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STATISTICAL RELEASE
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Electricity generated and available for distribution (Preliminary)

November 2019

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Electricity generated (produced) in South Africa: results for November 2019

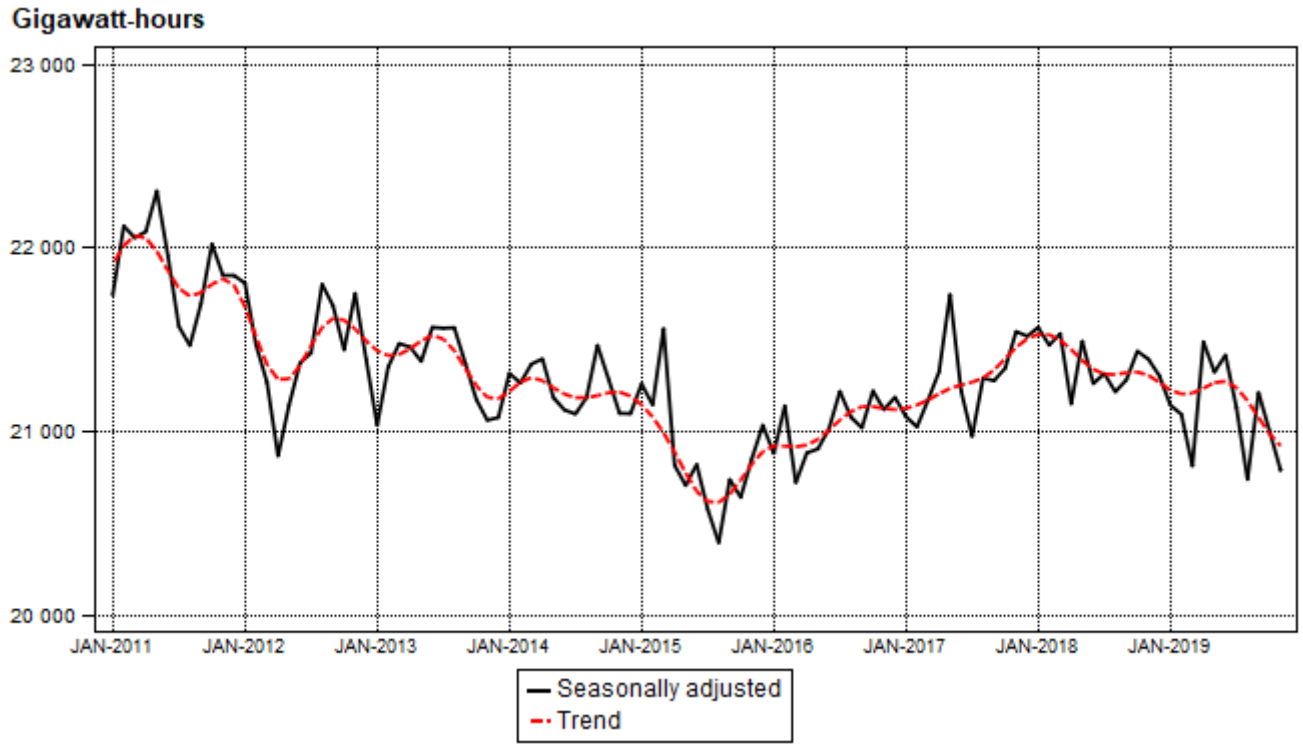
Table A – Key growth rates in the volume of electricity generated

	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19
Year-on-year % change, unadjusted	0,1	-0,6	-2,4	-0,4	-1,9	-2,8
Month-on-month % change, seasonally adjusted	0,5	-1,4	-1,9	2,3	-1,0	-1,0
3-month % change, seasonally adjusted [1]	1,9	0,8	-0,5	-1,8	-1,4	-0,4

[1] Percentage change between the previous 3 months and the 3 months ending in the month indicated.

Electricity generation (production) decreased by 2,8% year-on-year in November 2019. Seasonally adjusted electricity generation decreased by 1,0% in November 2019 compared with October 2019. This followed month-on-month changes of -1,0% in October 2019 and 2,3% in September 2019. Seasonally adjusted electricity generation decreased by 0,4% in the three months ended November 2019 compared with the previous three months.

