UCLF represents the percentage of maximum energy generation that a plant is **not** capable of supplying to the electrical grid because of unplanned shutdowns, outage extensions or load reductions. International achievements (median) lie within the 5% zone.



A UNIPEDE/WANO generation performance indicator. UCF gives the true energy capability of the plant whereby energy loss due to constraints not under plant management control are excluded from its calculation. International achievements (median) lie within the 85% zone.



A UNIPEDE fossil-fired plant indicator which is a measure of the reliability of service provided to the electrical grid. International achievements (median) lie within the 5,9 zone.



Power stations with highest thermal efficiency 1994

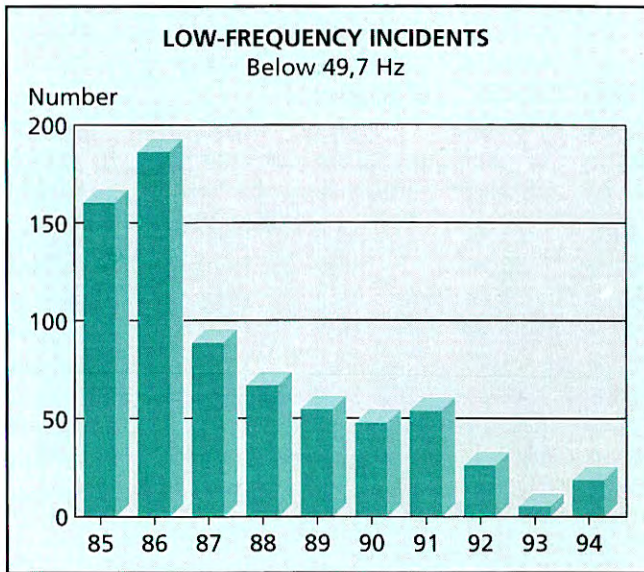
Station	Steam conditions at turbine inlet		Net maximum capacity MW	Net electricity production GWh	Station load factor %	Gross calorific value of coal MJ/kg*	Overall thermal efficiency		Date of commercial operation	Type of steam supply
	Pressure MPa (abs)	Temperature °C					Net generation basis %	Net generation basis %		
Tutuka	16,1	535	3 510	17 523	57,0	21,33	35,5	35,5	1985-90	Reheat
Matla	16,1	535	3 450	18 737	62,0	20,75	35,5	35,5	1979-83	Reheat
Lethabo	16,1	535	3 558	17 863	57,3	15,28	35,2	35,2	1986-90	Reheat
Duvha	16,1	535	3 450	21 974	72,7	22,50	35,1	35,1	1980-84	Reheat
Kendal	16,1	535	3 840	19 397	57,7	19,43	34,9	34,9	1988-93	Reheat
Kriel	16,0	510	2 850	13 394	53,6	19,95	34,8	34,8	1976-79	Reheat
Matimba	16,1	535	3 690	22 685	70,2	20,67	32,7	32,7	1987-91	Reheat
Arnot	15,9	510	965	4 558	53,9	22,88	32,7	32,7	1971-75	Reheat
Hendrina	10,3	538	1 900	11 871	71,3	22,01	31,9	31,9	1970-77	Non-reheat

* As received basis, except Matimba, which is moisture-free basis.

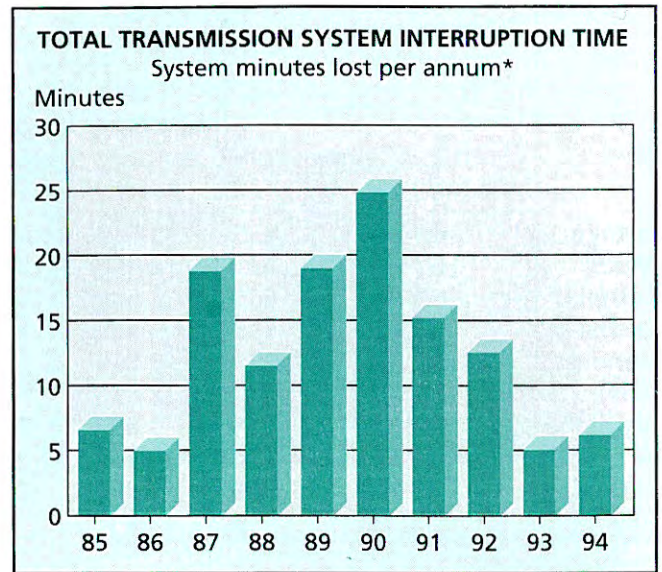
Generating units with highest unit capability factor 1994

Station	Unit number	Net maximum capacity MW	Unit capability factor %	Unplanned capability loss factor %	Unplanned automatic grid separations per 7 000 operating hours	Generation load factor %	Unit age on 31/12/94 Years	Type of steam supply
Kendal	3	640	99,5	0,4	2,2	55,6	3,0	Reheat
Kendal	6	640	98,5	0,4	5,1	71,8	1,1	Reheat
Lethabo	4	593	97,5	1,9	2,4	81,2	7,1	Reheat
Duvha	2	575	96,2	1,6	5,8	87,8	14,3	Reheat
Tutuka	6	585	96,1	1,9	0,0	72,7	4,6	Reheat
Matimba	1	615	95,7	3,7	2,5	84,5	7,1	Reheat
Hendrina	9	190	95,4	4,6	0,8	85,5	18,7	Non-reheat
Kendal	4	640	95,3	0,5	1,9	62,6	3,1	Reheat
Matimba	6	615	95,0	5,9	8,8	84,1	3,3	Reheat
Hendrina	8	190	94,3	3,2	1,9	76,3	19,5	Non-reheat

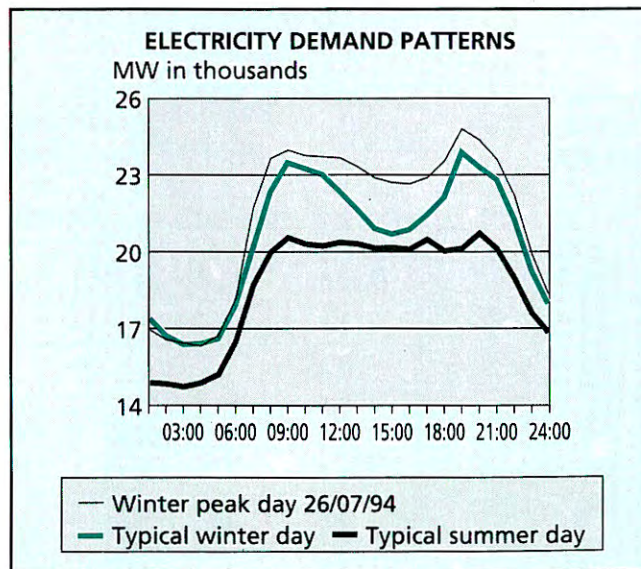
At a glance – transmission



Low frequency is an indicator of imbalance of instantaneous supply and demand due to unexpected unit trips and/or immediate shortages on the electrical system.



* System minutes = $\frac{\text{Energy not supplied in MWh} \times 60}{\text{Eskom maximum demand in MW}}$
This graph excludes the effect of load shedding.



Transmission and distribution equipment in service

as at December 1994

Circuit kilometres (excluding service connections on reticulation systems) of lines and cables and capacity of transformers in service.

		1994	1993	Change km
Main transmission system, km	765 kV	1 153 ^a	1 153	0
	533 kV DC (monopolar)	1 031	1 031	0
	400 kV	13 930	13 848	82
	275 kV	7 220	7 167	53
	220 kV	1 243	1 186	57
	132 kV	604 ^b	371	233
Total		25 181	24 756	425
Distribution lines, km	165-32 kV	17 483	17 102	381
	88-33 kV	20 639	20 953	-314
Total		38 122	38 055	67
Reticulation lines, km	22 kV and lower	176 154	176 153	1
Total all lines, km		239 457	238 964	493
Cables, km	165-132 kV	60	53	7
	88-33 kV	272	278	-6
	22 kV and lower	5 509	5 510	-1
Total all cables, km		5 841	5 841	0
Transformers	Transmission capacity, MVA	106 646	105 540	1 106
	Distribution and reticulation, MVA	61 856	61 873	-17
Total capacity, MVA		168 502	167 413	1 089
Transformers	Transmission, number	436	383	53
	Distribution and reticulation, number	149 162	149 214	-52
Total, number		149 598	149 597	1

^a 282 km of 765 kV construction line presently operating at 400 kV.

^b No new lines commissioned. Clarity on ownership for 132 kV lines pertaining to the Transmission Group.

Maximum one-hour demand

	1994	1993	1992	1991	1990	1989	Increase 1993-94 %	Average yearly increase 1989-94 %
Maximum simultaneous one-hour demand on total Eskom system, MW	24 798	23 169	22 640	22 342	21 863	21 871	7,0	2,6
Date	26.07.94	22.06.93	08.07.92	21.06.91	29.06.90	21.07.89		
Time	19:00	19:00	19:00	09:00	09:00	09:00		

Electricity production and sales

Electricity produced							
Year	South Africa total produced GWh	Eskom electricity produced as a percentage of South African total ^a	Electricity produced by Eskom power stations GWh	Electricity purchased from other sources GWh	Own consumption GWh	Available for distribution GWh	Peak demand on integrated Eskom system MW
1955	16 021 ^c	73,4	11 425	339	–	11 764	1 806 ^c
1956	17 293 ^c	74,8	12 670	257	–	12 927	2 001 ^c
1957	18 720	73,7	13 640	163	–	13 803	2 151 ^c
1958	19 765	74,3	14 516	164	–	14 680	2 249 ^c
1959	21 051	75,4	15 777	94	–	15 871	2 429 ^c
1960	22 717	76,3	17 308	15	–	17 323	2 605 ^c
1961	23 760	77,0	18 284	8	–	18 292	2 733 ^c
1962	25 599	75,9	19 404	13	–	19 417	2 925 ^c
1963	27 335	76,1	20 793	19	–	20 812	3 183 ^c
1964	29 547 ^c	76,8	22 639	41	–	22 680	3 460 ^c
1965	31 939	77,4	24 583	126	–	24 709	3 669
1966	33 929 ^c	77,0	25 504	630 ^d	–	26 134	3 906
1967	36 897	77,1	28 371	70	–	28 441	4 227
1968	39 761	77,6	30 843	8	–	30 851	4 658
1969	42 847	78,4	33 598	8	–	33 606	5 055
1970	47 456	78,7	37 321	7	–	37 328	5 622
1971	51 081	79,8	40 739	8	–	40 747	6 115
1972	55 332	80,4	44 475	10	–	44 485	6 630
1973	60 700	82,0	49 759	11	–	49 770	7 350
1974	66 412 ^c	84,7	56 251	8	–	56 259	8 552
1975	70 111	87,8	61 498	35	–	61 533	9 185
1976	75 381	89,4	66 188	1 226	–	67 414	10 085
1977	79 352	89,8	67 050	4 241	27	71 264	10 735
1978	84 812	91,7	70 902	6 924	52	77 774	11 490
1979	92 616	92,8	75 643	10 394	58	85 979	12 855
1980	99 905	93,0	83 362	9 659	71	92 950	13 668
1981	106 135	93,9	97 824	2 601	712	99 713	14 674
1982	109 536	93,6	102 769	2 151	2 404	102 516	15 532
1983	112 366	93,8	103 295	5 026	2 917	105 404	15 639
1984	120 835	94,3	116 581	505	3 188	113 898	17 296
1985	126 207	94,5	121 987	507	3 265	119 229	17 852
1986	130 055	95,2	126 511	255	3 018	123 748	18 278
1987	134 751	96,1	132 507	267	3 229	129 545	20 001
1988	140 802	97,0	138 837	360	2 567	136 630	20 589
1989	146 162	96,7	143 204	344	2 265	141 283	21 871
1990	147 069	97,5	146 046	273	2 953	143 367	21 863
1991	148 919	98,0	148 671	263	2 933	146 001	22 342
1992	149 427	97,9	148 207	349	2 295	146 261	22 640
1993	155 812	97,9	154 260	101	1 898	152 463	23 169
1994	167 609	95,7	160 293	58	2 113	158 238	24 798

^a Includes Eskom electricity supplied to neighbouring countries.

^b Electricity sold includes supplies to neighbouring states since 1988.

^c Estimates based on limited information.

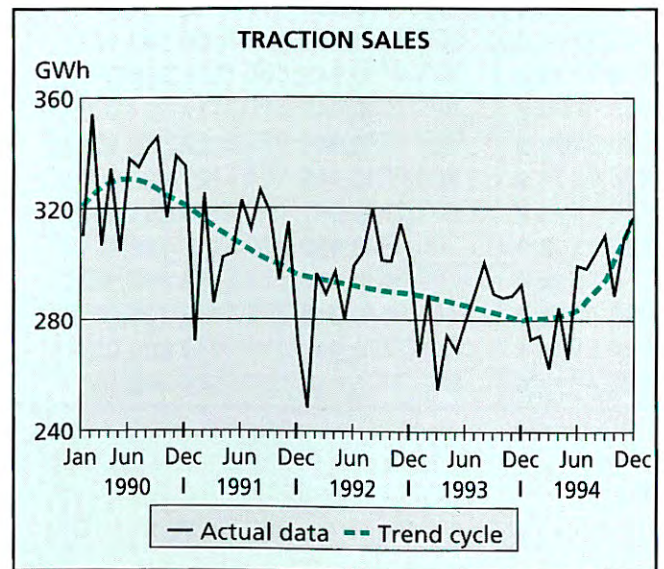
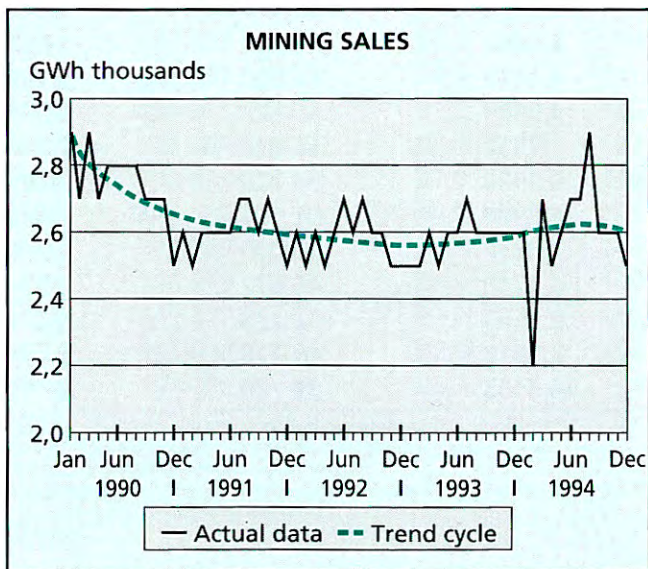
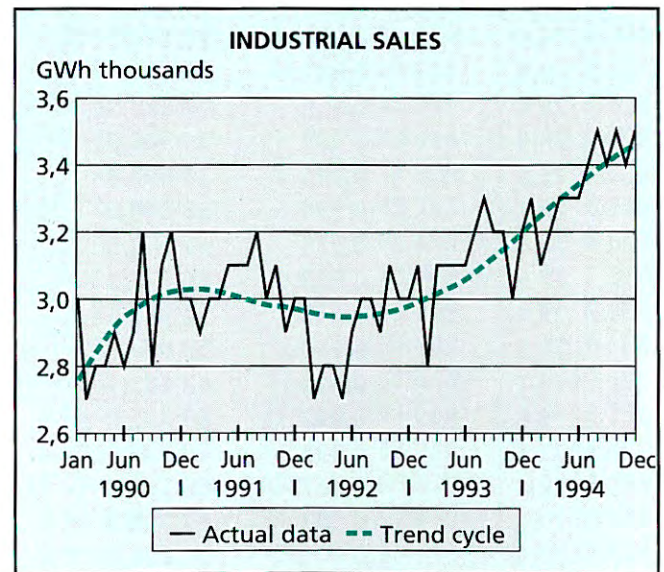
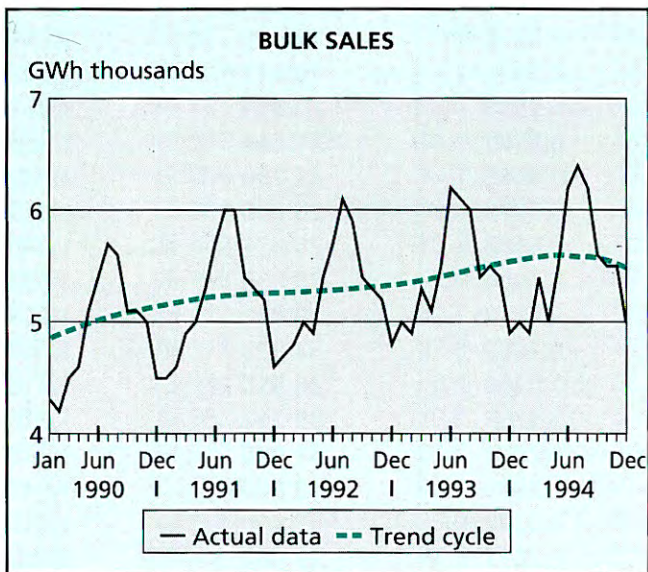
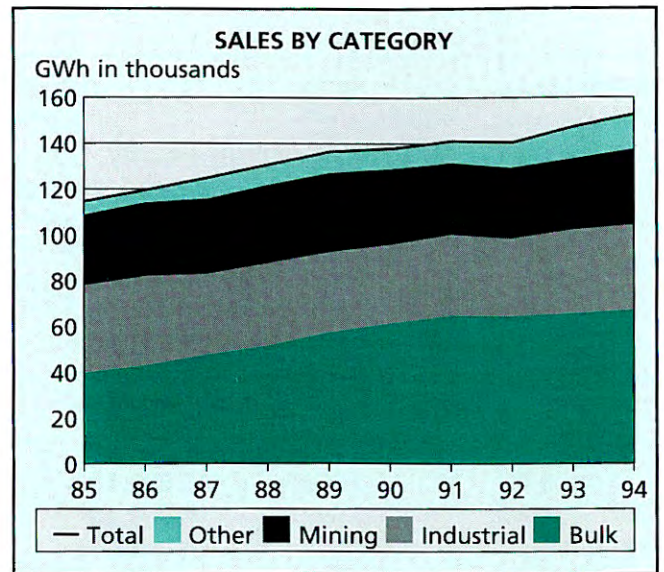
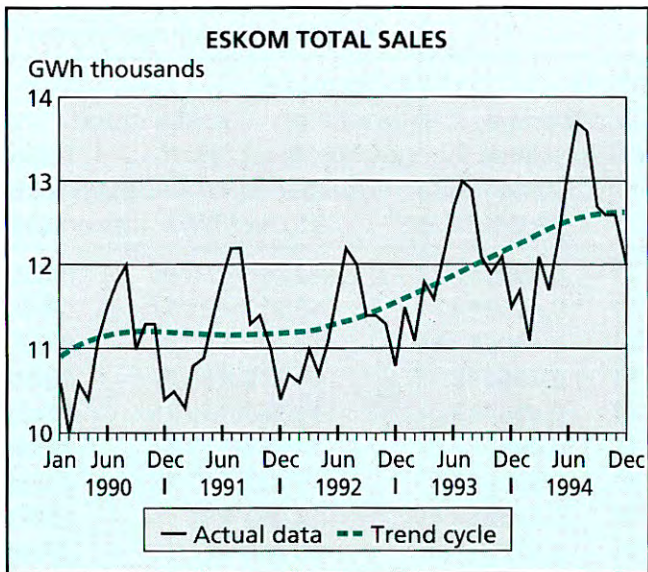
^d Includes purchases from City of Johannesburg during serious drought.

^e Air and steam production excluded.

^f Revised.

Integrated Eskom system load factor %	Electricity sales				Employees	
	Ratio GWh sold ^b /available for distribution	Electricity sold ^b GWh	Growth %	Average selling price c/kWh	Total number at 31 Dec	Ratio GWh sold/employee
74,4	0,914 ^e	10 751,8 ^e	13,7 ^e	0,4099 ^e	12 490	0,861 ^e
73,5	0,915 ^e	11 828,3 ^e	10,0 ^e	0,4209 ^e	12 977	0,911 ^e
73,3	0,913 ^e	12 603,5 ^e	6,6 ^e	0,4409 ^e	13 421	0,939 ^e
74,5	0,916 ^e	13 448,6 ^e	6,7 ^e	0,4664 ^e	14 312	0,940 ^e
74,6	0,919 ^e	14 586,3 ^e	8,5 ^e	0,4863 ^e	13 947	1,046 ^e
75,7	0,922 ^e	15 968,4 ^e	9,5 ^e	0,4987 ^e	14 654	1,090 ^e
76,4	0,923 ^e	16 889,4 ^e	5,8 ^e	0,5096 ^e	15 441	1,094 ^e
75,3	0,927 ^e	18 005,3 ^e	6,6 ^e	0,5109 ^e	16 467	1,093 ^e
74,6	0,931 ^e	19 384,8 ^e	7,7 ^e	0,5125 ^e	16 804	1,154 ^e
74,6	0,933 ^e	21 153,6 ^e	9,1 ^e	0,5073 ^e	17 172	1,232 ^e
76,9	0,933 ^e	23 056,1 ^e	9,0 ^e	0,5051 ^e	17 851	1,292 ^e
76,4	0,938 ^e	24 514,9 ^e	6,3 ^e	0,5218 ^e	18 579	1,319 ^e
76,8	0,937 ^e	26 657,1 ^e	8,7 ^e	0,5466 ^e	19 817	1,345 ^e
75,4	0,936	28 885,0	8,4	0,5550	20 893	1,383
75,9	0,937	31 505,6	9,1	0,5565	21 644	1,456
75,8	0,935	34 890,6	10,7	0,5545	22 700	1,537
76,1	0,934	38 040,0	9,0	0,5772	25 050	1,519
76,4	0,936	41 648,9	9,5	0,6108	26 937	1,546
77,3	0,936	46 578,4	11,8	0,6484	28 559	1,631
75,1	0,935	52 585,1	12,9	0,6822	29 891	1,759
76,5	0,940	57 869,2	10,0	0,7950	33 999	1,702
76,1	0,940	63 355,7	9,5	1,0360	36 915	1,716
75,8	0,942	67 125,4	6,0	1,5353	39 112	1,716
77,3	0,936	72 780,4	8,4	1,7887	41 040	1,773
76,4	0,937	80 582,8	10,7	1,8980	43 690	1,844
77,5	0,942	87 539,3	8,6	2,0242	47 490	1,843
77,6	0,941	93 844,0	7,2	2,2811	52 080	1,802
75,3	0,938	96 135,9	2,4	2,8038	58 850	1,634
76,9	0,932	98 251,1	2,2	3,3606	62 420	1,574
75,0	0,939	106 904,1	8,8	3,5842	64 560	1,656
76,2	0,942	112 305,9	5,1	4,1179	66 000	1,702
77,3	0,948	117 353,0	4,5	4,9803	60 800	1,930
73,9	0,946	122 523,6	4,4	5,7512	56 830	2,156
75,5	0,949	129 620,0	5,8	6,2926	56 726	2,285
73,7	0,951	134 357,5	3,7	6,8984	51 554	2,606
74,9	0,950	136 185,1	1,4	7,8832	50 000	2,724
74,6	0,950	138 697,9	1,8	8,4718	46 637	2,974
73,5	0,944	138 126,0	-0,4	9,1580	42 223	3,271
75,1	0,943	143 800,0	4,1	9,5918 ^f	40 128	3,584
72,8	0,944	149 443,1	3,9	10,3163	39 760	3,749

At a glance – electricity sales



Number of customers by category (excluding traction and own use)

Prior to 1988, rural/farming and commercial customers were included under Industrial.

Year	Bulk	Domestic and street lighting	Commercial	Industrial	Mining	Rural/farming	Inter-national ^a	Total for all categories	Change %
1955	115	36 452	–	3 274	151	–	–	39 992	7,5
1956	125	38 944	–	3 490	166	–	–	42 725	6,8
1957	134	41 113	–	3 551	170	–	–	44 968	5,2
1958	137	43 665	–	4 216	174	–	–	48 192	7,2
1959	146	46 437	–	4 593	177	–	–	51 353	6,6
1960	155	49 968	–	5 039	183	–	–	55 345	7,8
1961	168	53 908	–	5 453	192	–	–	59 721	7,9
1962	179	56 456	–	6 410	209	–	–	63 254	5,9
1963	186	61 093	–	7 128	230	–	–	68 637	8,5
1964	187	66 397	–	7 782	240	–	–	74 606	8,7
1965	203	71 517	–	9 051	251	–	–	81 022	8,6
1966	208	77 121	–	10 278	259	–	–	87 866	8,4
1967	220	83 189	–	11 435	267	–	–	95 111	8,2
1968	233	85 227	–	13 540	276	–	–	99 276	4,4
1969	249	91 999	–	14 978	289	–	–	107 515	8,3
1970	265	98 155	–	16 336	294	–	–	115 050	7,0
1971	289	106 684	–	16 927	297	–	–	124 197	8,0
1972	310	108 517	–	18 500	299	–	–	127 626	2,8
1973	326	117 034	–	20 049	302	–	–	137 711	7,9
1974	332	106 857	–	41 647	314	–	–	149 150	8,3
1975	353	109 029	–	43 598	325	–	–	153 305	2,8
1976	365	105 482	–	61 142	333	–	–	167 322	9,1
1977	368	106 743	–	62 507	340	–	–	169 958	1,6
1978	386	109 317	–	65 797	354	–	–	175 854	3,5
1979	404	101 792	–	65 656	357	–	–	168 209	-4,3
1980	419	109 558	–	69 479	386	–	–	179 842	6,9
1981	434	113 552	–	77 722	403	–	–	192 111	6,8
1982	453	119 889	–	82 801	418	–	–	203 561	6,0
1983	468	124 433	–	89 439	421	–	–	214 761	5,5
1984	487	130 471	–	94 863	410	–	–	226 231	5,3
1985	528	135 770	–	101 246	524	–	–	238 068	5,2
1986	571	137 820	–	108 386	546	–	–	247 323	3,9
1987	562	142 050	–	116 067	544	–	–	259 223	4,8
1988	595	153 590	16 054	2 877	555	101 708	–	275 379	6,2
1989	625	103 111	11 958	2 593	565	110 083	–	228 935	-16,9
1990	673	111 709	11 948	2 561	592	114 771	–	242 254	5,8
1991	704	142 759	12 416	2 646	585	118 631	–	277 741	14,6
1992	718	397 562	17 918	2 682	583	122 097	4	541 564	95,0
1993	742	715 219	26 535	3 032 ^b	632	126 038 ^b	4	872 202	61,1
1994	704	1 053 725	20 112	5 707	631	125 864	4	1 207 053	38,3

^a International category comprises four main customers in Botswana, Mozambique, Namibia and Zimbabwe.

^b Reclassification of customer codes.

Total electricity sold

Prior to 1988, rural/farming and commercial customers were included under Industrial.

Year	Sales per category, GWh								
	Bulk	Domestic and street lighting	Commercial	Industrial	Mining	Rural/farming	Traction	Inter-national ^a	Own usage
1955	2 048	157	–	1 881	5 977	–	690	–	–
1956	2 282	174	–	2 187	6 445	–	740	–	–
1957	2 540	190	–	2 331	6 790	–	753	–	–
1958	2 838	206	–	2 480	7 136	–	789	–	–
1959	3 058	228	–	2 737	7 676	–	887	–	–
1960	3 243	253	–	3 169	8 259	–	1 045	–	–
1961	3 368	279	–	3 437	8 626	–	1 178	–	–
1962	3 570	303	–	3 692	9 143	–	1 296	–	–
1963	3 998	329	–	4 253	9 416	–	1 389	–	–
1964	4 494	381	–	4 873	9 847	–	1 559	–	–
1965	4 921	439	–	5 663	10 271	–	1 763	–	–
1966	5 344	492	–	6 069	10 775	–	1 836	–	–
1967	5 966	563	–	6 729	11 441	–	1 958	–	–
1968	6 628	642	–	7 439	11 995	–	2 181	–	–
1969	7 264	719	–	8 574	12 642	–	2 307	–	–
1970	8 108	817	–	9 608	13 948	–	2 410	–	–
1971	9 265	918	–	11 014	14 227	–	2 616	–	–
1972	10 716	1 000	–	12 642	14 509	–	2 782	–	–
1973	12 752	1 105	–	14 026	15 800	–	2 896	–	–
1974	15 522	909	–	16 106	16 941	–	3 108	–	–
1975	18 055	1 013	–	18 050	17 444	–	3 307	–	–
1976	20 096	1 093	–	19 946	18 746	–	3 475	–	–
1977	20 862	1 030	–	21 586	20 139	–	3 508	–	–
1978	21 834	960	–	24 181	22 219	–	3 586	–	–
1979	24 133	940	–	27 475	24 000	–	4 035	–	–
1980	26 923	906	–	29 373	25 882	–	4 455	–	–
1981	29 961	1 002	–	31 091	27 131	–	4 660	–	–
1982	32 349	1 020	–	30 959	27 372	–	4 436	–	–
1983	32 729	1 078	–	32 286	28 021	–	4 137	–	–
1984	35 541	1 144	–	36 119	29 506	–	4 595	–	–
1985	37 451	1 204	–	38 215	30 849	–	4 587	–	–
1986	40 570	1 252	–	39 170	31 860	–	4 501	–	–
1987	45 418	1 279	–	35 262	32 849	3 022	4 049	–	645
1988	49 812	1 357	450	36 016	34 228	3 151	4 138	–	467
1989	54 861	1 237	368	35 360	34 376	3 403	4 237	–	516
1990	59 203	1 098	340	34 439	32 981	3 639	3 965	–	520
1991	62 538	1 156	344	35 530	31 257	3 762	3 656	–	455
1992	62 417	1 604	379	34 034	30 840	4 038	3 568	776	470
1993	63 591	2 778	493	37 467 ^b	30 998	3 149 ^b	3 365	1 565	394
1994	64 584	3 660	478	40 394 ^c	31 619	3 255	3 494	1 583	376

^a International category comprises four main customers in Botswana, Mozambique, Namibia and Zimbabwe.

^b Reclassification of customer codes.

^c Industrial sales for 1994 include sales in respect of Department of Water Affairs and Forestry not stated in previous years.

Total	Sales as a percentage of total GWh sold								
	Bulk	Domestic and street lighting	Commercial	Industrial	Mining	Rural/farming	Traction	Inter-national ^a	Own usage
10 753	19,0	1,5	–	17,5	55,6	–	6,4	–	–
11 828	19,3	1,5	–	18,5	54,5	–	6,3	–	–
12 604	20,2	1,5	–	18,5	53,9	–	6,0	–	–
13 449	21,1	1,5	–	18,4	53,1	–	5,9	–	–
14 586	21,0	1,6	–	18,8	52,6	–	6,1	–	–
15 969	20,3	1,6	–	19,8	51,7	–	6,5	–	–
16 888	19,9	1,7	–	20,4	51,1	–	7,0	–	–
18 004	19,8	1,7	–	20,5	50,8	–	7,2	–	–
19 385	20,6	1,7	–	21,9	48,6	–	7,2	–	–
21 154	21,2	1,8	–	23,0	46,5	–	7,4	–	–
23 057	21,3	1,9	–	24,6	44,5	–	7,6	–	–
24 516	21,8	2,0	–	24,8	44,0	–	7,5	–	–
26 657	22,4	2,1	–	25,2	42,9	–	7,3	–	–
28 885	22,9	2,2	–	25,8	41,5	–	7,6	–	–
31 506	23,1	2,3	–	27,2	40,1	–	7,3	–	–
34 891	23,2	2,3	–	27,5	40,0	–	6,9	–	–
38 040	24,4	2,4	–	29,0	37,4	–	6,9	–	–
41 649	25,7	2,4	–	30,4	34,8	–	6,7	–	–
46 579	27,4	2,4	–	30,1	33,9	–	6,2	–	–
52 586	29,5	1,7	–	30,6	32,2	–	5,9	–	–
57 869	31,2	1,8	–	31,2	30,1	–	5,7	–	–
63 356	31,7	1,7	–	31,5	29,6	–	5,5	–	–
67 125	31,1	1,5	–	32,2	30,0	–	5,2	–	–
72 780	30,0	1,3	–	33,2	30,5	–	4,9	–	–
80 583	29,9	1,2	–	34,1	29,8	–	5,0	–	–
87 539	30,8	1,0	–	33,6	29,6	–	5,1	–	–
93 845	31,9	1,1	–	33,1	28,9	–	5,0	–	–
96 136	33,6	1,1	–	32,2	28,5	–	4,6	–	–
98 251	33,3	1,1	–	32,9	28,5	–	4,2	–	–
106 905	33,2	1,1	–	33,8	27,6	–	4,3	–	–
112 306	33,3	1,1	–	34,0	27,5	–	4,1	–	–
117 353	34,6	1,1	–	33,4	27,1	–	3,8	–	–
122 524	37,1	1,0	–	28,8	26,8	2,5	3,3	–	0,5
129 620	38,4	1,0	0,3	27,8	26,4	2,4	3,2	–	0,4
134 358	40,8	0,9	0,3	26,3	25,6	2,5	3,2	–	0,4
136 185	43,5	0,8	0,2	25,3	24,2	2,7	2,9	–	0,4
138 698	45,1	0,8	0,2	25,6	22,5	2,7	2,6	–	0,3
138 126	45,2	1,2	0,3	24,6	22,3	2,9	2,6	0,6	0,3
143 800	44,2	1,9	0,3	26,1	21,6	2,2	2,3	1,1	0,3
149 443	43,2	2,4	0,3	27,0 ^b	21,2	2,2 ^b	2,3	1,1	0,3

Revenue per kWh by customer category

Prior to 1988, rural/farming and commercial customers were included under industrial.

