

Statistical release

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Electricity generated and available for distribution (preliminary)

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Contents

Page

SUMMARY OF FINDINGS: ELECTRICITY GENERATED AND AVAILABLE FOR DISTRIBUTION (JANUARY 2007)
 2

Key findings..... 2

Consumption of electricity increases 2

Production of electricity increases..... 2

Key figures..... 2

Table A - Selected key figures regarding electricity generated and available for distribution for January 2007 2

Table B - Percentage change in the seasonally adjusted quantity of electricity generated and available for distribution between the current quarter and the previous quarter 3

Table C - Percentage change between the current quarter and the corresponding quarter of the previous year 3

Figure 1 - Electricity produced and available for distribution in South Africa from 2004 to 2007 4

Table 1 - Total volume of electricity available for distribution in South Africa: 2002 to 2007 5

Table 2 - Percentage change in electricity available for distribution in South Africa: 2002 to 2007 5

Table 3 - Seasonally adjusted total volume of electricity available for distribution in South Africa: 2002 to 2007 6

Table 4 - Indices of the physical volume of electricity production: 2002 to 2007..... 7

Table 5 - Percentage change in indices of the physical volume of electricity production: 2002 to 2007..... 7

Table 6 - Seasonally adjusted indices of the physical volume of electricity production: 2002 to 2007 8

Table 7 - Total volume of electricity imported: 2002 to 2007 9

Table 8 - Total volume of electricity exported: 2002 to 2007 9

Table 9 - Electricity produced and consumed in power stations, purchased and sold outside South Africa and available for distribution in South Africa..... 10

Table 10 - Electricity distributed by Eskom by province for 2006 and 2007 10

Explanatory notes 11

Glossary 13

General information 14

SUMMARY OF FINDINGS: ELECTRICITY GENERATED AND AVAILABLE FOR DISTRIBUTION (JANUARY 2007)

Key findings

Consumption of electricity increases

The estimated consumption of electricity in January 2007 increased by 5,1% (+940 Gigawatt-hours) compared with January 2006 while in 2006, the increase was reported at 2,5% compared with the previous year (see tables 2 and 9). The estimated volume of electricity consumed (available for distribution) for the three months ending January 2007 increased by 4,2% (+2 328 Gigawatt-hours) compared with the corresponding three months ending January 2006 (see table C). Electricity consumption after seasonal adjustment for January 2007 increased by 0,8% (+166 Gigawatt-hours) compared to the previous month (see tables A and 3).

Production of electricity increases

The estimated production of electricity in January 2007 increased by 4,2% (+852 Gigawatt-hours) compared with January 2006 (see table 9). Electricity production by Eskom increased by 4,6% (+898 Gigawatt-hours) in January 2007 compared with January 2006 (see table 9). The estimated production of electricity for the three months ending January 2007 increased by 3,6% (+2 190 Gigawatt-hours) compared with the corresponding three months ending January 2006 (see tables A and C). Furthermore, the estimated production of electricity, after seasonal adjustment, increased by 1,2% for January 2007 compared to the previous month (see table A).

Key figures

Table A - Selected key figures regarding electricity generated and available for distribution for January 2007

Estimates	January 2007 1/	% change between January 2006 and January 2007	% change between November 2005 to January 2006 and November 2006 to January 2007
Electricity available for distribution (Gigawatt-hours)	19 543	+5,1	+4,2
Index of the physical volume of electricity production (2005=100)	103,9	+4,1	+3,6

1/ Preliminary

Seasonally adjusted estimates	January 2007	% change between December 2006 and January 2007	% change between August to October 2006 and November 2006 to January 2007
Electricity available for distribution (Gigawatt-hours)	19 816	+0,8	+1,3
Index of the physical volume of electricity production (2005=100)	106,3	+1,2	+1,4

