Statistics South Africa

The South Africa I know, the home I understand

Statistical release

P4141

Electricity generated and available for distribution (Preliminary)

April 2014

Embargoed until:
5 June 2014
13:00

Enquiries:
User Information Services
Tel: (012) 310 8600

Forthcoming issue:	Expected release date:
May 2014	3 July 2014

Contents

Results for April 2014

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

Actual estimates	April 2014	% change between April 2013 and April 2014	% change between February to April 2013 and February to April 2014	% change between January to April 2013 and January to April 2014
Electricity available for distribution (Gigawatt-hours)	18 767	0,0	0,9	1,4
Index of the physical volume of electricity production (2010=100)	95,6	-1,1	-1,0	-0,4

Seasonally adjusted estimates	April 2014	% change between March and April 2014	% change between November 2013 to January 2014 and February to April 2014
Electricity available for distribution (Gigawatt-hours)	19 392	0,5	-0,9
Index of the physical volume of electricity production (2010=100)	98,8	0,7	0,3

Consumption of electricity

The actual volume of electricity consumption showed no growth year-on-year in April 2014. Seasonally adjusted electricity consumption increased by 0,5% month-on-month in April 2014, following a month-on-month decrease of 0,5% in March 2014. Seasonally adjusted electricity consumption decreased by 0,9% in the three months ended April 2014 compared with the previous three months.

Production of electricity

The actual estimated electricity production decreased by 1,1% year-on-year in April 2014. Seasonally adjusted electricity production increased by 0,7% month-on-month in April 2014, following a month-on-month decrease of 0,1% in March 2014. Seasonally adjusted electricity production increased by 0,3% in the three months ended April 2014 compared with the previous three months.

Electricity delivered by Eskom to the provinces

The total volume of electricity delivered by Eskom to the provinces decreased by 0,5% (-93 Gigawatt-hours) in April 2014 compared with April 2013. Decreases were reported in four of the nine provinces.

Table B – Comparison of the seasonally adjusted volume of electricity generated and available for distribution between the three months ended April 2014 and the previous three months

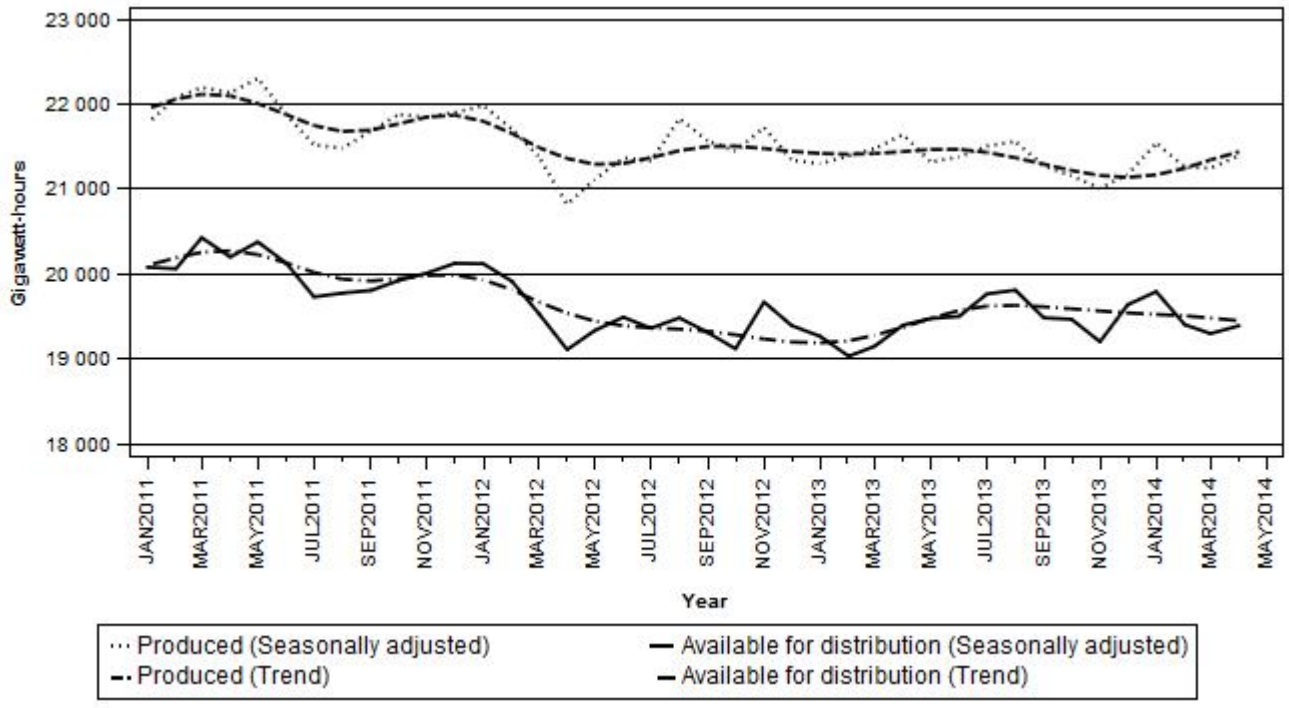
Gigawatt-hours	Seasonally adjusted quantity November 2013 to January 2014	Seasonally adjusted quantity February to April 2014	% change between November 2013 to January 2014 and February to April 2014	Quantity difference between November 2013 to January 2014 and February to April 2014
Electricity produced	63 723	63 903	0,3	180
Electricity available for distribution in South Africa	58 637	58 097	-0,9	-540

