

Electricity generated and available for distribution December 2005

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

Estimates

	December 2005	% change between December 2004 and December 2005	% change between October to December 2004 and October to December 2005	% change between January to December 2004 and January to December 2005
Electricity available for distribution (Gigawatt-hours)	18 232	+2,7	+2,0	+0,6
Index of the physical volume of electricity production (2000=100)	114,2	+2,3	+1,2	+0,2

Seasonally adjusted estimates

	December 2005	% change between November and December 2005	% change between July to September 2005 and October to December 2005
Electricity available for distribution (Gigawatt-hours)	19 049	+1,2	+2,5
Index of the physical volume of electricity production (2000=100)	119,4	+1,7	+2,7

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

Electricity available for distribution higher in 2005

The estimated volume of electricity available for distribution for 2005 increased by 0,6% (+1 321 Gigawatt-hours) compared with 2004 (see table A and 7b). Furthermore, the electricity available for distribution for the fourth quarter of 2005, after seasonal adjustment, increased by 2,5% compared with the third quarter of 2005 (see table B). Consumption of electricity (electricity available for distribution) during the fourth quarter of 2005 was 2,0% (+1 100 Gigawatt-hours) higher than for the corresponding quarter of 2004 (see table A and C).

Production of electricity stabilises in 2005

The production of electricity in South Africa for 2005 remained virtually unchanged reflecting a 0,1% increase (+319 Gigawatt-hours) compared with 2004 (see table 7b). Seasonally adjusted production of electricity for the fourth quarter of 2005 increased by 2,8% compared with the preceding quarter (see table B). Furthermore, production of electricity for the fourth quarter of 2005 was 1,2% higher (+725 Gigawatt-hours) than for the corresponding quarter of 2004 (see table C).

Import of electricity increases compared with a year ago

The volume of electricity imported increased from 8 026 Gigawatt-hours in 2004 to 9 199 Gigawatt-hours in 2005 (+14,6%)(see table 7b). Imports of electricity reached high levels during the second half of 2005 (an increase of 17,2% for July to December 2005 compared with January to June 2005)(see table 5).

Export of electricity higher in 2005 than 2004

The volume of electricity exported for 2005 increased by 3,5% compared with 2004 (see table 7b). The volume of electricity exported during the last quarter of 2005 showed an increase of 6,6% (+212 Gigawatt-hours) compared with the corresponding quarter of 2004 (see table C).

Export compared to import

The export of electricity exceeded the import of electricity by 40,1% (+3 685 Gigawatt-hours) in 2005. In comparison, during 2004, 55,1% (+4 427 Gigawatt-hours) more electricity was exported than imported (see table 7b).

Electricity distributed by Eskom by province during 2005

During 2005, Gauteng utilised the largest proportion (26,8% or 55 109 Gigawatt-hours) of electricity distributed by Eskom, followed by KwaZulu-Natal (20,9% or 43 048 Gigawatt-hours), Mpumalanga (14,3% or 29 469) and North West (12,1% or 24 867 Gigawatt-hours). All the provinces with the exception of Mpumalanga and North West provinces reflected almost similar levels of utilisation during 2004 and 2005 (see table 8c).

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

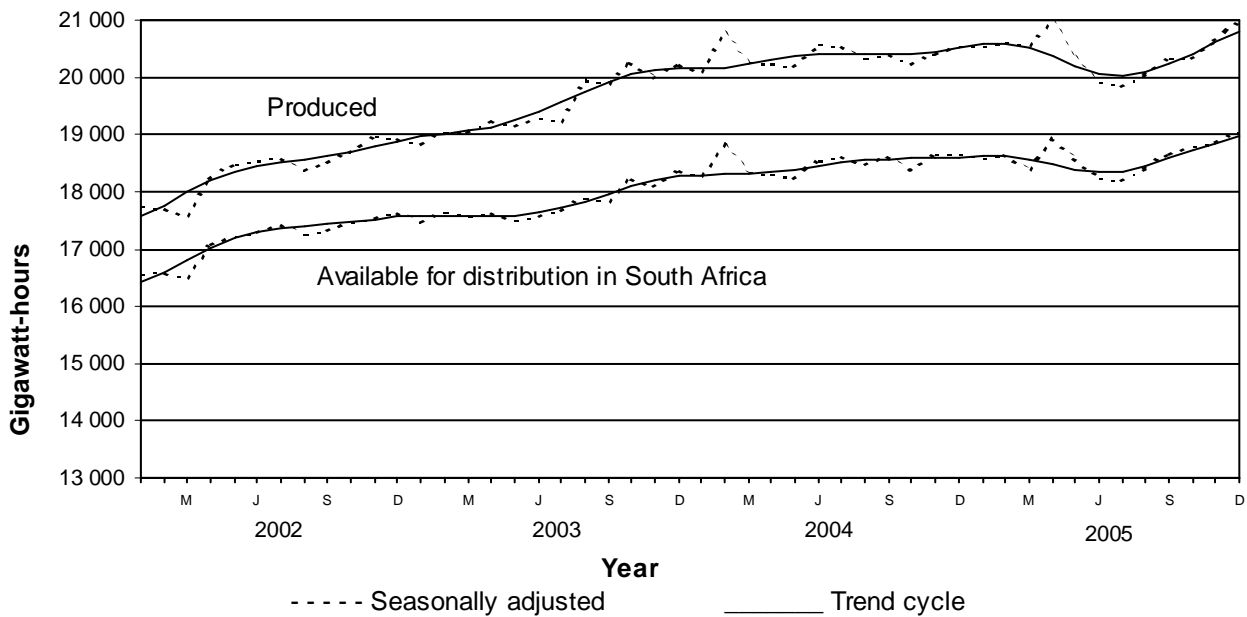
	Seasonally adjusted quantity July to September 2005	Seasonally adjusted quantity October to December 2005	Percentage change between July to October 2005 and October to December 2005	Quantity difference between July to October 2005 and October to December 2005
	Gigawatt-hours	Gigawatt-hours		Gigawatt-hours
Electricity produced	+60 211	+61 918	+2,8	+1 707
Electricity available for distribution in South Africa	+55 296	+56 688	+2,5	+1 392

