

**Census of electricity, gas and steam
P4101**

1995

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CONSUMPTION OF ELECTRICITY BY THE MANUFACTURING

SECTOR INCREASED BETWEEN 1992 AND 1995

According to the results of the Census of electricity, gas and steam, 1995 the gross production of electricity in South Africa increased by 11,0% (from 168 128 gigawatt hours in 1992 to 186 744 gigawatt hours in 1995). The manufacturing sector which is the largest consumer of electricity consumed 17,4% or 9 480 gigawatt hours more electricity in 1995 than in 1992.

Electricity available for consumption increased by 10,0% between 1992 and 1995. Consumption by the manufacturing and commercial sectors increased by 16,3% (+11 456 gigawatt hours) whereas domestic consumption increased by 12,4% (+2 953 gigawatt hours). Consumption by Mines and Transnet remained virtually on the same level. Regarding the manufacturing sector the basic iron and steel industry was responsible for the largest increase in the demand for electricity. Establishments in the manufacturing sector consumed 41,0% of the total electricity available for consumption in 1995, compared to 38,4% in 1992 and 40,3% in 1989.

NOTES

The Central Statistical Service periodically conducts a census of electricity, gas and steam in respect of public supply undertakings, i.e. undertakings of which the primary purpose is the production, transmission and distribution of electricity, gas and steam; as well as self-producers, i.e. undertakings which in addition to their main activities also produce electrical energy intended mainly for their own use. Private undertakings which include public corporations, as well as government undertakings, are covered.

The latest census for which information is available is in respect of the 1995 calendar year and this release contains preliminary results of the principal statistics of that census together with comparable data of previous censuses. Particulars of production and consumption of electricity, as well as gross production of electricity by type of undertaking are shown.

The complete results of the census will be published in 1997 in report No. 41-01-01 (1995). This report will be obtainable from the Government Printing Works, Pretoria

or Cape Town.

The information for 1995 and 1992 relates to the RSA including the former TBVC states. To maintain comparability with information for previous years, two sets of figures are shown for 1989. In the first set of figures the former TBVC states are regarded as "outside the Republic", whereas the second set of figures relates to the RSA including the former TBVC states.

TABLE 1. PRODUCTION AND CONSUMPTION OF ELECTRICITY - ALL UNDERTAKINGS

Census year	Electricity generated	Purchases outside the Republic	Consumed in power stations and auxilliary systems	Lost during distribution	Sales outside the Republic	Electricity available for consumption in the Republic
	Gigawatt hours					
1971	54 647	-	3 552	3 865	14	47 216
1973	64 390	-	4 116	4 325	194	55 755
1975	74 894	25	4 753	5 369	283	64 514
1976	79 358	1 214	4 865	5 694	327	69 686
1977	80 323	4 288	4 704	5 843	417	73 648
1978	84 496	6 973	5 070	6 767	1 441	78 190
1979	89 748	10 356	5 690	6 879	1 795	85 739
1980	98 951	9 645	6 524	7 556	1 871	92 646
1981	113 656	2 660	7 668*	8 040	2 232	98 376*
1982	119 012	2 167	9 639*	8 649	2 406	100 484*
1983	121 122	5 084	10 125*	9 373	2 875	103 834*
1986	146 521	312	11 364*	9 602	3 634	122 233*
1989	163 476	344	11 793*	10 220	4 389	137 419*
1989 2/	163 516	304	11 793*	10 220	1 638	140 169
1992*	168 128	344	12 589	12 036	1 816	142 031
1995	186 744	172	13 737	14 593	3 047	156 244

TABLE 2. UTILISATION OF ELECTRICITY - ALL UNDERTAKINGS

Utilisation of total quantity of electricity available for consumption in the Republic according to type of consumer