Table C – Comparison of actual estimates between the three months ended April 2014 and the three months ended April 2013

Gigawatt-hours	Actual volume February to April 2013	Actual volume February to April 2014	% change between February to April 2013 and February to April 2014	Quantity difference between February to April 2013 and February to April 2014
Electricity produced	62 048	61 448	-1,0	-600
Purchased outside South Africa (import) 1/	1 421	2 347	65,2	926
Consumed in power stations and auxiliary systems	4 600	4 551	-1,1	-49
Sold outside South Africa (export) 2/	3 414	3 278	-4,0	-136
Electricity available for distribution in South Africa	**55 457**	**55 968**	**0,9**	**511**

1/ Physical energy flowing into South Africa as measured by the metering systems at the South African borders.
2/ Physical energy flowing out of South Africa as measured by the metering systems at the South African borders.

Figure 1 – Electricity produced and available for distribution in South Africa, seasonally adjusted and trend



PJ Lehohla
Statistician-General

Tables

Table 1 – Total volume of electricity available for distribution in South Africa: 2009–2014

Month	Gigawatt-hours					
	2009	2010	2011	2012	2013	2014
January	17 919	19 396	19 616	19 676	18 860	19 391
February	16 757	18 181	18 455	18 783	17 493	17 873
March	18 694	20 186	20 518	19 623	19 202	19 328
April	17 934	19 102	19 539	18 466	18 762	1/ 18 767
May	19 548	20 435	20 938	19 869	19 991	
June	19 819	20 800	20 914	20 274	20 270	
July	21 151	21 307	21 162	20 743	21 119	
August	20 398	20 540	20 617	20 345	20 689	
September	19 382	19 256	19 619	19 100	19 269	
October	19 899	20 371	20 198	19 413	19 781	
November	19 248	19 702	19 763	19 426	18 968	
December	18 850	18 996	19 189	18 456	18 701	
Year	**229 599**	**238 272**	**240 528**	**234 174**	**233 105**	

1/ Preliminary.

Table 2 – Annual percentage change in electricity available for distribution in South Africa: 2009–2014

Month	% change 2/					
	2009	2010	2011	2012	2013	2014
January	-6,9	8,2	1,1	0,3	-4,1	2,8
February	-10,2	8,5	1,5	1,8	-6,9	2,2
March	-4,6	8,0	1,6	-4,4	-2,1	0,7
April	-6,2	6,5	2,3	-5,5	1,6	0,0
May	-4,0	4,5	2,5	-5,1	0,6	
June	-3,4	4,9	0,5	-3,1	0,0	
July	-2,1	0,7	-0,7	-2,0	1,8	
August	-1,6	0,7	0,4	-1,3	1,7	
September	-1,7	-0,7	1,9	-2,6	0,9	
October	-1,2	2,4	-0,8	-3,9	1,9	
November	3,3	2,4	0,3	-1,7	-2,4	
December	7,5	0,8	1,0	-3,8	1,3	
Year	**-2,7**	**3,8**	**0,9**	**-2,6**	**-0,5**	

2/ The annual percentage change is the change in the volume of electricity available for distribution of the relevant month of the current year compared with the corresponding month of the previous year expressed as a percentage.