Table C - Percentage change between the current quarter and the corresponding quarter of 2004

	Actual quantity October December 2004	to	Actual quantity October December 2005	to	Percentage change between October December 2004 and October December 2005	Quantity difference between October December 2004 and October December 2005
	Gigawatt-hours		Gigawatt-hours			Gigawatt-hours
Electricity produced	60 538		61 263		+1,2	+725
Purchased outside South Africa (import)	1 961		2 538		+29,4	+577
Consumed in power stations and auxiliary systems	4 494		4 482		-0,3	-12
Sold outside South Africa (export)	3 223		3 435		+6,6	+212
Electricity available for distribution in South Africa	54 782		55 882		+2,0	+1 100

Figure 1 below shows the seasonally adjusted and trend patterns for electricity produced and available for distribution in South Africa between January 2002 and December 2005. There was a slow upward movement in the trend cycles for both items from the beginning of 2004 until March 2005, followed by a marked decline during the winter months of 2005 and a subsequent increase to the highest level ever reported for this survey.

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
	January 2006	2 March 2006
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 December 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	17 277	17 169
March	16 225	16 320	16 552	17 655	18 476	18 487
April	15 399	15 515	16 362	16 905	17 524	18 133
May	17 064	16 929	17 852	18 159	18 909	19 224
June	16 818	16 788	18 017	18 330	19 337	18 983
July	17 759	18 021	18 956	19 183	20 156	19 657
August	17 214	17 300	18 064	18 714	19 265	19 191
September	16 180	16 277	17 125	17 526	18 362	18 384
October	16 709	16 794	17 741	18 480	18 714	19 127
November	16 161	15 960	17 233	17 790	18 314	18 523
December	15 395	15 224	16 712	17 456	17 754	1/ 18 232
Year	195 660	196 063	206 020	213 461	221 938	223 259

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	% change between current and previous month
January	15 834	16 399	16 531	17 460	18 264	18 587	+0,1
February	16 620	16 202	16 577	17 615	18 765	18 647	+0,3
March	16 205	16 232	16 456	17 548	18 343	18 365	-1,5
April	16 160	16 178	17 074	17 666	18 309	18 956	+3,2
May	16 382	16 267	17 191	17 505	18 261	18 596	-1,9
June	16 166	16 150	17 311	17 597	18 575	18 258	-1,8
July	16 428	16 651	17 508	17 722	18 620	18 205	-0,3
August	16 383	16 495	17 281	17 933	18 490	18 428	+1,2
September	16 314	16 458	17 337	17 794	18 634	18 663	+1,3
October	16 429	16 527	17 452	18 194	18 409	18 810	+0,8
November	16 468	16 241	17 527	18 086	18 619	18 829	+0,1
December	16 392	16 138	17 639	18 342	18 575	19 049	+1,2

**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	113,1	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	119,2
November	99,1	97,4	106,3	112,0	114,5	115,6
December	93,8	92,1	101,7	109,3	111,6	114,2 1/
Year	100,0	99,7	104,7	111,2	116,1	116,3

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	% change between current and previous month
January	94,5	100,9	101,0	107,1	114,4	117,2	+0,3
February	99,8	98,8	100,9	108,3	118,0	117,2	-0,0
March	101,0	98,7	100,0	108,4	115,3	117,1	-0,1
April	101,0	98,4	103,9	109,7	115,2	119,3	+1,9
May	102,1	99,0	105,3	109,0	115,1	115,7	-3,0
June	100,6	96,9	105,7	109,8	117,3	113,6	-1,8
July	99,3	102,4	106,6	110,0	117,6	113,4	-0,2
August	100,1	102,7	104,6	113,6	115,7	114,3	+0,8
September	99,4	100,9	105,3	113,3	116,1	115,7	+1,2
October	100,3	99,8	106,5	115,4	115,3	115,8	+0,1
November	101,0	99,1	108,1	113,8	116,3	117,4	+1,4
December	100,4	98,2	107,8	115,0	116,9	119,4	+1,7

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	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	836
November	601	636	477	583	746	865
December	778	708	691	720	679	1/ 837
Year	4 719	7 247	7 873	6 739	8 026	9 199

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	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	1 161
November	525	598	600	1 025	1 082	1 119
December	609	547	608	1 055	1 029	1/ 1 155
Year	4 007	6 519	6 950	10 136	12 453	12 884

1/ Preliminary.

