

Statistical release

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Electricity generated and available for distribution (preliminary)

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SUMMARY OF FINDINGS: ELECTRICITY GENERATED AND AVAILABLE FOR DISTRIBUTION (JANUARY 2008)

Key findings

Consumption of electricity decreases

The reported electricity supply shortages contributed to the 1,2% (-238 Gigawatt-hours) decrease in the estimated consumption of electricity in January 2008 compared with January 2007 (see tables A and 9). The estimated volume of electricity consumed (available for distribution) for the three months ending January 2008 increased slightly by 1,0% (560 Gigawatt-hours) compared with the three months ending January 2007 (see tables A and C). Electricity consumption after seasonal adjustment for January 2008 decreased by 1,5% compared with December 2007 (see table A).

Production of electricity increases

The estimated production of electricity in January 2008 increased by 1,5% (319 Gigawatt-hours) compared with January 2007, of which Eskom reported an increase of 1,4% (286 Gigawatt-hours) (see tables A and 9). The estimated production of electricity for the three months ending January 2008 increased by 2,9% (1 802 Gigawatt-hours) compared with the three months ending January 2007 (see tables A and C). However, the estimated production of electricity, after seasonal adjustment, decreased by 0,6% for January 2008 compared with the previous month (see table A).

Distribution of electricity by Eskom to the provinces decreases

Electricity distributed to the provinces decreased by 1,5% for January 2008 compared with January 2007, a trend which is evident in most of the provinces. Decreases were reported for Western Cape (-1,4% or -27 Gigawatt-hours), Eastern Cape (-2,7% or -21 Gigawatt-hours), Free State (-4,0% or -31 Gigawatt-hours), Limpopo (-6,0% or -56 Gigawatt-hours), Mpumalanga (-6,1% or -174 Gigawatt-hours) and Northern Cape (-13,2% or -60 Gigawatt-hours). The three provinces that reported increases in January 2008 compared with January 2007 were the North West (1,8% or 39 Gigawatt-hours), Gauteng (1,1% or 52 Gigawatt-hours) and KwaZulu-Natal (0,3% or 39 Gigawatt-hours).

Key figures

Table A - Selected key figures regarding electricity generated and available for distribution for January 2008

Estimates	January 2008 1/	% change between January 2007 and January 2008	% change between November 2006 to January 2007 and November 2007 to January 2008
Electricity available for distribution (Gigawatt-hours)	19 322	-1,2	1,0
Index of the physical volume of electricity production (2005=100)	105,5	1,5	2,9

1/ Preliminary.

Seasonally adjusted estimates	January 2008	% change between December 2007 and January 2008	% change between August to October 2007 and November 2007 to January 2008
Electricity available for distribution (Gigawatt-hours)	19 631	-1,5	-2,0
Index of the physical volume of electricity production (2005=100)	107,8	-0,6	0,4

