

Dipalopalo tsa Aforika Borwa • Statistieke Suid-Afrika • Tistatistiki ta Afrika-Dzonga • Ukuqokelelwa kwamanani eNingizimu Afrika

# Electricity generated and available for distribution October 2005

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 $\begin{tabular}{ll} Table A-Selected key figures regarding electricity generated and available for distribution for October 2005 \end{tabular}$ 

Estimates	October 2005	% change between October 2004 and October 2005	% change between August to October 2004 and August to October 2005	% change between January to October 2004 and January to October 2005
Electricity available for distribution (Gigawatt-hours)	19 127	+2,2	+0,6	+0,3
Index of the physical volume of electricity production (2000=100)	119,2	+0,4	-0,4	-0,2

Seasonally adjusted estimates	October 2005	% change between September and October 2005	% change between May to July 2005 and August to October 2005
Electricity available for distribution (Gigawatt-hours)	18 759	+0,5	+1,5
Index of the physical volume of electricity production (2000=100)	115,4	-0,1	+0,8

# Key findings regarding electricity generated and available for distribution for October 2005

# **Consumption of electricity increases**

The estimated volume of electricity consumed (available for distribution) for October 2005 increased by 2,2% (+413 Gigawatt-hours) compared with October 2004 (see table 7a). Furthermore, the estimated consumption of electricity for the three months ending October 2005, after seasonal adjustment, increased by 1,5% (+836 Gigawatt-hours) compared with the previous three months ending July 2005 (see table B). The estimated consumption of electricity for the three months ending October 2005 increased by 0,6% (+360 Gigawatt-hours) as compared to the corresponding three months of 2004 (see table C).

#### **Production of electricity increases**

The estimated production of electricity for the three months ending October 2005, after seasonal adjustment, increased by 0,8% (+501 Gigawatt-hours) compared with the previous three months ending July 2005 (see table B). The estimated production of electricity for October 2005 increased by 0,4% (+84 Gigawatt-hours) compared with October 2005 (see table 7a). Production of electricity reported by Eskom increased by 1,1% (+227 Gigawatt-hours) during this period.

Table B - Percentage change in the seasonally adjusted quantity of electricity generated and available for distribution between the current quarter and the previous quarter

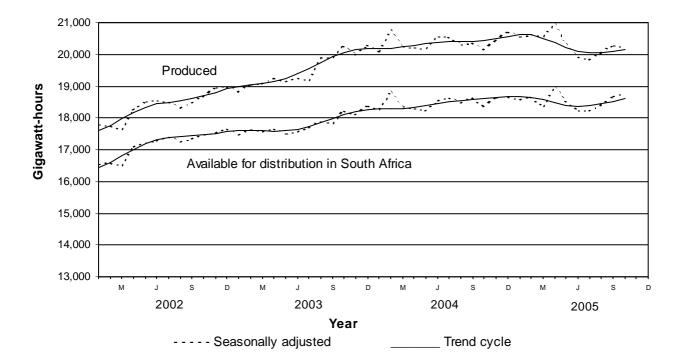
	Seasonally   adjusted   quantity   May to July   2005	Seasonally adjusted quantity August to October 2005	Percentage change between May to July 2005 and August to October 2005	Quantity difference between May to July 2005 and August to October 2005
	  Gigawatt-hours 	  Gigawatt-hours  		  Gigawatt-hours  
Electricity produced  Electricity available for distribution in South Africa	+60 063 +55 008	+60 564 +55 844	+0,8 +1,5	+501 +836

Table C - Percentage change between the current quarter and the corresponding quarter of the previous year

	Actual quantity August October 2004		Actual quantity August October 2005	to	Percenta change between August October and August October	to 2004	and August	to   2004   to
			 		October	2005	October	2005
İ	Gigawatt-h	nours	Gigawatt-	hours			Gigawatt-	hours
Electricity produced	62 4	. – – – . 146	62	185		-0,4	-2	261
Purchased outside South Africa (import)   Consumed in power stations and	17 	44	2	405		+3,7	+6	61
auxiliary systems	4 6	40	4	448		-4,1	-1	.92
Sold outside South Africa (export)	3 2	209	3	439		+0,7	+2	230
Electricity available for distribution in South Africa	56 3	341	56	701		+0,6	+3	860