Year	Actual price in c/kWh									Change %
	Bulk	Domestic and street lighting	Commercial	Industrial	Mining	Rural/farming	Traction	Inter-national ^a	Average for all categories	
1955	0,523	1,349		0,399	0,326		0,618		0,410	8,9
1956	0,545	1,363		0,399	0,334		0,635		0,421	2,7
1957	0,569	1,385		0,415	0,353		0,645		0,441	4,8
1958	0,586	1,429		0,441	0,379		0,656		0,466	5,8
1959	0,605	1,441		0,468	0,396		0,667		0,486	4,3
1960	0,601	1,449		0,483	0,414		0,664		0,499	2,5
1961	0,613	1,484		0,494	0,422		0,673		0,510	2,2
1962	0,609	1,478		0,487	0,417		0,740		0,511	0,3
1963	0,604	1,476		0,488	0,419		0,728		0,513	0,3
1964	0,591	1,443		0,490	0,412		0,691		0,507	-1,0
1965	0,591	1,398		0,482	0,406		0,696		0,505	-0,4
1966	0,597	1,385		0,511	0,418		0,717		0,522	3,3
1967	0,606	1,393		0,537	0,444		0,752		0,547	4,8
1968	0,604	1,391		0,551	0,449		0,755		0,555	1,5
1969	0,599	1,370		0,550	0,455		0,755		0,557	0,3
1970	0,600	1,345		0,550	0,450		0,756		0,555	-0,4
1971	0,614	1,361		0,573	0,472		0,763		0,577	4,1
1972	0,637	1,416		0,601	0,510		0,791		0,611	5,8
1973	0,674	1,505		0,638	0,542		0,842		0,648	6,2
1974	0,704	1,548		0,706	0,557		0,883		0,682	5,2
1975	0,808	1,708		0,822	0,659		1,016		0,795	16,5
1976	1,053	2,092		1,064	0,873		1,326		1,036	30,3
1977	1,578	3,178		1,564	1,295		2,004		1,535	48,2
1978	1,779	3,788		1,799	1,604		2,387		1,789	16,5
1979	1,872	3,983		1,892	1,731		2,602		1,898	6,1
1980	2,003	4,275		2,026	1,854		2,676		2,024	6,6
1981	2,270	4,731		2,284	2,079		2,989		2,281	12,7
1982	2,808	5,418		2,825	2,541		3,650		2,804	22,9
1983	3,367	6,232		3,377	3,048		4,551		3,361	19,9
1984	3,593	6,661		3,595	3,268		4,696		3,584	6,7
1985	4,124	7,507		4,120	3,789		5,373		4,118	14,9
1986	4,871	9,195		5,025	4,722		6,237		4,980	20,9
1987	5,580	10,954		5,470	5,540	10,440	7,612		5,751	15,5
1988	6,121	11,861	10,906	5,875	6,030	11,666	8,179		6,293	9,4
1989	6,688	12,318	11,222	6,468	6,670	12,604	9,083		6,898	9,6
1990	7,650	14,513	12,797	7,330	7,587	14,487	10,406		7,883	14,3
1991	8,252	15,779	14,284	7,784	8,127	15,858	11,419		8,472	7,4
1992	8,983	15,274	15,567	8,174	8,791	17,137	12,444	8,634	9,158	8,1
1993	9,490	12,680 ^b	16,457 ^b	8,345 ^b	9,521 ^b	19,839 ^b	13,700	7,649 ^b	10,142 ^b	10,7
1994	10,176	16,756	17,433	8,908	10,113	21,134	14,312	7,883	10,260	7,6 ^c

^a International category comprises four main customers in Botswana, Mozambique, Namibia and Zimbabwe.

^b Restated.

^c Official price increase 7%; actual 7,6%, due to increase in domestic customers on tariff S1 and reduced consumption by rural customers.

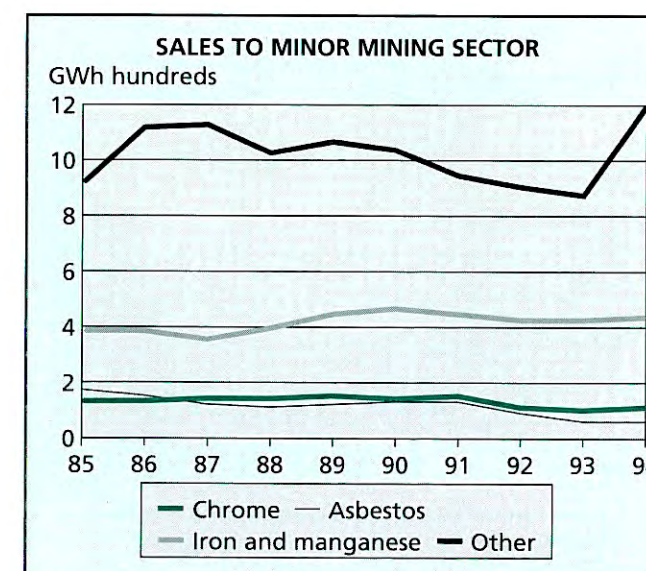
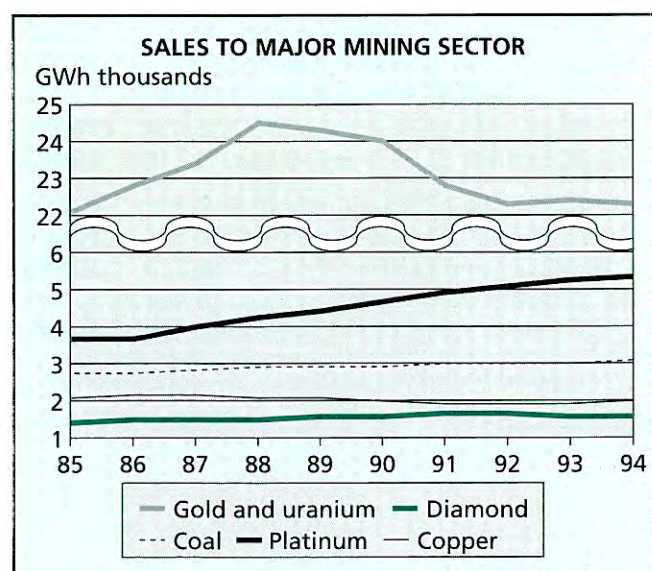
Production Price Index 1990 = 100	Real price in c/kWh									
	Bulk	Domestic and street lighting	Commercial	Industrial	Mining	Rural/farming	Traction	Inter-national ^a	Average for all categories	Change %
6,3	8,332	21,505		6,365	5,202		9,851		6,537	6,0
6,4	8,537	21,350		6,255	5,240		9,949		6,595	0,9
6,5	8,808	21,419		6,419	5,456		9,974		6,820	3,4
6,5	9,027	22,016		6,788	5,837		10,099		7,183	5,3
6,5	9,357	22,291		7,242	6,130		10,319		7,522	4,7
6,5	9,177	22,131		7,381	6,328		10,146		7,616	1,2
6,7	9,201	22,290		7,423	6,331		10,102		7,653	0,5
6,7	9,076	22,018		7,259	6,216		11,018		7,609	-0,6
6,8	8,891	21,714		7,176	6,167		10,714		7,539	-0,9
7,0	8,489	20,718		7,039	5,917		9,922		7,284	-3,4
7,2	8,227	19,458		6,706	5,645		9,689		7,029	-3,5
7,5	7,997	18,558		6,844	5,603		9,609		6,991	-0,5
7,6	7,946	18,258		7,035	5,824		9,861		7,164	2,5
7,7	7,798	17,970		7,122	5,804		9,757		7,169	0,1
7,9	7,572	17,318		6,950	5,748		9,548		7,037	-1,8
8,2	7,356	16,492		6,740	5,518		9,270		6,797	-3,4
8,5	7,184	15,923		6,710	5,518		8,928		6,754	-0,6
9,2	6,890	15,321		6,502	5,524		8,564		6,611	-2,1
10,4	6,461	14,425		6,113	5,193		8,075		6,215	-6,0
12,3	5,711	12,566		5,728	4,523		7,166		5,538	-10,9
14,5	5,589	11,815		5,686	4,559		7,030		5,499	-0,7
16,6	6,335	12,584		6,402	5,250		7,981		6,233	13,3
18,8	8,400	16,917		8,327	6,892		10,668		8,173	31,1
20,6	8,629	18,372		8,726	7,782		11,578		8,676	6,2
23,8	7,880	16,768		7,968	7,289		10,955		7,991	-7,9
27,7	7,218	15,409		7,300	6,682		9,645		7,295	-8,7
31,5	7,201	15,011		7,245	6,595		9,482		7,237	-0,8
35,9	7,814	15,079		7,862	7,070		10,157		7,803	7,8
39,7	8,480	15,696		8,505	7,677		11,461		8,464	8,5
43,0	8,350	15,479		8,353	7,594		10,911		8,329	-1,6
50,3	8,203	14,932		8,194	7,536		10,688		8,191	-1,7
60,1	8,104	15,300		8,361	7,857		10,377		8,287	1,2
68,5	8,148	15,996		7,988	8,091	15,245	11,116		8,399	1,3
77,5	7,899	15,306	14,073	7,582	7,781	15,054	10,555		8,120	-3,3
89,3	7,490	13,796	12,568	7,243	7,469	14,115	10,172		7,726	-4,9
100,0	7,650	14,513	12,797	7,330	7,587	14,487	10,406		7,883	2,0
108,6	7,598	14,530	13,153	7,168	7,484	14,603	10,514		7,801	-1,0
116,5	7,711	13,111	13,362	7,016	7,546	14,710	10,682	7,411	7,861	0,8
123,5	7,684	10,267 ^b	13,326 ^b	6,757 ^b	7,709	16,064 ^b	11,093	6,194 ^b	8,212 ^b	4,5 ^b
135,5	7,510	12,366	12,866	6,574	7,463	15,597	10,562	5,818	7,572	-7,8

Sales to mining sector, GWh

Year	Gold and uranium	Diamond	Coal	Platinum	Copper	Chrome
1967	9 946	264	453	308	235	11
1968	10 339	281	480	378	256	14
1969	10 647	282	495	653	282	17
1970	11 504	288	535	941	343	20
1971	11 662	297	563	962	374	25
1972	11 773	325	589	990	422	31
1973	12 263	334	620	1 581	565	33
1974	12 803	338	648	1 978	653	52
1975	13 108	346	705	2 001	679	42
1976	13 918	343	812	2 184	728	61
1977	14 708	342	941	2 287	874	84
1978	16 241	497	1 078	2 388	1 023	106
1979	17 201	596	1 248	2 772	1 042	126
1980	18 230 ^a	505 ^a	1 392 ^a	2 867 ^a	1 189 ^a	117 ^a
1981	19 367 ^a	561 ^a	1 595 ^a	2 929 ^a	1 220 ^a	115 ^a
1982	20 058 ^a	521 ^a	1 697 ^a	2 319 ^a	1 277 ^a	108 ^a
1983	20 752 ^a	516 ^a	1 696 ^a	2 425	1 283 ^a	106 ^a
1984	21 580 ^a	522 ^a	1 907 ^a	2 874	1 274 ^a	114 ^a
1985	22 088	526 ^a	2 116 ^a	3 213	1 276 ^a	137 ^a
1986	22 759	554 ^a	2 146 ^a	3 247	1 350 ^a	143
1987	23 420 ^a	582 ^a	2 164 ^a	3 565	1 369 ^a	146
1988	24 471	630 ^a	2 260 ^a	3 893 ^a	1 284 ^a	154
1989	24 251	683 ^a	2 290 ^a	4 121 ^a	1 256 ^a	158
1990	24 034	738 ^a	2 337 ^a	4 387 ^b	1 223 ^a	152
1991	22 780 ^a	790 ^a	2 354 ^a	4 659 ^b	1 117 ^a	162
1992	22 268	820 ^a	2 367	4 897 ^b	1 136 ^a	118
1993	22 370 ^a	664 ^a	2 414 ^a	5 124 ^{a b}	1 104 ^a	113 ^a
1994	22 250	682	2 526	5 201 ^b	1 173	117

^a Restated.
^b Platinum mines also included under Bulk in Total electricity sold on p 22.

Asbestos	Iron	Manganese	Other	Total	Growth %
91		74	59	11 441	
107		81	59	11 995	4,8
118		80	68	12 642	5,4
137		88	92	13 948	10,3
152		92	100	14 227	2,0
161		101	117	14 509	2,0
168	86	27	123	15 800	8,9
193	104	30	142	16 941	7,2
238	121	37	167	17 444	3,0
266	180	49	205	18 746	7,5
275	271	62	295	20 139	7,4
223	272	72	319	22 219	10,3
233	334	83	365 ^a	24 000	8,0
237 ^a	293 ^a	95 ^a	957 ^a	25 882	7,8
237 ^a	354 ^a	105 ^a	648 ^a	27 131	4,8
235	329 ^a	114 ^a	714 ^a	27 372	0,9
225	243 ^a	78	697 ^a	28 021	2,4
186	321	75	653 ^a	29 506	5,3
184	310	84	915 ^a	30 849	4,6
162	298	89	1 112 ^a	31 860	3,3
129	267	88	1 119 ^a	32 849	3,1
118	295	104	1 020 ^a	34 228	4,2
126	323	129	1 055 ^a	34 392	0,5
141	325	140	1 033 ^a	34 510	0,3
143	315	131	942 ^a	33 393	-3,2
98	313	121	903 ^a	33 041	-1,1
74 ^a	326	108	869 ^a	33 166	0,4
70	327	117	1 203	33 666	1,5



Sales to industry, GWh

By Standard Industrial Classification of selected economic activities (SIC) ^a

Year	Division										Growth %
	11 ^b	31	32	33	34	35 ^c	351	352	Other ^b	Total	
1983	255	347	1 184	7 258	1 307	286	10 664	4 699	6 285	32 286	
1984	293	361	1 470	7 716	1 379	291	12 874	5 096	6 639	36 119	11,9
1985	337	401	1 735	8 079	1 236	282	14 116	5 067	6 961	38 215	5,8
1986	322	422	1 689	8 427	1 209	236	14 792	5 054	7 019	39 170	2,5
1987	313	403	1 429	8 063	1 226	170	14 649	5 320	7 355	38 929	-0,6
1988	303	410	1 474	8 417	1 345	157	15 177	5 561	7 241	40 085	3,0
1989	305	398	1 270	8 253	1 221	132	15 077	5 639	7 353	39 647	-1,1
1990	339	366	1 332	7 966	1 195	122	14 662	5 509	7 446	38 938	-1,8
1991	329	365	1 351	8 958	1 074	103	14 275	5 962	7 673	40 091	3,0
1992	793 ^d	372	1 436	9 704	986	101	11 402	6 147	7 979	38 921	-2,9
1993	1 465 ^d	391	1 365	10 915	975	103	12 608	6 236	7 446	41 503	6,6
1994	1 839 ^d	417	1 356	10 995	1 053	98	14 604	5 945	8 196	44 503	7,2

Standard Industrial Classification Divisions

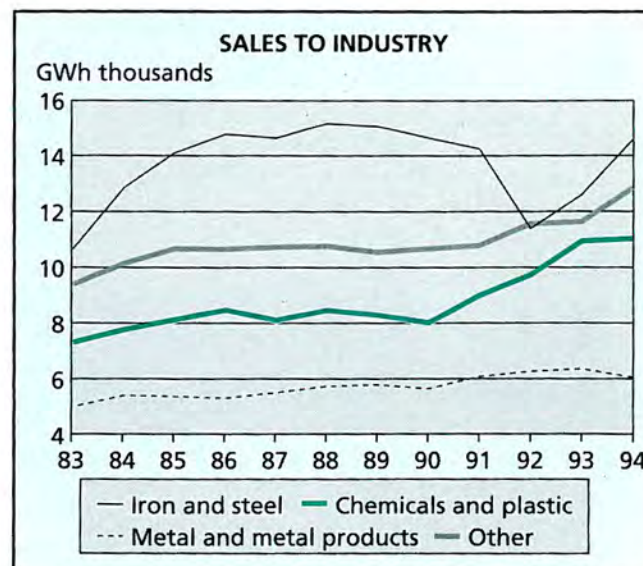
- 11 Agriculture, hunting and related services.
- 31 Manufacture of textiles, clothing and leather goods.
- 32 Manufacture of wood and of products of wood and cork, manufacture of paper and paper products.
- 33 Manufacture of coke, refined petroleum products and nuclear fuel, manufacture of chemicals and chemical products, manufacture of rubber and plastic products.
- 34 Manufacture of other non-metallic mineral products.
- 35 Manufacture of basic metals, fabricated metal products, machinery and equipment, and office, accounting and computing machinery.
- 351 Manufacture of basic iron and steel.
- 352 Manufacture of basic precious and non-ferrous metals.

^a SIC codes have been revised in 1992.

^b Revised.

^c This reflects the balance after deduction of codes 351 and 352.

^d These figures reflect the usage by small power customers. Prior to 1992 these figures were included under Other.



Sales to industry, GWh

By Standard Industrial Classification of selected economic activities (SIC) ^a

Year	Division										Growth %
	11 ^b	31	32	33	34	35 ^c	351	352	Other ^b	Total	
1983	255	347	1 184	7 258	1 307	286	10 664	4 699	6 285	32 286	
1984	293	361	1 470	7 716	1 379	291	12 874	5 096	6 639	36 119	11,9
1985	337	401	1 735	8 079	1 236	282	14 116	5 067	6 961	38 215	5,8
1986	322	422	1 689	8 427	1 209	236	14 792	5 054	7 019	39 170	2,5
1987	313	403	1 429	8 063	1 226	170	14 649	5 320	7 355	38 929	-0,6
1988	303	410	1 474	8 417	1 345	157	15 177	5 561	7 241	40 085	3,0
1989	305	398	1 270	8 253	1 221	132	15 077	5 639	7 353	39 647	-1,1
1990	339	366	1 332	7 966	1 195	122	14 662	5 509	7 446	38 938	-1,8
1991	329	365	1 351	8 958	1 074	103	14 275	5 962	7 673	40 091	3,0
1992	793 ^d	372	1 436	9 704	986	101	11 402	6 147	7 979	38 921	-2,9
1993	1 465 ^d	391	1 365	10 915	975	103	12 608	6 236	7 446	41 503	6,6
1994	1 839 ^d	417	1 356	10 995	1 053	98	14 604	5 945	8 196	44 503	7,2

Standard Industrial Classification Divisions

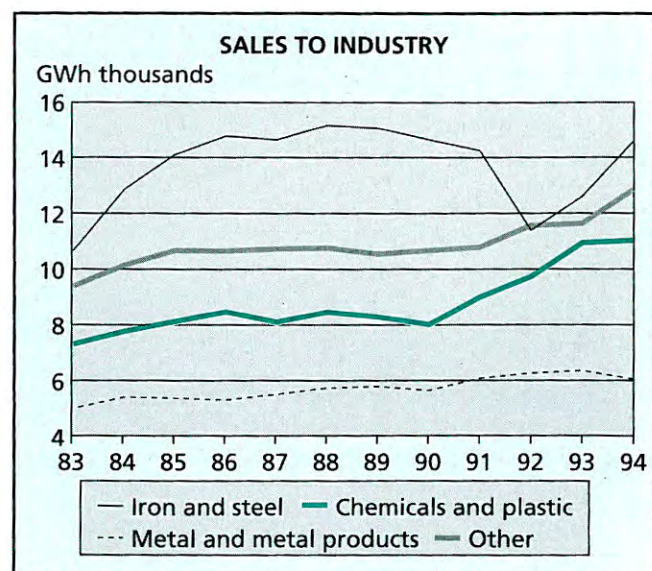
- 11 Agriculture, hunting and related services.
- 31 Manufacture of textiles, clothing and leather goods.
- 32 Manufacture of wood and of products of wood and cork, manufacture of paper and paper products.
- 33 Manufacture of coke, refined petroleum products and nuclear fuel, manufacture of chemicals and chemical products, manufacture of rubber and plastic products.
- 34 Manufacture of other non-metallic mineral products.
- 35 Manufacture of basic metals, fabricated metal products, machinery and equipment, and office, accounting and computing machinery.
- 351 Manufacture of basic iron and steel.
- 352 Manufacture of basic precious and non-ferrous metals.

^a SIC codes have been revised in 1992.

^b Revised.

^c This reflects the balance after deduction of codes 351 and 352.

^d These figures reflect the usage by small power customers. Prior to 1992 these figures were included under Other.

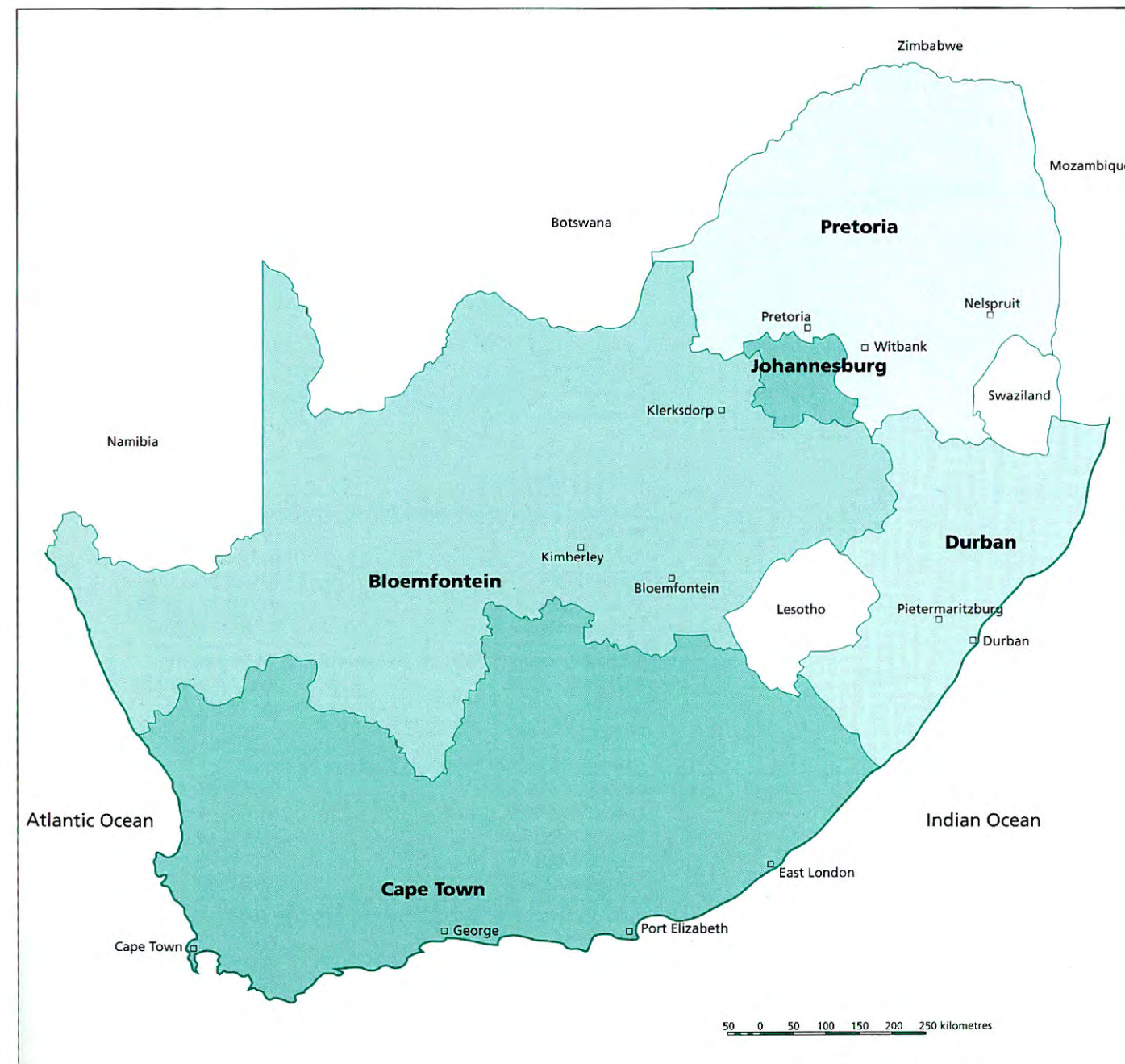


Business units

as at 31 December 1994

- Pretoria Distributor
- Johannesburg Distributor
- Bloemfontein Distributor
- Durban Distributor
- Cape Town Distributor

As from 1 January 1995 these business units have been reconstituted into 15 divisions.

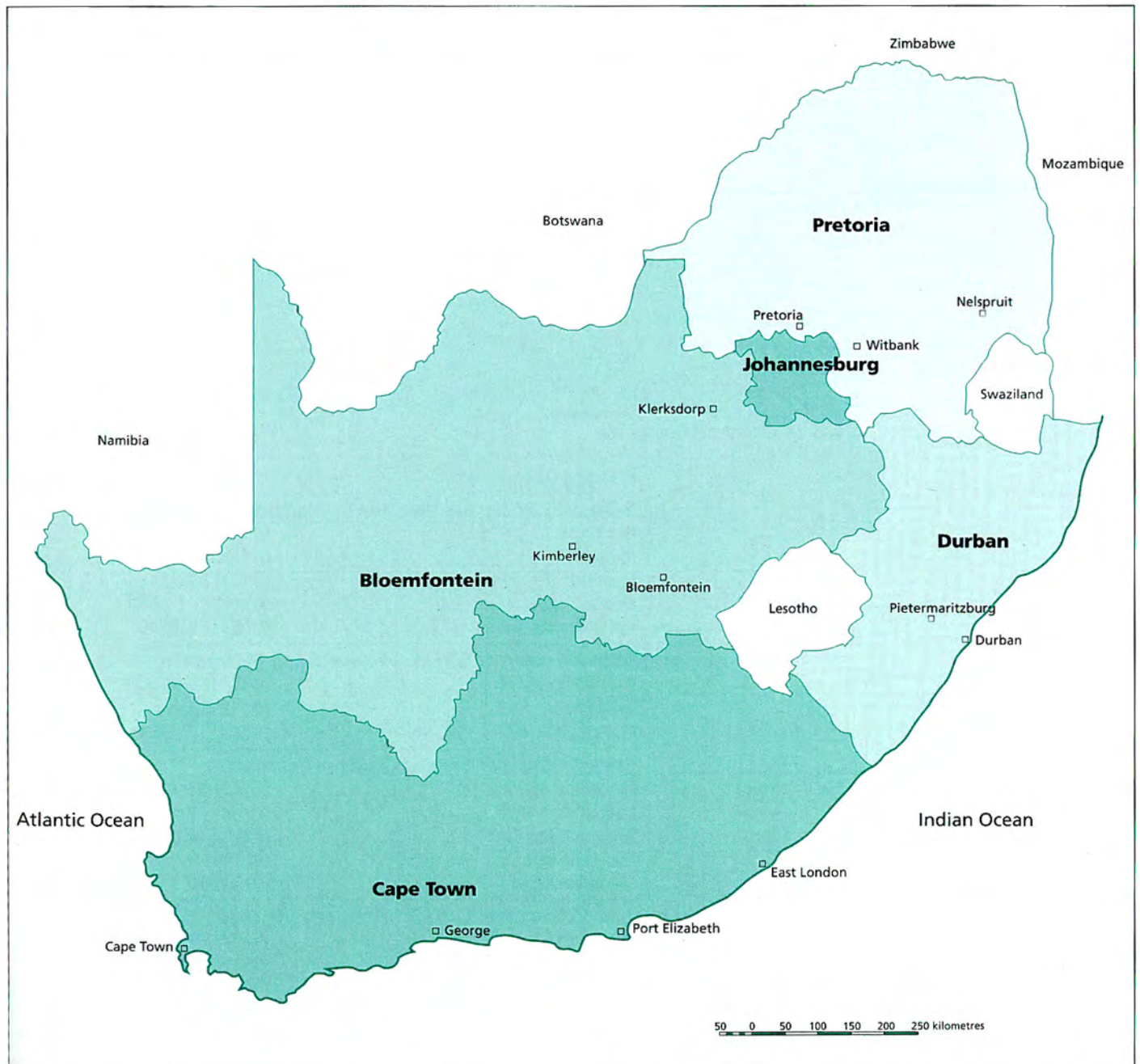


Business units

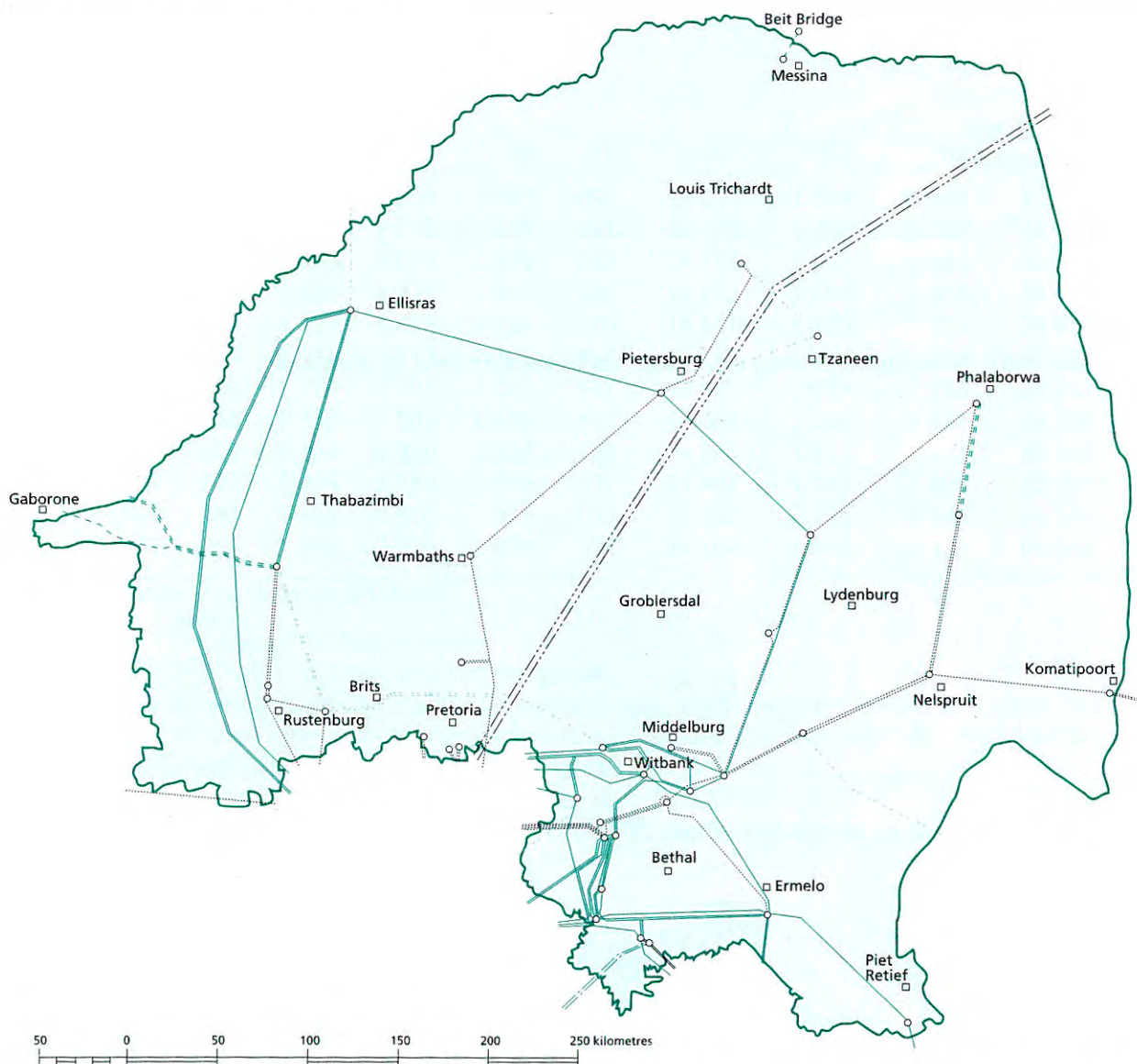
as at 31 December 1994

Pretoria Distributor
Johannesburg Distributor
Bloemfontein Distributor
Durban Distributor
Cape Town Distributor

As from 1 January 1995 these business units have been reconstituted into 15 divisions.