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

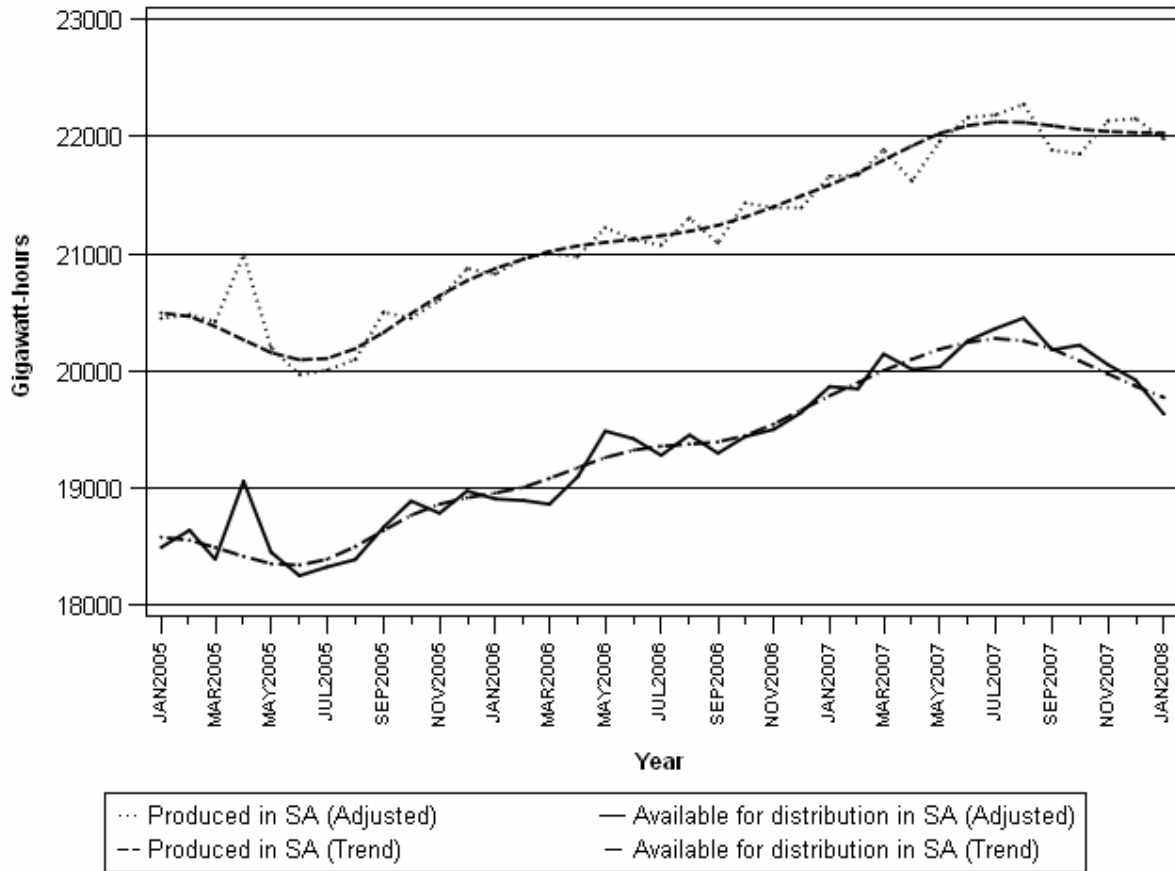
Gigawatt-hours	Seasonally adjusted quantity August to October 2007	Seasonally adjusted quantity November 2007 to January 2008	% change between August to October 2007 and November 2007 to January 2008	Quantity difference between August to October 2007 and November 2007 to January 2008
Electricity produced	66 007	66 262	0,4	255
Electricity available for distribution in South Africa	60 849	59 605	-2,0	-1 244

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

Gigawatt-hours	Actual quantity November 2006 to January 2007	Actual quantity November 2007 to January 2008	% change between November 2006 to January 2007 and November 2007 to January 2008	Quantity difference between November 2006 to January 2007 and November 2007 to January 2008
Electricity produced	62 885	64 687	2,9	1 802
Purchased outside South Africa (import)	2 913	2 049	-29,7	-864
Consumed in Power stations and auxiliary systems	4 638	4 706	1,5	68
Sold outside South Africa (export)	3 448	3 756	8,9	308
Electricity available for distribution in South Africa	57 713	58 273	1,0	560

Figure 1 below shows the seasonally adjusted and trend patterns for electricity produced and available for distribution in South Africa between January 2005 and January 2008. The trends in both electricity produced and available for distribution generally increased from mid-2005 up to mid-2007. Thereafter, electricity generated levelled off and electricity available for distribution declined.