Figure 1 below shows the seasonally adjusted and trend patterns for electricity produced and available for distribution in South Africa between January 2002 and October 2005. There was a gradual upward movement in the trend cycles until the end of 2003. From March 2004, the increase in electricity produced was less marked and has shown a declining trend between February and July 2005. The trend of electricity available for distribution in South Africa has shown a similar pattern, although the latest decline is starting to phase out. A slight increasing trend in both electricity produced and electricity available for distribution is evident since August 2005

Figure 1 – Electricity produced and available for distribution in South Africa from 2002 to 2005



P J Lehohla Statistician-General

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# **Notes**

Forthcoming issues	Issue	Expected release date
	November 2005	8 January 2006
Purpose of the survey	used to compile estimates of the	ctricity generated and available for distribution survey are e Gross Domestic Product (GDP) and its components, which of the economy and formulation of economic policy.
Response rate	The response rate for the surve October 2005 was 100%.	y on electricity generated and available for distribution for

Table 1 - Total volume of electricity available for distribution in South Africa: 2000 to 2005

Month	2000	2001	2002	2003	2004	2005
January	15 512	16 064	16 191	17 095	17 850	18 149
February	15 224	14 871	15 215	16 168	17 278	17 169
March	16 225	16 320	16 551	17 655	18 477	18 487
April	15 399	15 515	16 362	16 905	17 524	18 132
May	17 064	16 929	17 852	18 159	18 909	19 224
June	16 818	16 788	18 016	18 331	19 336	18 983
July	17 759	18 021	18 956	19 183	20 156	19 657
August	17 214	17 300	18 064	18 713	19 265	19 191
September	16 180	16 277	17 125	17 526	18 362	18 383
October	16 709	16 794	17 741	18 479	18 714	1/ 19 127
November	16 161	15 960	17 234	17 790	18 314	
December	15 395	15 224	16 713	17 456	17 754	
Year	195 660	 196 063	206 020	213 460	 221 939	

<sup>1/</sup> Preliminary

Table 2 - Seasonally adjusted total volume of electricity available for distribution in South Africa: 2000 to 2005

Month	2000	2001	2002	2003	2004	2005	% change  between  current and  previous month
January	15 838	16 401	16 535	17 467	18 266	18 589	-0,4
February	16 620	16 205	16 583	17 629	18 787	18 669	+0,4
March	16 209	16 235	16 459	17 554	18 339	18 358	-1,7
April	16 161	16 174	17 073	17 666	18 303	18 946	+3,2
May	16 384	16 267	17 184	17 488	18 230	18 553	-2,1
June	16 158	16 142	17 301	17 583	18 556	18 237	-1,7
July	16 429	16 653	17 518	17 729	18 631	18 218	-0,1
August	16 382	16 493	17 282	17 926	18 483	18 418	+1,1
September	16 320	16 473	17 356	17 802	18 633	18 667	+1,4
October	16 432	16 527	17 443	18 162	18 363	18 759	+0,5
November	16 465	16 241	17 512	18 110	18 642		
December	16 383	16 129	17 632	18 390	18 658		

Table 3 - Indices of the physical volume of electricity production: 2000 to 2005

Base : 2000=100

Month	2000	2001	2002	2003	2004	2005
January	92,5	98,6	98,5	104,2	111,0	113,5
February	91,2	90,1	91,8	98,5	107,2	106,6
March	100,9	98,5	99,7	108,0	114,7	116,5
April	95,9	93,6	99,0	104,7	110,1	114,1
May	106,3	103,0	109,4	113,0	119,1	119,6
June	104,9	101,1	110,2	114,5	122,1	118,2
July	107,8	111,1	115,5	119,2	127,3	122,7
August	105,5	108,0	109,9	119,1	121,3	119,8
September	99,1	100,5	104,9	112,8	115,7	115,2
October	103,1	102,7	109,6	118,9	118,7	1/ 119,2
November	99,1	97,4	106,3	112,0	114,5	
December	93,8	92,1	101,7	109,3	111,6	
	100 0		104 5	111 0	116.1	
Year	100,0	99,7	104,7	111,2	116,1	

<sup>1/</sup> Preliminary

Table 4 - Seasonally adjusted indices of the physical volume of electricity production: 2000 to 2005