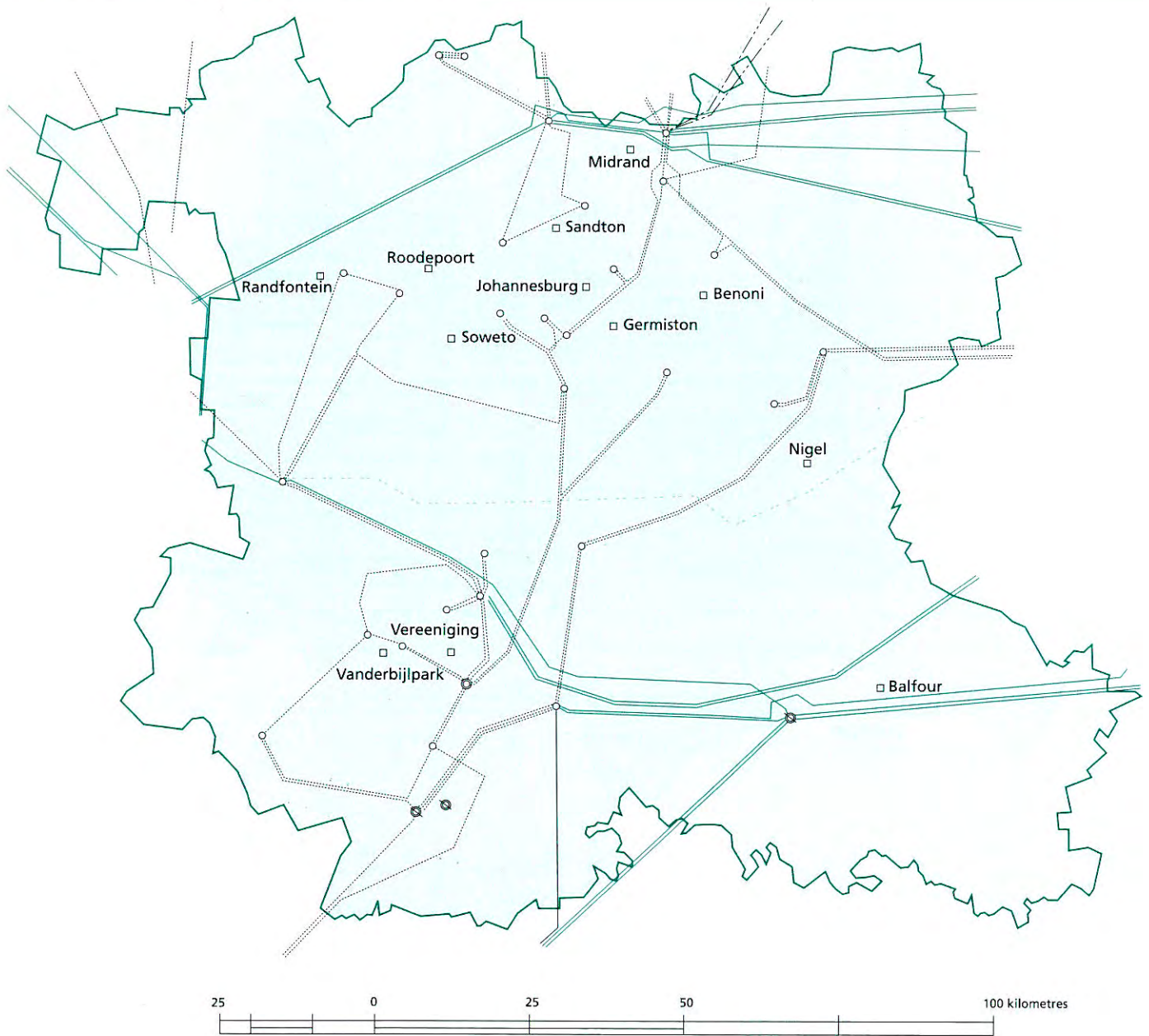
Pretoria Distributor



Pretoria Distributor	
Sales & Customer Service - North-western Transvaal	
Manager	(012) 348-4055
Brits	(01211) 2-0438
Rustenburg	(0142) 97-2570
Thabazimbi	(014773) 7-1638
Warmbaths	(01533) 6-2140
Sales & Customer Service - Lowveld and Escarpment	
Manager	(01311) 55-9000
Lydenburg	(01323) 2314
Nelspruit	(01311) 55-9311
Sales & Customer Service - Eastern Transvaal	
Manager	(0135) 93-3111
Bethal	(01361) 7-1200
Groblersdal	(01202) 4039
KwaNdebele	(01212) 5-1430
Middelburg	(0132) 46-1631/2/3/4/5/6/7
Sales & Customer Service - Northern Transvaal	
Manager	(0152) 295-5691
Phalaborwa	(01524) 8-7331
Pietersburg	(0152) 291-3204
Lebowa	(0152) 295-5691

- 765 kV lines
- 533 kV lines
- 400 kV lines
- 275 kV lines
- 132 kV lines
- Approved project

Johannesburg Distributor



Johannesburg Distributor	
Sales & Customer Service - East Rand	
Manager	(011) 711-2947
Benoni	(011) 422-3900
Germiston	(011) 871-3991
Midrand	(011) 315-2060
Sales & Customer Service - South Vaal	
Manager	(011) 711-2825
Nigel	(011) 814-1212
Vanderbijlpark	(016) 81-4030/1/2/3
Vereeniging	(016) 21-3410
Sales & Customer Service - West Rand	
Manager	(011) 711-9111
Randfontein	(011) 693-5348/9
Sandton	(011) 803-5464
Soweto	(011) 494-4320

- 533 kV lines
- 400 kV lines
- 275 kV lines
- - - Approved project

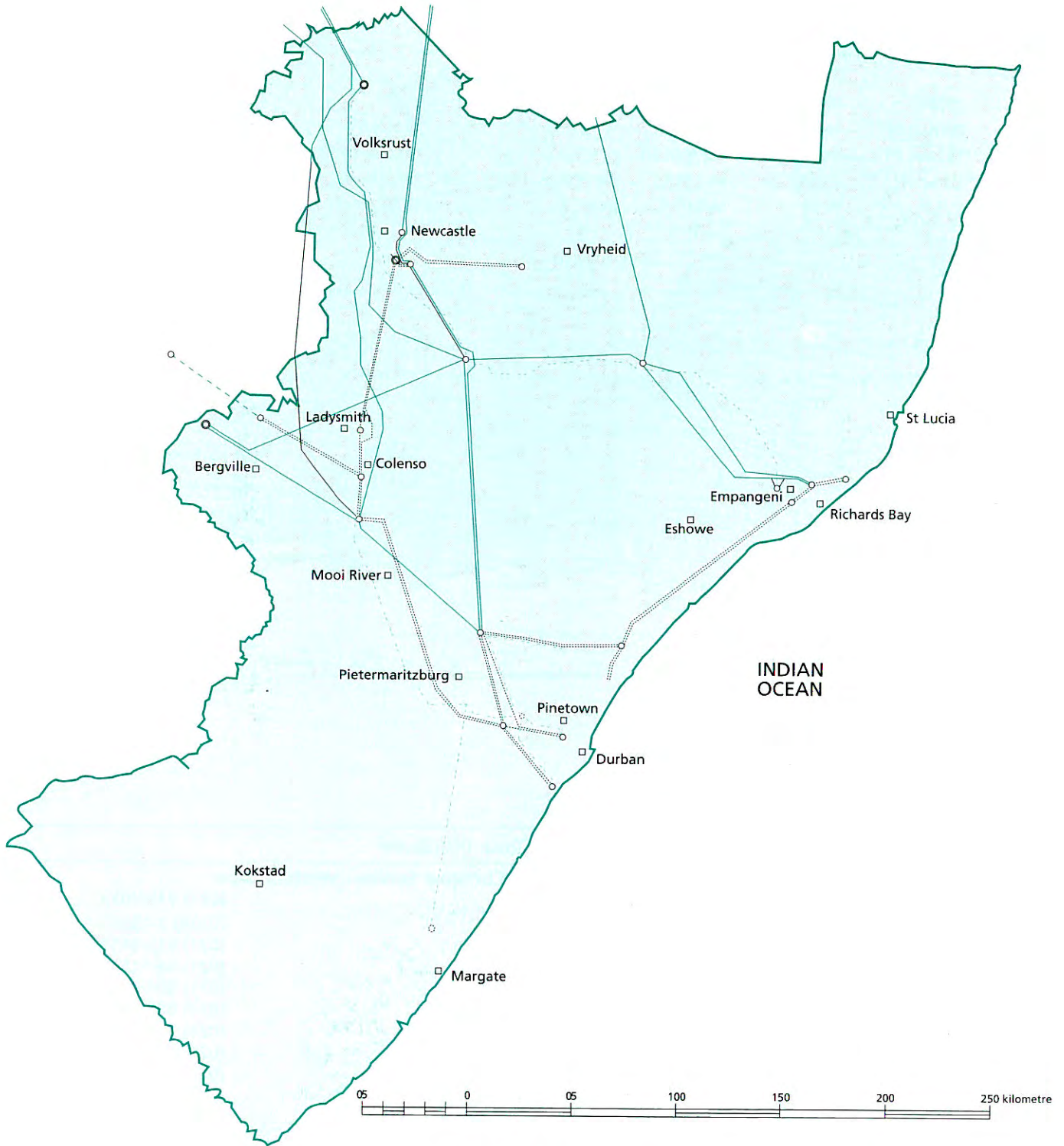
Bloemfontein Distributor



- 765 kV lines
- 400 kV lines
- 275 kV lines
- 220 kV lines
- - - - 132 kV lines

Bloemfontein Distributor	
Sales & Customer Service - Free State	
Manager	(051) 30-2300
Bethlehem	(058) 303-5133
Harrismith	(05861) 3-1788/98
Kroonstad	(0562) 3-2757
Parys	(0568) 2341/2
Senekal	(05848) 3801
Sales & Customer Service - Northern Cape	
Manager	(0531) 80-5911
Kimberley	(0531) 80-5884
Kuruman	(05373) 3-0462
Upington	(054) 37-1221
Vryburg	(05391) 7-1116
Sales & Customer Service - Goldfields	
Manager	(018) 464-6663
Bothaville	(0565) 2117/8
Carletonville	(01491) 7-2064/5
Delareyville	(053) 948-1228/617
Klerksdorp	(018) 464-6622
Lichtenburg	(01441) 2-6284/5
Potchefstroom	(0148) 293-0232/3
Welkom	(057) 91-3300
Wolmaransstad	(01811) 2-2515

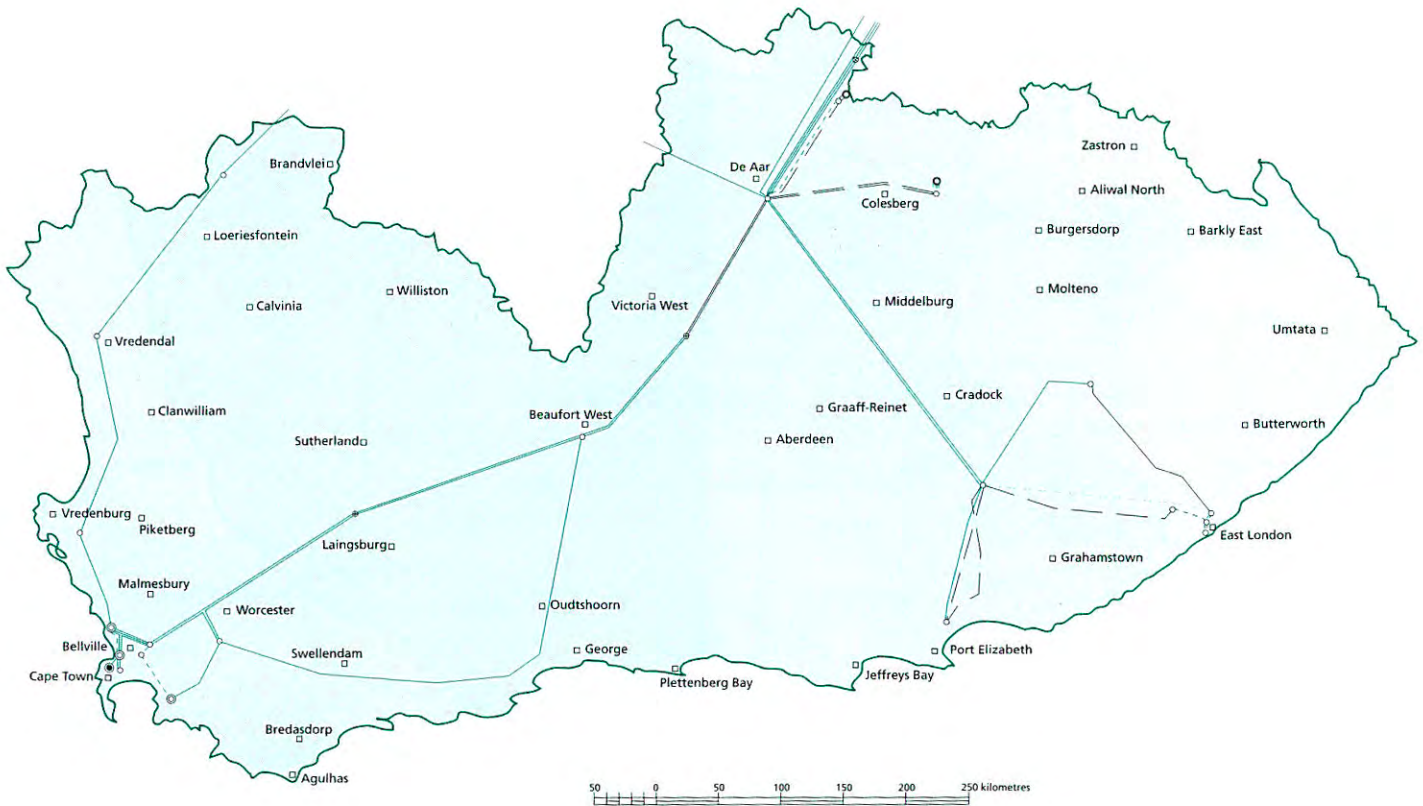
Durban Distributor



- 400 kV lines
- 275 kV lines
- - - 132 kV lines
- · - · - Approved project

Durban Distributor	
Sales & Customer Service - Natal Coastal	
Manager	(031) 360-2451
Empangeni	(0351) 92-1195
Margate	(03931) 7-6363
Pinetown	(031) 701-1201
Sales & Customer Service - Natal Inland	
Manager	(0331) 42-6013
Ladysmith	(0361) 31-0370
Newcastle	(03431) 5-1274
Pietermaritzburg	(0331) 94-7351

Cape Town Distributor



- 400 kV lines
- 220 kV lines
- - - - - 132 kV lines
- Approved project

Cape Town Distributor	
Sales & Customer Service - Western Cape	
Manager	(021) 915-2053
West Coast	(0224) 7-1530
Bellville	(021) 915-9111
Edgemead	(021) 58-1150
Eersterivier	(021) 904-9628/9
Grabouw	(024) 859-9405
Kraaifontein	(021) 988-7457
Malmesbury	(0224) 7-1530
Mandalay	(021) 387-5160
Parow	(021) 915-2312
Philippi East	(021) 31-9990
Somerset West	(021) 51-7117
Sales & Customer Service - Eastern Cape	
Manager	(0431) 39-2111
Colesberg	(051) 753-0741
East London	(0431) 39-2435
Grahamstown	(0461) 2-7031
Port Elizabeth	(041) 34-3424
Umtata	(0471) 35-0731/8
Sales & Customer Service - Southern Cape	
Manager	(0441) 76-2001
George	(0441) 76-2203
Oudtshoorn	(0443) 29-1667/8
Worcester	(0231) 2-2394

Motive power employed – electricity

Source: Central Statistical Service Census of Electricity, Gas and Steam: Report No. 41-01-01 (1992)

Ownership and group	Nuclear and steam turbines MW	Gas turbines MW	Steam recipro- cating engines MW	Diesel and heavy-oil engines MW	Petrol, paraffin and other light-oil engines MW	Water turbines and water wheels MW	Total MW
Public supply undertakings							
Electricity generating stations							
Private undertakings and Eskom	36 752	342	–	26	–	1 940	39 060
Local authorities	1 932	266	–	–	–	184	2 382
Electricity distributing stations							
Local authorities	–	–	–	–	–	61	61
Total public undertakings, MW	38 684	608	0	26	0	2 185	41 503
Self-producers	1 102	–	2	4	1	5	1 114
Total all undertakings, MW	39 786	608	2	30	1	2 190	42 617

Electricity available for consumption

Sources: Central Statistical Service Census for Electricity, Gas and Steam: Report No. 41-01-01 (1992).

	Gross production of electricity	Purchases outside South Africa	Units consumed by auxiliary installations and lost in station transformers	Units lost in transmission and transformers	Sales outside South Africa	Supply available for consumption in South Africa
	GWh	GWh	GWh	GWh	GWh	GWh
Public supply undertakings						
Private undertakings and Eskom	157 444	344	11 532	8 051	1 815	136 390
Local authorities	3 733	–	480	3 331	–	-78
Other	167			50	1	116
Total, GWh	161 344	344	12 012	11 432	1 816	136 428
Self-producers						
Mining						0
Manufacturing						0
Transnet						0
Other						0
Total, GWh	6 784	0	1 127	564	0	5 093
Total all undertakings, GWh	168 128	344	13 139	11 996	1 816	141 521

Monthly data on electricity available for consumption

Source: Central Statistical Service Release P4141, 8 February 1995

Month	1994	1993 ^a	1992 ^a	1991 ^a	1990 ^a	1989 ^a
Actual	GWh	GWh	GWh	GWh	GWh	GWh
January	13 068	12 748	12 325	12 380	12 342	11 987
February	12 428	11 790	11 869	11 419	11 239	11 149
March	13 773	13 230	12 582	12 643	12 345	11 980
April	12 929	12 585	12 059	12 471	11 758	12 134
May	14 163	13 461	12 962	13 070	12 904	12 496
June	14 789	14 341	13 408	13 451	13 058	12 876
July	15 477	14 650	13 979	14 097	13 621	13 636
August	15 136	14 334	13 740	13 847	13 523	13 140
September	13 989	13 346	12 779	12 636	12 391	12 607
October	14 273	13 612	13 213	13 015	13 097	12 778
November	13 935	13 217	12 586	12 292	12 680	12 168
December	13 649	12 938	12 240	11 738	11 747	11 962
Annual data	167 609	160 252	153 742	153 059	150 705	148 913
Seasonally adjusted						
January	13 483	13 136	12 662	12 693	12 641	12 282
February	13 792	13 093	13 187	12 699	12 492	12 372
March	13 809	13 281	12 648	12 741	12 447	12 061
April	13 622	13 253	12 661	13 064	12 279	12 659
May	13 912	13 218	12 732	12 850	12 709	12 313
June	14 009	13 600	12 746	12 821	12 478	12 311
July	14 077	13 333	12 736	12 861	12 430	12 449
August	14 079	13 324	12 780	12 905	12 638	12 312
September	14 087	13 446	12 869	12 717	12 451	12 668
October	14 056	13 376	12 944	12 713	12 775	12 473
November	14 293	13 554	12 913	12 622	13 004	12 458
December	14 375	13 618	12 880	12 357	12 344	12 557

^a Revised.

Production and consumption of electricity

Source: Central Statistical Service Census of Electricity, Gas and Steam: Report No. 41-01-01 (1992)

Production						Electricity supplied for consumption							
Census year	Gross production of electricity	Purchases outside South Africa	Used in power stations and lost in distribution	Sales outside South Africa	Total number of units consumed in South Africa	Transnet			Other purposes	For domestic purposes	Manufacturing, commerce, etc ^a	For other purposes ^b	Consumption per capita
						Mining	Traction	GWh					
1962	25 699	–	3 633	–	22 066	9 121	1 181	–	223	3 469	7 087	985	1 223
1963	27 457	–	3 263	–	24 194	9 524	1 296	–	249	3 724	8 316	1 085	1 304
1964	29 399	–	4 142	–	25 213	9 758	1 389	–	277	4 221	8 617	951	1 322
1965	34 423	–	5 346	–	29 077	10 482	1 676	–	347	4 960	10 251	1 428	1 483
1967	39 636	–	5 599	–	34 037	11 759	1 913	–	409	5 682	12 464	1 810	1 642
1969	45 968	–	6 359	–	39 610	12 882	2 142	–	535	6 714	15 246	2 091	1 810
1971	54 647	–	7 417	14	47 216	14 457	2 676	–	602	8 088	19 282	2 111	2 086
1973	64 390	–	8 441	194	55 755	16 102	2 904	–	616	9 265	24 408	2 461	2 327
1975	74 894	25	10 121	283	64 514	17 749	3 159	–	696	9 991	29 784	3 136	2 546
1976	79 358	1 214	10 559	327	69 686	18 994	3 356	–	735	10 474	32 558	3 569	2 920
1977	80 323	4 288	10 547	417	73 648	20 318	3 538	–	775	11 302	33 615	4 099	3 000
1978	84 496	6 973	11 837	1 441	78 190	22 400	3 517	–	796	11 718	35 427	4 332	3 256
1979	89 748	10 356	12 571	1 795	85 739	23 939	3 730	–	915	12 330	40 101	4 723	3 524
1980	98 951	9 645	14 079	1 871	92 646	25 260	4 323	–	989	13 522	43 049	5 502	3 689
1981	113 656	2 660	15 894	2 232	98 190	26 311	4 652	–	999	14 738	45 735	5 755	3 771
1982	119 012	2 167	18 542	2 406	100 230	27 166	4 883	–	1 115	14 618	45 691	6 757	3 715
1983	121 122	5 084	20 367	2 875	102 965	27 806	4 339	–	921	14 490	49 232	6 177	3 867
1986	146 521	312	22 850	3 634	120 348	29 942	3 903	–	828	17 644	60 858	7 174	4 238
1989	163 516	304	23 194	1 638	138 988	34 963		4 915		21 125	69 264	8 721	3 819
1992	168 128	344	25 175	1 816	141 481	33 359		4 347		23 834	69 639	10 301	3 645

^a Private businesses.

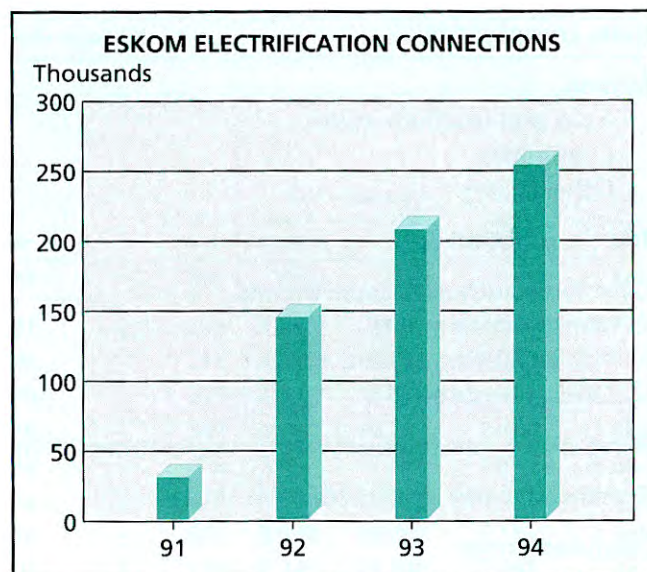
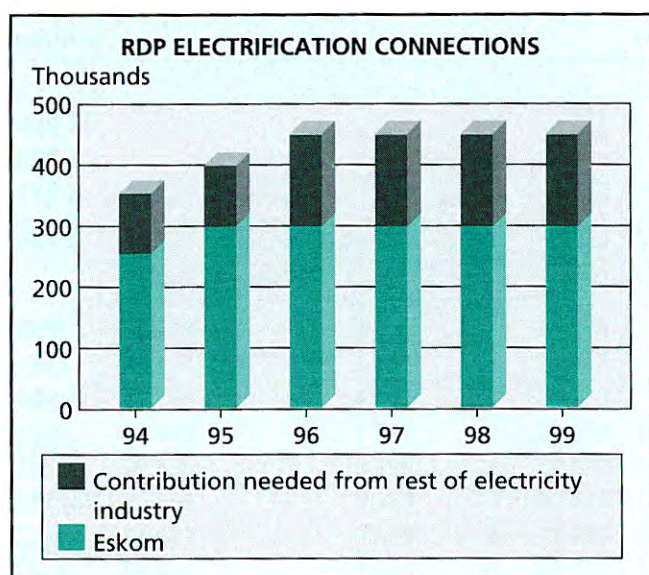
^b Rand Water, regional water supply commissions, government departments, provincial governments, local authorities, etc.

Consumption of electricity

Source: Central Statistical Service Census of Electricity, Gas and Steam: Report No. 41-01-01 (1992)

Units consumed by	GWh
Mining	
Gold and uranium mines	22 605
Coal mines	2 383
Other mines	8 371
Traction, station lighting, etc.	4 347
Own local authority departments	
Water departments	430
Public lighting (street, etc.)	911
Other purposes	1 330
Rand Water and regional water supply commissions	2 143
Commercial and construction	15 592
Manufacturing	54 048
Domestic use	23 834
Other	5 487
Total	141 481

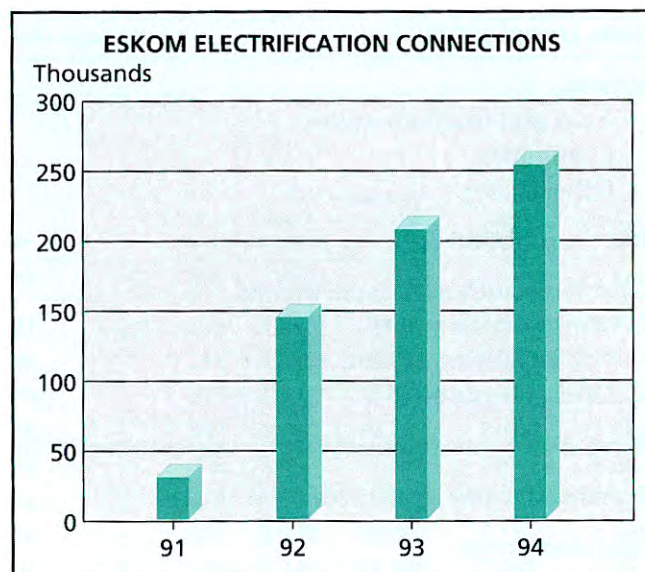
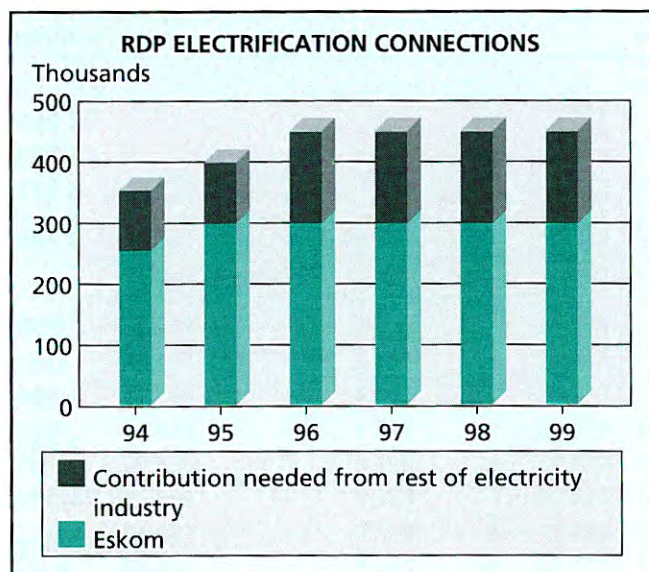
At a glance – electrification



ELECTRIFICATION PROGRESS

Connections	Jan 1991 up to Dec 1992	1993	1994	Inception to date
Eskom	176 557	208 801	254 383	639 741
Farm worker houses	12 698	16 074	16 838	45 610
Municipalities	22 622	69 756	106 950	199 328
Total	211 877	294 631	378 171	884 679
Total capital expenditure (Rm)	472	584	808	1 864
Capital expenditure per connection (R)	3 306	2 799	3 176	3 070

At a glance – electrification



ELECTRIFICATION PROGRESS

Connections	Jan 1991 up to Dec 1992	1993	1994	Inception to date
Eskom	176 557	208 801	254 383	639 741
Farm worker houses	12 698	16 074	16 838	45 610
Municipalities	22 622	69 756	106 950	199 328
Total	211 877	294 631	378 171	884 679
Total capital expenditure (Rm)	472	584	808	1 864
Capital expenditure per connection (R)	3 306	2 799	3 176	3 070

Electrification statistics

Sources: Eskom Electrification and Economic Analysis Systems

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Eastern Cape							
Aberdeen	1 368	722	995	102	373	620	8 016
Adelaide	2 111	1 156	937	121	1 174	1 035	15 206
Albany	14 001	4 082	8 772	448	5 229	3 634	84 798
Albert	2 297	1 553	1 960	182	337	1 371	16 900
Alexandria	2 894	3 387	988	405	1 906	2 982	30 833
Aliwal North	5 045	1 302	2 860	161	2 185	1 141	28 474
Barkly East	1 302	1 960	565	400	737	1 560	13 026
Bathurst	5 039	2 847	4 354	310	685	2 537	33 276
Bedford	2 123	1 238	625	330	1 498	908	16 307
Bizana	475	30 713	90	293	385	30 420	212 370
Butterworth	10 394	14 862	4 721	67	5 673	14 795	106 560
Cathcart	1 516	1 881	915	205	601	1 676	14 573
Cradock	5 707	2 654	1 660	345	4 047	2 309	37 161
East London	48 080	16 423	37 048	3 421	11 032	13 002	266 199
Elliot	1 538	1 484	1 085	576	453	908	14 374
Elliotdale	190	14 728	36	69	154	14 659	72 873
Engcobo	1 178	32 803	328	608	850	32 195	184 638
Fort Beaufort	3 926	834	1 364	90	2 562	744	23 268
Glen Grey	7 549	29 828	4 303	282	3 246	29 546	214 944
Graaff-Reinet	6 394	1 450	4 711	1 294	1 683	156	35 450
Hankey	2 002	3 334	1 143	526	859	2 808	25 515
Herschel	416	24 781	127	244	289	24 537	135 108
Hewu	4 751	12 486	1 414	32	3 337	12 454	89 690
Hofmeyr	693	590	74	70	619	520	6 295
Humansdorp	6 691	4 473	5 014	2 030	1 677	2 443	46 634
Idutywa	1 253	21 627	288	97	965	21 530	100 551
Indwe	1 135	688	685	192	450	496	9 389
Jansenville	1 500	862	1 062	137	438	725	9 631
Joubertina	1 223	1 984	712	336	511	1 648	14 044
Keiskammahoek	640	8 823	456	28	184	8 795	48 687
Kentani	219	21 430	71	198	148	21 232	112 637
King William's Town	5 869	781	5 345	84	524	697	29 569
Kirkwood	3 136	4 355	1 256	650	1 880	3 705	36 666
Komga	1 272	1 632	580	164	692	1 468	14 050
Kwabhaca	774	29 758	452	133	322	29 625	119 018
Lady Grey	1 014	841	636	89	378	752	9 674
Libode	318	23 524	74	222	244	23 302	123 232
Lusikisiki	562	43 169	562	4 064	0	39 105	247 921
Maclear	1 463	1 846	938	185	525	1 661	17 316

^a A magisterial district is not the same as the municipality whose name it bears. The area and population of the magisterial district may be smaller/larger. Municipalities that form part of a magisterial district are not listed separately.