Figure 1 - Electricity produced and available for distribution in South Africa from 2005 to 2008



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Statistician-General

Detailed results: Tables

Table 1 - Total volume of electricity available for distribution in South Africa: 2003 to 2008

	2003	2004	2005	2006	2007	2008
January	17 095	17 850	18 149	18 603	19 560	1/ 19 322
February	16 168	17 277	17 169	17 396	18 298	
March	17 655	18 476	18 487	18 982	20 269	
April	16 905	17 524	18 133	18 122	18 984	
May	18 159	18 909	19 224	20 312	20 907	
June	18 330	19 337	18 983	20 166	21 027	
July	19 183	20 156	19 657	20 632	21 785	
August	18 714	19 265	19 191	20 307	21 350	
September	17 526	18 362	18 384	18 987	19 850	
October	18 480	18 714	19 127	19 663	20 433	
November	17 790	18 314	18 523	19 244	19 785	
December	17 456	17 754	18 230	18 909	19 166	
Year	213 461	221 938	223 257	231 323	241 414	

1/ Preliminary.

Table 2 - Percentage change in electricity available for distribution in South Africa: 2003 to 2008

	Percentage					
	2003	2004	2005	2006	2007	2008
January	5,6	4,4	1,7	2,5	5,1	-1,2
February	6,3	6,9	-0,6	1,3	5,2	
March	6,7	4,7	0,1	2,7	6,8	
April	3,3	3,7	3,5	-0,1	4,8	
May	1,7	4,1	1,7	5,7	2,9	
June	1,7	5,5	-1,8	6,2	4,3	
July	1,2	5,1	-2,5	5,0	5,6	
August	3,6	2,9	-0,4	5,8	5,1	
September	2,3	4,8	0,1	3,3	4,5	
October	4,2	1,3	2,2	2,8	3,9	
November	3,2	2,9	1,1	3,9	2,8	
December	4,5	1,7	2,7	3,7	1,4	
Year	3,6	4,0	0,6	3,6	4,4	

Table 3 - Seasonally adjusted total volume of electricity available for distribution in South Africa: 2003 to 2008

	Gigawatt-hours						% change between current and previous month
	2003	2004	2005	2006	2007	2008	
January	17 443	18 195	18 494	18 907	19 866	19 631	-1,5
February	17 608	18 757	18 640	18 893	19 846		
March	17 579	18 372	18 391	18 862	20 144		
April	17 687	18 362	19 059	19 097	20 012		
May	17 438	18 157	18 452	19 486	20 033		
June	17 594	18 569	18 252	19 420	20 256		
July	17 825	18 749	18 326	19 279	20 360		
August	17 940	18 479	18 390	19 453	20 451		
September	17 768	18 624	18 667	19 297	20 179		
October	18 211	18 457	18 889	19 439	20 219		
November	18 083	18 609	18 785	19 500	20 052		
December	18 329	18 550	18 974	19 644	19 922		

Table 4 - Indices of the physical volume of electricity production: 2003 to 2008

	Base : 2005=100					
	2003	2004	2005	2006	2007	2008
January	89,6	95,5	97,6	99,8	103,9	1/ 105,5
February	84,7	92,2	91,7	94,0	97,2	
March	92,9	98,7	100,2	103,3	107,8	
April	90,1	94,7	98,1	98,0	100,9	
May	97,2	102,4	102,9	108,1	112,0	
June	98,5	105,0	101,6	107,3	112,5	
July	102,5	109,5	105,5	110,8	116,6	
August	102,4	104,3	103,0	109,1	114,1	
September	97,0	99,5	99,1	101,8	105,5	
October	102,2	102,1	102,5	107,2	109,1	
November	96,4	98,5	99,4	103,3	106,9	
December	94,0	96,0	98,2	100,9	104,6	
Year	95,6	99,9	100,0	103,6	107,6	

1/ Preliminary.

Table 5 - Percentage change in indices of the physical volume of electricity production: 2003 to 2008

	2003	2004	2005	2006	2007	2008
January	5,8	6,6	2,2	2,3	4,1	1,5
February	7,2	8,9	-0,5	2,5	3,4	
March	8,4	6,2	1,5	3,1	4,4	
April	5,9	5,1	3,6	-0,1	3,0	
May	3,3	5,3	0,5	5,1	3,6	
June	3,9	6,6	-3,2	5,6	4,8	
July	3,1	6,8	-3,7	5,0	5,2	
August	8,4	1,9	-1,2	5,9	4,6	
September	7,4	2,6	-0,4	2,7	3,6	
October	8,4	-0,1	0,4	4,6	1,8	
November	5,4	2,2	0,9	3,9	3,5	
December	7,6	2,1	2,3	2,7	3,7	
Year	6,2	4,4	0,1	3,7	3,8	

The percentage change is the change in the index of the physical volume of electricity production of the relevant year compared with the index of the physical volume of electricity production of the previous year expressed as a percentage.