Census year	Mining	Transnet Ltd		Domestic use	Manufacturing, commerce, etc.	Other purposes 1/
		Traction	Other purposes			
Gigawatt hours						
1971	14 457	2 676	602	8 088	19 282	2 111
1973	16 102	2 904	616	9 265	24 408	2 461
1975	17 749	3 159	696	9 991	29 784	3 136
1976	18 994	3 356	735	10 474	32 558	3 569
1977	20 318	3 538	775	11 302	33 615	4 099
1978	22 400	3 517	796	11 718	35 427	4 332
1979	23 939	3 730	915	12 330	40 101	4 723
1980	25 260	4 323	989	13 522	43 049	5 502
1981	26 311	4 652	999	14 738	45 921*	5 755
1982	27 166	4 883	1 115	14 618	45 945*	6 757
1983	27 806	4 339	921	14 490	50 101*	6 177
1986	29 942	3 903	828	17 644	62 743*	7 174
1989	33 909		4 915	20 780	69 362*	8 452
1989 2/	34 963		4 915	21 125	70 445*	8 971
1992*	33 359		4 347	23 834	70 189	10 301
1995	33 732		4 038	26 787	81 645	10 042

1/ Rand Water Board and Joint Services Boards, local authorities, agriculture, forestry and fisheries.

- Nil or not applicable

2/ RSA including the former TBVC states (see Notes).

* Revised

TABLE 3. ELECTRICITY GENERATED ACCORDING TO TYPE OF UNDERTAKING

Census year	Public supply undertakings				Self producers			
	Total	ESKOM	Local authorities	Other	Total	Mines	Manufacturing	Transnet Ltd and other
Gigawatt hours								
1971	52 665	43 473	9 178	15	1 982	447	1 436	99
1974	62 382	53 040	9 341	1	2 008	391	1 512	105
1975	72 904	65 479	7 421	3	1 990	404	1 510	75
1976	77 433	70 287	7 143	3	1 924	345	1 502	77
1977	78 405	70 986	7 415	3	1 919	334	1 513	72
1978	82 703	75 186	7 514	3	1 793	208	1 519	66
1979	87 749	80 248	7 492	9	1 999	91	1 842	66
1980	95 973	88 577	7 392	4	2 978	92	2 824	62
1981	110 802	103 452	7 345	5	2 853	85	2 685	84

1982	115 479	108 665	6 813	2	3 532	81	3 379	72
1983	115 862	109 250	6 610	1	5 261	82	5 111	68
1986	139 932	133 578	6 348	6	6 589	93	6 430	65
1989	156 030	151 550	4 471	9	7 446	75	7 327	44
19892/	156 320	151 550	4 471	300	7 446	75	7 327	44
1992	161 343	157 444	3 733	167	6 784	71*	6 674*	40
1995	179 804	174 647	5 157	0	6 940	47	6 886	7

2/ RSA including the former TBVC states (see Notes).

* Revised

TABLE 4. FUEL CONSUMED FOR THE GENERATION OF ELECTRICITY

Type of fuel	Unit	Census year	
		1995	1992
Coal			
Low grade	1 000 t	14 459	11 745*
Standard grade	1 000 t	72 422	64 844*
High grade	1 000 t	1 416	1 429
Total	1 000 t	88 296	78 018
Petroleum products			
Industrial furnace oil	kl	66 842	85 217
Industrial diesel oil	kl	574 677	584 846
Automotive diesel oil	kl	37 841	27 970
Paraffin	kl	7	0
Other petroleum products	kl	15	0
Total petroleum products	kl		

* Revised

TABLE 5. UTILISATION OF TOTAL QUANTITY OF ELECTRICITY AVAILABLE FOR CONSUMPTION IN THE REPUBLIC FOR THE YEAR ENDED 31 DECEMBER 1995

Units consumed by	Gigawatt-hours
Own local authority departments:	
Water departments	385
Public lighting	881
Own buildings	1 292
Other purposes	
Electricity sold and/or used in connection with the following:	

Agriculture, forestry and fisheries	3	4 338
	3	
Mining	3	
Gold and uranium	3	22 384
Other	3	11 348
	3	
Manufacturing	3	64 077
	3	
Rand Water Board and regional water services corporations	3	2 747
	3	
Transnet Ltd and filiations	3	4 038
	3	
Commerce, construction and other business undertakings, government departments and other public authorities	3	17 568
	3	
Domestic use	3	26 787
	3	
Street lighting (excluding local authorities)	3	16
	3	
Electricity sold and/or used for other purposes	3	383
	3	
TOTAL	3	156 244

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