Electrification statistics – continued

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Maluti	1	26 431	0	247	1	26 184	167 501
Maxesibeni	933	18 006	238	81	695	17 925	87 733
Mdantsane	36 002	9 049	18 423	36	17 579	9 013	251 236
Middelburg	3 713	1 450	3 545	513	168	937	22 284
Middelrdrift	118	11 515	69	40	49	11 475	63 210
Molteno	2 054	774	825	86	1 229	688	15 456
Mount Fletcher	566	30 859	103	138	463	30 721	142 818
Mqanduli	251	25 927	75	115	176	25 812	121 609
Ngqeleni	339	27 301	79	259	260	27 042	142 210
Nqamakwe	218	21 696	47	102	171	21 594	107 396
Pearston	783	422	478	54	305	368	4 938
Peddie	1 037	15 608	602	53	435	15 555	84 496
Port Elizabeth	164 158	5 512	88 830	1 183	75 328	4 329	702 095
Port St Johns	1 148	14 011	282	64	866	13 947	64 909
Queenstown	7 457	2 358	7 443	249	14	2 109	44 374
Qumbu	586	26 774	113	123	473	26 651	131 376
Seymour	147	3 119	87	8	60	3 111	18 629
Siphaqueni	431	23 076	132	215	299	22 861	121 932
Somerset East	4 273	2 485	2 319	310	1 954	2 175	30 448
St Marks	638	25 705	107	114	531	25 591	129 514
Sterkstroom	1 147	683	280	71	867	612	7 504
Steynsburg	1 754	721	1 159	101	595	620	10 313
Steytlerville	757	576	709	93	48	483	5 384
Stutterheim	4 199	4 325	3 205	773	994	3 552	40 280
Tabankulu	398	22 561	133	211	265	22 350	119 818
Tarka	1 090	1 183	353	130	737	1 053	9 562
Tsolo	850	21 929	343	202	507	21 727	124 493
Tsomo	501	18 045	86	82	415	17 963	76 563
Uitenhage	43 120	1 500	35 510	200	7 610	1 300	196 473
Umtata	21 185	32 746	14 722	148	6 463	32 598	237 338
Umzimkulu	1 063	34 256	407	155	656	34 101	153 658
Venterstad	923	469	902	122	21	347	5 702
Victoria East	2 406	11 537	1 216	37	1 190	11 500	74 688
Willowmore	1 238	1 105	734	154	504	951	10 963
Willowvale	339	26 679	78	120	261	26 559	126 518
Wodehouse	1 364	1 812	1 341	571	23	1 241	15 615
Xalanga	1 392	9 112	419	86	973	9 026	68 945
Zwelitsha	22 519	31 106	7 456	580	15 063	30 526	258 302
Eastern Transvaal							
Amersfoort	1 024	5 229	365	522	659	4 707	34 466
Balfour	3 542	4 469	1 474	1 503	2 068	2 966	38 331
Barberton	4 551	13 755	2 928	5 575	1 623	8 180	74 834
Belfast	2 950	3 215	2 068	1 944	882	1 271	29 356

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Bethal	6 038	7 172	2 492	2 871	3 546	4 301	69 778
Carolina	1 936	4 423	848	1 486	1 088	2 937	31 282
Delmas	6 154	3 262	2 717	1 284	3 437	1 978	45 333
Eerstehoek	3 834	42 746	1 369	13 772	2 465	28 974	239 285
Ermelo	15 256	9 121	7 391	2 971	7 865	6 150	113 523
Groblersdal	1 779	10 537	1 707	3 965	72	6 572	60 606
Highveld Ridge	28 868	3 680	14 417	1 843	14 451	1 837	163 960
Kriel	2 548	0	2 448	0	100	0	9 748
Lydenburg	3 016	5 378	2 713	2 402	303	2 976	37 933
Mbibana	2 389	12 011	336	393	2 053	11 618	77 995
Mdutjana	5 747	18 194	1 594	15 544	4 153	2 650	134 138
Middelburg	17 022	14 008	10 631	6 536	6 391	7 472	148 256
Moutse	1 017	18 783	881	4 444	136	14 339	99 106
Nelspruit	7 107	11 200	6 516	4 672	591	6 528	65 842
Nkomazi	3 333	54 566	1 234	683	2 099	53 883	333 066
Nsikazi	12 121	55 273	4 506	729	7 615	54 544	364 295
Piet Retief	4 245	8 609	3 027	3 953	1 218	4 656	65 928
Pilgrim's Rest	1 733	5 974	1 653	3 086	80	2 888	29 685
Standerton	10 107	8 037	5 564	2 490	4 543	5 547	88 829
Volksrust	4 242	2 151	2 695	782	1 547	1 369	30 596
Wakkerstroom	767	4 992	678	2 742	89	2 250	33 680
Waterval Boven	1 206	951	778	376	428	575	9 173
White River	2 186	6 248	1 819	3 240	367	3 008	31 792
Witbank	30 741	8 047	19 310	4 834	11 431	3 213	185 289
Free State							
Bethlehem	11 942	6 243	9 385	1 917	2 557	4 326	82 724
Bethulie	1 612	609	1 007	289	605	320	9 224
Bloemfontein	80 147	5 436	60 287	1 797	19 860	3 639	316 581
Boshof	2 209	4 708	1 750	1 396	459	3 312	32 526
Bothaville	6 006	5 654	1 341	1 567	4 665	4 087	55 860
Botshabelo	44 617	0	1 684	0	42 933	0	228 299
Brandfort	2 921	2 684	2 716	774	205	1 910	23 410
Bultfontein	2 775	3 173	955	873	1 820	2 300	29 318
Clocolan	1 996	2 247	1 974	897	22	1 350	18 628
Dewetsdorp	1 227	1 923	310	532	917	1 391	13 678
Edenburg	1 010	661	321	220	689	441	6 802
Excelsior	1 695	2 269	741	625	954	1 644	17 921
Fauresmith	1 062	1 255	947	438	115	817	8 987
Ficksburg	5 702	3 710	5 155	1 125	547	2 585	38 935
Fouriesburg	1 008	2 458	953	1 080	55	1 378	17 061
Frankfort	5 205	4 485	2 251	1 225	2 954	3 260	45 348
Harrismith	6 635	6 167	4 822	1 748	1 813	4 419	63 829
Heilbron	4 427	4 558	1 502	1 330	2 925	3 228	41 600
Hennenman	2 979	2 105	2 602	865	377	1 240	25 981

Electrification statistics – continued

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Hoopstad	1 394	4 071	1 372	1 240	22	2 831	28 563
Jacobsdal	886	1 680	647	621	239	1 059	11 410
Jagersfontein	1 311	295	315	98	996	197	6 378
Koffiefontein	1 836	554	908	522	928	32	10 514
Koppies	1 406	3 017	418	896	988	2 121	19 784
Kroonstad	20 510	6 122	16 682	1 766	3 828	4 356	113 308
Ladybrand	4 232	4 049	3 518	1 160	714	2 889	30 559
Lindley	4 781	3 186	3 736	1 058	1 045	2 128	37 715
Marquard	1 210	2 408	1 209	835	1	1 573	17 411
Odendaalsrus	17 442	4 030	13 504	2 230	3 938	1 800	107 949
Parys	11 897	1 669	4 267	490	7 630	1 179	51 587
Petrusburg	933	1 662	336	1 080	597	582	11 393
Philippolis	709	1 116	205	465	504	651	7 130
Reddersburg	657	746	653	415	4	331	6 173
Reitz	2 783	3 735	2 606	1 067	177	2 668	30 979
Rouxville	881	1 728	658	996	223	732	11 913
Sasolburg	12 052	2 761	11 036	1 213	1 016	1 548	56 642
Senekal	4 778	4 767	3 678	1 289	1 100	3 478	41 360
Smithfield	1 095	1 050	804	302	291	748	10 924
Thaba Nchu	2 193	12 480	1 196	836	997	11 644	67 318
Theunissen	4 107	2 510	3 062	947	1 045	1 563	40 470
Trompsburg	661	591	661	502	0	89	5 151
Ventersburg	1 957	1 262	949	353	1 008	909	14 777
Viljoenskroon	3 118	7 075	2 959	3 374	159	3 701	60 381
Virginia	9 193	4 827	8 373	4 827	820	0	82 005
Vrede	2 780	4 517	1 820	1 224	960	3 293	37 168
Vredefort	1 401	1 688	430	484	971	1 204	13 594
Welkom	34 855	10 150	30 743	6 434	4 112	3 716	267 262
Wepener	1 819	1 446	1 622	404	197	1 042	13 110
Wesselsbron	3 528	2 275	3 519	1 081	9	1 194	27 060
Winburg	2 119	1 773	484	524	1 635	1 249	17 489
Witsieshoek	6 932	74 870	4 453	5 708	2 479	69 162	404 636
Zastron	1 436	1 847	1 357	863	79	984	14 204
Gauteng							
Alberton	104 337	0	46 579	0	57 758	0	414 739
Benoni	68 765	523	49 334	188	19 431	335	308 709
Boksburg	51 063	0	46 057	0	5 006	0	209 832
Brakpan	32 750	0	16 110	0	16 640	0	139 965
Bronkhorstspuit	2 781	6 118	1 909	2 458	872	3 660	40 551
Cullinan	1 307	5 660	983	3 340	324	2 320	33 045
Germiston	56 934	0	55 824	0	1 110	0	204 279
Heidelberg	9 218	8 812	4 782	1 584	4 436	7 228	75 812
Johannesburg	389 068	631	300 377	356	88 691	275	1 585 924

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Kempton Park	90 678	385	57 691	167	32 987	218	353 327
Krugersdorp	40 433	6 100	25 808	2 958	14 625	3 142	199 897
Nigel	18 554	2 177	11 422	839	7 132	1 338	94 472
Oberholzer	35 139	585	17 969	281	17 170	304	191 332
Pretoria	223 071	4 419	215 999	2 637	7 072	1 782	772 121
Randburg	114 070	465	90 195	214	23 875	251	422 925
Randfontein	20 120	3 252	19 431	2 447	689	805	108 001
Roodepoort	59 946	464	51 770	284	8 176	180	234 607
Soshanguve	31 655	0	24 680	0	6 975	0	148 121
Springs	37 529	398	31 352	155	6 177	243	162 065
Vanderbijlpark	123 391	2 990	62 580	1 932	60 811	1 058	541 612
Vereeniging	63 989	13 908	58 554	10 768	5 435	3 140	276 595
Westonaria	42 509	1 289	21 579	786	20 930	503	236 180
Wonderboom	33 281	8 963	32 968	5 205	313	3 758	217 538
KwaZulu Natal							
Alfred	756	1 089	628	455	128	634	9 075
Babanango	0	506	0	181	0	325	3 037
Bergville	236	4 142	214	2 311	22	1 831	23 254
Camperdown	2 373	5 688	2 284	4 138	89	1 550	38 408
Chatsworth	5 727	0	5 190	0	537	0	26 048
Dannhauser	980	1 561	622	668	358	893	14 013
Dundee	4 259	1 899	2 909	612	1 350	1 287	31 830
Durban	229 885	0	224 309	0	5 576	0	877 855
Emnambithi	14 364	24 330	3 742	424	10 622	23 906	218 456
Empumalange	29 546	56 032	8 291	2 160	21 255	53 872	361 299
Emzumbeni	0	41 438	0	743	0	40 695	220 632
Enseleni	5 039	38 515	1 958	770	3 081	37 745	254 560
Eshowe	1 523	1 344	1 329	1 172	194	172	13 889
Estcourt	4 126	6 654	3 980	6 654	146	0	49 974
Ezingolweni	2 555	39 510	558	4 140	1 997	35 370	221 102
Glencoe	2 371	1 054	1 903	345	468	709	16 977
Hlabisa	1 843	33 069	1 572	5 688	271	27 381	197 387
Hlanganani	48	37 984	37	4 589	11	33 395	199 166
Impendle	0	656	0	229	0	427	2 764
Inanda	24 299	5 329	23 218	2 169	1 081	3 160	128 280
Ingwavuma	131	26 157	44	520	87	25 637	150 310
Inkanyezi	4 330	27 454	2 801	567	1 529	26 887	178 444
Ixopo	548	3 900	372	1 176	176	2 724	22 607
Kliprivier	9 632	4 365	8 072	2 523	1 560	1 842	66 369
Kranskop	103	1 442	86	452	17	990	7 780
Lions River	3 329	6 675	1 719	2 300	1 610	4 375	44 275
Lower Tugela	8 604	14 600	7 908	7 814	696	6 786	97 385
Lower Umfolozi	11 356	4 357	10 731	4 357	625	0	62 172
Madadeni	31 436	23 930	9 025	478	22 411	23 452	344 628

Electrification statistics – continued

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Mapumulo	0	43 162	0	836	0	42 326	243 475
Mahlabatini	3 222	18 981	1 215	494	2 007	18 487	147 483
Mooi River	1 650	3 360	763	955	887	2 405	26 369
Mount Currie	4 767	6 114	2 678	1 595	2 089	4 519	43 594
Msinga	71	30 870	5	665	66	30 205	153 903
Mtonjaneni	601	1 697	198	678	403	1 019	11 150
Mtunzini	1 630	2 781	1 544	2 626	86	155	18 277
Ndwedwe	0	83 443	0	2 580	0	80 863	360 406
New Hanover	1 696	5 960	1 201	2 107	495	3 853	38 874
Newcastle	10 819	2 845	10 328	2 845	491	0	55 777
Ngotshe	332	3 517	253	1 107	79	2 410	26 409
Nkandla	635	23 201	483	555	152	22 646	135 065
Nongoma	365	25 988	365	2 997	0	22 991	171 101
Nqutu	5 703	34 582	570	745	5 133	33 837	226 152
Ntuzuma	116 022	25 303	40 827	868	75 195	24 435	528 194
Okhahlamba	3 518	33 467	1 203	627	2 315	32 840	211 623
Ongoye	7 382	24 951	6 189	2 113	1 193	22 838	193 409
Paulpietersburg	1 118	2 475	414	693	704	1 782	21 568
Pietermaritzburg	56 943	3 570	48 109	1 886	8 834	1 684	242 504
Pinetown	42 301	2 898	38 209	1 332	4 092	1 566	178 015
Polela	123	824	104	360	19	464	4 331
Port Shepstone	15 815	4 270	14 745	4 270	1 070	0	71 751
Richmond	746	4 243	608	2 616	138	1 627	24 625
Simdlangentsha	2 061	18 490	1 045	381	1 016	18 109	130 927
Ubombo	72	20 036	42	712	30	19 324	122 444
Umbumbulu	4 350	59 908	3 497	964	853	58 944	295 414
Umlazi	71 355	0	59 708	0	11 647	0	329 893
Umvoti	3 698	5 156	2 335	1 647	1 363	3 509	42 287
Umzinto	8 344	3 952	7 934	2 794	410	1 158	47 657
Underberg	331	2 094	193	762	138	1 332	9 911
Utrecht	617	3 820	575	1 064	42	2 756	27 387
Vryheid	5 486	8 735	4 050	2 898	1 436	5 837	86 147
Vulamehlo	0	23 509	0	487	0	23 022	125 530
Vulindlela	18 778	24 197	9 550	1 456	9 228	22 741	234 790
Weenen	666	1 260	511	621	155	639	12 647
North West							
Bafokeng	9 966	10 985	4 030	1 024	5 936	9 961	147 031
Bloemhof	2 296	1 117	1 785	522	511	595	16 579
Brits	10 736	17 063	8 861	7 539	1 875	9 524	120 175
Christiana	2 325	1 179	2 272	307	53	872	13 962
Coligny	1 241	3 071	1 093	757	148	2 314	22 668
Delareyville	1 619	5 802	1 511	1 473	108	4 329	36 595
Ditsobotla	6 888	28 977	2 634	605	4 254	28 372	182 437
Ganyesa	0	13 708	0	191	0	13 517	63 211
Klerksdorp	59 992	11 839	38 242	4 625	21 750	7 214	335 988

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Koster	1 621	4 856	1 441	1 259	180	3 597	30 095
Kudumane	949	26 565	541	437	408	26 128	137 476
Lehurutshe	17	15 701	14	715	3	14 986	82 530
Lichtenburg	6 192	10 893	5 880	2 720	312	8 173	80 877
Madikwe	814	14 470	52	931	762	13 539	76 310
Mankwe	2 120	22 089	1 867	1 041	253	21 048	117 656
Marico	2 783	6 472	1 638	1 822	1 145	4 650	42 944
Molopo	15 036	36 425	11 418	3 293	3 618	33 132	225 451
Moretele	5 658	64 728	3 097	2 260	2 561	62 468	377 015
Odi	26 578	77 513	17 967	4 259	8 611	73 254	564 752
Potchefstroom	33 135	12 364	20 092	4 414	13 043	7 950	200 614
Rustenburg	12 909	15 137	12 243	6 331	666	8 806	135 724
Schweizer-Reneke	2 915	5 647	2 246	1 225	669	4 422	48 369
Swartruggens	529	2 338	484	748	45	1 590	12 616
Taung	5 344	34 114	1 820	1 279	3 524	32 835	188 309
Ventersdorp	1 752	5 559	658	1 316	1 094	4 243	36 996
Vryburg	6 514	15 741	5 272	3 479	1 242	12 262	102 172
Wolmaransstad	5 994	7 043	5 200	1 814	794	5 229	65 159
Northern Cape							
Barkly West	3 736	3 925	2 906	1 054	830	2 871	36 745
Britstown	936	684	678	191	258	493	6 637
Calvinia	3 528	2 021	3 180	636	348	1 385	22 222
Carnarvon	1 545	1 037	1 304	300	241	737	9 607
Colesberg	2 442	1 048	1 519	721	923	327	15 438
De Aar	5 563	502	3 778	146	1 785	356	26 213
Fraserburg	591	617	564	189	27	428	4 360
Gordonia	14 343	13 546	13 026	4 130	1 317	9 416	131 408
Hanover	727	406	160	103	567	303	5 330
Hartswater	3 129	4 614	2 849	1 116	280	3 498	30 738
Hay	1 623	1 481	1 578	447	45	1 034	14 185
Herbert	2 050	3 697	1 137	1 206	913	2 491	27 580
Hopetown	1 950	1 179	1 762	330	188	849	15 434
Kenhardt	1 724	1 262	1 160	384	564	878	11 352
Kimberley	36 940	2 075	24 272	593	12 668	1 482	177 490
Kuruman	2 753	3 044	2 353	1 108	400	1 936	26 029
Namakwaland	9 787	9 876	4 241	5 635	5 546	4 241	81 583
Noupoort	1 603	272	1 353	76	250	196	8 196
Philipstown	1 489	852	1 342	234	147	618	9 830
Postmasburg	9 266	3 980	6 926	1 626	2 340	2 354	62 455

Electrification statistics – continued

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Prieska	3 437	1 788	2 171	1 061	1 266	727	24 915
Richmond	1 217	726	443	298	774	428	9 129
Sutherland	498	563	211	187	287	376	3 531
Victoria West	2 024	1 105	1 438	532	586	573	13 933
Warrenton	4 008	2 057	3 651	569	357	1 488	22 139
Williston	741	626	347	197	394	429	4 150
Northern Province							
Bochum	0	31 061	0	7 116	0	23 945	159 390
Bolobedu	3 659	39 949	1 494	22 380	2 165	17 569	211 478
Dzanani	144	24 953	31	397	113	24 556	137 721
Ellisras	2 721	3 556	2 651	1 441	70	2 115	27 499
Giyani	3 825	42 542	3 388	10 080	437	32 462	243 150
Hlanganani	1 019	25 033	831	280	188	24 753	137 960
Letaba	2 721	12 929	2 141	5 014	580	7 915	62 558
Lulekani	1 253	11 658	833	1 695	420	9 963	54 967
Malamulele	1 086	36 334	1 004	9 345	82	26 989	193 111
Mapulaneng	2 170	46 789	303	10 721	1 867	36 068	232 917
Messina	2 493	3 518	1 877	1 098	616	2 420	24 136
Mhala	7 797	55 924	3 737	3 533	4 060	52 391	289 008
Mokerong	6 075	83 342	4 406	1 626	1 669	81 716	489 353
Mutale	73	10 796	31	4 000	42	6 796	60 608
Namakgale	7 195	5 655	4 391	271	2 804	5 384	61 822
Naphuno	2 836	35 536	1 617	6 205	1 219	29 331	190 508
Nebo	3 950	66 071	1 005	1 852	2 945	64 219	349 749
Phalaborwa	3 694	5 428	3 400	2 864	294	2 564	31 175
Pietersburg	11 818	6 085	11 154	2 657	664	3 428	67 693
Potgietersrus	5 202	11 701	4 712	3 740	490	7 961	69 768
Retavi	3 177	31 491	2 355	5 734	822	25 757	161 962
Sekgosese	299	26 437	169	633	130	25 804	133 982
Sekhukhuneland	2 867	88 284	1 242	6 740	1 625	81 544	424 520
Seshego	11 316	52 015	9 498	3 207	1 818	48 808	323 420
Soutpansberg	2 519	7 007	2 293	2 782	226	4 225	36 290
Thabamooopo	10 729	68 044	6 953	7 404	3 776	60 640	387 259
Thabazimbi	2 081	7 973	1 905	5 053	176	2 920	51 633
Thohoyandou	5 105	46 103	2 122	4 619	2 983	41 484	271 993
Vuwani	107	26 687	42	13 774	65	12 913	147 481
Warmbaths	4 185	5 147	1 890	2 718	2 295	2 429	43 284
Waterberg	3 495	6 795	3 129	2 268	366	4 527	50 641
Western Cape							
Beaufort West	6 147	1 485	5 039	755	1 108	730	32 124
Bellville	70 427	5 851	67 608	3 311	2 819	2 540	292 699
Bredasdorp	3 953	2 335	2 955	1 149	998	1 186	24 329
Caledon	9 039	10 845	6 103	4 791	2 936	6 054	85 984

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Calitzdorp	773	823	705	381	68	442	6 906
Cape	14 518	155	13 244	155	1 274	0	44 676
Ceres	4 151	6 439	3 649	2 771	502	3 668	50 741
Clanwilliam	2 839	4 137	2 809	1 292	30	2 845	28 982
George	19 134	4 629	15 394	2 320	3 740	2 309	104 629
Goodwood	43 749	0	40 668	0	3 081	0	188 947
Heidelberg	1 506	1 329	913	599	593	730	11 701
Hermanus	5 852	748	5 703	580	149	168	22 977
Hopefield	1 688	1 016	1 682	657	6	359	9 047
Knysna	9 681	4 216	6 750	1 987	2 931	2 229	53 555
Kuils River	34 960	1 471	30 412	1 471	4 548	0	168 490
Ladismith	1 140	2 094	779	789	361	1 305	13 158
Laingsburg	736	806	323	380	413	426	5 816
Malmesbury	19 895	8 814	18 204	5 591	1 691	3 223	137 028
Montagu	3 419	1 752	2 196	801	1 223	951	22 560
Moorreesburg	1 930	1 333	1 879	679	51	654	11 530
Mossel Bay	13 047	2 536	11 005	1 435	2 042	1 101	64 023
Murraysburg	859	577	859	403	0	174	5 988
Oudtshoorn	13 337	2 840	10 757	1 292	2 580	1 548	70 304
Paarl	21 625	10 475	16 843	4 637	4 782	5 838	142 941
Piketberg	4 811	3 937	4 602	1 940	209	1 997	35 339
Prince Albert	1 166	948	1 014	453	152	495	8 661
Riversdale	3 794	2 632	3 263	1 301	531	1 331	25 606
Robertson	3 949	4 219	3 369	1 846	580	2 373	33 223
Simon's Town	9 823	1 556	9 507	1 044	316	512	37 910
Somerset West	14 576	2 159	12 362	1 117	2 214	1 042	64 171
Stellenbosch	15 479	5 421	13 802	2 675	1 677	2 746	76 503
Strand	12 381	350	11 371	181	1 010	169	42 388
Swellendam	4 070	4 017	3 385	2 176	685	1 841	33 437
Tulbagh	2 094	4 008	1 891	1 786	203	2 222	26 407
Uniondale	599	1 475	515	848	84	627	9 297
Vanrhynsdorp	1 959	1 000	1 948	529	11	471	11 699
Vredenburg	9 926	112	9 046	112	880	0	43 133
Vredendal	2 950	4 903	2 944	1 711	6	3 192	31 121
Wellington	6 205	2 737	5 760	1 205	445	1 532	39 480
Worcester	17 600	11 781	14 935	5 013	2 665	6 768	122 346
Wynberg	308 233	3 479	276 918	1 063	31 315	2 416	1 252 096

Electrification statistics – continued

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Maluti	1	26 431	0	247	1	26 184	167 501
Maxesibeni	933	18 006	238	81	695	17 925	87 733
Mdantsane	36 002	9 049	18 423	36	17 579	9 013	251 236
Middelburg	3 713	1 450	3 545	513	168	937	22 284
Middeldrift	118	11 515	69	40	49	11 475	63 210
Molteno	2 054	774	825	86	1 229	688	15 456
Mount Fletcher	566	30 859	103	138	463	30 721	142 818
Mqanduli	251	25 927	75	115	176	25 812	121 609
Ngqeleni	339	27 301	79	259	260	27 042	142 210
Nqamakwe	218	21 696	47	102	171	21 594	107 396
Pearston	783	422	478	54	305	368	4 938
Peddie	1 037	15 608	602	53	435	15 555	84 496
Port Elizabeth	164 158	5 512	88 830	1 183	75 328	4 329	702 095
Port St Johns	1 148	14 011	282	64	866	13 947	64 909
Queenstown	7 457	2 358	7 443	249	14	2 109	44 374
Qumbu	586	26 774	113	123	473	26 651	131 376
Seymour	147	3 119	87	8	60	3 111	18 629
Siphaqueni	431	23 076	132	215	299	22 861	121 932
Somerset East	4 273	2 485	2 319	310	1 954	2 175	30 448
St Marks	638	25 705	107	114	531	25 591	129 514
Sterkstroom	1 147	683	280	71	867	612	7 504
Steynsburg	1 754	721	1 159	101	595	620	10 313
Steytlerville	757	576	709	93	48	483	5 384
Stutterheim	4 199	4 325	3 205	773	994	3 552	40 280
Tabankulu	398	22 561	133	211	265	22 350	119 818
Tarka	1 090	1 183	353	130	737	1 053	9 562
Tsolo	850	21 929	343	202	507	21 727	124 493
Tsomo	501	18 045	86	82	415	17 963	76 563
Uitenhage	43 120	1 500	35 510	200	7 610	1 300	196 473
Umtata	21 185	32 746	14 722	148	6 463	32 598	237 338
Umzimkulu	1 063	34 256	407	155	656	34 101	153 658
Venterstad	923	469	902	122	21	347	5 702
Victoria East	2 406	11 537	1 216	37	1 190	11 500	74 688
Willowmore	1 238	1 105	734	154	504	951	10 963
Willowvale	339	26 679	78	120	261	26 559	126 518
Wodehouse	1 364	1 812	1 341	571	23	1 241	15 615
Xalanga	1 392	9 112	419	86	973	9 026	68 945
Zwelitsha	22 519	31 106	7 456	580	15 063	30 526	258 302
Eastern Transvaal							
Amersfoort	1 024	5 229	365	522	659	4 707	34 466
Balfour	3 542	4 469	1 474	1 503	2 068	2 966	38 331
Barberton	4 551	13 755	2 928	5 575	1 623	8 180	74 834
Belfast	2 950	3 215	2 068	1 944	882	1 271	29 356

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Bethal	6 038	7 172	2 492	2 871	3 546	4 301	69 778
Carolina	1 936	4 423	848	1 486	1 088	2 937	31 282
Delmas	6 154	3 262	2 717	1 284	3 437	1 978	45 333
Eerstehoek	3 834	42 746	1 369	13 772	2 465	28 974	239 285
Ermelo	15 256	9 121	7 391	2 971	7 865	6 150	113 523
Groblersdal	1 779	10 537	1 707	3 965	72	6 572	60 606
Highveld Ridge	28 868	3 680	14 417	1 843	14 451	1 837	163 960
Kriel	2 548	0	2 448	0	100	0	9 748
Lydenburg	3 016	5 378	2 713	2 402	303	2 976	37 933
Mbibana	2 389	12 011	336	393	2 053	11 618	77 995
Mdutjana	5 747	18 194	1 594	15 544	4 153	2 650	134 138
Middelburg	17 022	14 008	10 631	6 536	6 391	7 472	148 256
Moutse	1 017	18 783	881	4 444	136	14 339	99 106
Nelspruit	7 107	11 200	6 516	4 672	591	6 528	65 842
Nkomazi	3 333	54 566	1 234	683	2 099	53 883	333 066
Nsikazi	12 121	55 273	4 506	729	7 615	54 544	364 295
Piet Retief	4 245	8 609	3 027	3 953	1 218	4 656	65 928
Pilgrim's Rest	1 733	5 974	1 653	3 086	80	2 888	29 685
Standerton	10 107	8 037	5 564	2 490	4 543	5 547	88 829
Volkstrust	4 242	2 151	2 695	782	1 547	1 369	30 596
Wakkerstroom	767	4 992	678	2 742	89	2 250	33 680
Waterval Boven	1 206	951	778	376	428	575	9 173
White River	2 186	6 248	1 819	3 240	367	3 008	31 792
Witbank	30 741	8 047	19 310	4 834	11 431	3 213	185 289
Free State							
Bethlehem	11 942	6 243	9 385	1 917	2 557	4 326	82 724
Bethulie	1 612	609	1 007	289	605	320	9 224
Bloemfontein	80 147	5 436	60 287	1 797	19 860	3 639	316 581
Boshof	2 209	4 708	1 750	1 396	459	3 312	32 526
Bothaville	6 006	5 654	1 341	1 567	4 665	4 087	55 860
Botshabelo	44 617	0	1 684	0	42 933	0	228 299
Brandfort	2 921	2 684	2 716	774	205	1 910	23 410
Bultfontein	2 775	3 173	955	873	1 820	2 300	29 318
Clocolan	1 996	2 247	1 974	897	22	1 350	18 628
Dewetsdorp	1 227	1 923	310	532	917	1 391	13 678
Edenburg	1 010	661	321	220	689	441	6 802
Excelsior	1 695	2 269	741	625	954	1 644	17 921
Fauresmith	1 062	1 255	947	438	115	817	8 987
Ficksburg	5 702	3 710	5 155	1 125	547	2 585	38 935
Fouriesburg	1 008	2 458	953	1 080	55	1 378	17 061
Frankfort	5 205	4 485	2 251	1 225	2 954	3 260	45 348
Harrismith	6 635	6 167	4 822	1 748	1 813	4 419	63 829
Heilbron	4 427	4 558	1 502	1 330	2 925	3 228	41 600
Hennenman	2 979	2 105	2 602	865	377	1 240	25 981

Electrification statistics – continued

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Hoopstad	1 394	4 071	1 372	1 240	22	2 831	28 563
Jacobsdal	886	1 680	647	621	239	1 059	11 410
Jagersfontein	1 311	295	315	98	996	197	6 378
Koffiefontein	1 836	554	908	522	928	32	10 514
Koppies	1 406	3 017	418	896	988	2 121	19 784
Kroonstad	20 510	6 122	16 682	1 766	3 828	4 356	113 308
Ladybrand	4 232	4 049	3 518	1 160	714	2 889	30 559
Lindley	4 781	3 186	3 736	1 058	1 045	2 128	37 715
Marquard	1 210	2 408	1 209	835	1	1 573	17 411
Odendaalsrus	17 442	4 030	13 504	2 230	3 938	1 800	107 949
Parys	11 897	1 669	4 267	490	7 630	1 179	51 587
Petrusburg	933	1 662	336	1 080	597	582	11 393
Philippolis	709	1 116	205	465	504	651	7 130
Reddersburg	657	746	653	415	4	331	6 173
Reitz	2 783	3 735	2 606	1 067	177	2 668	30 979
Rouxville	881	1 728	658	996	223	732	11 913
Sasolburg	12 052	2 761	11 036	1 213	1 016	1 548	56 642
Senekal	4 778	4 767	3 678	1 289	1 100	3 478	41 360
Smithfield	1 095	1 050	804	302	291	748	10 924
Thaba Nchu	2 193	12 480	1 196	836	997	11 644	67 318
Theunissen	4 107	2 510	3 062	947	1 045	1 563	40 470
Trompsburg	661	591	661	502	0	89	5 151
Ventersburg	1 957	1 262	949	353	1 008	909	14 777
Viljoenskroon	3 118	7 075	2 959	3 374	159	3 701	60 381
Virginia	9 193	4 827	8 373	4 827	820	0	82 005
Vrede	2 780	4 517	1 820	1 224	960	3 293	37 168
Vredefort	1 401	1 688	430	484	971	1 204	13 594
Welkom	34 855	10 150	30 743	6 434	4 112	3 716	267 262
Wepener	1 819	1 446	1 622	404	197	1 042	13 110
Wesselsbron	3 528	2 275	3 519	1 081	9	1 194	27 060
Winburg	2 119	1 773	484	524	1 635	1 249	17 489
Witsieshoek	6 932	74 870	4 453	5 708	2 479	69 162	404 636
Zastron	1 436	1 847	1 357	863	79	984	14 204
Gauteng							
Alberton	104 337	0	46 579	0	57 758	0	414 739
Benoni	68 765	523	49 334	188	19 431	335	308 709
Boksburg	51 063	0	46 057	0	5 006	0	209 832
Brakpan	32 750	0	16 110	0	16 640	0	139 965
Bronkhorstspuit	2 781	6 118	1 909	2 458	872	3 660	40 551
Cullinan	1 307	5 660	983	3 340	324	2 320	33 045
Germiston	56 934	0	55 824	0	1 110	0	204 279
Heidelberg	9 218	8 812	4 782	1 584	4 436	7 228	75 812
Johannesburg	389 068	631	300 377	356	88 691	275	1 585 924

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Kempton Park	90 678	385	57 691	167	32 987	218	353 327
Krugersdorp	40 433	6 100	25 808	2 958	14 625	3 142	199 897
Nigel	18 554	2 177	11 422	839	7 132	1 338	94 472
Oberholzer	35 139	585	17 969	281	17 170	304	191 332
Pretoria	223 071	4 419	215 999	2 637	7 072	1 782	772 121
Randburg	114 070	465	90 195	214	23 875	251	422 925
Randfontein	20 120	3 252	19 431	2 447	689	805	108 001
Roodepoort	59 946	464	51 770	284	8 176	180	234 607
Soshanguve	31 655	0	24 680	0	6 975	0	148 121
Springs	37 529	398	31 352	155	6 177	243	162 065
Vanderbijlpark	123 391	2 990	62 580	1 932	60 811	1 058	541 612
Vereeniging	63 989	13 908	58 554	10 768	5 435	3 140	276 595
Westonaria	42 509	1 289	21 579	786	20 930	503	236 180
Wonderboom	33 281	8 963	32 968	5 205	313	3 758	217 538
KwaZulu Natal							
Alfred	756	1 089	628	455	128	634	9 075
Babanango	0	506	0	181	0	325	3 037
Bergville	236	4 142	214	2 311	22	1 831	23 254
Camperdown	2 373	5 688	2 284	4 138	89	1 550	38 408
Chatsworth	5 727	0	5 190	0	537	0	26 048
Dannhauser	980	1 561	622	668	358	893	14 013
Dundee	4 259	1 899	2 909	612	1 350	1 287	31 830
Durban	229 885	0	224 309	0	5 576	0	877 855
Emnambithi	14 364	24 330	3 742	424	10 622	23 906	218 456
Empumalange	29 546	56 032	8 291	2 160	21 255	53 872	361 299
Emzumbeni	0	41 438	0	743	0	40 695	220 632
Enseleni	5 039	38 515	1 958	770	3 081	37 745	254 560
Eshowe	1 523	1 344	1 329	1 172	194	172	13 889
Estcourt	4 126	6 654	3 980	6 654	146	0	49 974
Ezingolweni	2 555	39 510	558	4 140	1 997	35 370	221 102
Glencoe	2 371	1 054	1 903	345	468	709	16 977
Hlabisa	1 843	33 069	1 572	5 688	271	27 381	197 387
Hlanganani	48	37 984	37	4 589	11	33 395	199 166
Impendle	0	656	0	229	0	427	2 764
Inanda	24 299	5 329	23 218	2 169	1 081	3 160	128 280
Ingwavuma	131	26 157	44	520	87	25 637	150 310
Inkanyezi	4 330	27 454	2 801	567	1 529	26 887	178 444
Ixopo	548	3 900	372	1 176	176	2 724	22 607
Kliprivier	9 632	4 365	8 072	2 523	1 560	1 842	66 369
Kranskop	103	1 442	86	452	17	990	7 780
Lions River	3 329	6 675	1 719	2 300	1 610	4 375	44 275
Lower Tugela	8 604	14 600	7 908	7 814	696	6 786	97 385
Lower Umfolozi	11 356	4 357	10 731	4 357	625	0	62 172
Madadeni	31 436	23 930	9 025	478	22 411	23 452	344 628