Table 6 - Seasonally adjusted indices of the physical volume of electricity production: 2003 to 2008

	Base : 2005=100						% change between current and previous month
	2003	2004	2005	2006	2007	2008	
January	92,0	98,1	100,2	102,2	106,2	107,8	-0,6
February	93,0	101,1	100,3	102,7	106,1		
March	93,1	98,7	99,9	102,9	107,3		
April	94,4	99,2	102,9	103,1	106,2		
May	93,6	98,7	99,1	104,1	107,8		
June	94,3	100,6	97,4	103,0	108,0		
July	94,8	101,6	98,1	103,2	108,7		
August	97,9	99,7	98,5	104,3	109,2		
September	97,7	100,5	100,5	103,4	107,3		
October	99,5	99,6	100,2	105,1	107,1		
November	98,0	100,1	100,9	104,8	108,5		
December	99,0	100,5	102,3	104,8	108,5		

Table 7 - Total volume of electricity imported: 2003 to 2008

Month	Gigawatt-hours					
	2003	2004	2005	2006	2007	2008
January	705	828	729	872	1 086	1/ 638
February	637	811	714	646	939	
March	706	863	533	581	970	
April	547	641	598	587	1 052	
May	569	547	849	879	897	
June	518	560	813	881	880	
July	792	607	856	926	980	
August	424	618	883	930	1 041	
September	266	590	686	971	1 024	
October	272	536	836	682	1 038	
November	583	746	865	862	794	
December	720	679	837	965	617	
Year	6 739	8 026	9 199	9 782	11 318	

1/ Preliminary.

Table 8 - Total volume of electricity exported: 2003 to 2008

Month	Gigawatt-hours					
	2003	2004	2005	2006	2007	2008
January	578	1 037	1 030	1 056	1 133	1/ 1 278
February	508	977	901	1 050	1 060	
March	607	1 027	968	1 129	1 119	
April	619	951	991	1 017	1 127	
May	805	944	1 083	1 046	1 193	
June	798	1 057	1 096	1 102	1 248	
July	944	1 140	1 102	1 239	1 292	
August	1 030	1 049	1 144	1 262	1 251	
September	1 051	1 048	1 134	1 239	1 065	
October	1 116	1 112	1 161	1 311	1 251	
November	1 025	1 082	1 119	1 186	1 253	
December	1 055	1 029	1 155	1 129	1 225	
Year	10 136	12 453	12 884	13 766	14 217	

1/ Preliminary.

Table 9 - Electricity produced and consumed in power stations, purchased and sold outside South Africa and available for distribution in South Africa

		Gigawatt-hours				
		January 2007	December 2007	January 2008 1/	% Change between January 2007 and January 2008	Difference between January 2007 and January 2008
Total - All producers	Electricity produced	21 215	21 343	21 534	1,5	319
	Purchased outside South Africa (import)	1 086	617	638	-41,3	-448
	Consumed in power stations and auxiliary systems	1 608	1 569	1 571	-2,3	-37
	Sold outside South Africa (export)	1 133	1 225	1 278	12,8	145
	Electricity available for distribution in South Africa	19 560	19 166	19 322	-1,2	-238
ESKOM	Electricity produced	20 413	20 459	20 699	1,4	286
	Purchased outside South Africa (import)	1 086	617	638	-41,3	-448
	Consumed in power stations and auxiliary systems	1 532	1 502	1 502	-2,0	-30
	Sold outside South Africa (export)	1 133	1 225	1 278	12,8	145
	Electricity available for distribution in South Africa	18 833	18 349	18 556	-1,5	-277

1/ Preliminary.

