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# Electricity generated and available for distribution November 2004

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 $\begin{tabular}{ll} Table A-Selected key figures regarding electricity generated and available for distribution for November 2004 \\ \end{tabular}$ 

Actual estimates	November 2004	% change between November 2003 and November 2004	% change between September 2003 to November 2003 and September 2004 to November 2004	% change between January to November 2003 and January to November 2004
Electricity available for distribution (Gigawatt-hours)	18 315	+3,0	+3,0	+4,2
Electricty imported (Gigawatt-hours)	746	+28,0	+67,0	+22,1
Electricty exported (Gigawatt-hours)	1 082	+5,6	+1,6	+25,8
Index of the physical volume of electricity production (2000=100)	114,5	+2,2	+1,5	+4,6

Seasonally adjusted estimates	November 2004	% change between October 2004 and November 2004	% change between June to August 2004 and September to November 2004
Electricity available for distribution (Gigawatt-hours)	18 669	+1,1	+0,8
Electricty imported (Gigawatt-hours)	790	+6,3	+20,8
Electricty exported (Gigawatt-hours)	1 022	+4,1	-4,5
Index of the physical volume of electricity production (2000=100)	116,3	+1,1	-0,2

# Key findings regarding electricity generated and available for distribution for November 2004

# Electricity available for distribution increases

The volume of electricity available for distribution for the three months ended November 2004, after seasonal adjustment, increased by 0,8% (+441 Gigawatt-hours) compared with the preceding three months. An increase of 1,2% was reported by Eskom while 'other producers' reported an increase of 0,1% during the above-mentioned period. Furthermore, the electricity available for distribution for November 2004 increased by 3,0% (+525 Gigawatt-hours) compared with November 2003. Electricity available for distribution in South Africa for the first eleven months of 2004 increased by 4,2% (+8 182 Gigawatt-hours) compared with the first eleven months of 2003.

# Production of electricity decreases marginally

The production of electricity for the three months ended November 2004, after seasonal adjustment, decreased by 0,2% compared with the preceding three months. However, the production of electricity for November 2004 was 2,2% (or 436 Gigawatt-hours) higher than November 2003. The production of electricity for the three months ended November 2004 was slightly higher (+1,5% or +924 Gigawatt-hours) than for the corresponding three months of 2003. The production of electricity in South Africa for the first eleven months of 2004 increased by 4,6% (+9 968 Gigawatt-hours) compared with the first eleven months of 2003.

## Import of electricity increases

The volume of electricity imported for November 2004 increased by 28,0% (or +163 Gigawatt-hours) compared with November 2003. Furthermore, the volume imported into South Africa for the first eleven months of 2004 increased by 22,1% (+1 328 Gigawatt-hours) compared with the first eleven months of 2003.

# Export of electricity higher in 2004 than 2003

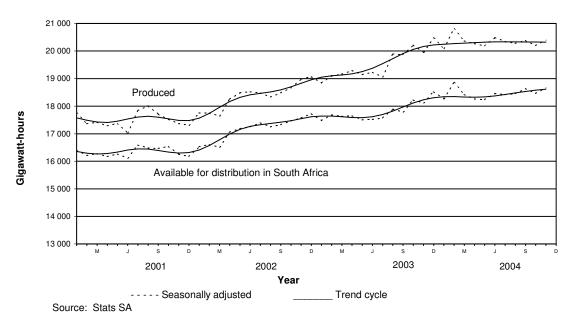
The volume of electricity exported for the first eleven months of 2004 increased by 25,8% (+2 343 Gigawatt-hours) compared with the first eleven months of 2003. However, the volume exported over the past three months showed virtually no increase compared with the corresponding three months of 2003.

# **Export compared to import**

The export of electricity exceeded the import of electricity by 55,5% (+4 077 Gigawatt-hours) in the first eleven months of 2004. In comparison, during the first eleven months of 2003, 50,9% (+3 062 Gigawatt-hours) more electricity was exported than imported.

Figure 1 below shows the seasonally adjusted and trend patterns for electricity produced and available for distribution in South Africa between January 2001 and November 2004. There was a gradual upward movement in the trend cycles until the end of 2003. Since January 2004, the trend of electricity produced leveled out. However, since the middle of 2004, the trend cycle of electricity available for distribution has shown a slight upward movement due to increased import of electricity.