Figure 1 – Electricity generated in South Africa



Electricity distributed (consumed) in South Africa: results for November 2019

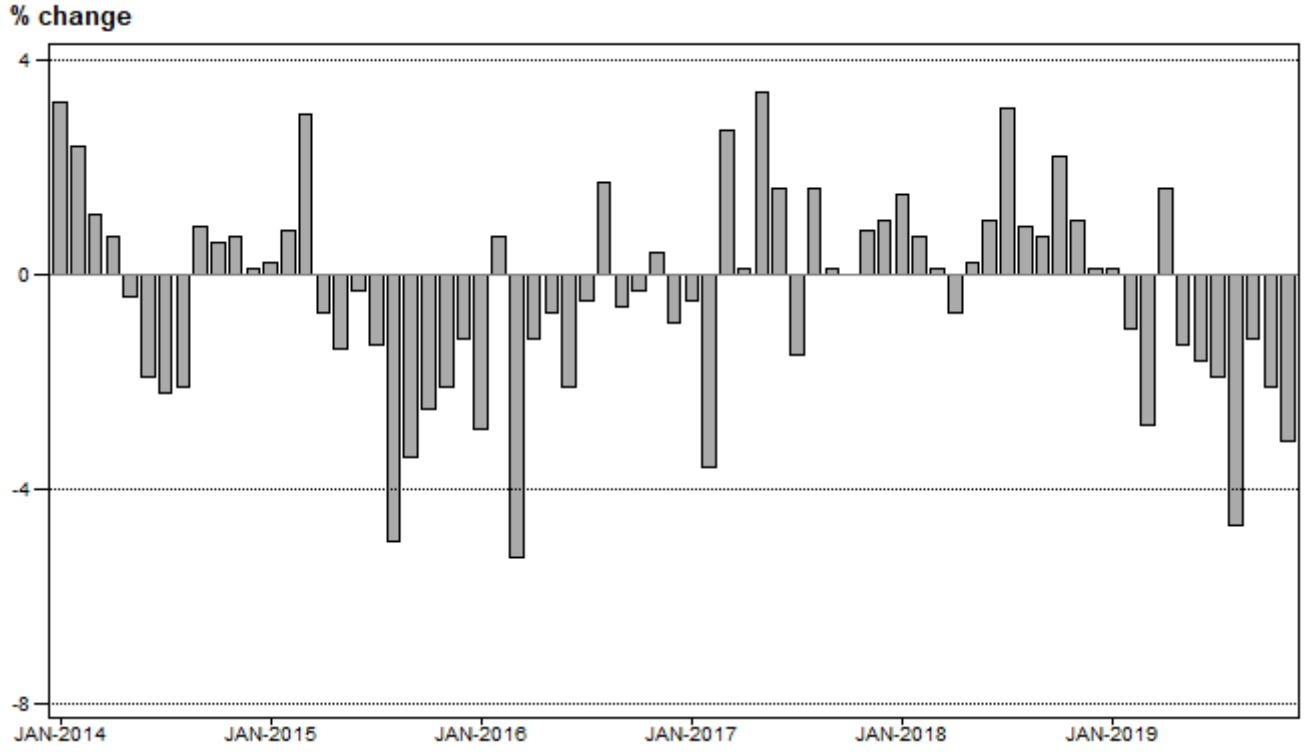
Table B – Key growth rates in the volume of electricity distributed

	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19
Year-on-year % change, unadjusted	-1,6	-1,9	-4,7	-1,2	-2,1	-3,1
Month-on-month % change, seasonally adjusted	-0,8	-0,5	-2,6	3,3	-0,5	-1,4
3-month % change, seasonally adjusted [1]	0,9	0,3	-1,3	-1,9	-1,2	0,5

[1] Percentage change between the previous 3 months and the 3 months ending in the month indicated.

Electricity distribution (consumption) decreased by 3,1% year-on-year in November 2019. Seasonally adjusted electricity distribution decreased by 1,4% month-on-month in November 2019, following month-on-month changes of -0,5% in October 2019 and 3,3% in September 2019. Seasonally adjusted electricity distribution increased by 0,5% in the three months ended November 2019 compared with the previous three months.

Figure 2 – Electricity distributed in South Africa: year-on-year percentage change



Risenga Maluleke
Statistician-General

Tables

Table 1 – Index of the volume of electricity generated (Base: 2015=100)

Month	2013	2014	2015	2016	2017	2018	2019 [1]
Jan	99,8	101,3	101,2	99,2	100,1	102,4	100,4
Feb	93,9	93,6	93,0	95,9	92,2	93,9	92,1
Mar	103,2	102,5	103,6	99,6	102,2	103,4	100,4
Apr	100,3	99,6	96,5	97,4	98,1	97,6	99,4
May	104,9	103,8	101,4	102,7	107,4	106,5	105,9
Jun	106,0	103,5	102,7	103,2	104,8	105,1	105,2
Jul	110,3	107,9	105,4	108,4	106,5	108,8	108,1
Aug	108,1	105,9	101,2	105,1	106,0	105,5	103,0
Sep	100,9	102,1	98,6	99,8	100,8	100,0	99,6
Oct	103,6	104,1	101,0	103,2	104,6	105,4	103,4
Nov	99,9	99,2	98,1	100,3	101,9	101,8	99,0
Dec	96,8	97,4	97,3	98,2	99,6	98,0	
Total	**102,3**	**101,7**	**100,0**	**101,1**	**102,0**	**102,4**	

[1] Latest month is preliminary.