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

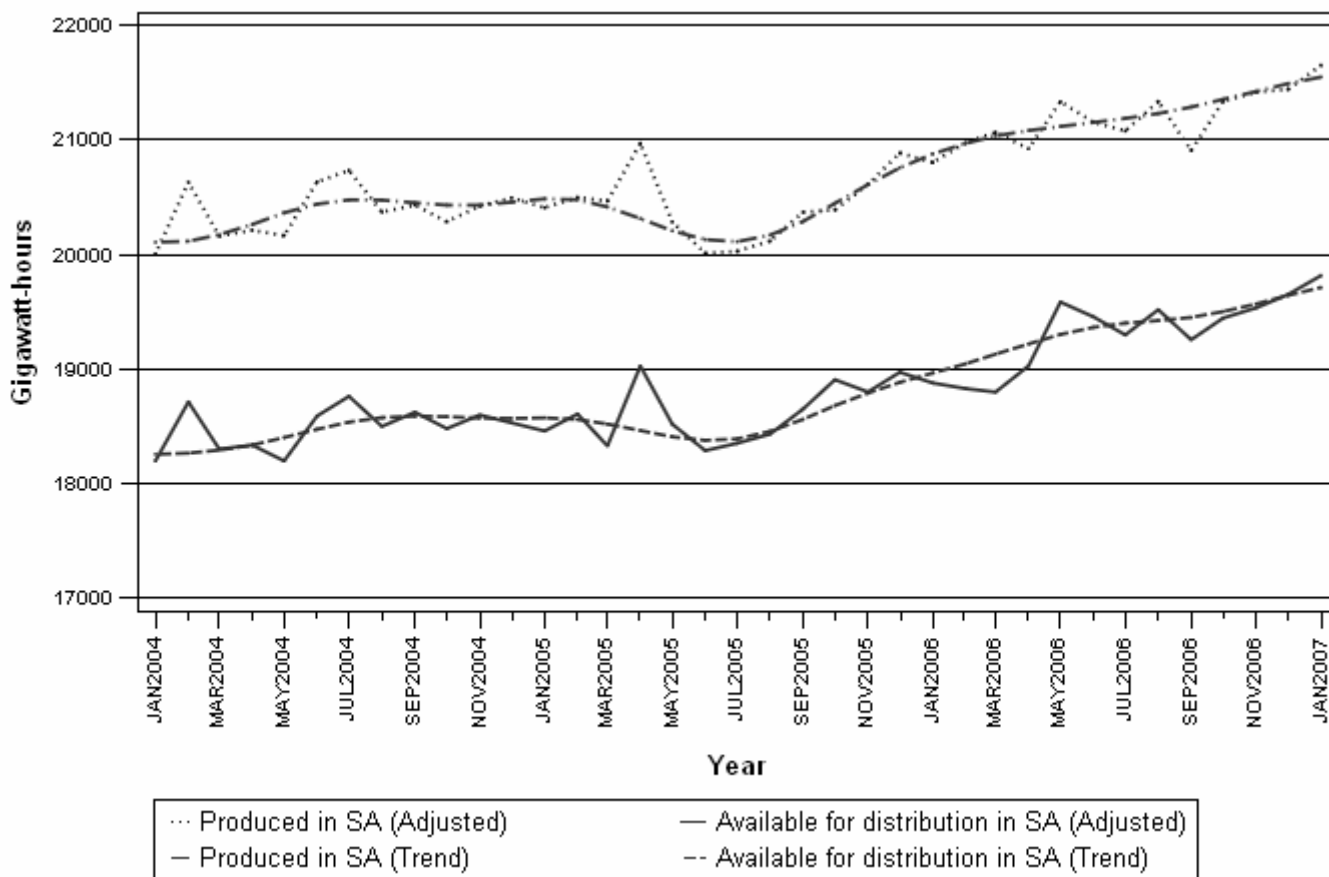
Gigawatt-hours	Seasonally adjusted quantity August to October 2006	Seasonally adjusted quantity November 2006 to January 2007	% change between August to October 2006 and November 2006 to January 2007	Quantity difference between August to October 2006 and November 2006 to January 2007
Electricity produced	63 581	64 511	+1,5	+930
Electricity available for distribution in South Africa	58 219	59 000	+1,3	+781

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

Gigawatt-hours	Actual quantity November 2005 to January 2006	Actual quantity November 2006 to January 2007	% change between November 2005 to January 2006 and November 2006 to January 2007	Quantity difference between November 2005 to January 2006 and November 2006 to January 2007
Electricity produced	60 695	62 885	+3,6	+2 190
Purchased outside South Africa (import)	2 574	2 913	+13,2	+339
Consumed in Power stations and auxiliary systems	4 582	4 667	+1,9	+85
Sold outside South Africa (export)	3 330	3 448	+3,5	+118
Electricity available for distribution in South Africa	55 356	57 684	+4,2	+2 328

Figure 1 below shows the seasonally adjusted and trend patterns for electricity produced and available for distribution in South Africa between January 2004 and January 2007. There was a gradual upward movement in the trend cycles from the beginning of the period until July 2004. From July 2004 up until February 2005 the trend cycles moved sideways, followed by a declining trend in electricity production between March and July of 2005. From August 2005 up until present, there was a steady increase in the production of energy.