Table 3 – Seasonally adjusted total volume of electricity available for distribution in South Africa: 2009–2014

Month	Gigawatt-hours						% change between current and previous month
	2009	2010	2011	2012	2013	2014	
January	18 416	19 895	20 081	20 122	19 267	19 794	0,8
February	18 432	19 828	20 063	19 916	19 033	19 405	-2,0
March	18 642	20 105	20 429	19 539	19 150	19 300	-0,5
April	18 662	19 790	20 202	19 111	19 399	19 392	0,5
May	18 875	19 824	20 379	19 336	19 477		
June	19 042	20 023	20 127	19 493	19 502		
July	19 634	19 822	19 732	19 363	19 766		
August	19 545	19 701	19 777	19 485	19 812		
September	19 579	19 435	19 808	19 311	19 485		
October	19 642	20 118	19 925	19 121	19 469		
November	19 519	19 971	20 013	19 672	19 204		
December	19 740	19 912	20 127	19 394	19 639		

Table 4 – Indices of the physical volume of electricity production: 2009–2014

Month	Base: 2010=100					
	2009	2010	2011	2012	2013	2014
January	89,7	97,6	98,1	99,2	96,2	97,4
February	83,5	91,1	93,3	93,8	90,5	90,0
March	93,7	101,3	103,0	99,3	99,6	98,4
April	90,7	96,2	98,9	92,9	96,7	1/ 95,6
May	98,6	102,3	105,9	100,3	101,2	
June	98,8	103,8	104,6	102,2	102,2	
July	106,4	106,6	106,8	105,7	106,4	
August	102,7	103,2	103,7	105,4	104,2	
September	98,5	97,0	99,4	98,7	97,3	
October	99,6	104,6	103,1	101,1	99,9	
November	96,8	100,0	100,1	99,5	96,2	
December	94,6	96,3	96,7	94,0	93,2	
Year	**96,1**	**100,0**	**101,1**	**99,3**	**98,6**	

1/ Preliminary.

Table 5 – Annual percentage change in indices of the physical volume of electricity production: 2009–2014

Month	% change 2/					
	2009	2010	2011	2012	2013	2014
January	-9,7	8,8	0,5	1,1	-3,0	1,2
February	-11,3	9,1	2,4	0,5	-3,5	-0,6
March	-5,9	8,1	1,7	-3,6	0,3	-1,2
April	-5,7	6,1	2,8	-6,1	4,1	-1,1
May	-4,6	3,8	3,5	-5,3	0,9	
June	-3,7	5,1	0,8	-2,3	0,0	
July	-2,0	0,2	0,2	-1,0	0,7	
August	-1,3	0,5	0,5	1,6	-1,1	
September	-0,3	-1,5	2,5	-0,7	-1,4	
October	-3,5	5,0	-1,4	-1,9	-1,2	
November	1,1	3,3	0,1	-0,6	-3,3	
December	7,1	1,8	0,4	-2,8	-0,9	
Year	**-3,4**	**4,1**	**1,1**	**-1,8**	**-0,7**	

2/ The annual percentage change is the change in the index of the physical volume of electricity production of the relevant month of the current year compared with the corresponding month of the previous year expressed as a percentage.

Table 6 – Seasonally adjusted indices of the physical volume of electricity production: 2009–2014

Month	Base: 2010=100						% change between current and previous month
	2009	2010	2011	2012	2013	2014	
January	92,2	100,2	100,6	101,6	98,4	99,5	1,7
February	92,5	100,0	102,0	100,3	98,8	98,2	-1,3
March	93,4	100,9	102,5	98,8	99,2	98,1	-0,1
April	94,5	99,7	102,3	96,2	100,0	98,8	0,7
May	95,3	99,3	103,0	97,5	98,5		
June	95,4	100,4	101,1	98,7	98,8		
July	98,5	98,9	99,4	98,5	99,4		
August	98,0	98,7	99,2	100,8	99,6		
September	99,3	97,8	100,2	99,6	98,3		
October	97,8	102,7	101,1	99,1	97,7		
November	97,7	100,8	100,9	100,4	97,1		
December	98,8	100,7	101,2	98,6	97,8		

Table 7 – Total volume of electricity imported: 2009–2014 1/

Month	Gigawatt-hours					
	2009	2010	2011	2012	2013	2014
January	1 102	1 122	1 088	1 085	676	1 020
February	999	995	730	1 063	407	874
March	1 064	1 040	1 112	945	455	854
April	906	931	912	1 068	559	2/ 619
May	937	1 074	907	1 066	919	
June	1 088	1 019	1 009	1 044	881	
July	1 040	1 117	979	903	965	
August	1 072	1 109	1 108	465	930	
September	920	1 068	974	474	839	
October	1 115	770	911	451	891	
November	940	1 018	1 073	654	854	
December	1 112	930	1 087	788	1 052	
Year	**12 295**	**12 193**	**11 890**	**10 006**	**9 428**	

1/ Physical energy flowing into South Africa as measured by the metering systems at the South African borders.
2/ Preliminary.

