Statistics South Africa

Statistical release
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Electricity generated and available for distribution

April 2005

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Stats SA

Table A – Selected key figures regarding electricity generated and available for distribution for April 2005

Estimates

	April 2005	% change between April 2004 and April 2005	% change between February to April 2004 and February to April 2005	% change between January to April 2004 and January to April 2005
Electricity available for distribution (Gigawatt-hours)	18 131	+3,5	+1,0	+1,1
Index of the physical volume of electricity production (2000=100)	114,1	+3,6	+1,5	+1,7

Seasonally adjusted estimates

	April 2005	% change between March and April 2005	% change between November 2004 to January 2005 and February to April 2005
Electricity available for distribution (Gigawatt-hours)	18 863	+1,9	+0,1
Index of the physical volume of electricity production (2000=100)	119,2	+1,2	+0,7

Key findings regarding electricity generated and available for distribution for April 2005

Consumption of electricity increases

The estimated consumption of electricity (available for distribution) for the three months ended April 2005, after seasonal adjustment, increased by 0,1% (+82 Gigawatt-hours) compared with the previous three months (see table B). Furthermore, electricity available for distribution for April 2005 increased by 3,5% (+607 Gigawatt-hours) compared with April 2004 (see table 7) and the consumption of electricity for the three months ended April 2005, increased by 1,0% compared with the corresponding period ending April 2004 (see table A) .

Production of electricity increases

As indicated in table B, the estimated production of electricity for the three months ended April 2005, after seasonal adjustment, increased by 0,9% (+527 Gigawatt-hours) compared with the previous three months. Furthermore, production of electricity for April 2005 increased by 3,7% (+707 Gigawatt-hours) compared with April 2004 (see table 7).

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

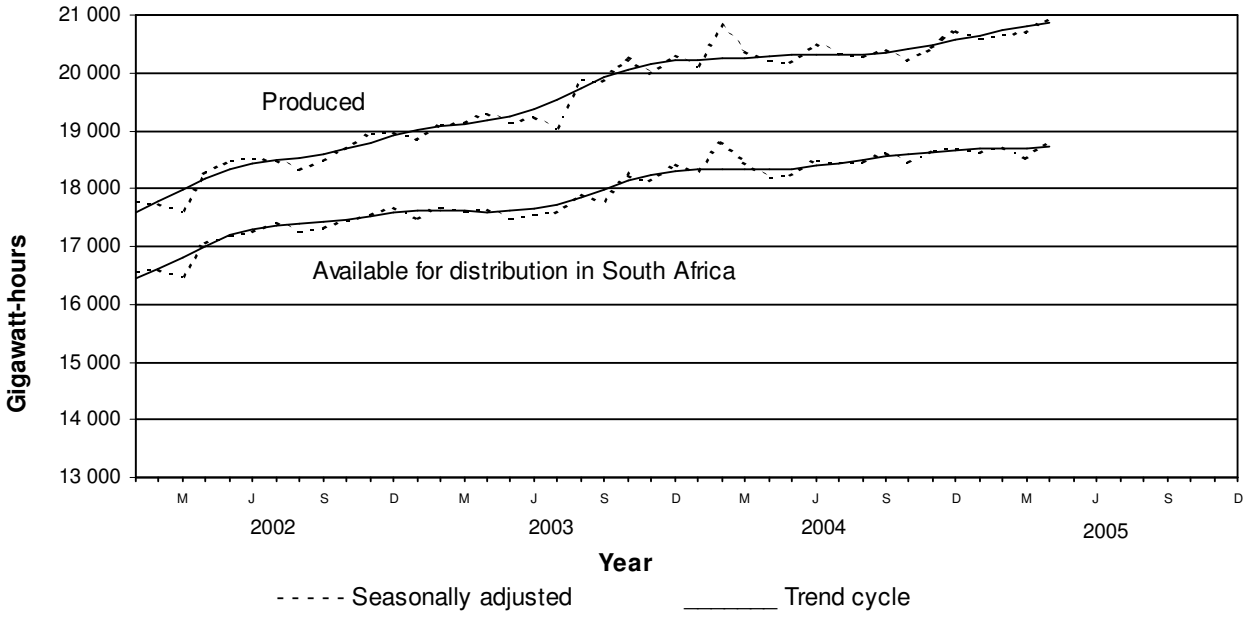
	Seasonally adjusted quantity November 2004 to January 2005	Seasonally adjusted quantity February to April 2005	Percentage change between November 2004 to January 2005 and February to April 2005	Difference between November 2004 to January 2005 and February to April 2005
	Gigawatt-hours	Gigawatt-hours		Gigawatt-hours
Electricity produced	+61 799	+62 326	+0,9	+527
Electricity available for distribution in South Africa	+56 007	+56 089	+0,1	+82