Figure 1 - Electricity produced and available for distribution in South Africa from 2004 to 2007



P J Lehohla
Statistician-General

Detailed results: Tables

Table 1 - Total volume of electricity available for distribution in South Africa: 2002 to 2007

	2002	2003	2004	2005	2006	2007
January	16 191	17 095	17 850	18 149	18 603	1/ 19 543
February	15 215	16 168	17 277	17 169	17 396	
March	16 552	17 655	18 476	18 487	18 982	
April	16 362	16 905	17 524	18 133	18 122	
May	17 852	18 159	18 909	19 224	20 312	
June	18 017	18 330	19 337	18 983	20 166	
July	18 956	19 183	20 156	19 657	20 632	
August	18 064	18 714	19 265	19 191	20 307	
September	17 125	17 526	18 362	18 384	18 987	
October	17 741	18 480	18 714	19 127	19 663	
November	17 233	17 790	18 314	18 523	19 244	
December	16 712	17 456	17 754	18 230	18 897	
Year	206 020	213 461	221 938	223 257	231 311	

1/ Preliminary.

Table 2 - Percentage change in electricity available for distribution in South Africa: 2002 to 2007

	Percentage					
	2002	2003	2004	2005	2006	2007
January	+0,8	+5,6	+4,4	+1,7	+2,5	+5,1
February	+2,3	+6,3	+6,9	-0,6	+1,3	
March	+1,4	+6,7	+4,7	+0,1	+2,7	
April	+5,5	+3,3	+3,7	+3,5	-0,1	
May	+5,5	+1,7	+4,1	+1,7	+5,7	
June	+7,3	+1,7	+5,5	-1,8	+6,2	
July	+5,2	+1,2	+5,1	-2,5	+5,0	
August	+4,4	+3,6	+2,9	-0,4	+5,8	
September	+5,2	+2,3	+4,8	+0,1	+3,3	
October	+5,6	+4,2	+1,3	+2,2	+2,8	
November	+8,0	+3,2	+2,9	+1,1	+3,9	
December	+9,8	+4,5	+1,7	+2,7	+3,7	
Year	+5,1	+3,6	+4,0	+0,6	+3,6	

Table 3 - Seasonally adjusted total volume of electricity available for distribution in South Africa: 2002 to 2007

	Gigawatt-hours						
	2002	2003	2004	2005	2006	2007	% change between current and previous month
January	16 519	17 439	18 198	18 459	18 878	19 816	+0,8
February	16 559	17 594	18 713	18 608	18 829		
March	16 431	17 525	18 301	18 329	18 799		
April	17 065	17 677	18 336	19 027	19 027		
May	17 170	17 470	18 198	18 519	19 585		
June	17 310	17 604	18 590	18 288	19 456		
July	17 610	17 835	18 762	18 352	19 298		
August	17 291	17 947	18 499	18 432	19 518		
September	17 316	17 786	18 623	18 651	19 256		
October	17 465	18 245	18 480	18 907	19 445		
November	17 503	18 080	18 599	18 800	19 534		
December	17 617	18 328	18 530	18 972	19 650		

Table 4 - Indices of the physical volume of electricity production: 2002 to 2007

	Base : 2005=100					
	2002	2003	2004	2005	2006	2007
January	84,7	89,6	95,5	97,6	99,8	1/ 103,9
February	79,0	84,7	92,2	91,7	94,0	
March	85,7	92,9	98,7	100,2	103,3	
April	85,1	90,1	94,7	98,1	98,0	
May	94,1	97,2	102,4	102,9	108,1	
June	94,8	98,5	105,0	101,6	107,3	
July	99,4	102,5	109,5	105,5	110,8	
August	94,5	102,4	104,3	103,0	109,1	
September	90,3	97,0	99,5	99,1	101,8	
October	94,3	102,2	102,1	102,5	107,2	
November	91,5	96,4	98,5	99,4	103,3	
December	87,4	94,0	96,0	98,2	100,9	
Year	90,1	95,6	99,9	100,0	103,6	

1/ Preliminary.

Table 5 - Percentage change in indices of the physical volume of electricity production: 2002 to 2007

	2002	2003	2004	2005	2006	2007
January	-0,1	+5,8	+6,6	+2,2	+2,3	+4,1
February	+1,9	+7,2	+8,9	-0,5	+2,5	
March	+1,2	+8,4	+6,2	+1,5	+3,1	
April	+5,7	+5,9	+5,1	+3,6	-0,1	
May	+6,2	+3,3	+5,3	+0,5	+5,1	
June	+9,0	+3,9	+6,6	-3,2	+5,6	
July	+4,0	+3,1	+6,8	-3,7	+5,0	
August	+1,7	+8,4	+1,9	-1,2	+5,9	
September	+4,5	+7,4	+2,6	-0,4	+2,7	
October	+6,7	+8,4	-0,1	+0,4	+4,6	
November	+9,2	+5,4	+2,2	+0,9	+3,9	
December	+10,4	+7,6	+2,1	+2,3	+2,7	
Year	+5,0	+6,2	+4,4	+0,1	+3,7	