Electrification statistics – continued

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Mapumulo	0	43 162	0	836	0	42 326	243 475
Mahlabatini	3 222	18 981	1 215	494	2 007	18 487	147 483
Mooi River	1 650	3 360	763	955	887	2 405	26 369
Mount Currie	4 767	6 114	2 678	1 595	2 089	4 519	43 594
Msinga	71	30 870	5	665	66	30 205	153 903
Mtonjaneni	601	1 697	198	678	403	1 019	11 150
Mtunzini	1 630	2 781	1 544	2 626	86	155	18 277
Ndwedwe	0	83 443	0	2 580	0	80 863	360 406
New Hanover	1 696	5 960	1 201	2 107	495	3 853	38 874
Newcastle	10 819	2 845	10 328	2 845	491	0	55 777
Ngotshe	332	3 517	253	1 107	79	2 410	26 409
Nkandla	635	23 201	483	555	152	22 646	135 065
Nongoma	365	25 988	365	2 997	0	22 991	171 101
Nqutu	5 703	34 582	570	745	5 133	33 837	226 152
Ntuzuma	116 022	25 303	40 827	868	75 195	24 435	528 194
Okhahlamba	3 518	33 467	1 203	627	2 315	32 840	211 623
Ongoye	7 382	24 951	6 189	2 113	1 193	22 838	193 409
Paulpietersburg	1 118	2 475	414	693	704	1 782	21 568
Pietermaritzburg	56 943	3 570	48 109	1 886	8 834	1 684	242 504
Pinetown	42 301	2 898	38 209	1 332	4 092	1 566	178 015
Polela	123	824	104	360	19	464	4 331
Port Shepstone	15 815	4 270	14 745	4 270	1 070	0	71 751
Richmond	746	4 243	608	2 616	138	1 627	24 625
Simdlangentsha	2 061	18 490	1 045	381	1 016	18 109	130 927
Ubombo	72	20 036	42	712	30	19 324	122 444
Umbumbulu	4 350	59 908	3 497	964	853	58 944	295 414
Umlazi	71 355	0	59 708	0	11 647	0	329 893
Umvoti	3 698	5 156	2 335	1 647	1 363	3 509	42 287
Umzinto	8 344	3 952	7 934	2 794	410	1 158	47 657
Underberg	331	2 094	193	762	138	1 332	9 911
Utrecht	617	3 820	575	1 064	42	2 756	27 387
Vryheid	5 486	8 735	4 050	2 898	1 436	5 837	86 147
Vulamehlo	0	23 509	0	487	0	23 022	125 530
Vulindlela	18 778	24 197	9 550	1 456	9 228	22 741	234 790
Weenen	666	1 260	511	621	155	639	12 647
North West							
Bafokeng	9 966	10 985	4 030	1 024	5 936	9 961	147 031
Bloemhof	2 296	1 117	1 785	522	511	595	16 579
Brits	10 736	17 063	8 861	7 539	1 875	9 524	120 175
Christiana	2 325	1 179	2 272	307	53	872	13 962
Coligny	1 241	3 071	1 093	757	148	2 314	22 668
Delareyville	1 619	5 802	1 511	1 473	108	4 329	36 595
Ditsobotla	6 888	28 977	2 634	605	4 254	28 372	182 437
Ganyesa	0	13 708	0	191	0	13 517	63 211
Klerksdorp	59 992	11 839	38 242	4 625	21 750	7 214	335 988

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Koster	1 621	4 856	1 441	1 259	180	3 597	30 095
Kudumane	949	26 565	541	437	408	26 128	137 476
Lehurutshe	17	15 701	14	715	3	14 986	82 530
Lichtenburg	6 192	10 893	5 880	2 720	312	8 173	80 877
Madikwe	814	14 470	52	931	762	13 539	76 310
Mankwe	2 120	22 089	1 867	1 041	253	21 048	117 656
Marico	2 783	6 472	1 638	1 822	1 145	4 650	42 944
Molopo	15 036	36 425	11 418	3 293	3 618	33 132	225 451
Moretele	5 658	64 728	3 097	2 260	2 561	62 468	377 015
Odi	26 578	77 513	17 967	4 259	8 611	73 254	564 752
Potchefstroom	33 135	12 364	20 092	4 414	13 043	7 950	200 614
Rustenburg	12 909	15 137	12 243	6 331	666	8 806	135 724
Schweizer-Reneke	2 915	5 647	2 246	1 225	669	4 422	48 369
Swartruggens	529	2 338	484	748	45	1 590	12 616
Taung	5 344	34 114	1 820	1 279	3 524	32 835	188 309
Ventersdorp	1 752	5 559	658	1 316	1 094	4 243	36 996
Vryburg	6 514	15 741	5 272	3 479	1 242	12 262	102 172
Wolmaransstad	5 994	7 043	5 200	1 814	794	5 229	65 159
Northern Cape							
Barkly West	3 736	3 925	2 906	1 054	830	2 871	36 745
Britstown	936	684	678	191	258	493	6 637
Calvinia	3 528	2 021	3 180	636	348	1 385	22 222
Carnarvon	1 545	1 037	1 304	300	241	737	9 607
Colesberg	2 442	1 048	1 519	721	923	327	15 438
De Aar	5 563	502	3 778	146	1 785	356	26 213
Fraserburg	591	617	564	189	27	428	4 360
Gordonia	14 343	13 546	13 026	4 130	1 317	9 416	131 408
Hanover	727	406	160	103	567	303	5 330
Hartswater	3 129	4 614	2 849	1 116	280	3 498	30 738
Hay	1 623	1 481	1 578	447	45	1 034	14 185
Herbert	2 050	3 697	1 137	1 206	913	2 491	27 580
Hopetown	1 950	1 179	1 762	330	188	849	15 434
Kenhardt	1 724	1 262	1 160	384	564	878	11 352
Kimberley	36 940	2 075	24 272	593	12 668	1 482	177 490
Kuruman	2 753	3 044	2 353	1 108	400	1 936	26 029
Namakwaland	9 787	9 876	4 241	5 635	5 546	4 241	81 583
Noupoort	1 603	272	1 353	76	250	196	8 196
Philipstown	1 489	852	1 342	234	147	618	9 830
Postmasburg	9 266	3 980	6 926	1 626	2 340	2 354	62 455

Electrification statistics – continued

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Prieska	3 437	1 788	2 171	1 061	1 266	727	24 915
Richmond	1 217	726	443	298	774	428	9 129
Sutherland	498	563	211	187	287	376	3 531
Victoria West	2 024	1 105	1 438	532	586	573	13 933
Warrenton	4 008	2 057	3 651	569	357	1 488	22 139
Williston	741	626	347	197	394	429	4 150
Northern Province							
Bochum	0	31 061	0	7 116	0	23 945	159 390
Bolobedu	3 659	39 949	1 494	22 380	2 165	17 569	211 478
Dzanani	144	24 953	31	397	113	24 556	137 721
Ellisras	2 721	3 556	2 651	1 441	70	2 115	27 499
Giyani	3 825	42 542	3 388	10 080	437	32 462	243 150
Hlanganani	1 019	25 033	831	280	188	24 753	137 960
Letaba	2 721	12 929	2 141	5 014	580	7 915	62 558
Lulekani	1 253	11 658	833	1 695	420	9 963	54 967
Malamulele	1 086	36 334	1 004	9 345	82	26 989	193 111
Mapulaneng	2 170	46 789	303	10 721	1 867	36 068	232 917
Messina	2 493	3 518	1 877	1 098	616	2 420	24 136
Mhala	7 797	55 924	3 737	3 533	4 060	52 391	289 008
Mokerong	6 075	83 342	4 406	1 626	1 669	81 716	489 353
Mutale	73	10 796	31	4 000	42	6 796	60 608
Namakgale	7 195	5 655	4 391	271	2 804	5 384	61 822
Naphuno	2 836	35 536	1 617	6 205	1 219	29 331	190 508
Nebo	3 950	66 071	1 005	1 852	2 945	64 219	349 749
Phalaborwa	3 694	5 428	3 400	2 864	294	2 564	31 175
Pietersburg	11 818	6 085	11 154	2 657	664	3 428	67 693
Potgietersrus	5 202	11 701	4 712	3 740	490	7 961	69 768
Retavi	3 177	31 491	2 355	5 734	822	25 757	161 962
Sekgosese	299	26 437	169	633	130	25 804	133 982
Sekhukhuneland	2 867	88 284	1 242	6 740	1 625	81 544	424 520
Seshego	11 316	52 015	9 498	3 207	1 818	48 808	323 420
Soutpansberg	2 519	7 007	2 293	2 782	226	4 225	36 290
Thabamooopo	10 729	68 044	6 953	7 404	3 776	60 640	387 259
Thabazimbi	2 081	7 973	1 905	5 053	176	2 920	51 633
Thohoyandou	5 105	46 103	2 122	4 619	2 983	41 484	271 993
Vuwani	107	26 687	42	13 774	65	12 913	147 481
Warmbaths	4 185	5 147	1 890	2 718	2 295	2 429	43 284
Waterberg	3 495	6 795	3 129	2 268	366	4 527	50 641
Western Cape							
Beaufort West	6 147	1 485	5 039	755	1 108	730	32 124
Bellville	70 427	5 851	67 608	3 311	2 819	2 540	292 699
Bredasdorp	3 953	2 335	2 955	1 149	998	1 186	24 329
Caledon	9 039	10 845	6 103	4 791	2 936	6 054	85 984

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Calitzdorp	773	823	705	381	68	442	6 906
Cape	14 518	155	13 244	155	1 274	0	44 676
Ceres	4 151	6 439	3 649	2 771	502	3 668	50 741
Clanwilliam	2 839	4 137	2 809	1 292	30	2 845	28 982
George	19 134	4 629	15 394	2 320	3 740	2 309	104 629
Goodwood	43 749	0	40 668	0	3 081	0	188 947
Heidelberg	1 506	1 329	913	599	593	730	11 701
Hermanus	5 852	748	5 703	580	149	168	22 977
Hopefield	1 688	1 016	1 682	657	6	359	9 047
Knysna	9 681	4 216	6 750	1 987	2 931	2 229	53 555
Kuils River	34 960	1 471	30 412	1 471	4 548	0	168 490
Ladismith	1 140	2 094	779	789	361	1 305	13 158
Laingsburg	736	806	323	380	413	426	5 816
Malmesbury	19 895	8 814	18 204	5 591	1 691	3 223	137 028
Montagu	3 419	1 752	2 196	801	1 223	951	22 560
Moorreesburg	1 930	1 333	1 879	679	51	654	11 530
Mossel Bay	13 047	2 536	11 005	1 435	2 042	1 101	64 023
Murraysburg	859	577	859	403	0	174	5 988
Oudtshoorn	13 337	2 840	10 757	1 292	2 580	1 548	70 304
Paarl	21 625	10 475	16 843	4 637	4 782	5 838	142 941
Piketberg	4 811	3 937	4 602	1 940	209	1 997	35 339
Prince Albert	1 166	948	1 014	453	152	495	8 661
Riversdale	3 794	2 632	3 263	1 301	531	1 331	25 606
Robertson	3 949	4 219	3 369	1 846	580	2 373	33 223
Simon's Town	9 823	1 556	9 507	1 044	316	512	37 910
Somerset West	14 576	2 159	12 362	1 117	2 214	1 042	64 171
Stellenbosch	15 479	5 421	13 802	2 675	1 677	2 746	76 503
Strand	12 381	350	11 371	181	1 010	169	42 388
Swellendam	4 070	4 017	3 385	2 176	685	1 841	33 437
Tulbagh	2 094	4 008	1 891	1 786	203	2 222	26 407
Uniondale	599	1 475	515	848	84	627	9 297
Vanrhynsdorp	1 959	1 000	1 948	529	11	471	11 699
Vredenburg	9 926	112	9 046	112	880	0	43 133
Vredendal	2 950	4 903	2 944	1 711	6	3 192	31 121
Wellington	6 205	2 737	5 760	1 205	445	1 532	39 480
Worcester	17 600	11 781	14 935	5 013	2 665	6 768	122 346
Wynberg	308 233	3 479	276 918	1 063	31 315	2 416	1 252 096

SUB-SAHARAN AFRICA

Net maximum generating capacity

Sources: Information obtained from electricity utilities and South Africa's National Electricity Regulator

Country	Year ended	Thermal	Hydro	Nuclear	Geo-thermal	Total	% of total
Angola ^{a c}	12/94	135,26	201,52	–	–	336,78	0,70
Botswana ^{a b}	3/95	172,00	–	–	–	172,00	0,36
Congo	12/94	18,20	74,00	–	–	92,20	0,19
Kenya ^e	6/94	72,30	568,80	–	30,35 ^d	671,45	1,40
Lesotho ^{a b}	3/95	1,56	3,27	–	–	4,83	0,01
Malawi ^a	3/94	25,03	164,60	–	–	189,63	0,40
Mozambique ^{a f}	12/94	121,30	509,60	–	–	630,90	1,32
Namibia ^{a b}	6/94	147,00	240,00	–	–	387,00	0,81
South Africa ^b	12/94	34 673,00	2 247,00 ^g	1 840,00	–	38 760,00	80,88
Swaziland ^{a b}	3/94	9,50	40,50	–	–	50,00	0,10
Tanzania ^a	6/94	137,95	379,00	–	–	516,95	1,08
Zaire	12/93	37,80	2 442,16	–	–	2 479,96	5,17
Zambia ^a	3/94	84,00	1 670,00	–	20,00	1 774,00	3,70
Zimbabwe ^a	6/94	1 191,00	666,00	–	–	1 857,00	3,87
Total, MW		36 825,90	9 206,45	1 840,00	50,35	47 922,70	100,00
SADC, MW		2 024,60	3 874,49	–	–	5 919,09	12,35
South African Customs Union, MW		35 003,06	2 530,77	1 840,00	0	39 373,83	82,16

^a Member of the Southern African Development Community (SADC).

^b Member of the South African Customs Union.

^c Available capacity.

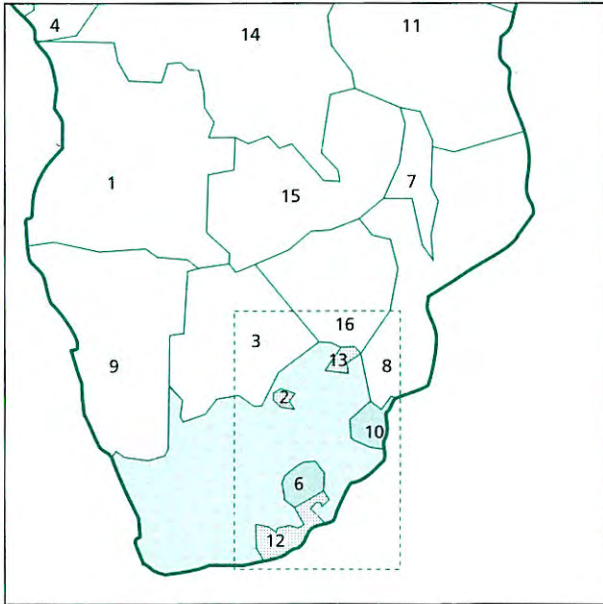
^d Includes wind turbine capacity of 0,35 MW

^e Effective capacity = sent-out capacity + own use capacity.

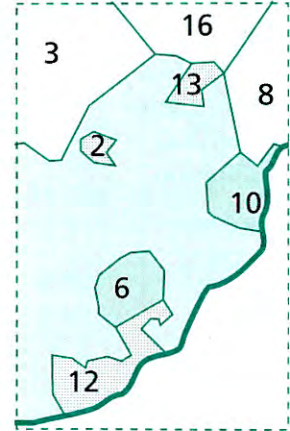
^f Includes Cahora Bassa.

^g Includes pumped storage.

Electricity in Sub-Saharan Africa



- 1 Angola
- 2 Bophuthatswana
- 3 Botswana
- 4 Congo
- 5 Kenya
- 6 Lesotho
- 7 Malawi
- 8 Mozambique
- 9 Namibia
- 10 Swaziland
- 11 Tanzania
- 12 Transkei
- 13 Venda
- 14 Zaire
- 15 Zambia
- 16 Zimbabwe



Bophuthatswana, Transkei and Venda were previously independent homelands which have subsequently been reabsorbed into South Africa.

Gross production of electricity

Source: Information obtained from electricity utilities

Country	Year ended	Thermal	Hydro	Nuclear	Geo-thermal	Total	% of total
Angola ^a	12/94	201,00	736,00	–	–	937,00	0,47
Botswana ^{a b}	3/95	1 011,00	–	–	–	1 011,00	0,51
Congo	12/94	–	322,07	–	–	322,07	0,16
Kenya	6/94	158,65	3 047,51	–	261,62 ^c	3 467,78	1,75
Lesotho ^{a b}	3/95	0	0	–	–	0	0
Malawi ^a	3/94	4,23	827,66	–	–	831,89	0,42
Mozambique ^{a d}	12/94	27,76	171,00	–	–	198,76	0,10
Namibia ^{a b}	6/94	207,40	671,70	–	–	879,10	0,44
South Africa ^b	12/94	154 785,00	3 127,00 ^e	9 697,00	–	167 609,00	84,58
Swaziland ^{a b}	3/94	1,10	125,00	–	–	126,10	0,06
Tanzania ^a	6/94	284,90	1 499,40	–	–	1 784,30	0,90
Zaire	12/93	5,40	5 373,60	–	–	5 379,00	2,71
Zambia ^a	3/94	13,00	8 069,00	–	–	8 082,00	4,08
Zimbabwe ^a	6/94	5 439,40	2 095,60	–	–	7 535,50	3,80
Total, GWh		162 138,84	26 065,54	9 697,00	261,62	198 163,00	100,00
SADC, GWh		7 189,79	14 195,36	–	–	21 385,15	10,79
South African Customs Union, GWh		156 004,50	3 923,70	9 697,00	0	169 625,20	85,60

^a Member of the Southern African Development Community (SADC).

^b Member of the South African Customs Union.

^c Includes wind turbine.

^d Includes Cahora Bassa.

^e Includes pumped storage.

SUB-SAHARAN AFRICA

Utilisation of net maximum generating capacity

Sources: Information obtained from electricity utilities and South Africa's National Electricity Regulator

Kilowatt-hours produced per kilowatt

Country	Year ended	Thermal	Hydro	Nuclear	Geo-thermal	Total
Angola ^a	12/94	1 486	3 652	–	–	2 782
Botswana ^{a b}	3/95	5 878	–	–	–	5 878
Congo	12/94	0	4 352	–	–	3 493
Kenya	6/94	2 194	5 358	–	8 620	5 165
Lesotho ^{a b}	3/95	0	0	–	–	0
Malawi ^a	3/94	169	5 028	–	–	4 387
Mozambique ^{a c}	12/94	229	336	–	–	315
Namibia ^{a b}	6/94	1 411	2 799	–	–	2 272
South Africa ^b	12/94	4 464	1 392 ^d	5 270	–	4 324
Swaziland ^{a b}	3/94	116	3 086	–	–	2 522
Tanzania ^a	6/94	2 065	3 956	–	–	3 452
Zaire	12/93	143	2 200	–	–	2 169
Zambia ^a	3/94	155	4 832	–	–	4 556
Zimbabwe ^a	6/94	4 567	3 147	–	–	4 058
Total		4 403	2 831	5 270	5 196	4 135
SADC		3 551	3 664	–	–	3 613
South African Customs Union		4 457	1 550	5 270	–	4 308

^a Member of the Southern African Development Community (SADC).

^b Member of the South African Customs Union.

^c Includes Cahora Bassa.

^d Includes pumped storage.

Production and trade of electricity

Source: Information obtained from electricity utilities

Country	Year ended	Gross production GWh	Imports GWh	Exports GWh	Available GWh	% of total	Estimated kWh per capita
Angola ^a	12/94	937,0	–	–	937,0	0,47	104
Botswana ^{a b}	3/95	1 011,0	298,0	–	1 309,0	0,65	935
Congo	12/94	322,1	183,6	–	505,7	0,25	220
Kenya	6/94	3 467,8	264,0	–	3 731,8	1,87	174
Lesotho ^{a b}	3/95	0	312,2	–	312,2	0,16	156
Malawi ^a	3/94	831,9	–	0,83	831,1	0,42	104
Mozambique ^{a c}	12/94	198,8	699,9	–	898,7	0,45	58
Namibia ^{a b}	6/94	879,1	882,5	27,8	1 733,8	0,87	1 238
South Africa ^b	12/94	167 609,0 ^d	58,0	2 628,0	165 039,0	83,07	4 199
Swaziland ^{a b}	3/94	126,1	546,9	–	673,0	0,34	821
Tanzania ^a	6/94	1 784,3	–	–	1 784,3	0,89	77
Zaire	12/93	5 379,0	52,5	1 278,3	4 153,2	2,08	110
Zambia ^a	3/94	8 082,0	–	855,0	7 227,0	3,61	927
Zimbabwe ^a	6/94	7 535,0	2 007,4	0	9 542,4	4,77	918
Total		198 163,1	5 305,0	4 789,9	198 678,2	100,00	1 101
SADC		21 385,2	4 746,9	883,6	25 248,5	12,71	317
South African Customs Union		169 625,2	2 097,6	2 655,8	169 067,0	85,10	3 764

^a Member of the Southern African Development Community (SADC).

^b Member of the South African Customs Union.

^c Includes Cahora Bassa.

^d Includes pumped storage.

Angola

Source: Empresa Nacional de Electricidade (ENE) for the year ended 31 December 1994

Source of power	Type	Nominal capacity MW	Available capacity MW
Independent electricity systems			
Northern system:			
Kwanza Norte	Hydro	180,00	180,00
Bengo	Hydro	17,80	0
Luanda	Gas turbine	92,60	68,20
	Diesel	14,60	14,60
Malange	Diesel	1,86	1,00
Kwanza Sul	Diesel	10,99	5,85
Central system:			
Benguela	Hydro	49,40	7,20
	Gas turbine	22,80	0
	Diesel	26,25	13,65
Huambo	Hydro	3,05	0
	Gas turbine	10,00	0
	Diesel	9,11	0
Southern system:			
Huila	Hydro	41,10	13,60
	Diesel	10,46	1,40
Namibe	Diesel	16,06	7,00
Isolated power stations			
Cabinda	Gas turbine	10,00	10,00
	Diesel	9,18	3,08
Uige	Hydro	1,12	0,72
	Diesel	1,90	1,60
Bie	Hydro	0,30	0
	Diesel	4,78	0,40
Moxico	Diesel	2,16	0,48
Total ENE		535,52	328,78
Other producers of electricity			
Refinaria (Luanda) ^a	Gas turbine	10,00	8,00
Total source of power, MW		545,52	336,78
System peak demand (simultaneous one-hour demand)		Date and time	
Northern system		12-01-94	
		21:05	134,0
Central system		22-04-94	
		19:35	19,5
Southern system		15-03-94	
		20:40	13,2
Cabinda		18-02-94	
		19:35	6,7
Kwanza Sul		03-11-94	
		10:30	1,3

Electricity produced by ENE power stations	1994 GWh	1991 GWh	Change %
Hydro	736	772	-4,7
Thermal	201	163	23,3
Total electricity produced, GWh	937	935	0,2
Electricity sold	1994 GWh	1991 GWh	Change %
Domestic	154	132 ^b	16,7
Agriculture	38	33	15,2
Industrial	125	274	-54,4
Street lighting and other	7	5 ^b	40,0
Distribution utility	487	386 ^b	26,2
Total electricity sold, GWh	811	830	-2,3
Number of customers	1994	1991	Change %
High voltage	5	5	0,0
Medium voltage	1 048	826	26,9
Low voltage	79 877	68 346	16,9
Street lighting	14	14	0
Total number of customers	80 944	69 191	17,0
Transmission and distribution equipment in service	1994 km	1991 km	Change km
Overhead lines			
220 kV	549	549	0
150 kV	572	572	0
100 kV	159	159	0
60 kV	606	733	-127
30 kV	195	-	-
Total overhead lines, km	2 081	2 013	68
Number of ENE employees			3 267
GWh sold per employee			0,248
Population of Angola (1992 estimate), number			9 million
Average selling price, NKz/kWh			
High voltage			680,0
Medium voltage			830,5
Low voltage			2 116,5
Street lighting			1 057,0

^a Private industry.

^b Adjusted.

Bophuthatswana

Source: Bophuthatswana Electricity Corporation (BECOR) for the year ended 31 March 1995

	1994/95	1993/94	Change
Electricity available for distribution	GWh	GWh	%
Purchased from Eskom	3 351	3 330	0,6
Total available for distribution, GWh	3 351	3 330	0,6
System losses, GWh	176	154	14,3
Electricity sold	GWh	GWh	%
Domestic	175	160	9,4
Commercial, transport and agriculture	413	343	20,4
Industrial	360	352	2,3
Mining	1 900	2 000	-5,0
Government	327	321	1,9
Total electricity sold, GWh	3 175	3 176	-0,0
Number of customers	1994/95	1993/94	Change
Domestic	85 000	65 000	30,8
Commercial, transport and agriculture	3 090	2 290	34,9
Industrial	560	500	12,0
Mining	20	20	0
Government	3 200	2 500	28,0
Total number of customers	91 870	70 310	30,7
Transmission and distribution equipment in service			
Overhead lines	1994/95	1993/94	Change
	km	km	km
132 kV	40	40	0
88/66/33/22/11 kV	2 000	1 850	150
400/230 V	5 000	4 870	130
Total overhead lines, km	7 040	6 760	280
Underground cable, km	1994/95	1993/94	Change
	km	km	km
33/22/11 kV	500	490	10
400/230 V	500	350	150
Total underground cable, km	1 000	840	160
Total, km	8 040	7 600	440

	1994/95	1993/94	Change
Transformers	MVA	MVA	MVA
132/33/11 kV	260	260	0
88/33 kV	1 195	1 185	10
22/11 kV/400 V	350	330	20
Total, MVA	1 805	1 775	30
Number of BECOR employees			954
GWh sold per employee			3,33
Population of Bophuthatswana (1991 census), number			2,2 million
Average selling price, cents/kWh			12,4

Botswana

Source: Botswana Power Corporation (BPC) for the year ended 31 March 1995

Source of power	Type	Nominal capacity MW	Net maximum capacity MW
Morupule	Coal fired	132	118
Selebi-Phikwe	Coal fired	65	54
Total own source		197	172
Other sources			
Eskom		205	205
Zimbabwe		120	120
Total other sources		325	325
Total source of power, MW		522	497
System peak demand (simultaneous one-hour demand) ^a	Date and time		MW
	26-07-94 10:00		194,7
Electricity produced	1994/95 GWh	1993/94 GWh	Change %
Coal fired	1 011	1 015,0	-0,4
Total electricity produced, GWh	1 011	1 015,0	-0,4
Electricity imported, GWh	298	226,0	31,9
Station usage	124	120,1	3,2
Total available for distribution, GWh	1 185	1 120,9	5,7
System losses	79	99,0 ^b	
Electricity sold	1994/95 GWh	1993/94 GWh	Change %
Commercial	276	239,7	15,1
Domestic	150	123,5	21,5
Government	74	72,8	1,6
Mining	606	585,9	3,4
Total electricity sold, GWh	1 106	1 021,9 ^b	8,2
Number of customers	1994/95	1993/94	Change %
Domestic	37 346	31 397 ^b	18,9
Commercial	4 964	4 362 ^b	13,8
Government	1 850	1 708	8,3
Mining	4	4	0
Total number of customers	44 164	37 471 ^b	17,9

Transmission and distribution equipment in service

	1994/95 km	1993/94 km	Change km
Overhead lines			
220 kV	902,0	902,0	0
132 kV	817,8	470,8 ^b	347,0
66 kV	374,1	374,1 ^b	0
33 kV	598,9	578,8 ^b	20,1
11 kV	1 123,7	1 094,9 ^b	28,8
0,4 kV	1 107,3	1 088,2 ^b	19,1
Total overhead lines, km	4 923,8	4 508,8	415,0
Underground cable			
11 kV	248,5	245,8	2,7
0,4 kV	269,8	264,5	5,3
Total underground cable, km	518,3	510,3	8,0
Total, km	5 442,1	5 019,1	423,0
Transformers			
220/132 kV	240,00 ^c	120,00	120,00
220/33 kV	80,00	80,00	0
220/11 kV	285,00	285,00	0
132/33 kV	90,00	90,00	0
132/11 kV	260,00 ^c	200,00	60,00
132/6,6 kV	40,00	40,00	0
66/33 kV	20,00	20,00	0
66/11 kV	42,95	42,95	0
33/11 kV and 33/0,4 kV	73,76	73,41	0,35
11/0,4 kV	359,28	344,86	14,42
Total, MVA	1 490,99	1 296,22	194,77
	1994/95	1993/94	Change %
Number of BPC employees	1 700	1 770 ^b	-4,0
GWh sold per employee	0,651	0,597	9,0
Population of Botswana (1991 census), number	1,4 million	1,4 million	
Average selling price, thebe/kWh	21,037	19,7	6,8

^a BPC now uses net maximum demand.

^b Adjusted.

^c Addition of transformer capacity for the Maun supplies as well as Broadhurst main 132/11 kV substation.

Congo

Source: Department of Electricity and Water Affairs (Congo) for Société Nationale d'Electricité (SNEL) for the year ended 31 December 1994 ^a

Source of power	Type	Nominal capacity MW	Available capacity MW
Moukoulou	Hydro	74,0	74,0
Djoue	Hydro	15,0	0 ^b
Pointe Noire	Diesel	20,4	9,3
Dolisie	Diesel	1,5	0,4
Selebi-Phikwe	Diesel	8,5	8,5
Total source of power, MW		119,4	92,2
Electricity produced	1994 GWh	1993 GWh	Change %
Hydro	322,07	359,13	-10,3
Total electricity produced, GWh	322,07	359,13	-10,3
Imports from Zaire	183,60	107,75	70,4
Total available for distribution, GWh	505,67	466,88	8,3
System losses	26,02	133,80	
Electricity sold	1994 GWh	1993 GWh	Change %
Medium and high voltage	-	-	-
Low voltage	-	-	-
Total electricity sold, GWh	479,65	333,08	44,0
Number of customers	1994	1993	Change %
Medium and high voltage	441	-	-
Low voltage	101 326	-	-
Total number of customers	101 767	95 788	6,2
Transmission and distribution equipment in service	1994 km	1993 km	Change km
Overhead lines			
220 kV	451,0	451,0	0
110 kV	267,0	267,0	0
35 kV	117,6	117,6	0
30 kV	94,2	94,2	0
Total overhead lines, km	929,8	929,8	0
Underground cable	1994/95 km	1993/94 km	Change km
30 kV	37,0	37,0	0
20 kV	300,0	300,0	0
6,6/5,5 kV	145,0	145,0	0
Low voltage	395,0	395,0	0
Total underground cable, km	877,0	877,0	0
Total, km	1 806,8	1 806,8	0

Transformers Highest voltage	1994 MVA	1993 MVA	Change MVA
220 kV	361,8	361,8	0
110 kV	169,0	169,0	0
35/10 kV (30/0,4 kV)	16,2	16,2	0
Total, MVA	547,0	547,0	0
Number of SNEL employees			1 363
GWh sold per employee			0,263
Population of Congo, number			2,3 million
Average selling price F cfa/kWh			62

^a At the time of publication final figures for 1994 have not been received yet.
^b Shut down for repairs.

Kenya

Source: Kenya Power and Lighting Company Ltd (KPLC) for the year ended 30 June 1994.

Source of power	Type	Nominal capacity MW	Effective capacity ^a MW
Tana (KPC)	Hydro	14,40	12,40
Wanjii (KPC)	Hydro	7,40	7,40
Kamburu (TRDC)	Hydro	91,50	84,00
Gitaru (TRDC)	Hydro	145,00	145,00
Kindaruma (TRDC)	Hydro	44,00	44,00
KPLC stations ^b	Hydro	6,20	3,00
Masinga (TARDA)	Hydro	40,00	40,00
Kiambere (TARDA) ^c	Hydro	144,00	127,00
Turkwell (KVDA)	Hydro	106,00	106,00
Kipevu (KPLC) ^d	Thermal	93,00	55,00
Olkaria (KPC) ^e	Geothermal	45,00	30,00
Nairobi South (KPLC)	Gas turbine	13,50	12,00
Kipevu (KPLC) ^d	Gas turbine	30,00	0
Interconnected (KPLC)	Diesel	4,00	1,80
Isolated KPLC stations	Diesel	2,60	1,80
Isolated REF stations	Diesel	3,80	1,70
Ngong	Wind turbine	0,35	0,35
Total, MW		790,75	671,45
Other producers of electricity			
UEB (imports)	Hydro	30,00	0
Total source of power, MW		820,75	671,45
System peak demand (simultaneous one-hour demand)	Date	MW	
	18-01-94	612	
Electricity produced	1993/94 GWh	1992/93 GWh	Change %
Thermal	139,55	58,82	137,2
Hydro	3 047,51	2 973,15 ^f	2,5
Diesel (interconnected)	0,43	0,26	65,4
Diesel (isolated system)	17,08	19,68	-13,2
Gas turbine	1,59	2,09	-23,9
Geothermal	260,91	272,50	-4,3
Wind turbine	0,71	-	-
Total electricity produced, GWh	3 467,78	3 326,50	4,2
Imports from Uganda	264,00	272,91	-3,3
Auxiliary consumption/own use	38,00	29,05	30,8
Total available for distribution, GWh	3 693,78	3 570,36	3,5
System losses	558,78	565,36	-1,2
Electricity sold	1993/94 GWh	1992/93 GWh	Change %
Domestic, small commercial and small industrial	977	975	0,2
Commercial and industrial (medium and large)	1 885	1 798	4,8
Off-peak	125	115	8,7
Street lighting	10	13	-23,1
Rural electrification	138	104	32,7
Total electricity sold, GWh^g	3 135	3 005	4,3

	1993/94 GWh	1992/93 GWh	Change %
Number of customers			
Domestic, small commercial and small industrial	346 938	324 780	6,8
Commercial and industrial (medium and large)	2 759	2 346	17,6
Off-peak	1 830	1 839	-0,5
Street lighting	120	116	3,4
Total number of customers^h	351 647	329 081	6,9
Transmission and distribution equipment in service			
Overhead lines	1993/94 km	1992/93 km	Change km
220 kV	877	877	0
132 kV	1 980	1 980	0
66 kV	567	451	116
40 kV	126	126	0
33 kV	3 684	3 583	101
11 kV	8 368	8 613	-245
Total overhead lines, km	15 602	15 630	-28
Underground cable ⁱ	1993/94 km	1992/93 km	Change km
66 kV	6	6	-
33 kV	2	2	-
11 kV	470	470	-
Total underground cable, km	478	478	0
Total, km	16 080	16 108	-28
Transformers	1993/94 MVA	1992/93 MVA	Change MVA
Step-down transformers	4 319,8	-	-
Step-up transformers	1 663,0	-	-
Total, MVA	5 982,8^j	-	-
Number of KPLC employees			10 186
GWh sold per employee			0,308
Population of Kenya (1989 census), number			21,4 million
Current growth rate (Central Bureau of Statistics), %			3,3
Average selling price, Kenya shillings/kWh			3,09 ^k

^a Effective capacity = net maximum capacity + own use capacity.