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

	Actual quantity February to April 2004	Actual quantity February to April 2005	Percentage change between February to April 2004 and February to April 2005	Difference between February to April 2004 and February to April 2005
	Gigawatt-hours	Gigawatt-hours		Gigawatt-hours
Electricity produced	58 289	59 199	+1,6	+910
Purchased outside South Africa (import)	2 315	1 845	-20,3	-470
Consumed in power stations and auxiliary systems	4 371	4 397	+0,6	+26
Sold outside South Africa (export)	2 955	2 860	-3,2	-95
Electricity available for distribution in South Africa	53 279	53 787	+1,0	+508

Figure 1 below shows the seasonally adjusted and trend patterns for electricity produced and available for distribution in South Africa between January 2002 and April 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, but it has picked up again slightly from June 2004 to the highest point to date. The trend of electricity available for distribution in South Africa shows a similar pattern, but stabilised over the last few months.

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**
	May 2005	7 July 2005

Purpose of the survey The results of the monthly electricity generated and available for distribution survey are used to compile estimates of the Gross Domestic Product (GDP) and its components, which are used in monitoring the state of the economy and formulation of economic policy.

Response rate The response rate for the survey on electricity generated and available for distribution for April 2005 was 100%.

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

Gigawatt-hours

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	1/ 18 131
May	17 064	16 929	17 852	18 159	18 909	
June	16 818	16 788	18 016	18 331	19 336	
July	17 759	18 021	18 956	19 183	20 156	
August	17 214	17 300	18 064	18 713	19 265	
September	16 180	16 277	17 125	17 526	18 362	
October	16 709	16 794	17 741	18 479	18 714	
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	

1/ Preliminary

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

Gigawatt-hours

Month	2000	2001	2002	2003	2004	2005	Percentage change between current and previous month
January	15 839	16 409	16 554	17 493	18 296	18 629	-0,4
February	16 621	16 208	16 603	17 654	18 822	18 713	+0,5
March	16 243	16 279	16 534	17 653	18 476	18 513	-1,1
April	16 164	16 178	17 062	17 617	18 219	18 863	+1,9
May	16 383	16 260	17 177	18 159	18 226		
June	16 149	16 130	17 265	17 543	18 486		
July	16 392	16 599	17 415	17 604	18 453		
August	16 372	16 478	17 253	17 904	18 456		
September	16 314	16 457	17 327	17 795	18 640		
October	16 434	16 537	17 468	18 239	18 471		
November	16 477	16 259	17 547	18 134	18 674		
December	16 396	16 149	17 666	18 423	18 704		

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	1/ 114,1
May	106,3	103,0	109,4	113,0	119,1	
June	104,9	101,1	110,2	114,5	122,0	
July	107,8	111,1	115,5	119,2	127,3	
August	105,5	108,0	109,9	119,1	121,3	
September	99,1	100,5	104,9	112,8	115,7	
October	103,1	102,7	109,6	118,9	118,7	
November	99,1	97,4	106,3	112,0	114,5	
December	93,8	92,1	101,7	109,3	111,6	
Year	100,0	99,7	104,7	111,2	116,1	

1/ Preliminary

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

Base : 2000=100

Month	2000	2001	2002	2003	2004	2005	Percentage change between current and previous month
January	94,6	101,0	101,2	107,3	114,6	117,5	-0,5
February	99,8	98,9	101,0	108,5	118,2	117,5	+0,0
March	101,2	99,0	100,4	109,0	115,9	117,8	+0,3
April	101,1	98,5	104,0	109,6	115,1	119,2	+1,2
May	102,2	99,0	105,3	109,0	115,1		
June	100,6	96,9	105,5	109,5	116,7		
July	98,8	101,7	105,6	108,9	116,3		
August	100,0	102,5	104,4	113,3	115,4		
September	99,5	100,9	105,3	113,3	116,2		
October	100,4	99,8	106,4	115,4	115,2		
November	101,0	99,1	108,2	114,0	116,6		
December	100,6	98,4	108,2	115,8	118,1		