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: 2002 to 2007

	Base : 2005=100						% change between current and previous month
	2002	2003	2004	2005	2006	2007	
January	86,8	92,0	98,1	100,1	102,2	106,3	+1,2
February	86,8	93,0	101,0	100,4	102,8		
March	85,8	93,1	98,8	100,2	103,3		
April	89,3	94,4	99,2	102,8	102,8		
May	90,6	93,6	98,8	99,3	104,4		
June	90,9	94,5	100,9	97,8	103,3		
July	91,8	94,8	101,6	98,1	103,2		
August	90,1	97,8	99,7	98,5	104,4		
September	90,7	97,7	100,3	100,1	102,8		
October	91,6	99,4	99,3	99,8	104,5		
November	93,0	98,0	100,1	100,9	104,9		
December	92,6	99,0	100,4	102,3	105,0		

Table 7 - Total volume of electricity imported: 2002 to 2007

Month	Gigawatt-hours					
	2002	2003	2004	2005	2006	2007
January	670	705	828	729	872	1/ 1 086
February	643	637	811	714	646	
March	783	706	863	533	581	
April	733	547	641	598	587	
May	658	569	547	849	879	
June	704	518	560	813	881	
July	702	792	607	856	926	
August	721	424	618	883	930	
September	637	266	590	686	971	
October	454	272	536	836	682	
November	477	583	746	865	862	
December	691	720	679	837	965	
Year	7 873	6 739	8 026	9 199	9 782	

1/ Preliminary.

Table 8 - Total volume of electricity exported: 2002 to 2007

Month	Gigawatt-hours					
	2002	2003	2004	2005	2006	2007
January	558	578	1 037	1 030	1 056	1/ 1 133
February	478	508	977	901	1 050	
March	529	607	1 027	968	1 129	
April	525	619	951	991	1 017	
May	578	805	944	1 083	1 046	
June	601	798	1 057	1 096	1 102	
July	614	944	1 140	1 102	1 239	
August	605	1 030	1 049	1 144	1 262	
September	628	1 051	1 048	1 134	1 239	
October	626	1 116	1 112	1 161	1 311	
November	600	1 025	1 082	1 119	1 186	
December	608	1 055	1 029	1 155	1 129	
Year	6 950	10 136	12 453	12 884	13 766	

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 2006	December 2006	January 2007 1/	% Change between January 2006 and January 2007	Difference between January 2006 and January 2007
Total - All producers	Electricity produced	20 363	20 596	21 215	+4,2	+852
	Purchased outside South Africa (import)	872	965	1 086	+24,5	+214
	Consumed in power stations and auxiliary systems	1 575	1 535	1 625	+3,2	+50
	Sold outside South Africa (export)	1 056	1 129	1 133	+7,3	+77
	Electricity available for distribution in South Africa	18 603	18 897	19 543	+5,1	+940
ESKOM	Electricity produced	19 515	19 761	20 413	+4,6	+898
	Purchased outside South Africa (import)	872	965	1 086	+24,5	+214
	Consumed in power stations and auxiliary systems	1 496	1 460	1 532	+2,4	+36
	Sold outside South Africa (export)	1 056	1 129	1 133	+7,3	+77
	Electricity available for distribution in South Africa	17 835	18 136	18 833	+5,6	+998

1/ Preliminary.

Table 10 - Electricity distributed by Eskom by province for 2006 and 2007 1/

		Gigawatt-hours									
		Western Cape	Eastern Cape	Northern Cape	Free State	Kwazulu-Natal	North West	Gauteng	Mpumalanga	Limpopo	Total South Africa
2006	January	1 852	626	388	712	3 611	2 073	4 442	2 635	904	17 242
	February	1 703	595	339	721	3 410	1 934	4 129	2 343	1 023	16 197
	March	1 879	639	394	740	3 747	2 019	4 690	2 684	890	17 682
	April	1 809	591	357	730	3 572	1 904	4 514	2 550	874	16 901
	May	1 906	665	374	809	3 826	2 082	5 525	2 784	955	18 925
	June	1 832	670	363	732	3 870	2 093	5 476	2 648	964	18 647
	July	1 946	788	399	810	3 657	2 151	5 707	2 661	998	19 116
	August	1 939	780	391	826	3 563	2 103	5 605	2 560	1 000	18 767
	September	1 828	753	409	736	3 456	1 963	4 963	2 487	993	17 588
	October	1 909	769	435	786	3 590	2 079	5 045	2 644	1 037	18 294
	November	1 867	745	439	762	3 443	1 982	4 965	2 687	958	17 848
	December	1 912	640	439	777	3 429	2 036	4 667	2 705	924	17 529
	Year	22 382	8 261	4 727	9 141	43 174	24 419	59 728	31 388	11 520	214 736
2007	January 2/	1 955	770	456	780	3 541	2 168	4 809	2 835	930	18 244

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 2007 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 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	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 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	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										
*	Revised figures										

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Fax number: (012) 310 8664 (technical enquiries)

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

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