Month	2000	2001	2002	2003	2004	2005	% change  between  current and  previous month
January	94,5	100,9	101,0	107,1	114,4	117,2	-0,5
February	99,8	98,8	100,9	108,4	117,9	117,2	-0,0
March	101,0	98,7	100,0	108,4	115,2	117,0	-0,2
April	101,0	98,4	103,9	109,7	115,2	119,3	+2,0
May	102,1	99,0	105,3	108,9	115,0	115,6	-3,1
June	100,6	96,9	105,6	109,7	117,2	113,5	-1,8
July	99,3	102,4	106,5	109,9	117,5	113,4	-0,1
August	100,1	102,7	104,6	113,5	115,6	114,2	+0,7
September	99,4	100,9	105,3	113,2	115,9	115,5	+1,1
October	100,3	99,8	106,4	115,2	114,9	115,4	-0,1
November	101,0	99,1	108,1	113,9	116,5		j
December	100,5	98,3	108,0	115,6	117,8		į

Table 5 - Total volume of electricity imported: 2000 to 2005

Month	2000	2001	2002	2003	2004	2005
January	683	569	670	705	828	729
February	529	488	643	637	811	714
March	6	665	783	706	863	533
April	24	774	733	547	641	598
May	20	629	658	569	547	849
June	2	797	704	518	560	813
July	599	479	702	792	607	856
August	476	282	721	424	618	883
September	495	507	637	266	590	686
October	506	713	454	272	536	1/ 836
November	601	636	477	583	746	
December	778	708	691	720	679	
Year	4 719	7 247	7 873	6 739	8 026	

<sup>1/</sup> Preliminary

Table 6 - Total volume of electricity exported: 2000 to 2005

Month	2000	2001	2002	2003	2004	2005
January	197	616	558	578	1 037	1 030
February	169	470	478	508	977	901
March	196	498	529	607	1 027	968
April	155	463	525	619	951	991
May	213	508	578	805	944	1 083
June	193	496	601	798	1 057	1 096
July	363	543	614	944	1 140	1 102
August	389	569	605	1 030	1 049	1 144
September	458	581	628	1 051	1 048	1 134
October	540	630	626	1 116	1 112	1/ 1 161
November	525	598	600	1 025	1 082	
December	609	547	608	1 055	1 029	
 Year	4 007	6 519	6 950	10 136	12 453	

<sup>1/</sup> Preliminary.

Table 7a - Electricity produced and consumed in power stations, purchased and sold outside South Africa and available for distribution in South Africa

   Description 	   Octobe   2004 	er	! -	cembei	   Octo   200!		% change between October 2004 and October 2005	Difference  between  October  2004  and  October  2005
Total - All producers								
Electricity produced	20	844	20	233	20	928	+0,4	+84
Purchased outside South Africa (import)		536		686		836	+56,0	+300
Consumed in power stations and								
auxiliary systems	1	554		401		475	- ,	
Sold outside South Africa (export)		112		134		161	•	
Electricity available for distribution in South Africa	18	714	18	383	19	127	+2,2	+413
ESKOM								
Electricity produced	19	841	19	271	20	068	+1,1	+227
Purchased outside South Africa (import)	İ	536		686		836	+56,0	+300
Consumed in power stations	İ							į
and auxiliary systems	1	455	1	319	1	388	-4,6	-67
Sold outside South Africa (export)	1	112	1	134	1	161	+4,4	+49
Electricity available for distribution in South Africa	17	810	17	505	18	355	+3,1	+545

<sup>1/</sup> Preliminary.

Table 7b - Electricity produced and consumed in power stations, purchased and sold outside South Africa and available for distribution in South Africa (concluded)

Description	January to October 2004	-	January to October 2005		% change  between  January to  October 2004  and  January to  October 2005	and January	to   2004  to
Total - All producers							
Electricity produced				590			-320
Purchased outside South Africa (import)	6	601	7	497	+13,6		+896
Consumed in power stations and							
auxiliary systems		299		971	,		-328
Sold outside South Africa (export)		342	10	610	+2,6		+268
Electricity available for distribution in South Africa	185	871	186	502	+0,3		+631
ESKOM							
Electricity produced	195	446	194	576	-0,4		-870
Purchased outside South Africa (import)	6	601	7	497	+13,6		+896
Consumed in power stations							ĺ
and auxiliary systems	14	451	14	051	-2,8		-400
Sold outside South Africa (export)	10	342	10	610	+2,6		+268
Electricity available for distribution in South Africa	177	256	177	414	+0,1		+158