^b Some of these small hydro power stations were undergoing overhaul for much of the year.

^c Effective capacity lower due to weak winding insulation.

^d Station was undergoing repairs for most of the year.

^e Effective power capacity lower due to reduced geothermal steam pressure.

^f Adjusted.

^g Rounded figures.

^h Includes rural electrification consumers.

ⁱ Estimated figures as record of underground cable length has not been kept since 1982.

^j Rural electrification transformer capacity is included here.

^k Since tariff increase on 1 March 1994, KSh. 4,46.

Lesotho

Source: Lesotho Electricity Corporation (LEC) for the year ended 31 March 1995

Source of power	Type	Nominal capacity MW	Net maximum capacity MW
Mantsonyane	Hydro	2,000	2,000
Semonkong	Hydro	0,180	0,180
Qacha's Nek	Hydro	0,432	0,432
Mokhotlong	Hydro	0,656	0,656
Qacha's Nek (backup)	Diesel	0,800	0,800
LEC headquarters (standby)	Diesel	0,168	0,168
33 kV LEC border substation (standby)	Diesel	0,024	0,024
Mantsonyane (backup)	Diesel	0,048	0,048
Semonkong (backup)	Diesel	0,120	0,120
Mokhotlong (backup)	Diesel	0,400	0,400
Total, MW		4,828	4,828
Other sources – Eskom (registered peak at intake points)			
Maseru (132 kV)		71,474	71,474
Hololo (88 kV)		5,920	5,920
Peka (11 kV)		0,480	0,480
Total from Eskom, MW		77,874	77,874
Total source of power, MW		82,702	82,702
System peak demand (simultaneous one-hour demand)			
	Date and time		MW
	22-07-94 09:00		71,5
Electricity produced			
	1994/95 GWh	1993/94 GWh	Change %
Hydro	0	1,18	-100,0
Diesel	0	0,03	-100,0
Total electricity produced, GWh	0	1,21	-100,0
Imports from Eskom	312,2	289,23	7,9
Total available for distribution, GWh	312,2	290,44	7,5
System losses	53,0	48,4	9,5
Electricity sold			
	1994/95 GWh	1993/94 GWh	Change %
Domestic	52,8	48,60	8,6
Commercial	44,3	51,27	-13,6
Industrial	41,7	39,87	4,6
General purpose	35,8	42,28	-15,3
Lesotho Highlands Development Authority	84,6	60,01	41,0
Total electricity sold, GWh	259,2	242,03	7,1

	1994/95	1993/94	Change %
Number of customers			
Domestic	9 025	9 580	-5,8
Commercial	87	85	2,4
Industrial	103	71	45,1
General purpose	2 926	2 861	2,3
Lesotho Highlands Development Authority	19	13	-
Total number of customers	12 160	12 610	-3,6
Transmission and distribution equipment in service			
	1994/95 km	1993/94 km	Change km
Overhead lines			
132 kV	144	164	-20,0
88 kV	86	86	0
66 kV	78	78	0
33 kV	520	700	-180,0
11 kV	946	885	61,0
Total, km	1 774	1 913	-139,0
	1994/95 MVA	1993/94 MVA	Change MVA
Transformers			
132/33 kV	120	100	60,0
132/66 kV	60	60	15,0
66/11 kV	45	45	-75,0
33/11 kV	158	120	22,0
11/0,4 kV	136 ^a	136	136,0
Total, MVA	519	461	12,6
Number of LEC employees			794
GWh sold per employee			0,326
Population of Lesotho, number			2 million ^b
Average selling price, cents/kWh			
Domestic			28,00
Small business			41,00
Commercial			26,77
Industrial			22,80

^a Figure for 1994/1995 not available at time of publication.

^b Source: World Development Report 1993.

Malawi

Source: Electricity Supply Commission of Malawi (ESCOM) for the year ended 31 March 1994

Source of power	Type	Nominal capacity MW	Net maximum capacity MW
Tedzani Falls	Hydro	40,00	40,00
Nkula Falls A	Hydro	24,00	24,00
Nkula Falls B	Hydro	100,00	100,00
Zomba	Hydro	0,60	0,60
Chichiri	Gas turbine	15,00	15,00
Lilongwe	Diesel	5,40	5,40
Kasungu	Diesel	0,19	0,19
Mtunthama	Diesel	0,29	0,29
Mzuzu	Diesel	2,05	2,05
Karonga	Diesel	1,80	1,80
Chitipa	Diesel	0,30	0,30
Total source of power, MW		189,63	189,63
System peak demand (simultaneous one-hour demand)	Date and time		MW
	01-08-93		
	11:30		40,2
Electricity produced	1993/94 GWh	1992/93 GWh	Change %
Hydro	827,66	779,64	6,2
Diesel	1,51	1,79	-15,6
Gas turbine	2,72	0,27	907,4
Total electricity produced, GWh	831,89	781,70	6,4
Exports	0,83	-	-
Total available for distribution, GWh	831,06	781,70	6,3
System losses, GWh	127,45	125,16 ^a	1,8
Electricity sold	1993/94 GWh	1992/93 GWh	Change %
Domestic	143,94	-	-
General	118,97	-	-
Industrial	440,70	-	-
Total electricity sold, GWh	703,61	656,54	7,2
Number of customers	1993/94	1992/93	Change %
Domestic	41 149	-	-
General	11 415	-	-
Industrial	574	-	-
Total number of customers	53 138	50 996	4,2

Transmission and distribution equipment in service

	1993/94 km	1992/93 km	Change km
Overhead lines			
132 kV	952,00	953,00	-1,00
66 kV	820,00	820,00	0
33 kV	1 867,00	1 733,00	134,00
11 kV	2 071,00	1 955,70	115,30
400/230 V	2 149,40 ^b	2 149,40	0
Total overhead lines, km	7 859,40	7 611,10	248,30
	1993/94 km	1992/93 km	Change km
Underground cable			
33 kV	6,90	3,15	3,75
11 kV	89,60	87,60	2,00
400/230 V	163,70 ^b	163,70	-
Total underground cable, km	260,20	254,45	5,75
Total, km	8 119,60	7 865,55	254,05
Transformers	1993/94 MVA	1992/93 MVA	Change MVA
Step-down transformers	725,63	-	-
Step-up transformers	220,98	-	-
Total, MVA	946,61	-	-
Number of ESCOM employees			2 241
GWh sold per employee			0,314
Population of Malawi (1987 census), number			7,98 million
Average selling price, tambala/kWh			21,08

^a Adjusted.

^b Figure for 1994 not available at time of publication.

Mozambique

 Source: *Electricidade De Mozambique (EDM) for the year ended 31 December 1994*

Source of power	Type	Nominal capacity MW	Net maximum capacity MW
Maputo	Coal fired	57,50	20,00
Mavuzi	Hydro	52,00	45,00
Chicamba	Hydro	38,40	34,00
Corumana	Hydro	14,40	14,00
Cuamba	Hydro	1,09	1,00
Lichinga	Hydro	0,75	0,60
Maputo	Gas turbine	78,50	64,00
Beira	Gas turbine	12,00	12,00
Angoche	Diesel	1,60	0,95
Inhambane	Diesel	3,88	1,60
Lichinga	Diesel	1,30	0,65
Lionde	Diesel	3,95	2,75
Mocuba	Diesel	0,84	0,70
Nacala	Diesel	21,54	3,70
Nampula	Diesel	6,40	1,40
Pemba	Diesel	8,04	5,60
Quelimane	Diesel	7,15	6,25
Xai-Xai	Diesel	2,67	1,70
Total, MW		312,01	215,90
Other producers of electricity			
Hydroelectrica de Cahora Bassa (HCB)	Hydro	2 075,00	415,00
Total source of power, MW		2 387,01	630,90
System peak demand (simultaneous one-hour demand)			
	Date and time		MW
	25-03-94		
	11:00		100
Electricity produced			
	1994	1993	Change
	GWh	GWh	%
Coal fired	0	14,8	-100,0
Hydro	171,00	238,3	-28,2
Gas turbine	0,04	0,4	-90,0
Diesel	27,72	30,6	-9,4
Total electricity produced, GWh	198,76	284,1	-30,0
Imports from Eskom	560,10	517,6	8,2
Purchased from HCB	139,80	118,1	18,4
Imports from Zimbabwe	-	0,1	-
Imports from Malawi	-	0,6	-
Auxiliary consumption/own use	7,21	-	-
Exports	-	1,4	-
System losses	37,00	39,1 ^a	-5,4
Total available for distribution, GWh	854,45	880,0	-2,9

	1994	1993	Change
Electricity sold	GWh	GWh	%
Domestic	317,8	270,0	17,7
General (low voltage)	133,7	133,2 ^b	0,4
Medium and high voltage	268,1	265,6 ^b	0,9
Public lighting	8,0	8,2 ^b	-2,4
Total electricity sold, GWh	727,6^c	677,0^c	7,5
Number of customers			
	1994	1993	Change
			%
Domestic	128 828	115 072 ^b	12,0
General (low voltage)	18 781	20 509 ^b	-8,4
Medium and high voltage	968	746 ^b	29,8
Total number of customers	148 577	136 327^c	9,0
Transmission and distribution equipment in service			
	1994	1993	Change
	km	km	km
Overhead lines			
275 kV	85	75	10
220 kV	1 756	1 756	0
110 kV	1 158	1 158	0
60 kV	268	268	0
33/22 kV	2 230 ^d	2 230	0
11/6,6 kV	1 050 ^d	1 050	0
Total overhead lines, km	6 547	6 537	10
Transformers			
	1994	1993	Change
	MVA	MVA	MVA
Total, MVA^e	1 622,8	-	-
Number of EDM employees			2 815
GWh sold per employee			0,26
Population of Mozambique (1993 estimate), number			15,6 million
Average selling price, US\$/kWh ^f			0,063

^a Auxiliary consumption/own usage and system losses.

^b Adjusted.

^c Excludes exports.

^d Figures for 1994 not available at time of publication.

^e Includes MV/HV transformers (equal to or more than 60 kV).

^f 1 US\$ = 8 553,00 meticals (2 May 1995).

Namibia

Source: SWAWEK for the year ended 30 June 1994

Source of power	Type	Nominal capacity MW	Net maximum capacity MW
Van Eck	Thermal	120,0	120,0
Ruacana	Hydro	240,0	240,0
Paratus	Diesel	24,0	24,0
Katima Mulilo ^a	Diesel	3,0	3,0
Total, MW		387,0	387,0
Other sources			
Eskom – RSA interconnector		180,0	180,0
Eskom – Lower Orange River		34,7	34,7
ZESCO (Zambia)		1,8	1,8
Total other sources		216,5	216,5
Total source of power, MW		603,5	603,5
System peak demand (simultaneous one-hour demand)	Date and time		MW
	06-04-94 19:00		251
Electricity produced	1993/94 GWh	1992/93 GWh	Change %
Thermal	188,8	26,80	604,5
Hydro	671,7	967,40	-30,6
Diesel	18,6	0,04 ^b	-
Total electricity produced	879,1	994,24	-11,6
Electricity purchased from Eskom	873,9	752,30	16,2
ZESCO	8,6	8,30	3,6
Total available for distribution	1 761,6	1 754,84	0,4
System losses	199,9	280,74 ^c	-28,8
Electricity sold	1993/94 GWh	1992/93 GWh	Change %
Local authorities	803,0	664,8	20,8
Mining	605,8	642,6	-5,7
Business/manufacturing	8,1	6,4	26,6
Government (including Caprivi)	95,2	92,5	2,9
Rural supplies	21,8	19,1	14,1
Exports to Eskom	27,8	48,7	-42,9
Total electricity sold, GWh	1 561,7	1 474,1	5,9

Numbers of customers	1993/94	1992/93	Change %
Local authorities	55	51	7,8
Mining	20	22	-9,1
Business/manufacturing	20	21	-4,8
Government (including Caprivi)	328	243	35,0
Rural supplies	1 029	962	7,0
Export to Eskom	1	1	0
Total number of customers	1 453	1 300^c	11,8
Transmission and distribution equipment in service	1993/94 km	1992/93 km	Change km
Overhead lines			
330 kV	521	521	0
220 kV	1 480	1 480	0
132 kV	946	946	0
66 kV and lower	8 519	7 576	943
Total overhead lines, km	11 466	10 523	943
Number of SWAWEK employees			749
GWh sold per employee			2,09
Population of Namibia (1991 census), number			1,4 million
Average selling price, cents/kWh			12,08

^a Managed by SWAWEK on behalf of Namibian Government.

^b Katima Mulilo only.

^c Adjusted.

Swaziland

Source: Swaziland Electricity Board (SEB) for year ended 31 March 1994

Source of power	Type	Nominal capacity MW	Net maximum capacity MW
	Hydro	40,5	40,5
	Diesel	9,5	9,5
Total source of power, MW		50,0	50,0
System peak demand (simultaneous one-hour demand)		Date	MW
		30-06-94	115,0
Electricity produced	1993/94 GWh	1992/93 GWh	Change %
Hydro	125,0	81,5	53,4
Diesel	1,1	2,7	-59,3
Total electricity produced, GWh		126,1	84,2
Electricity purchased from Eskom		546,9	555,8
Total electricity available, GWh		673,0	640,0
Own use and system losses		127,1	84,8
Electricity sold	1993/94 GWh	1992/93 GWh	Change %
Domestic	110,3	115,0	-4,1
Commercial	48,0	50,6	-5,1
Industrial	278,4	268,8	3,6
Irrigation	109,2	120,8	-9,6
Total electricity sold, GWh		545,9	555,2
Number of customers	1993/94	1992/93	Change %
Domestic	20 889	17 980	16,2
Commercial	4 130	3 769	9,6
Industrial	677	602	12,5
Irrigation	111	104	6,7
Total number of customers		25 807	22 455
Transmission and distribution equipment in service			
Overhead lines	1993/94 km	1992/93 km	Change km
132 kV	206	206	0
66 kV	912	912	0
33 kV	89	89	0
11 kV	2 513	2 371	142
Total overhead lines, km		3 720	3 578

Transformers	1993/94 MVA	1992/93 MVA	Change MVA
132/66 kV	138,00	138,00	0
66/11 kV	198,50	198,00	0,50
33 or 11/0,4 kV	21,75	20,90	0,85
Total, MVA		358,25	356,90
Number of SEB employees		609	
GWh sold per employee		0,896	
Population of Swaziland (1991 census), number		820 000	
Average selling price, emalangeni/kWh		E00,223	

Tanzania

Source: Tanzania Electric Supply Company Limited (TANESCO) for the year ended 30 June 1994

Source of power		Nominal capacity MW	Net maximum capacity MW
Hydro		381,72	379,00
Gas turbine		40,00	37,00
Diesel		155,79	100,95
Total source of power, MW		577,51	516,95
Electricity produced	1993/94 GWh	1992/93 GWh	Change %
Hydro	1 499,4	1 697,0	-11,6
Diesel	284,9	182,0	56,5
Total electricity produced	1 784,3	1 879,0	-5,0
Auxiliary consumption/own use	13,9	13,3	4,5
Total available for distribution	1 770,4	1 865,7	-5,1
System losses	308,7	399,4	-22,7
Electricity sold	1993/94 GWh	1992/93 GWh	Change %
Domestic	544,9	540,5	0,8
Agricultural	67,0	64,6	3,7
Commercial	193,8	168,0	15,4
Light industrial	73,8	68,8	7,3
Low-voltage industrial and commercial	135,3	141,4	-4,3
High-voltage industrial	143,3	166,5	-13,9
Energy-intensive consumers	149,5	168,6	-11,3
Public lighting	13,2	9,3	41,9
National Urban Water Authority	86,9	64,4	34,9
Bulk sales to Zanzibar	54,0	74,2	-27,2
Total electricity sold, GWh	1 461,7	1 466,3^a	-0,3
Number of customers	1993/94	1992/93	Change %
Domestic	176 110	172 246	2,2
Agricultural	145	254	-42,9
Commercial	47 086	46 394	1,5
Light industrial	6 257	6 375	-1,9
Low-voltage industrial and commercial	585	616	-5,0
High-voltage industrial	102	95	7,4
Energy-intensive consumers	9	11	-18,2
Public lighting	2 250	2 329	-3,4
National Urban Water Authority	50	88	-43,2
Bulk sales to Zanzibar	1	1	0
Total number of customers	232 595	228 409^a	1,8

Transmission and distribution equipment in service

	1993/94 km	1992/93 km	Change km
Overhead lines			
220 kV	1 906	1 836	70
132 kV	1 422	1 422	0
66 kV	118	118	0
33 kV	4 903	4 772	131
11 kV	3 143	3 075	68
0,4 kV	10 372	9 813	559
Total overhead lines, km	21 864	21 036	828
Submarine cable	1993/94 km	1992/93 km	Change km
132 kV	41	41	0
Total submarine cable, km	41	41	0
Total, km	21 905	21 077	828
Transformers	1993/94 MVA	1992/93 MVA	Change MVA
220/132 kV	360,0	360,0	0
220/33 kV	127,5	127,5	0
132/66 kV	20,0	20,0	0
132/33 kV	171,6	171,6	0
66/33 kV	5,0	5,0	0
33/0,4 kV and 11/0,4 kV	821,0	805,3	15,7
Total, MVA	1 505,1	1 489,4	15,7
Number of TANESCO employees			7 547
kWh sold per employee			0,194
Population of Tanzania, number			23,2 million
Average selling price, TSh ^b /kWh			54,00

 Based on estimates.
Tanzanian shillings.

Transkei

Source: Transkei Electricity Supply Corporation (TESCOR) as at 31 March 1994

Source of power	Type	Nominal capacity MW	Net maximum capacity MW
Collywobbles	Hydro	42,0	42,0
First and Second Falls	Hydro	17,0	17,0
Ncora	Hydro	2,4	2,4
Total source of power, MW		61,4	61,4
Non-coincident demand, MW	1993/94 GWh	1992/93 GWh	Change %
	86,1	85,9	0,2
Electricity produced, GWh	1993/94 GWh	1992/93 GWh	Change %
Hydro	168,9	93,2	81,2
Total electricity produced, GWh	168,9	93,2	81,2
Purchased from Eskom	297,0	313,6	-5,3
Sold to Eskom	17,8	1,9	836,8
Total available for distribution, GWh	448,1	404,9	10,7
System losses	65,2	40,2	62,2
Electricity sold	1993/94 GWh	1992/93 GWh	Change %
Domestic	46,2	33,0	40,0
Commercial	56,0	44,2	26,7
Industrial	115,9	128,2	-9,6
Bulk	164,8	159,3	3,5
Total electricity sold, GWh	382,9	364,7	5,0
Number of customers	1993/94	1992/93	Change %
Domestic	8 123	6 671	21,8
Commercial	1 850	1 614	14,6
Industrial	70	182	-61,5
Bulk	2	2	0
Total number of customers	10 045	8 469	18,6
Transmission and distribution equipment in service	1993/94 km	1992/93 km	Change km
Overhead lines			
132 kV	133,0	133,0	0
66 kV	375,5	375,5	0
33 kV and lower	1 467,0	1 239,2	227,8
Total overhead lines, km	1 975,5	1 747,7	227,8

Transformers	1993/94 MVA	1992/93 MVA	Change MVA
132/66 kV	160,0	160,0	0
66/22(11) kV	149,5	149,5	0
22/11 kV	62,5	62,5	0
22(11)/0,4 kV	152,0	132,0	20,0
Total, MVA	524,0	504,0	20,0
Number of TESCOCOR employees			354
GWh sold per employee			1 082
Population of Transkei, number *			3,8 million
Average selling price, cents/kWh			15,93

* Source: Development Bank of Southern Africa.

SUB-SAHARAN AFRICA

Venda

Source: Venda Electricity Corporation (VEC) for year ended 31 March 1995

	1994/95	1993/94	Change
Electricity available for distribution	GWh	GWh	%
Electricity purchases			
Eskom	186,0	166,5	11,7
Louis Trichardt	9,0	5,4	66,7
Total, GWh	195,0	171,9	13,4
Annual load factor (Eskom supply), %	67,2	72,2	-6,9
Electricity sold	1994/95	1993/94	Change
	GWh	GWh	%
Large power users	71,9	73,8	-2,6
Small power users	26,0	22,3	16,6
Domestic users	78,0	61,9	26,0
Other (street lighting, robot supplies, etc)	1,8	1,7	5,9
Total electricity sold, GWh	177,7	159,7	11,3
Number of customers	1994/95	1993/94	Change
			%
Large power users	167	192	-13,0
Small power users	2 248	2 007	12,0
Domestic users	20 904	16 401	27,5
Other (street lighting, robot supplies, etc)	149	149	0
Total number of customers	23 468	18 749	25,2
Transmission and distribution equipment in service	1994/95	1993/94	Change
	km	km	km
Overhead lines			
132 kV	95	95	0
66 kV	14	14	0
22 and 11 kV	868	766	102
380/220 volts	1 180	987	193
Total overhead lines, km	2 157	1 862	295
Number of VEC employees			404
GWh sold per employee			0,44
Population of Venda *, number			0,6 million
Average selling price, cents/kWh			27,1

* Source: Development Bank of Southern Africa.

Zaire

Source: Société Nationale d'Electricité (SNEL) for year ended 31 December 1993

Source of power (SNEL)	Type	Nominal capacity MW	Net maximum capacity MW
Western system:			
Inga I	Hydro	350,00	350,00
Inga II	Hydro	1 424,00	1 424,00
Zongo	Hydro	75,00	75,00
Sanga	Hydro	11,50	11,50
Mpozo (isolated)	Hydro	2,20	2,20
Southern system:			
Mwandingusha	Hydro	68,00	68,00
Koni	Hydro	42,10	42,10
Nzilo	Hydro	108,00	108,00
Nseke	Hydro	248,00	248,00
Kiyimbi (isolated)	Hydro	17,20	17,20
Kilubi (isolated)	Hydro	9,90	9,90
Lungudi (isolated)	Hydro	1,56	1,56
Eastern system:			
Ruzizi I	Hydro	28,20	28,20
Ruzizi II (SINELAC power station)	Hydro	26,60	26,60
Northern system:			
Tshopo (isolated)	Hydro	18,80	18,80
Mobayi (isolated)		11,10	11,10
Total hydro, MW		2 442,16	2 442,16
One power station	Natural gas	2,80	2,80
28 power stations	Diesel	35,00	35,00
Total source of power (SNEL), MW		2 479,96	2 479,96
Other producers of electricity	Type	Nominal capacity MW	Net maximum capacity MW
Budana	Hydro	13,50	13,50
Soleniama I	Hydro	13,80	13,80
Soleniama II	Hydro	1,60	1,60
Nzoro	Hydro	1,40	1,40
Ambwe/Kailo	Hydro	2,20	2,20
Lutshurukuru	Hydro	5,10	5,10
Moga	Hydro	0,40	0,40
Belia	Hydro	2,20	2,20
Lulingu	Hydro	0,70	0,70
Mangembe	Hydro	1,80	1,80
Tshala and Lubilanji I	Hydro	8,60	8,60
Zaire Etain	Hydro	29,50	29,50
Total, MW		80,80	80,80
Total source of power (Zaire), MW		2 560,76	2 560,76

Zaire – continued

Source: Société Nationale d'Electricité (SNEL) for year ended 31 December 1993

Electricity produced (interconnected system)	1993 GWh	1992 GWh	Change %
Hydro	5 373,6	–	–
Natural gas power station	0	–	–
Diesel power stations	5,4	–	–
Total interconnected production, MWh	5 379,0	5 581,2	-3,6
Consumed by auxiliaries	45,3	19,7	129,9
Net energy generated	5 333,7	5 561,5	-4,1
Own consumption	1,9	3,3	-43,2
Energy sold locally	–	0,4	–
Energy sent into the grid	5 331,8	5 557,8	-4,1
Energy imported/purchased			
From Congo	6,5	11,8	-44,9
From Zambia	3,0	9,3	-67,7
From SINELAC	43,0	15,1	184,8
Exports			
To Congo	162,1	101,2	60,2
To Angola	0,3	0,5	-40,0
To Rwanda	12,1	12,1	0
To Burundi	11,8	7,8	51,3
To Zambia	216,0	1 104,6	-80,4
To SINELAC	–	3,8	–
To Zimbabwe	876,0	–	–
Total available for distribution	4 106,0	4 364,0	-10,6
System losses	318,0	–	–
Energy sold	1993 GWh	1992 GWh	Change %
Low voltage	1 514,0	–	–
Medium voltage	1 242,0	–	–
High voltage	158,0	–	–
Mining	874,0	–	–
Total electricity sold, GWh	3 788,0	–	–
Number of customers	1993	1992	Change %
Low voltage	248 766	–	–
Medium voltage	1 224	–	–
High voltage	9	–	–
Mining	1	–	–
Total number of customers	250 000	–	–

Transmission and distribution equipment in service

	1993 km	1992 km	Change km
Overhead lines			
500 kV	1 700,0	1 700,0	0
220 kV	1 474,3	1 475,0	-0,7
132 kV	185,3	185,3	0
120 kV	1 198,8	1 198,8	0
70 kV	504,5	504,5	0
50 kV	144,4	144,4	0
Total overhead lines, km	5 207,3	5 208,0	-0,7
Underground cable	1993 km	1992 km	Change km
30 kV	173,42	–	–
20 kV	51,00	–	–
15 kV	342,16	–	–
6,6 kV	1 555,45	–	–
0,4 kV	9 341,20	–	–
Total underground cable, km	11 463,23	–	–
Total, km	16 670,53	–	–
Step-down transformers	1993 MVA	1992 MVA	Change MVA
Highest voltage			
Transmission system			
220 kV	1 361,0	–	–
132 kV	242,5	–	–
120 kV	203,0	–	–
70 kV	119,3	–	–
66 kV	15,0	–	–
50 kV	19,0	–	–
Total, MVA	1 959,8	–	–
Number of SNEL employees			5 544
GWh sold per employee			0,914
Population of Zaire (1984 census), number			37,8 million
Average selling price, Z/kWh			632,602

Zaire – continued

Source: Société Nationale d'Electricité (SNEL) for year ended 31 December 1993

Electricity produced (interconnected system)	1993 GWh	1992 GWh	Change %
Hydro	5 373,6	–	–
Natural gas power station	0	–	–
Diesel power stations	5,4	–	–
Total interconnected production, MWh	5 379,0	5 581,2	-3,6
Consumed by auxiliaries	45,3	19,7	129,9
Net energy generated	5 333,7	5 561,5	-4,1
Own consumption	1,9	3,3	-43,2
Energy sold locally	–	0,4	–
Energy sent into the grid	5 331,8	5 557,8	-4,1
Energy imported/purchased			
From Congo	6,5	11,8	-44,9
From Zambia	3,0	9,3	-67,7
From SINELAC	43,0	15,1	184,8
Exports			
To Congo	162,1	101,2	60,2
To Angola	0,3	0,5	-40,0
To Rwanda	12,1	12,1	0
To Burundi	11,8	7,8	51,3
To Zambia	216,0	1 104,6	-80,4
To SINELAC	–	3,8	–
To Zimbabwe	876,0	–	–
Total available for distribution	4 106,0	4 364,0	-10,6
System losses	318,0	–	–
	1993	1992	Change
Energy sold	GWh	GWh	%
Low voltage	1 514,0	–	–
Medium voltage	1 242,0	–	–
High voltage	158,0	–	–
Mining	874,0	–	–
Total electricity sold, GWh	3 788,0	–	–
	1993	1992	Change
Number of customers			%
Low voltage	248 766	–	–
Medium voltage	1 224	–	–
High voltage	9	–	–
Mining	1	–	–
Total number of customers	250 000	–	–

Transmission and distribution equipment in service

	1993 km	1992 km	Change km
Overhead lines			
500 kV	1 700,0	1 700,0	0
220 kV	1 474,3	1 475,0	-0,7
132 kV	185,3	185,3	0
120 kV	1 198,8	1 198,8	0
70 kV	504,5	504,5	0
50 kV	144,4	144,4	0
Total overhead lines, km	5 207,3	5 208,0	-0,7
	1993	1992	Change
Underground cable	km	km	km
30 kV	173,42	–	–
20 kV	51,00	–	–
15 kV	342,16	–	–
6,6 kV	1 555,45	–	–
0,4 kV	9 341,20	–	–
Total underground cable, km	11 463,23	–	–
Total, km	16 670,53	–	–
	1993	1992	Change
Step-down transformers	MVA	MVA	MVA
Highest voltage			
Transmission system			
220 kV	1 361,0	–	–
132 kV	242,5	–	–
120 kV	203,0	–	–
70 kV	119,3	–	–
66 kV	15,0	–	–
50 kV	19,0	–	–
Total, MVA	1 959,8	–	–
Number of SNEL employees			5 544
GWh sold per employee			0,914
Population of Zaire (1984 census), number			37,8 million
Average selling price, Z/kWh			632,602

Zambia

Source: Zambia Electricity Supply Corporation Limited (ZESCO) for the year ended 31 March 1994

Source of power	Nominal capacity MW	Effective capacity MW	
Hydro	1 648	1 632	
Diesel	8	4	
Total, MW	1 656	1 636	
Other producers of electricity (mines)			
Hydro	38	38	
Gas turbine	80	80	
Geothermal	20	20	
Total source of power, MW	1 794	1 774	
Electricity produced	1993/94 GWh	1992/93 GWh	Change %
Hydro	8 069	6 461	24,9
Diesel	13	–	–
Total electricity produced, GWh ^a	8 082	6 461	25,1
Electricity imports	–	1 412	–
Exports (including Botswana)	855	11	7 672,7
Auxiliary consumption/own use	23	–	–
Total available for distribution, GWh	7 204	7 862	-8,4
System losses	727	325	123,7
Electricity sold	1993/94 GWh	1992/93 GWh	Change %
Domestic	802	–	–
Agricultural	201	–	–
Industrial	1 011	–	–
Mining	4 313	–	–
Other	150	–	–
Total electricity sold ^b, GWh	6 477	7 537	-14,1
Number of customers	1993/94	1992/93	Change %
Domestic	110 058	–	–
Agricultural	1 331	–	–
Industrial	13 061	–	–
Other	9 122	–	–
Total number of customers ^c	133 572	–	–

 Transmission and distribution
equipment in service

Overhead lines	1993/94 km	1992/93 km	Change km
330 kV	2 000	–	–
220 kV	555	–	–
132 kV	164	–	–
88 kV	700	–	–
66 kV	5 720	–	–
33 kV	598	–	–
Total overhead lines, km	9 737	–	–
Transformers	1993/94 MVA	1992/93 MVA	Change MVA
330/220 kV	240	–	–
330/132 kV	125	–	–
330/88 kV	210	–	–
330/66 kV	60	–	–
220/88 kV	80	–	–
220/66 kV	365	–	–
220/33 kV	60	–	–
220/11 kV	50	–	–
88/33 kV	45	–	–
66/33 kV	5	–	–
Total, MVA	1 240	–	–
Number of ZESCO employees			5 060
GWh sold per employee			1,499
Population of Zambia (1990 census), number			7,8 million
Average selling price, Zambian kwacha/kWh			8,4

^a Energy generated by mine power stations not included.

^b Electricity sales refer to retail sales.

^c Does not include customers in mining townships.

Zimbabwe

Source: Zimbabwe Electricity Supply Authority (ZESA) for the year ended 30 June 1994

Source of power	Type	Nominal capacity MW	Effective capacity MW	
Hwange I	Coal fired	480	456	
Hwange II	Coal fired	440	400	
Munyati	Coal fired	120	110 ^a	
Harare II and III	Coal fired	135	115 ^a	
Bulawayo	Coal fired	120	110 ^a	
Kariba South	Hydro	666	666	
Total source of power, MW		1 961	1 857	
System peak demand (simultaneous one-hour demand)		Date	MW	
		19-07-94	1 590	
Electricity produced	1993/94 GWh	1992/93 GWh	Change %	
Coal fired	5 439,4	5 406,0	0,6	
Hydro	2 095,6	2 062,0	1,6	
Total electricity produced, GWh		7 535,0	7 468,0	0,9
Bulk imports from				
Botswana Power Corporation	–	–	–	
Electricidade de Mozambique	–	9,9	-100,0	
Eskom	144,8	101,9 ^b	42,1	
SNEL	913,2	911,0	0,2	
ZESCO	949,4	189,3 ^b	0	
Bulk exports (wheeling)	–	22,4	-100,0	
Auxiliary consumption/own use	446,4	449,1	-0,6	
Total available for distribution, GWh		9 096,0	8 208,6	10,8
System losses, GWh		673,0	477,8	40,9
Electricity sold	1993/94 GWh	1992/93 GWh	Change %	
Domestic	1 672,0	1 716,7 ^b	-2,6	
Agricultural	805,0	593,1 ^b	35,7	
Commercial	1 199,0	1 035,7 ^b	15,8	
Industrial	3 296,0	3 079,1	7,0	
Mining	1 441,0	1 306,2	10,3	
ZESA	10,0	–	–	
Total electricity sold, GWh		8 423,0	7 730,8	9,0
Number of customers	1993/94	1992/93	Change %	
Domestic	309 810	294 246	5,3	
Agricultural	9 693	9 576	1,2	
Commercial	34 415	33 531	2,6	
Industrial	1 829	1 690	8,2	
Mining	648	689	-6,0	
ZESA	305	–	–	
Total number of customers		356 700	339 732	5,0

Transmission and distribution equipment

	1993/94 km	1992/93 km	Change km	
Overhead lines				
330 kV	3 500	3 444	56,0	
220 kV	150	160	-10,0	
132 kV	1 280	1 021	259,0	
110 kV	5	5	0	
88 kV	2 082	2 052	30,0	
66 kV	184	184	0	
33 kV	8 197	8 023	174,0	
22 kV	214	214	0	
11 kV	30 974	30 665	309,0	
Low voltage	12 402	12 306	96,0	
Total overhead lines, km		58 988	58 074	914,0
	1993/94 MVA	1992/93 MVA	Change MVA	
Transformers				
330/132 kV	1 295	1 170	125,0	
330/88 kV	1 283	1 283	0	
330/33 kV	480	480	0	
132/33 kV	1 653	1 653	0	
132/88 kV	60	60	0	
132/11 kV	120	120	0	
88/66 kV	40	40	0	
88/33 kV	340	340	0	
88/11 kV	812	812	0	
66/11 kV	639	639	0	
Total, MVA ^c		6 722	6 597	125,0
Number of ZESA employees			7 800	
GWh sold per employee			1,080	
Population of Zimbabwe (estimate), number			10,4 million	
Average selling price, Zimbabwe cents/kWh			24,61	

^a The actual sent-out capacity is less than indicated due to equipment outages.