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

Gigawatt-hours

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	
June	2	797	704	518	560	
July	599	479	702	792	607	
August	476	282	721	424	618	
September	495	507	637	266	590	
October	506	713	454	272	536	
November	601	636	477	583	746	
December	778	708	691	720	679	
Year	4 719	7 247	7 873	6 739	8 026	

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

Gigawatt-hours

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	
June	193	496	601	798	1 057	
July	363	543	614	944	1 140	
August	389	569	605	1 030	1 049	
September	458	581	628	1 051	1 048	
October	540	630	626	1 116	1 112	
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	

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

Gigawatt-hours

Description	April 2004	March 2005	1/ April 2005	% change between April 2004 and April 2005	Difference between April 2004 and April 2005
Total – All producers					
Electricity produced	19 321	20 452	20 028	+3,7	+707
Purchased outside South Africa (import)	641	533	598	-6,7	-43
Consumed in power stations and auxiliary systems	1 487	1 530	1 504	+1,1	+17
Sold outside South Africa (export)	951	968	991	+4,2	+40
Electricity available for distribution in South Africa	17 524	18 487	18 131	+3,5	+607
ESKOM					
Electricity produced	18 488	19 445	19 080	+3,2	+592
Purchased outside South Africa (import)	641	533	598	-6,7	-43
Consumed in power stations and auxiliary systems	1 421	1 434	1 411	-0,7	-10
Sold outside South Africa (export)	951	968	991	+4,2	+40
Electricity available for distribution in South Africa	16 758	17 576	17 276	+3,1	+518

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

Description	January to April 2004	January to April 2005	% change between January to April 2004 and January to April 2005	Difference between January to April 2004 and January to April 2005
Total – All producers				
Electricity produced	77 784	79 127	+1,7	+1 343
Purchased outside South Africa (import)	3 143	2 574	-18,1	-569
Consumed in power stations and auxiliary systems	5 808	5 875	+1,2	+67
Sold outside South Africa (export)	3 992	3 890	-2,6	-102
Electricity available for distribution in South Africa	71 129	71 936	+1,1	+807
ESKOM				
Electricity produced	74 354	75 452	+1,5	+1 098
Purchased outside South Africa (import)	3 143	2 574	-18,1	-569
Consumed in power stations and auxiliary systems	5 494	5 503	+0,2	+9
Sold outside South Africa (export)	3 992	3 890	-2,6	-102
Electricity available for distribution in South Africa	68 013	68 633	+0,9	+620

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

Gigawatt-hours

Month	Western Cape	Eastern Cape	Northern Cape	Free State	KwaZulu-Natal
2004	21 492	7 510	4 502	9 624	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 2/	1 583	627	335	742	3 534
Year to date	6 544	2 461	1 576	2 981	14 181

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

Gigawatt-hours

Month	North West	Gauteng	Mpumalanga	Limpopo	Total South Africa
2004	28 186	54 970	25 925	9 791	204 267
2004					
January	2 389	4 335	2 087	788	16 537
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	2 398	4 575	2 029	833	16 857
October	2 411	4 576	2 213	817	17 233
November	2 326	4 375	2 222	828	16 811
December	2 117	4 140	2 255	847	16 309
2005					
January	2 172	4 402	2 206	858	16 837
February	2 057	4 052	2 285	815	15 823
March	2 171	4 494	2 378	854	17 006
April 2/	2 089	4 489	2 676	676	16 751
Year to date	8 489	17 437	9 545	3 203	66 417

1/ Wholesale energy as delivered by Eskom to the various provinces.
2/ Preliminary.
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Explanatory notes

Introduction

1 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.

2 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.

3 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

5 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

6 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

7 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

10 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 December of the relevant census year (the 1995 census year covered the period 1 April 1995 to 31 December 1995 and therefore, the benchmarking was done using the index of July 1995 as reference point).

Seasonal adjustment

12 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

15 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

16 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 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.

General information

Stats SA publishes approximately 300 different statistical releases each year. It is not economically viable to produce them in more than one of South Africa's eleven official languages. Since the releases are used extensively, not only locally but also by international economic and social-scientific communities, Stats SA releases are published in English only.

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