Table 8a - Electricity distributed by Eskom by province for 2004 and 2005 1/

Month	Western Cape	Eastern Cape	Northern Cape	Free State	KwaZulu-Natal
2004	21 491	7 510	4 502	9 625	42 264
2004					
January	1 782	516	384	839	3 416
February	1 741	599	369	772	3 373
March	1 826	643	385	791	3 496
April	1 693	567	317	740	3 293
May	1 792	656	354	822	3 570
June	1 734	648	353	837	3 971
July	1 905	693	383	892	3 642
August	1 904	676	371	841	3 559
September	1 771	647	378	772	3 455
October	1 786	646	400	801	3 583
November	1 783	646	411	769	3 450
December	1 774	573	397	749	3 456
2005					
January	1 795	616	424	765	3 599
February	1 516	585	380	727	3 406
March	1 650	633	437	747	3 642
April	1 583	627	335	742	3 534
May	1 871	667	358	779	3 558
June	1 860	672	359	761	3 536
July	1 895	690	380	793	3 713
August	1 991	659	375	785	3 666
September	1 837	672	385	735	3 531
October 2/	1 831	666	424	746	3 712
ear to date	17 829	6 487	3 857	7 580	35 897

Table 8b - Electricity distributed by Eskom by province for 2004 and 2005 (concluded) 1/

Month	North We	st	Gaut	eng		Mpumala	ınga		Limpopo	Total	South	Africa
2004	28 1	87	54	970		25	925		9 791		204	267
2004												
January	2 3	89	4	335		2	087		788		16	537
February	2 2	30	4	144		2	097		727		16	052
March	2 4	43	4	454		2	161		798		16	997
April	2 2	18	4	296		2	065		761		15	950
May	2 4	18	4	749		2	308		839		17	508
June	2 3	03	4	940		2	104		816		17	706
July	2 5	04	5	488		2	206		859		18	572
August	2 4	30	4	898		2	178		878		17	735
September	2 3	98	4	575		2	029		833		16	857
October	2 4	11	4	576		2	213		817		17	233
November	2 3	26	4	375		2	222		828		16	811
December	2 1	17	4	140		2	255		847		16	309
2005												
January	2 1	72	4	402		2	206		858		16	837
February	2 0	57	4	052		2	285		815		15	823
March	2 1	71	4	494		2	378		854		17	006
April	2 0	89	4	489		2	676		676		16	751
May	2 1	73	4	730		2	581		909		17	626
June	2 0	68	4	760		2	449		899		17	364
July	2 0	42	5	057		2	498		925		17	993
August	1 9	36	4	866		2	319		932		17	530
September	1 9			493			373		860			882
October 2/	2 0			776		2	703		861			769
  Year to date	20 7	 54	46	119		24	468		8 589		171	581

<sup>1/</sup> Wholesale energy as delivered by Eskom to the various provinces.

<sup>2/</sup> Preliminary.

## **Explanatory notes**

#### Introduction

- Statistics South Africa (Stats SA) conducts a monthly sample survey of the electricity industry covering electricity undertakings and establishments (branches). This statistical release contains information regarding the number of electricity units generated and available for distribution in South Africa, the number of units purchased and sold outside South Africa and the number of units distributed by Eskom by province on a monthly basis. Both actual and seasonally adjusted figures are published.
- This statistical release reflects indices of the physical volume of electricity production on the basis of 2000=100. In accordance with international practice, the indices have to be rebased every five years to a new base year.
- In order to improve timeliness of the publication, some information for the current month may have been estimated due to late submission by respondents. These estimates will be revised in the next statistical release(s) as soon as actual information is available.

#### Scope of the survey

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This survey covers electricity undertakings and establishments conducting activities concerned with the generation or transmission and distribution of electricity, including electrical power installations, which, as subsidiary divisions of undertakings, produce electricity for regular use by these undertakings.

#### Classification

The 1993 edition of the Standard Industrial Classification of all Economic Activities (SIC), Fifth Edition, Report No. 09-90-02, was used to classify the statistical units in the survey. The SIC is based on the 1990 International Standard Industrial Classification of all Economic Activities (ISIC) with suitable adaptations for local conditions. Each statistical unit is classified to an industry, which reflects the predominant activity of the electricity undertaking or establishment.

#### Statistical unit

The basic statistical unit for the collection of information is the electricity undertaking or establishment. The electricity undertaking or establishment is the smallest economic unit that functions as a separate entity. Each statistical unit is classified to an industry (see paragraph 5).