Table 8 – Total volume of electricity exported: 2009–2014 1/

Month	Gigawatt-hours					
	2009	2010	2011	2012	2013	2014
January	1 096	1 217	1 133	1 247	1 115	1 183
February	979	1 128	1 069	1 212	1 095	1 072
March	1 100	1 252	1 279	1 242	1 187	1 219
April	1 086	1 170	1 190	1 174	1 132	2/ 987
May	1 109	1 177	1 241	1 322	1 196	
June	1 175	1 132	1 174	1 335	1 158	
July	1 223	1 206	1 247	1 350	1 183	
August	1 235	1 275	1 298	1 295	1 185	
September	1 285	1 248	1 288	1 165	1 166	
October	1 288	1 338	1 378	1 300	1 237	
November	1 213	1 316	1 381	1 233	1 219	
December	1 263	1 209	1 286	1 160	1 056	
Year	**14 052**	**14 668**	**14 964**	**15 035**	**13 929**	

1/ Physical energy flowing out of South Africa as measured by the metering systems at the South African borders.
2/ Preliminary.

Table 9a – Electricity produced and consumed in power stations, purchased and sold outside South Africa and available for distribution in South Africa (monthly figures)

		Gigawatt-hours				
		April 2013	March 2014	April 2014 1/	% change between April 2013 and April 2014	Difference between April 2013 and April 2014
Total - All producers	Electricity produced	20 924	21 293	20 686	-1,1	-238
	Purchased outside South Africa (import) 2/	559	854	619	10,7	60
	Consumed in power stations and auxiliary systems	1 589	1 601	1 552	-2,3	-37
	Sold outside South Africa (export) 3/	1 132	1 219	987	-12,8	-145
	Electricity available for distribution in South Africa	**18 762**	**19 328**	**18 767**	**0,0**	**5**
ESKOM	Electricity produced	20 013	20 292	19 633	-1,9	-380
	Purchased outside South Africa (import) 2/	559	854	619	10,7	60
	Consumed in power stations and auxiliary systems	1 532	1 526	1 474	-3,8	-58
	Sold outside South Africa (export) 3/	1 132	1 219	987	-12,8	-145
	Electricity available for distribution in South Africa	**17 909**	**18 401**	**17 791**	**-0,7**	**-118**

1/ Preliminary.
2/ Physical energy flowing into South Africa as measured by the metering systems at the South African borders.
3/ Physical energy flowing out of South Africa as measured by the metering systems at the South African borders.

Table 9b – Electricity produced and consumed in power stations, purchased and sold outside South Africa and available for distribution in South Africa (cumulative figures)

		Gigawatt-hours			
		January to April 2013	January to April 2014 1/	% change between January to April 2013 and January to April 2014	Difference between January to April 2013 and January to April 2014
Total - All producers	Electricity produced	82 867	82 518	-0,4	-349
	Purchased outside South Africa (import) 2/	2 097	3 367	60,6	1 270
	Consumed in power stations and auxiliary systems	6 121	6 068	-0,9	-53
	Sold outside South Africa (export) 3/	4 529	4 461	-1,5	-68
	Electricity available for distribution in South Africa	**74 317**	**75 359**	**1,4**	**1 042**
ESKOM	Electricity produced	79 480	78 819	-0,8	-661
	Purchased outside South Africa (import) 2/	2 097	3 367	60,6	1 270
	Consumed in power stations and auxiliary systems	5 869	5 785	-1,4	-84
	Sold outside South Africa (export) 3/	4 529	4 461	-1,5	-68
	Electricity available for distribution in South Africa	**71 181**	**71 941**	**1,1**	**760**

1/ Preliminary.
2/ Physical energy flowing into South Africa as measured by the metering systems at the South African borders.
3/ Physical energy flowing out of South Africa as measured by the metering systems at the South African borders.

Table 10 – Total volume of electricity delivered by Eskom to provinces for 2013 and 2014 1/