Figure 1 – Electricity produced and available for distribution in South Africa from 2001 to 2004



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# Notes

Forthcoming issues	Issue	Expected release date			
	December 2004	3 February 2005			
Purpose of the survey	used to compile estimates of the	ectricity 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 survey on electricity generated and available for distribution November 2004 was 100%.				
Name change of statistical release		eation the name of the monthly Statistical Release P4141: f electricity, changed to Electricity generated and available			

Table 1 - Total volume of electricity available for distribution in South Africa: 1999 to 2004

Month	1999	2000	2001	2002	2003	2004	
January	15 153	15 512	16 064	16 191	17 095	17 850	
February	14 360	15 224	14 871	15 215	16 168	17 278	
March	15 791	16 225	16 320	16 551	17 655	18 477	
April	15 063	15 399	15 515	16 362	16 905	17 524	
May	16 327	17 064	16 929	17 852	18 159	18 909	
June	16 393	16 818	16 788	18 016	18 331	19 336	
July	17 051	17 759	18 021	18 956	19 183	20 156	
August	16 708	17 214	17 300	18 064	18 713	19 265	
September	15 937	16 180	16 277	17 125	17 526	18 362	
October	16 322	16 709	16 794	17 741	18 479	18 714	
November	15 831	16 161	15 960	17 234	17 790	18 315	1/
December	15 184	15 395	15 224	16 713	17 456		
Year	190 120	195 660	196 063	206 020	213 460		

Table 2 - Seasonally adjusted total volume of electricity available for distribution in South Africa: 1999 to 2004

**Gigawatt-hours** 

	Gigawatt nours					
Month	1999	2000	2001	2002	2003	2004
January	15 470	15 835	16 395	16 526	17 480	18 268
February	15 674	16 622	16 209	16 603	17 684	18 859
March	15 797	16 250	16 286	16 513	17 626	18 420
April	15 770	16 162	16 175	17 061	17 649	18 258
May	15 685	16 386	16 267	17 195	17 505	18 238
June	15 742	16 142	16 120	17 257	17 518	18 460
July	15 745	16 386	16 590	17 401	17 573	18 418
August	15 866	16 369	16 481	17 249	17 892	18 447
September	16 068	16 317	16 464	17 332	17 789	18 638
October	16 041	16 435	16 543	17 461	18 224	18 459
November	16 154	16 481	16 268	17 539	18 123	18 669
December	16 186	16 407	16 161	17 723	18 526	

<sup>1/</sup> Preliminary.

Table 3 - Indices of the physical volume of electricity production: 1999 to 2004

Base: 2000=100

Month	1999	2000	2001	2002	2003	2004
January	94,7	92,5	98,6	98,5	104,2	111,0
February	89,0	91,2	90,1	91,8	98,5	107,2
March	97,0	100,9	98,5	99,7	108,0	114,7
April	90,1	95,9	93,6	99,0	104,7	110,1
May	98,0	106,3	103,0	109,4	113,0	119,1
June	98,9	104,9	101,1	110,2	114,5	122,0
July	104,0	107,8	111,1	115,5	119,2	127,3
August	101,8	105,5	108,0	109,9	119,1	121,3
September	96,9	99,1	100,5	104,9	112,8	115,7
October	99,1	103,1	102,7	109,6	118,9	118,7
November	96,0	99,1	97,4	106,3	112,0	114,5 1/
December	90,8	93,8	92,1	101,7	109,3	
Year	96,4	100,0	99,7	104,7	111,2	

Table 4 - Seasonally adjusted indices of the physical volume of electricity production: 1999 to 2004

Base: 2000=100

	Dasc. 2000-100					
Month	1999	2000	2001	2002	2003	2004
January	96,8	94,5	101,0	101,1	107,3	114,4
February	97,2	99,8	98,8	100,8	108,3	117,8
March	97,3	101,2	98,9	100,3	108,9	115,8
April	95,0	101,1	98,5	104,1	110,0	115,6
May	94,2	102,2	99,1	105,4	109,1	115,1
June	94,8	100,7	96,9	105,6	109,5	116,7
July	95,4	98,8	101,8	105,6	108,9	116,2
August	96,4	100,1	102,6	104,4	113,3	115,4
September	97,3	99,5	100,9	105,3	113,2	116,1
October	96,7	100,4	99,9	106,3	115,3	115,1
November	98,0	101,0	99,1	108,0	113,8	116,3
December	97,4	100,6	98,5	108,6	116,6	

1/ Preliminary.