# Survey methodology and design

- All statistical units are stratified by type of economic activity according to the *Standard Industrial Classification of all Economic Activities (SIC)* and measure of size, where measure of size is the volume of electricity generated by the electricity undertaking or establishment. All large undertakings or establishments (size category one cases) are completely enumerated. A sample is drawn from medium and small size undertakings and establishments by systematically selecting undertakings or establishments within each size category. An electricity undertaking or establishment with a total generating capacity of less than 500 kilowatt is excluded from the sample.
- **8** The survey is conducted by mail each month collecting information from a sample of 22 electricity undertakings or establishments.

# Monthly production indices

9 The calculation of the monthly production indices is based on the number of electricity units produced.

# Benchmarking

The index of physical volume of electricity production should provide an accurate reflection of the trend of activities of the relevant industry. The level of activities as measured by the monthly electricity generated and available for distribution survey is based on information received from a sample of electricity undertakings and establishments, which are weighted according to the original sample, designed in order to represent the population of electricity undertakings and establishments. It is necessary to adjust the level of activities as measured by the monthly sample survey to the level of activities as measured periodically by the Census of electricity, gas and steam. This procedure, whereby the latest results of an economic census are used to compile more accurate level estimates for a certain year, is known as benchmarking.

11 The results of the 1995 Census of electricity, gas and steam served as benchmarks to verify or adjust the level of the monthly physical volume of electricity production indices collected through the monthly sample survey. The level adjustments were done on the volume indices for July of the relevant census year (the 1995 census year covered the period 1 January 1995 to 31 December 1995 and therefore, the benchmarking was done using the index of July 1995 as reference point).

#### Seasonal adjustment

12

16

Seasonally adjusted estimates of all items are generated each month, using the X-11 Seasonal Adjustment Program developed by US Bureau of the Census Economic Research and Analyses Division, 1968. Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series can be more clearly recognised. Seasonal adjustment does not aim to remove irregular or non-seasonal influences, which may be present in any particular month. Influences that are volatile or unsystematic can still make it difficult to interpret the movement of the series even after adjustment for seasonal variations. This means the month-to-month movements of seasonally adjusted estimates may not be reliable indicators of trend behavior.

#### Trend cycle

13 The trend is the long-term pattern or movement of a time series. The X-11 Seasonal Adjustment Program is used for smoothing seasonally adjusted estimates.

#### **Related publications**

- 14 Users may also wish to refer to the following publications which are available from Stats SA -
  - Bulletin of Statistics.
  - SA Statistics.

# Unpublished statistics

In some cases Stats SA can also make available statistics, which are not published. The statistics can be made available as computer printouts, on diskette or CD. Generally a charge is made for providing unpublished statistics.

## **Rounding-off figures**

The figures in the tables have, where necessary, been rounded off to the nearest digit shown. There may, therefore, be slight discrepancies between the sums of the constituent items and the totals shown.

# Pre-release policy

17 Stats SA pre-release policy may be inspected at its website, www.statssa.gov.za.

# Symbols and abbreviations

18 GDP Gross Domestic Product

ISIC International Standard Industrial Classification

SIC Standard Industrial Classification of all Economic Activities

Stats SA Statistics South Africa \* Revised figures

### Glossary

**Electricity undertaking** An electricity undertaking is an undertaking concerned with the generation or transmission

and distribution of electricity, including electrical power installations, which as subsidiary divisions of undertakings produce electricity for regular use by these undertakings.

Establishment (branch) An establishment (branch) is defined as the smallest economic unit, which operates as a

separate entity for which comprehensive financial records are kept.

Index of physical volume of electricity production measurements

The index of physical volume of electricity production or a production index is a statistical measure of the change in the volume of production. The production index of electricity is the ratio between the volume of production of electricity in a given period and the volume of production of electricity in the base period. The base period is 2000. The production in

the base period is set at 100.

**Industry** An industry consists of a group of undertakings or establishments engaged in the same or

similar kinds of economic activity. Industries are defined in the 1993 System of National Accounts (1993 SNA) in the same way as in the Standard Industrial Classification of all

Economic Activities (SIC), Fifth Edition, Report No. 09-90-02.

Unit of electricity One unit of electricity is equal to 1 kilowatt-hour (kWh). One gigawatt-hour (gWh) of

electricity is equal to one million kilowatt-hours.

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