Period		Gigawatt-hours									
		Western Cape	Eastern Cape	Northern Cape	Free State	KwaZulu-Natal	North West	Gauteng	Mpuma-langa	Limpopo	Total South Africa
2013	January	1 932	796	490	667	3 409	2 022	4 432	2 911	910	**17 569**
	February	1 825	751	441	618	3 137	1 900	4 216	2 517	811	**16 216**
	March	1 956	839	476	630	3 454	1 973	4 655	2 781	930	**17 694**
	April	1 833	802	416	615	3 351	2 000	4 754	2 732	901	**17 404**
	May	1 941	753	441	644	3 459	2 088	5 347	2 987	913	**18 573**
	June	1 902	741	440	689	3 425	2 149	5 344	3 091	994	**18 775**
	July	1 963	909	461	734	3 636	2 212	5 646	2 973	1 061	**19 595**
	August	1 970	869	456	702	3 576	2 185	5 415	2 969	1 060	**19 202**
	September	1 898	786	449	619	3 397	2 114	4 850	2 751	1 085	**17 949**
	October	1 885	810	479	660	3 520	2 158	4 938	2 942	1 058	**18 450**
	November	1 756	745	469	632	3 371	2 117	4 716	2 832	996	**17 634**
	December	1 853	737	449	601	3 331	2 057	4 516	2 741	1 008	**17 293**
	Year	**22 714**	**9 538**	**5 467**	**7 811**	**41 066**	**24 975**	**58 829**	**34 227**	**11 727**	**216 354**
	Year to date	**7 546**	**3 188**	**1 823**	**2 530**	**13 351**	**7 895**	**18 057**	**10 941**	**3 552**	**68 883**
2014	January	1 963	674	400	654	3 569	2 093	4 559	2 868	982	**17 762**
	February	1 887	621	349	604	3 295	1 934	4 370	2 649	907	**16 616**
	March	1 967	750	365	649	3 507	1 975	4 747	2 842	973	**17 775**
	April 2/	1 882	753	346	641	3 411	1 887	4 634	2 770	987	**17 311**
	Year to date	**7 699**	**2 798**	**1 460**	**2 548**	**13 782**	**7 889**	**18 310**	**11 129**	**3 849**	**69 464**

1/ Wholesale energy (Gigawatt-hours) 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 volume of electricity units generated and available for distribution in South Africa, the volume of units purchased and sold outside South Africa and the volume 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 2010=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. It includes electrical power installations, which, as subsidiary divisions of undertakings, produce electricity for regular use by these undertakings.

Classification

6 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.

Collection rate

7 The collection rate for the survey on electricity generated and available for distribution for April 2014 was 100%. The collection rate for March 2014 was 100%.

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 *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.

10 The survey is conducted by mail, email and telephone. Information is collected from a sample of 25 electricity undertakings or establishments.

Monthly production indices

11 The calculation of the monthly production indices is based on the volume 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. These levels are weighted according to the original sample and designed 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 a benchmark 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 August 1995 as reference point).

Seasonal adjustment

14 Seasonally adjusted estimates of all items are generated each month, using the X-12-ARIMA 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 a time 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 behaviour. The X12-ARIMA procedure for electricity generated and available for distribution is described in more detail on the Stats SA website at http://www.statssa.gov.za/publications/P4141/electricity_seasonal_adjustment_note_2012.pdf

Trend cycle

15 The trend is the long-term pattern or movement of a time series. The X-12-ARIMA 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 :

- *Bulletin of Statistics;*
- *South African Statistics;* and
- *Stats in Brief.*

Rounding-off of figures

17 Where necessary, the figures in the tables have 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.

Glossary

Consumption of electricity

For purposes of this release the term 'consumption of electricity' is used interchangeably with the term 'electricity available for distribution'.

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 2010. 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 *System of National Accounts* (SNA) in the same way as in the 1993 *Standard Industrial Classification of all Economic Activities* (SIC), Fifth Edition, Report No. 09-90-02 of January 1993.

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

GDP	Gross domestic product
ISIC	International Standard Industrial Classification
SIC	Standard Industrial Classification of all Economic Activities
Stats SA	Statistics South Africa
*	Revised figures

Technical enquiries

Suzzie Mnguni
Telephone number: (012) 310 8443
Email: suzziemn@statssa.gov.za

Nicolai Claassen
Telephone number: (012) 310 8007
Email: nicolaic@statssa.gov.za

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.

Advanced release calendar

An advanced release calendar is disseminated on www.statssa.gov.za

Stats SA products

A complete set of Stats SA publications is available at the Stats SA Library and the following libraries:

National Library of South Africa, Pretoria Division
National Library of South Africa, Cape Town Division
Natal Society Library, Pietermaritzburg
Library of Parliament, Cape Town
Bloemfontein Public Library
Johannesburg Public Library
Eastern Cape Library Services, King William's Town
Central Regional Library, Polokwane
Central Reference Library, Mbombela
Central Reference Collection, Kimberley
Central Reference Library, Mmabatho

Stats SA also provides a subscription service.

Electronic services

A large range of data is available via online services. For more detail about our electronic services, contact Stats SA's user information service at (012) 310 8600.

You can visit us on the Internet at: www.statssa.gov.za

General enquiries

User information services Telephone number: (012) 310 8600
Email: info@statssa.gov.za

Orders/subscription services Telephone number: (012) 310 8358
Email:magdaj@statssa.gov.za

Postal address: Private Bag X44, Pretoria, 0001

Produced by Stats SA