Table 5 - Total volume of electricity imported: 1999 to 2004  $\,$ 

Month	1999	2000	2001	2002	2003	2004
January	185	683	569	670	705	828
February	201	529	488	643	637	811
March	302	6	665	783	706	863
April	682	24	774	733	547	641
May	719	20	629	658	569	547
June	654	2	797	704	518	560
July	515	599	479	702	792	607
August	613	476	282	721	424	618
September	679	495	507	637	266	590
October	688	506	713	454	272	536
November	644	601	636	477	583	746 1.
December	791	778	708	691	720	
Year	6 673	4 719	7 247	7 873	6 739	

Table 6 - Total volume of electricity exported: 1999 to 2004

**Gigawatt-hours** 

Month	1999	2000	2001	2002	2003	2004	
January	346	197	616	558	578	1 037	
February	267	169	470	478	508	977	
March	248	196	498	529	607	1 027	
April	217	155	463	525	619	951	
May	318	213	508	578	805	944	
June	347	193	496	601	798	1 057	
July	381	363	543	614	944	1 140	
August	465	389	569	605	1 030	1 049	
September	480	458	581	628	1 051	1 048	
October	440	540	630	626	1 116	1 112	
November	432	525	598	600	1 025	1 082	1/
December	325	609	547	608	1 055		
Year	4 266	4 007	6 519	6 950	10 136		

1/ Preliminary.

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

Description	November 2003	October 2004	November 2004 1/	% change between November 2003 and November 2004
Total - All producers				
Electricity produced	19 670	20 844	20 106	2,2
Purchased outside South Africa (import)	583	536	746	+ 28,0
Consumed in power stations and				
auxiliary systems	1 439	1 554	1 455	+ 1,1
Sold outside South Africa (export)	1 025	1 112	1 082	+ 5,6
Electricity available for distribution in South Africa	17 790	18 714	18 315	+ 3,0
Eskom				
Electricity produced	18 701	19 841	19 122	+ 2,3
Purchased outside South Africa (import)	583	536	746	+ 28,0
Consumed in power stations and				
auxiliary systems	1 344	1 455	1 348	+ 0,3
Sold outside South Africa (export)	1 025	1 112	1 082	+ 5,6
Electricity available for distribution in South Africa	16 916	17 810	17 438	+ 3,1

1/ Preliminary.

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

Gigawatt-hours

January to November 2003	January to November 2004	% change between January to November 2003 and January to November 2004
215 048	225 016	+ 4,6
6 019	7 347	+ 22,1
15 984	16 754	+ 4,8
9 081	11 424	+ 25,8
196 004	204 186	+ 4,2
204 430	214 568	+ 5,0
6 019	7 347	+ 22,1
14 941	15 799	+ 5,7
9 081	11 424	+ 25,8
186 428	194 694	+ 4,4
	to November 2003  215 048 6 019  15 984 9 081 196 004  204 430 6 019  14 941 9 081	to         to           November 2003         November 2004           215 048 6 019         225 016 7 347           15 984 16 754 9 081 11 424 196 004         204 186           204 430 6 019         214 568 7 347           14 941 15 799 9 081 11 424

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

Month	Western Cape	Eastern Cape	Northern Cape	Free State	KwaZulu-Natal
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 2/	1 784	646	411	768	3 450
December					
Year to date	19 718	6 937	4 105	8 875	38 808

**Gigawatt-hours** 

	Olgawatt-nours						
Month	North West	Gauteng	Mpumalanga	Limpopo	Total South Africa		
January	2 389	4 335	2 087	788	16 536		
February	2 230	4 144	2 097	727	16 052		
March	2 443	4 454	2 161	798	16 997		
April	2 218	4 296	2 065	761	15 950		
May	2 418	4 749	2 308	839	17 508		
June	2 303	4 940	2 104	816	17 706		
July	2 504	5 488	2 206	859	18 572		
August	2 430	4 898	2 178	878	17 735		
September	2 397	4 575	2 029	833	16 857		
October	2 411	4 576	2 213	817	17 233		
November 2/	2 326	4 375	2 222	828	16 811		
December							
Year to date	26 069	50 830	23 670	8 944	187 957		

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

<sup>2/</sup> Preliminary.

# **Explanatory notes**

1

#### 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 consumed 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

4 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.
- 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.

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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 November 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

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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

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## 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

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

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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