^b Restated.

^c Does not include distribution transformers, transformers feeding interconnectors and generation transformers.

Countries – legend

Alphabetical order

Algeria	42
Angola	8
Benin	29
Botswana	5
Burkina Faso	32
Cameroon	20
Central African Republic	21
Chad	33
Congo	15
Côte d'Ivoire	26
Djibouti	23
Egypt	44
Equatorial Guinea	13
Eritrea	35
Ethiopia	22
Gabon	14
Ghana	27
Guinea	31
Guinea-Bissau	36
Kenya	18
Lesotho	2
Liberia	25
Libya	43
Malawi	10
Mali	38
Mauritania	40
Morocco	45
Mozambique	7
Namibia	4
Niger	39
Nigeria	30
Rwanda	16
Senegal	37
Sierra Leone	24
Somalia	19
South Africa	1
Sudan	34
Swaziland	3
Tanzania	12
Togo	28
Tunisia	46
Uganda	17
Western Sahara	41
Zaire	11
Zambia	9
Zimbabwe	6

Numerical order

1	South Africa
2	Lesotho
3	Swaziland
4	Namibia
5	Botswana
6	Zimbabwe
7	Mozambique
8	Angola
9	Zambia
10	Malawi
11	Zaire
12	Tanzania
13	Equatorial Guinea
14	Gabon
15	Congo
16	Rwanda
17	Uganda
18	Kenya
19	Somalia
20	Cameroon
21	Central African Republic
22	Ethiopia
23	Djibouti
24	Sierra Leone
25	Liberia
26	Côte d'Ivoire
27	Ghana
28	Togo
29	Benin
30	Nigeria
31	Guinea
32	Burkina Faso
33	Chad
34	Sudan
35	Eritrea
36	Guinea-Bissau
37	Senegal
38	Mali
39	Niger
40	Mauritania
41	Western Sahara
42	Algeria
43	Libya
44	Egypt
45	Morocco
46	Tunisia

Countries – legend

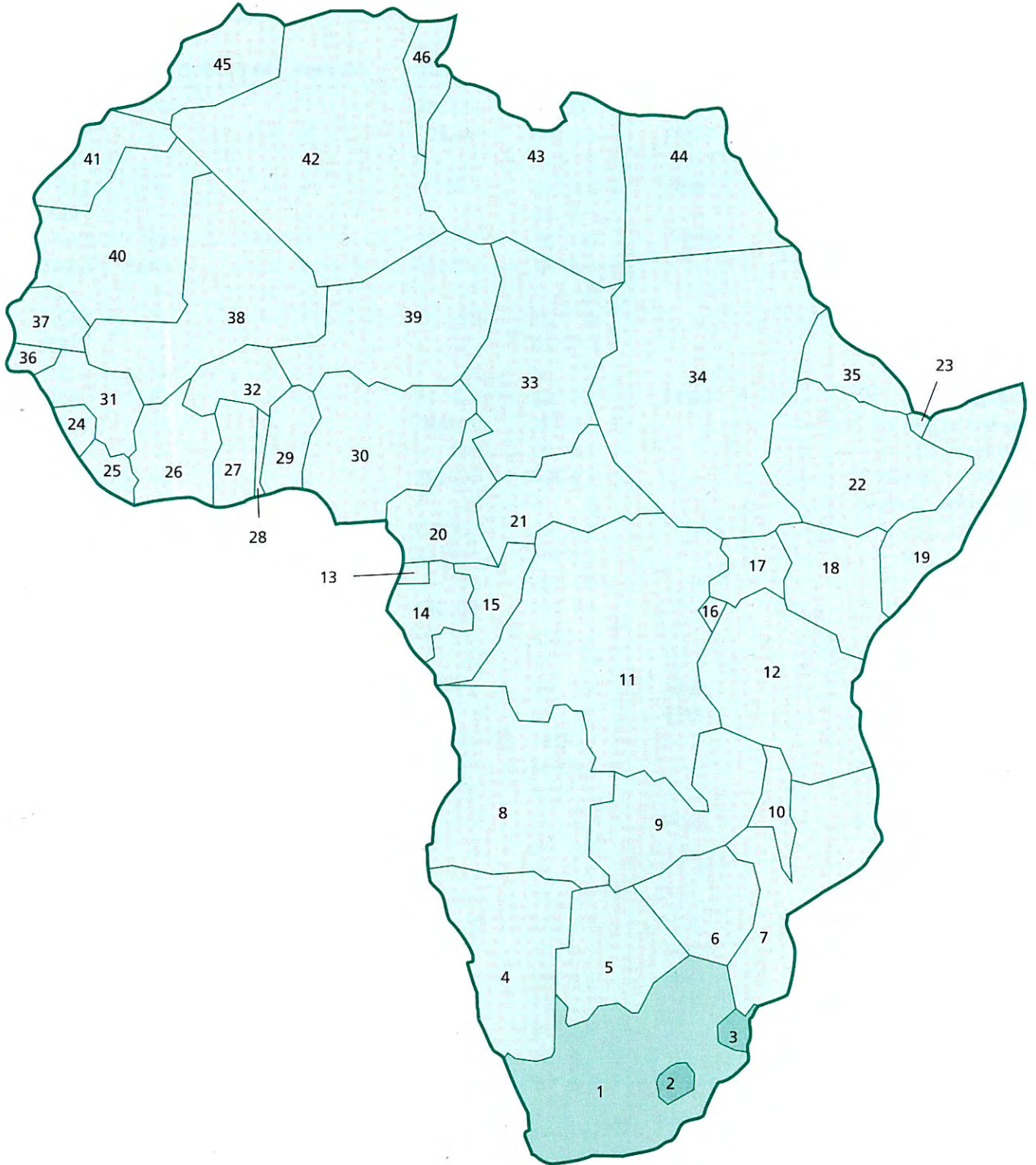
Alphabetical order

Algeria	42
Angola	8
Benin	29
Botswana	5
Burkina Faso	32
Cameroon	20
Central African Republic	21
Chad	33
Congo	15
Côte d'Ivoire	26
Djibouti	23
Egypt	44
Equatorial Guinea	13
Eritrea	35
Ethiopia	22
Gabon	14
Ghana	27
Guinea	31
Guinea-Bissau	36
Kenya	18
Lesotho	2
Liberia	25
Libya	43
Malawi	10
Mali	38
Mauritania	40
Morocco	45
Mozambique	7
Namibia	4
Niger	39
Nigeria	30
Rwanda	16
Senegal	37
Sierra Leone	24
Somalia	19
South Africa	1
Sudan	34
Swaziland	3
Tanzania	12
Togo	28
Tunisia	46
Uganda	17
Western Sahara	41
Zaire	11
Zambia	9
Zimbabwe	6

Numerical order

1	South Africa
2	Lesotho
3	Swaziland
4	Namibia
5	Botswana
6	Zimbabwe
7	Mozambique
8	Angola
9	Zambia
10	Malawi
11	Zaire
12	Tanzania
13	Equatorial Guinea
14	Gabon
15	Congo
16	Rwanda
17	Uganda
18	Kenya
19	Somalia
20	Cameroon
21	Central African Republic
22	Ethiopia
23	Djibouti
24	Sierra Leone
25	Liberia
26	Côte d'Ivoire
27	Ghana
28	Togo
29	Benin
30	Nigeria
31	Guinea
32	Burkina Faso
33	Chad
34	Sudan
35	Eritrea
36	Guinea-Bissau
37	Senegal
38	Mali
39	Niger
40	Mauritania
41	Western Sahara
42	Algeria
43	Libya
44	Egypt
45	Morocco
46	Tunisia

Countries



Electricity supply statistics

Sources: United Nations Energy Statistics Yearbook (1992) and information obtained from utilities

Country	Financial year end	Net maximum capacity of generating plant (self-producers and public), MW					
		Thermal	Hydro	Nuclear	Geothermal	Total	% of total
Algeria		5 083	286	-	-	5 369	6,3
Angola	12/94	135	202	-	-	337 ^b	0,4
Benin		15	-	-	-	15	0
Botswana	3/95	172	-	-	-	172	0,2
Burkina Faso		59	-	-	-	59	0,1
Burundi		11	32	-	-	43	0,1
Cameroon		97	530	-	-	627	0,7
Cape Verde		7	-	-	-	7	0
Central African Republic		21	22	-	-	43	0,1
Chad		29	-	-	-	29	0
Comoros		4	1	-	-	5	0
Congo	12/94	18	74	-	-	92	0,1
Côte d'Ivoire		278	895	-	-	1 173	1,4
Djibouti		85	-	-	-	85	0,1
Egypt		9 004	2 825	-	-	11 829	13,9
Equatorial Guinea		4	1	-	-	5	0
Ethiopia		62	372	-	30	464	0,5
Gabon		144	166	-	-	310	0,4
Gambia		29	-	-	-	29	0
Ghana		115	1 072	-	-	1 187	1,4
Guinea		129	47	-	-	176	0,2
Guinea-Bissau		11	-	-	-	11	0
Kenya	6/94	72	569	-	30	671 ^d	0,8
Lesotho	3/95	2	3	-	-	5	0
Liberia		251	81	-	-	332	0,4
Libyan Arab Jamah.		4 600	-	-	-	4 600	5,4
Madagascar		114	106	-	-	220	0,3
Malawi	3/94	25	165	-	-	190	0,2
Mali		42	45	-	-	87	0,1
Mauritania		44	61	-	-	105	0,1
Mauritius		277	59	-	-	336	0,4
Morocco		1 927	693	-	-	2 620	3,1
Mozambique	12/94	121	510	-	-	631 ^e	0,7
Namibia	6/94	147	240	-	-	387	0,5
Niger		63	-	-	-	63	0,1
Nigeria		3 274	1 300	-	-	4 574	5,4
Reunion		50	125	-	-	175	0,2
Rwanda		4	56	-	-	60	0,1
St Helena & Depend.		5	-	-	-	5	0
Sao Tome - Principe		4	2	-	-	6	0
Senegal		231	-	-	-	231	0,3
Seychelles		28	-	-	-	28	0
Sierra Leone		124	2	-	-	126	0,1
Somalia		70	-	-	-	70	0,1
South Africa, Republic of	12/94	34 673	2 247 ^f	1 840	-	38 760	45,5
Sudan		275	225	-	-	500	0,6
Swaziland	3/94	10	41	-	-	50	0,1

Production of electricity (self-producers and public), GWh						Trade of electricity, GWh		Available GWh	kWh per capita ^a
Thermal	Hydro	Nuclear	Geo-thermal	Total	% of total	Imports	Exports		
18 087	199	-	-	18 286	5,6	133	1 061	17 358	659
201	736	-	-	937	0,3	-	-	937	104
5	-	-	-	5	0	198 ^c	-	203	41
1 011	-	-	-	1 011	0,3	298	-	1 309	935
195	-	-	-	195	0,1	-	-	195	20
2	105	-	-	107	0	23 ^c	-	130	22
75	2 645	-	-	2 720	0,8	-	-	2 720	223
37	-	-	-	37	0	-	-	37	96
18	78	-	-	96	0	-	-	96	30
85	-	-	-	85	0	-	-	85	15
14	2	-	-	16	0	-	-	16	27
0	322	-	-	322	0,1	184	-	506	220
785	1 065	-	-	1 850	0,6	-	-	1 850	143
180	-	-	-	180	0,1	-	-	180	385
35 300	9 700	-	-	45 000	13,7	-	-	45 000	821
17	2	-	-	19	0	-	-	19	51
90	1 099	-	68	1 257	0,4	-	-	1 257	24
207	712	-	-	919	0,3	-	-	919	743
71	-	-	-	71	0	-	-	71	78
42	6 110	-	-	6 152	1,9	4 ^c	286 ^c	5 870	368
345	186	-	-	531	0,2	-	-	531	87
41	-	-	-	41	0	-	-	41	41
159	3 048	-	261	3 468	1,1	264	-	3 732	174
0	0	-	-	0	0	312	-	312	156
300	160	-	-	460	0,1	-	-	460	167
16 950	-	-	-	16 950	5,2	-	-	16 950	3 477
249	320	-	-	569	0,2	-	-	569	44
4	828	-	-	832	0,3	-	-	832	104
126	187	-	-	313	0,1	-	-	313	32
120	26	-	-	146	0	-	-	146	68
812	113	-	-	925	0,3	-	-	925	842
9 344	981	-	-	10 325	3,1	932	-	11 257	428
28	311	-	-	339	0,1	560	-	899	58
207	672	-	-	879	0,3	883	28	1 734	1 239
171	-	-	-	171	0,1	190 ^c	-	361	44
8 600	3 200	-	-	11 800	3,6	-	100 ^c	11 700	101
317	692	-	-	1 009	0,3	-	-	1 009	1 617
4	181	-	-	185	0,1	12 ^c	-	197	26
5	-	-	-	5	0	-	-	5	714
7	8	-	-	15	0	-	-	15	121
762	-	-	-	762	0,2	-	-	762	99
109	-	-	-	109	0	-	-	109	1 514
230	-	-	-	230	0,1	-	-	230	53
258	-	-	-	258	0,1	-	-	258	28
154 785	3 127 ^f	9 697	-	167 609	51,2	58	2 628	165 039	4 199
385	940	-	-	1 325	0,4	-	-	1 325	50
1	125	-	-	126	0	547	-	673	821

Electricity supply statistics – continued

Country	Financial year end	Net maximum capacity of generating plant (self-producers and public), MW					
		Thermal	Hydro	Nuclear	Geothermal	Total	% of total
Tanzania, United Republic of	6/94	138	379	–	–	517	0,6
Togo		30	4	–	–	34	0
Tunisia		1 350	64	–	–	1 414	1,7
Uganda		7	155	–	–	162	0,2
Western Sahara		56	–	–	–	56	0,1
Zaire	12/93	38	2 523	–	–	2 561	3,0
Zambia	3/94	104	1 670	–	–	1 633 ^d	1,9
Zimbabwe	3/94	1 191	666	–	–	1 857 ^d	2,2
Africa		64 858	18 516	1 840	60	85 274	100,0
World		2 102 430	718 561	369 348	9 963	3 200 302	

^a Based on estimated population in 1992.

^b Available capacity.

^c Estimate by the Statistical Division of the United Nations.

^d Effective capacity.

^e Includes Cahora Bassa.

^f Includes pumped storage.

^g Interconnected system only.

Production of electricity (self-producers and public), GWh						Trade of electricity, GWh		Available GWh	kWh per capita ^a
Thermal	Hydro	Nuclear	Geo-thermal	Total	% of total	Imports	Exports		
285	1 499	–	–	1 784	0,5	–	–	1 784	77
55	5	–	–	60	0	295 ^c	–	355	94
5 660	90	–	–	5 750	1,7	121	125	5 746	684
6	780	–	–	786	0,2	–	112 ^c	674	36
85	–	–	–	85	0	–	–	85	340
5	5 374	–	–	5 379 ^g	1,6	53	–	5 432	144
13	8 069	–	–	8 082	2,5	–	855	7 227	927
4 816	2 096	–	–	6 912	2,1	1 863	–	8 775	844
261 666	55 793	9 697	329	327 485	100,0	6 930	5 195	329 220	494
8 946 557	2 438 910	2 300 708	42 117	13 728 292		339 425	360 414	13 707 303	2 158

Electricity supply statistics

Sources: United Nations Energy Statistics Yearbook (1992) and information obtained from utilities

Country	Financial year end	Net maximum capacity of generating plant (self-producers and public), MW					
		Thermal	Hydro	Nuclear	Geothermal	Total	% of total
Algeria		5 083	286	-	-	5 369	6,3
Angola	12/94	135	202	-	-	337 ^b	0,4
Benin		15	-	-	-	15	0
Botswana	3/95	172	-	-	-	172	0,2
Burkina Faso		59	-	-	-	59	0,1
Burundi		11	32	-	-	43	0,1
Cameroon		97	530	-	-	627	0,7
Cape Verde		7	-	-	-	7	0
Central African Republic		21	22	-	-	43	0,1
Chad		29	-	-	-	29	0
Comoros		4	1	-	-	5	0
Congo	12/94	18	74	-	-	92	0,1
Côte d'Ivoire		278	895	-	-	1 173	1,4
Djibouti		85	-	-	-	85	0,1
Egypt		9 004	2 825	-	-	11 829	13,9
Equatorial Guinea		4	1	-	-	5	0
Ethiopia		62	372	-	30	464	0,5
Gabon		144	166	-	-	310	0,4
Gambia		29	-	-	-	29	0
Ghana		115	1 072	-	-	1 187	1,4
Guinea		129	47	-	-	176	0,2
Guinea-Bissau		11	-	-	-	11	0
Kenya	6/94	72	569	-	30	671 ^d	0,8
Lesotho	3/95	2	3	-	-	5	0
Liberia		251	81	-	-	332	0,4
Libyan Arab Jamah.		4 600	-	-	-	4 600	5,4
Madagascar		114	106	-	-	220	0,3
Malawi	3/94	25	165	-	-	190	0,2
Mali		42	45	-	-	87	0,1
Mauritania		44	61	-	-	105	0,1
Mauritius		277	59	-	-	336	0,4
Morocco		1 927	693	-	-	2 620	3,1
Mozambique	12/94	121	510	-	-	631 ^e	0,7
Namibia	6/94	147	240	-	-	387	0,5
Niger		63	-	-	-	63	0,1
Nigeria		3 274	1 300	-	-	4 574	5,4
Reunion		50	125	-	-	175	0,2
Rwanda		4	56	-	-	60	0,1
St Helena & Depend.		5	-	-	-	5	0
Sao Tome - Principe		4	2	-	-	6	0
Senegal		231	-	-	-	231	0,3
Seychelles		28	-	-	-	28	0
Sierra Leone		124	2	-	-	126	0,1
Somalia		70	-	-	-	70	0,1
South Africa, Republic of	12/94	34 673	2 247 ^f	1 840	-	38 760	45,5
Sudan		275	225	-	-	500	0,6
Swaziland	3/94	10	41	-	-	50	0,1

Production of electricity (self-producers and public), GWh						Trade of electricity, GWh		Available GWh	kWh per capita ^a	
Thermal	Hydro	Nuclear	Geo-thermal	Total	% of total	Imports	Exports			
	18 087	199	-	-	18 286	5,6	133	1 061	17 358	659
	201	736	-	-	937	0,3	-	-	937	104
	5	-	-	-	5	0	198 ^c	-	203	41
	1 011	-	-	-	1 011	0,3	298	-	1 309	935
	195	-	-	-	195	0,1	-	-	195	20
	2	105	-	-	107	0	23 ^c	-	130	22
	75	2 645	-	-	2 720	0,8	-	-	2 720	223
	37	-	-	-	37	0	-	-	37	96
	18	78	-	-	96	0	-	-	96	30
	85	-	-	-	85	0	-	-	85	15
	14	2	-	-	16	0	-	-	16	27
	0	322	-	-	322	0,1	184	-	506	220
	785	1 065	-	-	1 850	0,6	-	-	1 850	143
	180	-	-	-	180	0,1	-	-	180	385
	35 300	9 700	-	-	45 000	13,7	-	-	45 000	821
	17	2	-	-	19	0	-	-	19	51
	90	1 099	-	68	1 257	0,4	-	-	1 257	24
	207	712	-	-	919	0,3	-	-	919	743
	71	-	-	-	71	0	-	-	71	78
	42	6 110	-	-	6 152	1,9	4 ^c	286 ^c	5 870	368
	345	186	-	-	531	0,2	-	-	531	87
	41	-	-	-	41	0	-	-	41	41
	159	3 048	-	261	3 468	1,1	264	-	3 732	174
	0	0	-	-	0	0	312	-	312	156
	300	160	-	-	460	0,1	-	-	460	167
	16 950	-	-	-	16 950	5,2	-	-	16 950	3 477
	249	320	-	-	569	0,2	-	-	569	44
	4	828	-	-	832	0,3	-	-	832	104
	126	187	-	-	313	0,1	-	-	313	32
	120	26	-	-	146	0	-	-	146	68
	812	113	-	-	925	0,3	-	-	925	842
	9 344	981	-	-	10 325	3,1	932	-	11 257	428
	28	311	-	-	339	0,1	560	-	899	58
	207	672	-	-	879	0,3	883	28	1 734	1 239
	171	-	-	-	171	0,1	190 ^c	-	361	44
	8 600	3 200	-	-	11 800	3,6	-	100 ^c	11 700	101
	317	692	-	-	1 009	0,3	-	-	1 009	1 617
	4	181	-	-	185	0,1	12 ^c	-	197	26
	5	-	-	-	5	0	-	-	5	714
	7	8	-	-	15	0	-	-	15	121
	762	-	-	-	762	0,2	-	-	762	99
	109	-	-	-	109	0	-	-	109	1 514
	230	-	-	-	230	0,1	-	-	230	53
	258	-	-	-	258	0,1	-	-	258	28
	154 785	3 127 ^f	9 697	-	167 609	51,2	58	2 628	165 039	4 199
	385	940	-	-	1 325	0,4	-	-	1 325	50
	1	125	-	-	126	0	547	-	673	821

Electricity supply statistics – continued

Country	Financial year end	Net maximum capacity of generating plant (self-producers and public), MW					
		Thermal	Hydro	Nuclear	Geothermal	Total	% of total
Tanzania, United Republic of	6/94	138	379	–	–	517	0,6
Togo		30	4	–	–	34	0
Tunisia		1 350	64	–	–	1 414	1,7
Uganda		7	155	–	–	162	0,2
Western Sahara		56	–	–	–	56	0,1
Zaire	12/93	38	2 523	–	–	2 561	3,0
Zambia	3/94	104	1 670	–	–	1 633 ^d	1,9
Zimbabwe	3/94	1 191	666	–	–	1 857 ^d	2,2
Africa		64 858	18 516	1 840	60	85 274	100,0
World		2 102 430	718 561	369 348	9 963	3 200 302	

^a Based on estimated population in 1992.

^b Available capacity.

^c Estimate by the Statistical Division of the United Nations.

^d Effective capacity.

^e Includes Cahora Bassa.

^f Includes pumped storage.

^g Interconnected system only.

Production of electricity (self-producers and public), GWh						Trade of electricity, GWh		Available GWh	kWh per capita ^a
Thermal	Hydro	Nuclear	Geo-thermal	Total	% of total	Imports	Exports		
285	1 499	–	–	1 784	0,5	–	–	1 784	77
55	5	–	–	60	0	295 ^c	–	355	94
5 660	90	–	–	5 750	1,7	121	125	5 746	684
6	780	–	–	786	0,2	–	112 ^c	674	36
85	–	–	–	85	0	–	–	85	340
5	5 374	–	–	5 379 ^g	1,6	53	–	5 432	144
13	8 069	–	–	8 082	2,5	–	855	7 227	927
4 816	2 096	–	–	6 912	2,1	1 863	–	8 775	844
261 666	55 793	9 697	329	327 485	100,0	6 930	5 195	329 220	494
8 946 557	2 438 910	2 300 708	42 117	13 728 292		339 425	360 414	13 707 303	2 158

Selected electricity supply statistics

Sources: United Nations Energy Statistics Yearbook (1992) and information obtained from utilities

Area	Net maximum capacity of generating plant (self-producers and public), MW					
	Total	Thermal	Hydro	Nuclear	Geo-thermal	Ranking
World	3 200 473	2 102 549	718 613	369 348	9 963	
Africa	85 274	64 858	18 516	1 840	60	6
Asia	728 546	536 630	141 135	49 486	1 295	3
Europe	968 617	577 079	224 513	164 779	2 246	1
North America	906 536	618 206	168 572	113 668	6 090	2
Oceania	45 124	32 060	12 803	-	261	7
South America	122 676	32 927	88 074	1 675	-	5
USSR (former)	343 700	240 789	65 000	37 900	11	4
Country						
Argentina	17 326	9 858	6 450	1 018	-	24
Australia	36 117	28 704	7 413	-	-	13
Austria	17 231	6 136	11 095	-	-	25
Belgium	14 038	7 148	1 401	5 485	4	28
Brazil	55 129	6 763	47 709	657	-	10
Bulgaria	11 025	6 290	1 975	2 760	-	33
Canada	108 090	32 415	61 668	13 987	20	5
China	162 000	120 000	42 000	-	-	3
Czech Republic	14 488	11 328	1 400	1 760	-	27
Denmark	10 031	9 563	10	-	458	35
Egypt	11 829	9 004	2 825	-	-	32
Finland	13 356	8 317	2 679	2 360	-	29
France incl. Monaco	105 249	22 477	24 857	57 675	240	6
Germany	115 015	83 784	8 626	22 605	-	4
India	81 204	59 596	19 573	2 005	30	7
Indonesia	12 005	9 900	2 075	-	30	31
Iran (Islamic Rep. of)	19 080	17 276	1 804	-	-	20
Italy and San Marino	61 625	41 803	19 351	0	471	9
Japan	205 144	130 743	39 535	34 584	282	2
Korea, Republic of	26 945	16 831	2 498	7 616	-	18
Mexico	28 783	19 385	8 003	675	720	16
Netherlands	17 518	16 829	37	505	147	23
Norway, Svlbd, J. Myn 1	27 281	251	27 030	-	-	17
Pakistan	10 184	7 150	2 897	137	-	34
Poland	31 119	29 077	2 042	-	-	15
Romania	22 177	16 442	5 735	-	-	19
South African Customs Union	39 374	35 003	2 531	1 840	-	22
Spain	43 825	19 630	16 395	7 020	780	12
Sweden	34 557	8 156	16 380	10 000	21	11
Switzerland, Lichtenstein	16 311	1 000	12 361	2 950	-	14
S. Arabia, pt. Ntrl. Zn.	17 550	17 550	-	-	-	26
Thailand	12 806	10 347	2 459	-	-	30
Turkey	18 714	10 320	8 379	-	15	21
United Kingdom	65 356	49 741	4 212	11 353	50	8
United States	751 717	551 498	96 038	99 006	5 175	1
Venezuela	18 741	8 066	10 675	-	-	36
Yugoslavia	7 161	4 040	3 121	-	-	37

Net maximum capacity is measured at the terminals of the station, i.e. after deduction of the power absorbed by the auxiliary installations and the losses in the station transformers, if any. Electricity production refers to gross production, which includes the consumption by station auxiliaries and any losses in the transformers that are considered integral parts of the station. Excluded is electricity produced from pumped storage.

* Estimate by the Statistical Division of the United Nations Secretariat.

Production of electricity (self-producers and public), GWh					Trade of electricity, GWh		Available GWh	kWh per capita
Total	Thermal	Hydro	Nuclear	Geo-thermal	Imports	Exports		
13 737 541	8 954 273	2 440 443	2 300 708	42 117	339 501	360 414	13 716 628	2 158
327 485	261 666	55 793	9 697	329	6 930	5 195	329 220	494
3 061 928	2 291 480	441 824	320 807	7 817	7 773	8 215	3 061 486	924
4 172 506	2 429 021	691 708	1 045 885	5 892	252 364	256 565	4 168 305	5 726
3 781 147	2 452 494	599 397	703 479	25 777	45 248	42 637	3 783 758	8 796
195 382	155 869	37 241	-	2 272	-	-	195 382	7 061
486 193	97 873	379 480	8 840	-	27 116	28 396	484 913	1 550
1 712 900	1 265 870	235 000	212 000	30	70	19 406	1 693 564	5 818
56 273	29 621	19 571	7 081	-	2 602	10*	58 865	1 778
159 116	143 821	15 295	-	0	-	-	159 116	9 043
51 180	15 098	36 082	-	-	9 175	8 621	51 734	6 653
72 259	27 639	1 156	43 456	8	5 849	5 721	72 387	7 240
241 241	16 110	223 372	1 759	-	24 148	8	265 381	1 722
35 587	21 972	2 063	11 552	-	3 289	584	38 292	4 277
520 857	123 760	316 484	80 580	33	6 477	31 528	495 806	18 117
753 940	621 470	132 470	-	-	4 980	0	758 920	650
59 132	45 244	1 638	12 250	-	304	3 340	56 096	5 391
30 849	29 919	28	-	902	8 647	4 901	34 595	6 707
45 000	35 300	9 700	-	-	-	-	45 000	821
57 431	23 007	15 137	19 287	-	9 067	673	65 825	13 144
462 263	51 296	72 522	338 445	-	4 737	58 533	408 467	7 140
537 134	357 176	21 115	158 804	39	28 418	33 738	531 814	6 627
327 913	251 285	69 848	6 748	32	1 500	73	329 340	374
45 760	36 800	8 750	-	210	-	-	45 760	239
53 200	46 700	6 500	-	-	-	-	53 200	864
226 243	176 997	45 786	0	3 460	35 947	647	261 543	4 525
895 336	580 656	89 616	223 259	1 805	-	-	895 336	7 192
147 843	86 450	4 863	56 530	-	-	-	147 843	3 348
121 762	91 482	21 020	4 060	5 200	989*	2 042*	120 709	1 369
77 202	73 135	120	3 800	147	8 905	227	85 880	5 666
117 682	422	117 260	-	-	1 359	10 103	108 938	25 382
51 972	30 965	20 582	425	-	-	-	51 972	417
132 750	129 180	3 570	-	-	5 034	9 066	128 718	3 351
54 195	42 495	11 700	-	-	4 421	218	58 398	2 503
169 625	156 004	3 924	9 697	-	2 098	2 656	169 067	3 764
158 505	81 789	20 934	55 782	-	4 351	3 710	159 146	4 071
146 245	7 773	74 897	63 544	31	8 845	10 995	144 095	16 655
59 117	1 607	34 062	23 448	-	21 757	26 046	54 828	8 015
48 620	48 620	-	-	-	-	-	48 620	3 054
59 698	55 459	4 239	-	-	481	41	60 138	1 071
67 342	40 704	26 568	-	70	189	314	67 217	1 152
326 879	240 168	7 217	78 468	1 026	16 725	32	343 572	5 933
3 074 504	2 187 068	248 912	618 839	19 685	37 204	8 855	3 102 853	12 160
69 460	22 392	47 068	-	-	0*	360*	69 100	3 423
36 488	25 083	11 405	-	-	2 000*	400*	38 088	3 614

Glossary and abbreviations

STATISTICAL MEASURES

Measurements are given in terms of units. The international system of units, SI, is used in this publication.

Power

Watt (W) is a unit of electrical power, where
1 000 W = 1 kW (kilowatt)
1 000 kW = 1 MW (megawatt)

Energy

Watt-hour (Wh) is a unit of electrical energy. However, energy consumption is usually expressed in kilowatt-hours, where
1 000 Wh = 1 kWh
1 000 kWh = 1 MWh (megawatt-hour)
1 000 MWh = 1 GWh (gigawatt-hour)

Generating capacity

- Nominal capacity – MW

This is the maximum capacity obtainable under continuous operation and is usually determined by the manufacturer's specification and often appears on the "nameplate" of the equipment. It need not relate to any operational reality.

- Net maximum capacity – MW

This is the maximum power which could be produced, transmitted or distributed continuously throughout a prolonged period of operation. All the equipment is assumed to be fully operational. The power is measured **after** deducting the power supplies for the power station auxiliaries and allowing for the losses in generator transformers.

PERFORMANCE INDICATORS

Power generation plant

- Availability – %

Unit capability factor (UCF) – %

Calculated as:

Available energy generation expressed as a percentage of reference (maximum) energy generation

Available energy generation is the energy that could have been produced, considering only limitations within control of plant management.

A high UCF indicates effective plant management programmes and practices to minimise unplanned energy losses and to optimise planned outages, maximising available electrical generation.

- Reliability

Plant reliability reflects the probability that a unit will perform as required for a given period of time and gives an indication of the frequency of unexpected failure.

Unplanned automatic grid separations per 7 000 operating hours per unit

This tracks the average grid separation (trip) rate per 7 000 operating hours (approximately one year of operation), including only trips of internal origin. Trips caused by the physical condition of the grid are not included unless they were incorrectly controlled.

Calculated as:

Number of grid separations (trips) multiplied by 7 000, divided by total number of operating hours

Power system plant

- Reliability

Low-frequency incidents – number

A low-frequency incident is recorded whenever the frequency drops to below 49,7 hertz (Hz).

System interruption time – system minutes lost

A measurement of the transmission (bulk) system reliability. Loss of energy is expressed in MW minutes.