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

Gigawatt-hours					
Description	December 2004	November 2005	December 2005 1/	% change between December 2004 and December 2005	Difference between December 2004 and December 2005
Total - All producers					
Electricity produced	19 589	20 292	20 043	+2,3	+454
Purchased outside South Africa (import)	679	865	837	+23,3	+158
Consumed in power stations and auxiliary systems	1 485	1 515	1 492	+0,5	+7
Sold outside South Africa (export)	1 029	1 119	1 155	+12,2	+126
Electricity available for distribution in South Africa	17 754	18 523	18 232	+2,7	+478
ESKOM					
Electricity produced	18 585	19 439	19 169	+3,1	+584
Purchased outside South Africa (import)	679	865	837	+23,3	+158
Consumed in power stations and auxiliary systems	1 386	1 426	1 411	+1,8	+25
Sold outside South Africa (export)	1 029	1 119	1 155	+12,2	+126
Electricity available for distribution in South Africa	16 849	17 759	17 440	+3,5	+591

1/ Preliminary.

Table 7b - 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 December 2004	January to December 2005	% change between January to December 2004 and January to December 2005	Difference between January to December 2004 and January to December 2005
Total - All producers				
Electricity produced	244 604	244 923	+0,1	+319
Purchased outside South Africa (import)	8 026	9 199	+14,6	+1 173
Consumed in power stations and auxiliary systems	18 239	17 979	-1,4	-260
Sold outside South Africa (export)	12 453	12 884	+3,5	+431
Electricity available for distribution in South Africa	221 938	223 259	+0,6	+1 321
ESKOM				
Electricity produced	233 153	233 184	+0,0	+31
Purchased outside South Africa (import)	8 026	9 199	+14,6	+1 173
Consumed in power stations and auxiliary systems	17 185	16 888	-1,7	-297
Sold outside South Africa (export)	12 453	12 884	+3,5	+431
Electricity available for distribution in South Africa	211 543	212 613	+0,5	+1 070

Table 8a - 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	21 491	7 510	4 502	9 626	42 263
2005	21 445	7 713	4 649	8 980	43 049
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	1 831	666	424	746	3 712
November	1 790	632	390	700	3 589
December 2/	1 826	594	402	700	3 563

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

Gigawatt-hours

Month	North West	Gauteng	Mpumalanga	Limpopo	Total South Africa
2004	28 187	54 970	25 925	9 791	204 267
2005	24 865	55 107	29 469	10 281	205 558
2005					
January	2 172	4 402	2 206	858	16 837
February	2 056	4 052	2 285	815	15 823
March	2 171	4 494	2 378	854	17 005
April	2 089	4 489	2 675	676	16 751
May	2 173	4 730	2 582	909	17 626
June	2 068	4 760	2 449	899	17 364
July	2 042	5 057	2 498	925	17 993
August	1 937	4 866	2 319	932	17 530
September	1 996	4 493	2 373	860	16 882
October	2 050	4 776	2 703	861	17 769
November	2 070	4 672	2 467	821	17 131
December 2/	2 041	4 316	2 534	871	16 847

2/ Preliminary.

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

Gigawatt-hours

Province and year	Total for year		Percentage of distribution	
	2004	2005	2004	2005
Western Cape	21 491	21 445	10,5	10,4
Eastern Cape	7 510	7 713	3,7	3,8
Northern Cape	4 502	4 649	2,2	2,3
Free State	9 626	8 980	4,7	4,4
KwaZulu-Natal	42 263	43 049	20,7	20,9
North West	28 187	24 865	13,8	12,1
Gauteng	54 970	55 107	26,9	26,8
Mpumalanga	25 925	29 469	12,7	14,3
Limpopo	9 791	10 281	4,8	5,0
Total	204 267	205 558	100,0	100,0

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

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 re-based every five years to a new base year. Production indices in this statistical release will be re-based and reported on 2005=100 for the January 2006 statistical release
 - 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 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 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.

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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 <i>Standard Industrial Classification of all Economic Activities (SIC)</i> , 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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Fax number: (012) 310 8310 (technical enquiries)

email: gerdab@statssa.gov.za (technical enquiries)
cleopatram@statssa.gov.za (technical enquiries)
info@statssa.gov.za (user information services)
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Postal address: Private Bag X44, Pretoria, 0001

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