Table 10 - Electricity distributed by Eskom by province for 2007 and 2008 1/

		Gigawatt-hours									
		Western Cape	Eastern Cape	Northern Cape	Free State	KwaZulu-Natal	North West	Gauteng	Mpumalanga	Limpopo	Total South Africa
2007	January	1 955	770	456	780	3 541	2 168	4 809	2 835	930	18 244
	February	1 817	746	410	718	3 326	2 074	4 583	2 561	878	17 113
	March	2 018	816	467	793	3 650	2 299	5 070	2 884	965	18 962
	April	1 861	854	371	769	3 416	2 079	4 758	2 665	915	17 688
	May	2 012	951	401	825	3 702	2 279	5 563	2 866	975	19 574
	June	1 989	828	413	841	3 643	2 231	5 788	2 814	957	19 504
	July	2 007	820	442	884	3 805	2 257	6 013	2 974	966	20 168
	August	2 060	825	417	840	3 738	2 268	5 635	2 918	961	19 662
	September	1 904	884	401	790	3 581	2 254	4 930	2 764	927	18 435
	October	1 985	812	413	775	3 693	2 335	5 125	2 878	944	18 960
	November	1 907	763	419	801	3 574	2 285	4 963	2 773	915	18 400
	December	1 895	696	417	740	3 524	1 986	4 760	2 770	937	17 725
	Year	23 410	9 765	5 027	9 556	43 193	26 515	61 997	33 702	11 270	224 435
2008	January 2/	1 928	749	396	749	3 552	2 207	4 861	2 661	874	17 977

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

2/ Preliminary.

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 2005=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.
Purpose of the survey	4	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.
Scope of the survey	5	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	6	The 1993 edition of the <i>Standard Industrial Classification of all Economic Activities (SIC)</i> , Fifth Edition, Report No. 09-90-02, was used to classify the statistical units in the survey. The SIC is based on the 1990 <i>International Standard Industrial Classification of all Economic Activities (ISIC)</i> 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.
Response rate	7	The response rate for the survey on electricity generated and available for distribution for January 2008 was 99%.
Statistical unit	8	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	9	All statistical units are stratified by type of economic activity according to the <i>Standard Industrial Classification of all Economic Activities (SIC)</i> 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.
	10	The survey is conducted by mail each month collecting information from a sample of 22 electricity undertakings or establishments.

Monthly production indices	11	The calculation of the monthly production indices is based on the number of electricity units produced.
Benchmarking	12	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.
	13	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 August 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	14	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 recognized. 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 behaviour.
Trend cycle	15	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	16	Users may also wish to refer to the following publications which are available from Stats SA - <ul style="list-style-type: none"> • <i>Bulletin of Statistics.</i> • <i>SA Statistics.</i>
Unpublished statistics	17	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	18	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	19	Stats SA pre-release policy may be inspected at its website, www.statssa.gov.za .

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.										
Index of physical volume of electricity production	A statistical measure of the change in 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 2005. 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 <i>System of National Accounts (1993 SNA)</i> 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 gigawatt-hour of electricity is equal to one million kilowatt-hours. A kilowatt-hour is the basic unit of electrical energy equal to one kilowatt of power supplied to or taken from an electric circuit steadily for one hour. One kilowatt-hour equals one thousand watt-hours.										
Symbols and abbreviations	<table border="0"> <tr> <td>GDP</td> <td>Gross Domestic Product</td> </tr> <tr> <td>ISIC</td> <td>International Standard Industrial Classification</td> </tr> <tr> <td>SIC</td> <td>Standard Industrial Classification of all Economic Activities</td> </tr> <tr> <td>Stats SA</td> <td>Statistics South Africa</td> </tr> <tr> <td>*</td> <td>Revised figures</td> </tr> </table>	GDP	Gross Domestic Product	ISIC	International Standard Industrial Classification	SIC	Standard Industrial Classification of all Economic Activities	Stats SA	Statistics South Africa	*	Revised figures
GDP	Gross Domestic Product										
ISIC	International Standard Industrial Classification										
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Stats SA	Statistics South Africa										
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