Calculated as:

Energy not supplied (in MW minutes) divided by system maximum demand (in MW)

Conversion factors and equivalents

Energy/power

1 kWh	= 3,6 MJ = 859,845 kcal = 3 412,14 Btu
1 GJ	= 277,778 kWh = 238,846 Mcal
1 cal	= 4,1868 J
1 quad	= 10^{15} Btu

745,7 W	= 1 imperial horsepower (hp)
735,5 W	= 1 metric horsepower (ch)

Calorific value

1 kJ/kg	= 0,429923 Btu/lb
1 kJ/m ³	= 0,026839 Btu/ft ³

Pressure

1 kPa	= 1 kN/m ² = 0,010 2 kg/cm ² = 0,145 038 lb/in ²
100 kPa	= 1 bar = 14,503 8 lb/in ²

Other

1 kg	= 2,20462 lb
1 000 kg	= 1 metric ton (t) = 0,984 long ton (lt) = 1,1023 short ton (st)
1 m ³	= 1 000 litres (ℓ) = 264,2 gal (US) = 220 gal (UK) = 6,289 barrels
1 m ³ /s (cumec)	= 35,3147 ft ³ /s (cusec)
1 km	= 0,62137 miles

Average equivalence coefficients for fuels

1 000 m ³ natural gas	equals 39,02 GJ or 6,5 barrels oil
1 t LPG ^a	equals 45,55 GJ or 11,65 barrels oil
1 t gas-diesel oil	equals 42,50 GJ or 7,23 barrels oil
1 t crude oil	equals 42,62 GJ, or 7,32 barrels oil
1 t residual fuel oil	equals 41,51 GJ or 6,62 barrels oil
1 t hard coal ^b	equals 25,31 GJ or 4,9 barrels oil
1 t lignite	equals 11,28 GJ or 2,5 barrels oil
1 t peat	equals 9,53 GJ or 2,3 barrels oil

Power station equivalents

475 tons of hard coal (21,5 GJ/t) or 240 tons of crude oil will produce about 1 GWh electrical energy in a typical modern power station. One ton of enriched uranium, when used in a power station with a pressurised water reactor, will produce about 300 GWh electrical energy.

^a LPG = liquid petroleum gas

^b For typical South African power stations:

Tutuka: 1 ton coal equals 21,5 GJ and will produce 2,1 MWh
Lethabo: 1 ton coal equals 15,3 GJ and will produce 1,5 MWh

GENERAL

Symbols and abbreviations used

–	= not applicable/not available
km	= kilometre
kW	= kilowatt
MW	= megawatt
kWh	= kilowatt-hour
MWh	= megawatt-hour
GWh	= gigawatt-hour
V	= volt
kV	= kilovolt
J	= joule
kJ	= kilojoule
MVA	= megavolt-ampere
t	= ton
kt	= kiloton

Electrification statistics

Sources: Eskom Electrification and Economic Analysis Systems

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Eastern Cape							
Aberdeen	1 368	722	995	102	373	620	8 016
Adelaide	2 111	1 156	937	121	1 174	1 035	15 206
Albany	14 001	4 082	8 772	448	5 229	3 634	84 798
Albert	2 297	1 553	1 960	182	337	1 371	16 900
Alexandria	2 894	3 387	988	405	1 906	2 982	30 833
Aliwal North	5 045	1 302	2 860	161	2 185	1 141	28 474
Barkly East	1 302	1 960	565	400	737	1 560	13 026
Bathurst	5 039	2 847	4 354	310	685	2 537	33 276
Bedford	2 123	1 238	625	330	1 498	908	16 307
Bizana	475	30 713	90	293	385	30 420	212 370
Butterworth	10 394	14 862	4 721	67	5 673	14 795	106 560
Cathcart	1 516	1 881	915	205	601	1 676	14 573
Cradock	5 707	2 654	1 660	345	4 047	2 309	37 161
East London	48 080	16 423	37 048	3 421	11 032	13 002	266 199
Elliot	1 538	1 484	1 085	576	453	908	14 374
Elliotdale	190	14 728	36	69	154	14 659	72 873
Engcobo	1 178	32 803	328	608	850	32 195	184 638
Fort Beaufort	3 926	834	1 364	90	2 562	744	23 268
Glen Grey	7 549	29 828	4 303	282	3 246	29 546	214 944
Graaff-Reinet	6 394	1 450	4 711	1 294	1 683	156	35 450
Hankey	2 002	3 334	1 143	526	859	2 808	25 515
Herschel	416	24 781	127	244	289	24 537	135 108
Hewu	4 751	12 486	1 414	32	3 337	12 454	89 690
Hofmeyr	693	590	74	70	619	520	6 295
Humansdorp	6 691	4 473	5 014	2 030	1 677	2 443	46 634
Idutywa	1 253	21 627	288	97	965	21 530	100 551
Indwe	1 135	688	685	192	450	496	9 389
Jansenville	1 500	862	1 062	137	438	725	9 631
Joubertina	1 223	1 984	712	336	511	1 648	14 044
Keiskammahoek	640	8 823	456	28	184	8 795	48 687
Kentani	219	21 430	71	198	148	21 232	112 637
King William's Town	5 869	781	5 345	84	524	697	29 569
Kirkwood	3 136	4 355	1 256	650	1 880	3 705	36 666
Komga	1 272	1 632	580	164	692	1 468	14 050
Kwabhaca	774	29 758	452	133	322	29 625	119 018
Lady Grey	1 014	841	636	89	378	752	9 674
Libode	318	23 524	74	222	244	23 302	123 232
Lusikisiki	562	43 169	562	4 064	0	39 105	247 921
Maclear	1 463	1 846	938	185	525	1 661	17 316
Maluti	1	26 431	0	247	1	26 184	167 501
Maxesibeni	933	18 006	238	81	695	17 925	87 733
Mdantsane	36 002	9 049	18 423	36	17 579	9 013	251 236
Middelburg	3 713	1 450	3 545	513	168	937	22 284
Middledrift	118	11 515	69	40	49	11 475	63 210
Molteno	2 054	774	825	86	1 229	688	15 456
Mount Fletcher	566	30 859	103	138	463	30 721	142 818
Mqanduli	251	25 927	75	115	176	25 812	121 609
Ngqeleni	339	27 301	79	259	260	27 042	142 210
Nqamakwe	218	21 696	47	102	171	21 594	107 396
Pearston	783	422	478	54	305	368	4 938
Peddie	1 037	15 608	602	53	435	15 555	84 496
Port Elizabeth	164 158	5 512	88 830	1 183	75 328	4 329	702 095
Port St Johns	1 148	14 011	282	64	866	13 947	64 909
Queenstown	7 457	2 358	7 443	249	14	2 109	44 374
Qumbu	586	26 774	113	123	473	26 651	131 376
Seymour	147	3 119	87	8	60	3 111	18 629
Siphaqueni	431	23 076	132	215	299	22 861	121 932
Somerset East	4 273	2 485	2 319	310	1 954	2 175	30 448
St Marks	638	25 705	107	114	531	25 591	129 514
Sterkstroom	1 147	683	280	71	867	612	7 504
Steynsburg	1 754	721	1 159	101	595	620	10 313
Steytlerville	757	576	709	93	48	483	5 384
Stutterheim	4 199	4 325	3 205	773	994	3 552	40 280
Tabankulu	398	22 561	133	211	265	22 350	119 818
Tarka	1 090	1 183	353	130	737	1 053	9 562
Tsolo	850	21 929	343	202	507	21 727	124 493
Tsomo	501	18 045	86	82	415	17 963	76 563
Uitenhage	43 120	1 500	35 510	200	7 610	1 300	196 473
Umtata	21 185	32 746	14 722	148	6 463	32 598	237 338
Umzimkulu	1 063	34 256	407	155	656	34 101	153 658
Venterstad	923	469	902	122	21	347	5 702
Victoria East	2 406	11 537	1 216	37	1 190	11 500	74 688
Willowmore	1 238	1 105	734	154	504	951	10 963
Willowvale	339	26 679	78	120	261	26 559	126 518
Wodehouse	1 364	1 812	1 341	571	23	1 241	15 615
Xalanga	1 392	9 112	419	86	973	9 026	68 945
Zwelitsha	22 519	31 106	7 456	580	15 063	30 526	258 302

^a A magisterial district is not the same as the municipality whose name it bears. The area and population of the magisterial district may be smaller/larger. Municipalities that form part of a magisterial district are not listed separately.

SOUTH AFRICA

Electrification statistics – continued

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Eastern Transvaal							
Amersfoort	1 024	5 229	365	522	659	4 707	34 466
Balfour	3 542	4 469	1 474	1 503	2 068	2 966	38 331
Barberton	4 551	13 755	2 928	5 575	1 623	8 180	74 834
Belfast	2 950	3 215	2 068	1 944	882	1 271	29 356
Bethal	6 038	7 172	2 492	2 871	3 546	4 301	69 778
Carolina	1 936	4 423	848	1 486	1 088	2 937	31 282
Delmas	6 154	3 262	2 717	1 284	3 437	1 978	45 333
Eerstehoek	3 834	42 746	1 369	13 772	2 465	28 974	239 285
Ermelo	15 256	9 121	7 391	2 971	7 865	6 150	113 523
Groblersdal	1 779	10 537	1 707	3 965	72	6 572	60 606
Highveld Ridge	28 868	3 680	14 417	1 843	14 451	1 837	163 960
Kriel	2 548	0	2 448	0	100	0	9 748
Lydenburg	3 016	5 378	2 713	2 402	303	2 976	37 933
Mbibana	2 389	12 011	336	393	2 053	11 618	77 995
Mdutjana	5 747	18 194	1 594	15 544	4 153	2 650	134 138
Middelburg	17 022	14 008	10 631	6 536	6 391	7 472	148 256
Moutse	1 017	18 783	881	4 444	136	14 339	99 106
Nelspruit	7 107	11 200	6 516	4 672	591	6 528	65 842
Nkomazi	3 333	54 566	1 234	683	2 099	53 883	333 066
Nsikazi	12 121	55 273	4 506	729	7 615	54 544	364 295
Piet Retief	4 245	8 609	3 027	3 953	1 218	4 656	65 928
Pilgrim's Rest	1 733	5 974	1 653	3 086	80	2 888	29 685
Standerton	10 107	8 037	5 564	2 490	4 543	5 547	88 829
Volkstrust	4 242	2 151	2 695	782	1 547	1 369	30 596
Wakkerstroom	767	4 992	678	2 742	89	2 250	33 680
Waterval Boven	1 206	951	778	376	428	575	9 173
White River	2 186	6 248	1 819	3 240	367	3 008	31 792
Witbank	30 741	8 047	19 310	4 834	11 431	3 213	185 289

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Free State							
Bethlehem	11 942	6 243	9 385	1 917	2 557	4 326	82 724
Bethulie	1 612	609	1 007	289	605	320	9 224
Bloemfontein	80 147	5 436	60 287	1 797	19 860	3 639	316 581
Boshof	2 209	4 708	1 750	1 396	459	3 312	32 526
Bothaville	6 006	5 654	1 341	1 567	4 665	4 087	55 860
Botshabelo	44 617	0	1 684	0	42 933	0	228 299
Brandfort	2 921	2 684	2 716	774	205	1 910	23 410
Bultfontein	2 775	3 173	955	873	1 820	2 300	29 318
Clocolan	1 996	2 247	1 974	897	22	1 350	18 628
Dewetsdorp	1 227	1 923	310	532	917	1 391	13 678
Edenburg	1 010	661	321	220	689	441	6 802
Excelsior	1 695	2 269	741	625	954	1 644	17 921
Fauresmith	1 062	1 255	947	438	115	817	8 987
Ficksburg	5 702	3 710	5 155	1 125	547	2 585	38 935
Fouriesburg	1 008	2 458	953	1 080	55	1 378	17 061
Frankfort	5 205	4 485	2 251	1 225	2 954	3 260	45 348
Harrismith	6 635	6 167	4 822	1 748	1 813	4 419	63 829
Heilbron	4 427	4 558	1 502	1 330	2 925	3 228	41 600
Hennenman	2 979	2 105	2 602	865	377	1 240	25 981
Hoopstad	1 394	4 071	1 372	1 240	22	2 831	28 563
Jacobsdal	886	1 680	647	621	239	1 059	11 410
Jagersfontein	1 311	295	315	98	996	197	6 378
Koffiefontein	1 836	554	908	522	928	32	10 514
Koppies	1 406	3 017	418	896	988	2 121	19 784
Kroonstad	20 510	6 122	16 682	1 766	3 828	4 356	113 308
Ladybrand	4 232	4 049	3 518	1 160	714	2 889	30 559
Lindley	4 781	3 186	3 736	1 058	1 045	2 128	37 715
Marquard	1 210	2 408	1 209	835	1	1 573	17 411
Odendaalsrus	17 442	4 030	13 504	2 230	3 938	1 800	107 949
Parys	11 897	1 669	4 267	490	7 630	1 179	51 587
Petrusburg	933	1 662	336	1 080	597	582	11 393
Philippolis	709	1 116	205	465	504	651	7 130
Reddersburg	657	746	653	415	4	331	6 173
Reitz	2 783	3 735	2 606	1 067	177	2 668	30 979
Rouxville	881	1 728	658	996	223	732	11 913
Sasolburg	12 052	2 761	11 036	1 213	1 016	1 548	56 642
Senekal	4 778	4 767	3 678	1 289	1 100	3 478	41 360
Smithfield	1 095	1 050	804	302	291	748	10 924
Thaba Nchu	2 193	12 480	1 196	836	997	11 644	67 318
Theunissen	4 107	2 510	3 062	947	1 045	1 563	40 470
Trompsburg	661	591	661	502	0	89	5 151
Ventersburg	1 957	1 262	949	353	1 008	909	14 777
Viljoenskroon	3 118	7 075	2 959	3 374	159	3 701	60 381
Virginia	9 193	4 827	8 373	4 827	820	0	82 005
Vrede	2 780	4 517	1 820	1 224	960	3 293	37 168
Vredefort	1 401	1 688	430	484	971	1 204	13 594
Welkom	34 855	10 150	30 743	6 434	4 112	3 716	267 262
Wepener	1 819	1 446	1 622	404	197	1 042	13 110
Wesselsbron	3 528	2 275	3 519	1 081	9	1 194	27 060
Winburg	2 119	1 773	484	524	1 635	1 249	17 489
Witsieshoek	6 932	74 870	4 453	5 708	2 479	69 162	404 636
Zastron	1 436	1 847	1 357	863	79	984	14 204

SOUTH AFRICA

Electrification statistics – continued

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Gauteng							
Alberton	104 337	0	46 579	0	57 758	0	414 739
Benoni	68 765	523	49 334	188	19 431	335	308 709
Boksburg	51 063	0	46 057	0	5 006	0	209 832
Brakpan	32 750	0	16 110	0	16 640	0	139 965
Bronkhorstspuit	2 781	6 118	1 909	2 458	872	3 660	40 551
Cullinan	1 307	5 660	983	3 340	324	2 320	33 045
Germiston	56 934	0	55 824	0	1 110	0	204 279
Heidelberg	9 218	8 812	4 782	1 584	4 436	7 228	75 812
Johannesburg	389 068	631	300 377	356	88 691	275	1 585 924
Kempton Park	90 678	385	57 691	167	32 987	218	353 327
Krugersdorp	40 433	6 100	25 808	2 958	14 625	3 142	199 897
Nigel	18 554	2 177	11 422	839	7 132	1 338	94 472
Oberholzer	35 139	585	17 969	281	17 170	304	191 332
Pretoria	223 071	4 419	215 999	2 637	7 072	1 782	772 121
Randburg	114 070	465	90 195	214	23 875	251	422 925
Randfontein	20 120	3 252	19 431	2 447	689	805	108 001
Roodepoort	59 946	464	51 770	284	8 176	180	234 607
Soshanguve	31 655	0	24 680	0	6 975	0	148 121
Springs	37 529	398	31 352	155	6 177	243	162 065
Vanderbijlpark	123 391	2 990	62 580	1 932	60 811	1 058	541 612
Vereeniging	63 989	13 908	58 554	10 768	5 435	3 140	276 595
Westonaria	42 509	1 289	21 579	786	20 930	503	236 180
Wonderboom	33 281	8 963	32 968	5 205	313	3 758	217 538

Historical overview

1882 South Africa was one of the first countries in the world to use electricity on a commercial basis. As elsewhere, the supply of electricity began under the auspices of various municipalities. Kimberley was the first to introduce electric street lights in 1882, before London had electric lights. In 1891 Johannesburg became the first town to install a reticulation system, followed by Cape Town and Pretoria in 1894, Pietermaritzburg in 1896, Durban in 1897, East London in 1899, Bloemfontein in 1900, Kimberley in 1904 and Port Elizabeth in 1906.

1906 In the 1890s mining groups combined to erect power stations to supply their own needs. The Victoria Falls Power Company Limited (VFP) was registered in 1906 to harness the Victoria Falls and supply electricity to industries on the Witwatersrand and in Southern Rhodesia, now Zimbabwe. For technical and financial reasons the project was abandoned and the VFP concentrated on the exploitation of Transvaal coal. By 1915 it operated four power stations under the name of The Victoria Falls and Transvaal Power Company and at one stage was the largest utility in the British Empire.

1923 The need for a national power station which could meet the demands of the entire country led to the Electricity Act of 1922 and the establishment of the Electricity Supply Commission in 1923. The Commission's first chairman was Dr H.J. van der Bijl, an internationally recognised scientist who also founded Iscor and the Industrial Development Corporation (IDC). Eskom began generating power in 1925 and soon became South Africa's leading electricity supplier.

1948 Eskom took over the VFP in 1948, a further step towards a national supply system. By the end of 1990, Eskom was supplying more than half the electricity in Africa. It ranks among the largest electricity utilities in the world.

1962 Eskom's first power stations were far advanced for their time, but small by today's standards with sets of 33 MW and later 60 MW. In 1962, the first "big" sets, 100 MW and 125 MW, were commissioned. This led to the present 600 MW sets which are among the largest and technologically most advanced in the world.

1973 The idea of an integrated transmission system, linking all major cities in the country, was first raised in the 1920s. By 1973 this had become a reality when all Eskom undertakings had been connected. Eskom has more than 239 000 km of power lines of which 25 000 km are part of the national grid. In 1987, the first 765 kV lines were energised.

1984 With vast deposits of coal available. Eskom's base-load stations are mainly coal fired. It has also harnessed South Africa's meagre hydro potential. In addition, in 1984, South Africa's first nuclear power station became operational.

1985 Eskom was restructured in 1985 to meet the electricity demands of a changing South Africa. The Electricity Supply Commission was replaced by a body corporate known as Eskom, controlled and managed by the Electricity Council and Management Board. In 1987 the Eskom Act and the Electricity Act were promulgated and Eskom's name was changed to Eskom. Eskom commits itself to being a professionally managed, customer-orientated business.

1994 In line with the Government's Reconstruction and Development Programme (RDP), Eskom has undertaken to electrify 1,75 million households between 1994 and 2000.

Electricity Council

As at 31 July 1995
Dr J.B. Maree OMSG SSAS (*Chairman*)
Dr E. Calitz
P. Dantjie
A.B. Dickman
K.J. Hlongwane
S. Immelman
C.C.W. Kruger (*alternate member to Dr E. Calitz*)
Prof. I.J. Lambrechts
Mrs N. Majija
G. Mantashe
G. Maude
L.J. Mngomezulu
A.J. Morgan (*Chief Executive of Eskom*)
D.B. Mostert
S. Motau
Mrs J.N. Seroke
C.G. van Veijeren
A.C. van Wyk
Dr G.P.N. Venter
H. Whitehead

Management Board

As at 31 July 1995
A.J. Morgan *Chief Executive (Chairman)*
B.T. Crookes *Executive Director: Generation*
P.A. Faling *Executive Director: Transmission*
L.J. Messerschmidt *Executive Director: Distribution*
V.T.L. Ngubeni *Executive Director: Services*
Dr W.J. Kok *Executive Director: Finance*
Mrs D.N.M. Mokhobo *Executive Director: Growth and Development*
M.S. Mosikili *Executive Director: Marketing*
R.S. Dabengwa *Executive Director: Electrification*
J.A. de Beer *Executive Director: Technology*
B.A. Khumalo *Executive Director: Human Resources*

Head office

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

Postal address

PO Box 1091,
2000 Johannesburg
South Africa

The information relevant to Eskom in this Yearbook may be reproduced subject to acknowledgement of source.

Available in English only.

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
KwaZulu Natal							
Alfred	756	1 089	628	455	128	634	9 075
Babanango	0	506	0	181	0	325	3 037
Bergville	236	4 142	214	2 311	22	1 831	23 254
Camperdown	2 373	5 688	2 284	4 138	89	1 550	38 408
Chatsworth	5 727	0	5 190	0	537	0	26 048
Dannhauser	980	1 561	622	668	358	893	14 013
Dundee	4 259	1 899	2 909	612	1 350	1 287	31 830
Durban	229 885	0	224 309	0	5 576	0	877 855
Emnambithi	14 364	24 330	3 742	424	10 622	23 906	218 456
Empumalange	29 546	56 032	8 291	2 160	21 255	53 872	361 299
Emzumbeni	0	41 438	0	743	0	40 695	220 632
Enseleni	5 039	38 515	1 958	770	3 081	37 745	254 560
Eshowe	1 523	1 344	1 329	1 172	194	172	13 889
Estcourt	4 126	6 654	3 980	6 654	146	0	49 974
Ezingolweni	2 555	39 510	558	4 140	1 997	35 370	221 102
Glencoe	2 371	1 054	1 903	345	468	709	16 977
Hlabisa	1 843	33 069	1 572	5 688	271	27 381	197 387
Hlanganani	48	37 984	37	4 589	11	33 395	199 166
Impendle	0	656	0	229	0	427	2 764
Inanda	24 299	5 329	23 218	2 169	1 081	3 160	128 280
Ingwavuma	131	26 157	44	520	87	25 637	150 310
Inkanyezi	4 330	27 454	2 801	567	1 529	26 887	178 444
Ixopo	548	3 900	372	1 176	176	2 724	22 607
Kliprivier	9 632	4 365	8 072	2 523	1 560	1 842	66 369
Kranskop	103	1 442	86	452	17	990	7 780
Lions River	3 329	6 675	1 719	2 300	1 610	4 375	44 275
Lower Tugela	8 604	14 600	7 908	7 814	696	6 786	97 385
Lower Umfolozi	11 356	4 357	10 731	4 357	625	0	62 172
Madadeni	31 436	23 930	9 025	478	22 411	23 452	344 628
Mapumulo	0	43 162	0	836	0	42 326	243 475
Mahlabatini	3 222	18 981	1 215	494	2 007	18 487	147 483
Mooi River	1 650	3 360	763	955	887	2 405	26 369
Mount Currie	4 767	6 114	2 678	1 595	2 089	4 519	43 594
Msinga	71	30 870	5	665	66	30 205	153 903
Mtonjaneni	601	1 697	198	678	403	1 019	11 150
Mtunzini	1 630	2 781	1 544	2 626	86	155	18 277
Ndwedwe	0	83 443	0	2 580	0	80 863	360 406
New Hanover	1 696	5 960	1 201	2 107	495	3 853	38 874
Newcastle	10 819	2 845	10 328	2 845	491	0	55 777
Ngotshe	332	3 517	253	1 107	79	2 410	26 409
Nkandla	635	23 201	483	555	152	22 646	135 065
Nongoma	365	25 988	365	2 997	0	22 991	171 101
Nqutu	5 703	34 582	570	745	5 133	33 837	226 152
Ntuzuma	116 022	25 303	40 827	868	75 195	24 435	528 194
Okhahlamba	3 518	33 467	1 203	627	2 315	32 840	211 623
Ongoye	7 382	24 951	6 189	2 113	1 193	22 838	193 409
Paulpietersburg	1 118	2 475	414	693	704	1 782	21 568
Pietermaritzburg	56 943	3 570	48 109	1 886	8 834	1 684	242 504
Pinetown	42 301	2 898	38 209	1 332	4 092	1 566	178 015
Polela	123	824	104	360	19	464	4 331
Port Shepstone	15 815	4 270	14 745	4 270	1 070	0	71 751
Richmond	746	4 243	608	2 616	138	1 627	24 625
Simdlangentsha	2 061	18 490	1 045	381	1 016	18 109	130 927
Ubombo	72	20 036	42	712	30	19 324	122 444
Umbumbulu	4 350	59 908	3 497	964	853	58 944	295 414
Umlazi	71 355	0	59 708	0	11 647	0	329 893
Umvoti	3 698	5 156	2 335	1 647	1 363	3 509	42 287
Umzinto	8 344	3 952	7 934	2 794	410	1 158	47 657
Underberg	331	2 094	193	762	138	1 332	9 911
Utrecht	617	3 820	575	1 064	42	2 756	27 387
Vryheid	5 486	8 735	4 050	2 898	1 436	5 837	86 147
Vulamehlo	0	23 509	0	487	0	23 022	125 530
Vulindlela	18 778	24 197	9 550	1 456	9 228	22 741	234 790
Weenen	666	1 260	511	621	155	639	12 647

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Northern Cape							
Barkly West	3 736	3 925	2 906	1 054	830	2 871	36 745
Britstown	936	684	678	191	258	493	6 637
Calvinia	3 528	2 021	3 180	636	348	1 385	22 222
Carnarvon	1 545	1 037	1 304	300	241	737	9 607
Colesberg	2 442	1 048	1 519	721	923	327	15 438
De Aar	5 563	502	3 778	146	1 785	356	26 213
Fraserburg	591	617	564	189	27	428	4 360
Gordonia	14 343	13 546	13 026	4 130	1 317	9 416	131 408
Hanover	727	406	160	103	567	303	5 330
Hartswater	3 129	4 614	2 849	1 116	280	3 498	30 738
Hay	1 623	1 481	1 578	447	45	1 034	14 185
Herbert	2 050	3 697	1 137	1 206	913	2 491	27 580
Hopetown	1 950	1 179	1 762	330	188	849	15 434
Kenhardt	1 724	1 262	1 160	384	564	878	11 352
Kimberley	36 940	2 075	24 272	593	12 668	1 482	177 490
Kuruman	2 753	3 044	2 353	1 108	400	1 936	26 029
Namakwaland	9 787	9 876	4 241	5 635	5 546	4 241	81 583
Noupoort	1 603	272	1 353	76	250	196	8 196
Philipstown	1 489	852	1 342	234	147	618	9 830
Postmasburg	9 266	3 980	6 926	1 626	2 340	2 354	62 455
Prieska	3 437	1 788	2 171	1 061	1 266	727	24 915
Richmond	1 217	726	443	298	774	428	9 129
Sutherland	498	563	211	187	287	376	3 531
Victoria West	2 024	1 105	1 438	532	586	573	13 933
Warrenton	4 008	2 057	3 651	569	357	1 488	22 139
Williston	741	626	347	197	394	429	4 150

SOUTH AFRICA

Electrification statistics – continued

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Northern Province							
Bochum	0	31 061	0	7 116	0	23 945	159 390
Bolobedu	3 659	39 949	1 494	22 380	2 165	17 569	211 478
Dzanani	144	24 953	31	397	113	24 556	137 721
Ellisras	2 721	3 556	2 651	1 441	70	2 115	27 499
Giyani	3 825	42 542	3 388	10 080	437	32 462	243 150
Hlanganani	1 019	25 033	831	280	188	24 753	137 960
Letaba	2 721	12 929	2 141	5 014	580	7 915	62 558
Lulekani	1 253	11 658	833	1 695	420	9 963	54 967
Malamulele	1 086	36 334	1 004	9 345	82	26 989	193 111
Mapulaneng	2 170	46 789	303	10 721	1 867	36 068	232 917
Messina	2 493	3 518	1 877	1 098	616	2 420	24 136
Mhala	7 797	55 924	3 737	3 533	4 060	52 391	289 008
Mokerong	6 075	83 342	4 406	1 626	1 669	81 716	489 353
Mutale	73	10 796	31	4 000	42	6 796	60 608
Namakgale	7 195	5 655	4 391	271	2 804	5 384	61 822
Naphuno	2 836	35 536	1 617	6 205	1 219	29 331	190 508
Nebo	3 950	66 071	1 005	1 852	2 945	64 219	349 749
Phalaborwa	3 694	5 428	3 400	2 864	294	2 564	31 175
Pietersburg	11 818	6 085	11 154	2 657	664	3 428	67 693
Potgietersrus	5 202	11 701	4 712	3 740	490	7 961	69 768
Retavi	3 177	31 491	2 355	5 734	822	25 757	161 962
Sekgosese	299	26 437	169	633	130	25 804	133 982
Sekhukhuneland	2 867	88 284	1 242	6 740	1 625	81 544	424 520
Seshego	11 316	52 015	9 498	3 207	1 818	48 808	323 420
Soutpansberg	2 519	7 007	2 293	2 782	226	4 225	36 290
Thabamooopo	10 729	68 044	6 953	7 404	3 776	60 640	387 259
Thabazimbi	2 081	7 973	1 905	5 053	176	2 920	51 633
Thohoyandou	5 105	46 103	2 122	4 619	2 983	41 484	271 993
Vuwani	107	26 687	42	13 774	65	12 913	147 481
Warmbaths	4 185	5 147	1 890	2 718	2 295	2 429	43 284
Waterberg	3 495	6 795	3 129	2 268	366	4 527	50 641

SOUTH AFRICA

Electrification statistics – continued

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
North West							
Bafokeng	9 966	10 985	4 030	1 024	5 936	9 961	147 031
Bloemhof	2 296	1 117	1 785	522	511	595	16 579
Brits	10 736	17 063	8 861	7 539	1 875	9 524	120 175
Christiana	2 325	1 179	2 272	307	53	872	13 962
Coligny	1 241	3 071	1 093	757	148	2 314	22 668
Delareyville	1 619	5 802	1 511	1 473	108	4 329	36 595
Ditsobotla	6 888	28 977	2 634	605	4 254	28 372	182 437
Ganyesa	0	13 708	0	191	0	13 517	63 211
Klerksdorp	59 992	11 839	38 242	4 625	21 750	7 214	335 988
Koster	1 621	4 856	1 441	1 259	180	3 597	30 095
Kudumane	949	26 565	541	437	408	26 128	137 476
Lehurutshe	17	15 701	14	715	3	14 986	82 530
Lichtenburg	6 192	10 893	5 880	2 720	312	8 173	80 877
Madikwe	814	14 470	52	931	762	13 539	76 310
Mankwe	2 120	22 089	1 867	1 041	253	21 048	117 656
Marico	2 783	6 472	1 638	1 822	1 145	4 650	42 944
Molopo	15 036	36 425	11 418	3 293	3 618	33 132	225 451
Moretele	5 658	64 728	3 097	2 260	2 561	62 468	377 015
Odi	26 578	77 513	17 967	4 259	8 611	73 254	564 752
Potchefstroom	33 135	12 364	20 092	4 414	13 043	7 950	200 614
Rustenburg	12 909	15 137	12 243	6 331	666	8 806	135 724
Schweizer-Reneke	2 915	5 647	2 246	1 225	669	4 422	48 369
Swartruggens	529	2 338	484	748	45	1 590	12 616
Taung	5 344	34 114	1 820	1 279	3 524	32 835	188 309
Ventersdorp	1 752	5 559	658	1 316	1 094	4 243	36 996
Vryburg	6 514	15 741	5 272	3 479	1 242	12 262	102 172
Wolmaransstad	5 994	7 043	5 200	1 814	794	5 229	65 159

Electrification statistics – continued

Magisterial district ^a	Number of houses in district		Houses electrified		Houses not electrified		Population
	Urban	Rural	Urban	Rural	Urban	Rural	
Western Cape							
Beaufort West	6 147	1 485	5 039	755	1 108	730	32 124
Bellville	70 427	5 851	67 608	3 311	2 819	2 540	292 699
Bredasdorp	3 953	2 335	2 955	1 149	998	1 186	24 329
Caledon	9 039	10 845	6 103	4 791	2 936	6 054	85 984
Calitzdorp	773	823	705	381	68	442	6 906
Cape	14 518	155	13 244	155	1 274	0	44 676
Ceres	4 151	6 439	3 649	2 771	502	3 668	50 741
Clanwilliam	2 839	4 137	2 809	1 292	30	2 845	28 982
George	19 134	4 629	15 394	2 320	3 740	2 309	104 629
Goodwood	43 749	0	40 668	0	3 081	0	188 947
Heidelberg	1 506	1 329	913	599	593	730	11 701
Hermanus	5 852	748	5 703	580	149	168	22 977
Hopefield	1 688	1 016	1 682	657	6	359	9 047
Knysna	9 681	4 216	6 750	1 987	2 931	2 229	53 555
Kuils River	34 960	1 471	30 412	1 471	4 548	0	168 490
Ladismith	1 140	2 094	779	789	361	1 305	13 158
Laingsburg	736	806	323	380	413	426	5 816
Malmesbury	19 895	8 814	18 204	5 591	1 691	3 223	137 028
Montagu	3 419	1 752	2 196	801	1 223	951	22 560
Moorreesburg	1 930	1 333	1 879	679	51	654	11 530
Mossel Bay	13 047	2 536	11 005	1 435	2 042	1 101	64 023
Murraysburg	859	577	859	403	0	174	5 988
Oudtshoorn	13 337	2 840	10 757	1 292	2 580	1 548	70 304
Paarl	21 625	10 475	16 843	4 637	4 782	5 838	142 941
Piketberg	4 811	3 937	4 602	1 940	209	1 997	35 339
Prince Albert	1 166	948	1 014	453	152	495	8 661
Riversdale	3 794	2 632	3 263	1 301	531	1 331	25 606
Robertson	3 949	4 219	3 369	1 846	580	2 373	33 223
Simon's Town	9 823	1 556	9 507	1 044	316	512	37 910
Somerset West	14 576	2 159	12 362	1 117	2 214	1 042	64 171
Stellenbosch	15 479	5 421	13 802	2 675	1 677	2 746	76 503
Strand	12 381	350	11 371	181	1 010	169	42 388
Swellendam	4 070	4 017	3 385	2 176	685	1 841	33 437
Tulbagh	2 094	4 008	1 891	1 786	203	2 222	26 407
Uniondale	599	1 475	515	848	84	627	9 297
Vanrhynsdorp	1 959	1 000	1 948	529	11	471	11 699
Vredenburg	9 926	112	9 046	112	880	0	43 133
Vredendal	2 950	4 903	2 944	1 711	6	3 192	31 121
Wellington	6 205	2 737	5 760	1 205	445	1 532	39 480
Worcester	17 600	11 781	14 935	5 013	2 665	6 768	122 346
Wynberg	308 233	3 479	276 918	1 063	31 315	2 416	1 252 096