Table 2 – Year-on-year percentage change in the volume of electricity generated

Month	2014	2015	2016	2017	2018	2019	*2019 year-to-date*
Jan	1,5	-0,1	-2,0	0,9	2,3	-2,0	*-2,0*
Feb	-0,3	-0,6	3,1	-3,9	1,8	-1,9	*-1,9*
Mar	-0,7	1,1	-3,9	2,6	1,2	-2,9	*-2,3*
Apr	-0,7	-3,1	0,9	0,7	-0,5	1,8	*-1,3*
May	-1,0	-2,3	1,3	4,6	-0,8	-0,6	*-1,1*
Jun	-2,4	-0,8	0,5	1,6	0,3	0,1	*-0,9*
Jul	-2,2	-2,3	2,8	-1,8	2,2	-0,6	*-0,9*
Aug	-2,0	-4,4	3,9	0,9	-0,5	-2,4	*-1,1*
Sep	1,2	-3,4	1,2	1,0	-0,8	-0,4	*-1,0*
Oct	0,5	-3,0	2,2	1,4	0,8	-1,9	*-1,1*
Nov	-0,7	-1,1	2,2	1,6	-0,1	-2,8	*-1,2*
Dec	0,6	-0,1	0,9	1,4	-1,6		
Total	**-0,6**	**-1,7**	**1,1**	**0,9**	**0,4**		

Table 3 – Seasonally adjusted index of the volume of electricity generated

Month	Base: 2015=100				Month-on-month % change			
	2016	2017	2018	2019	2016	2017	2018	2019
Jan	100,0	101,0	103,3	101,3	-0,7	-0,5	0,2	-0,7
Feb	101,2	100,7	102,8	101,0	1,2	-0,3	-0,5	-0,3
Mar	99,2	101,4	103,1	99,7	-2,0	0,7	0,3	-1,3
Apr	100,0	102,1	101,3	102,9	0,8	0,7	-1,7	3,2
May	100,1	104,2	102,9	102,1	0,1	2,1	1,6	-0,8
Jun	100,6	101,6	101,8	102,6	0,5	-2,5	-1,1	0,5
Jul	101,6	100,5	102,1	101,2	1,0	-1,1	0,3	-1,4
Aug	101,0	102,0	101,6	99,3	-0,6	1,5	-0,5	-1,9
Sep	100,7	101,9	101,9	101,6	-0,3	-0,1	0,3	2,3
Oct	101,6	102,2	102,7	100,6	0,9	0,3	0,8	-1,0
Nov	101,2	103,2	102,5	99,6	-0,4	1,0	-0,2	-1,0
Dec	101,5	103,1	102,0		0,3	-0,1	-0,5	

Table 4 – Volume of electricity distributed in South Africa (gigawatt-hours)

Month	2014	2015	2016	2017	2018	2019 [1]
Jan	19 457	19 491	18 924	18 820	19 106	19 132
Feb	17 917	18 060	18 190	17 539	17 667	17 493
Mar	19 415	19 998	18 935	19 441	19 470	18 930
Apr	18 895	18 769	18 535	18 550	18 421	18 711
May	19 907	19 636	19 502	20 161	20 207	19 943
Jun	19 891	19 824	19 405	19 720	19 926	19 609
Jul	20 661	20 391	20 297	19 997	20 626	20 224
Aug	20 255	19 236	19 570	19 880	20 053	19 105
Sep	19 450	18 788	18 679	18 707	18 839	18 605
Oct	19 905	19 415	19 349	19 352	19 785	19 367
Nov	19 126	18 720	18 790	18 940	19 123	18 531
Dec	18 752	18 529	18 370	18 562	18 582	
Total	**233 631**	**230 857**	**228 546**	**229 669**	**231 805**	

[1] Latest month is preliminary.

Table 5 – Year-on-year percentage change in electricity distributed in South Africa

Month	2015	2016	2017	2018	2019	*2019 year-to-date*
Jan	0,2	-2,9	-0,5	1,5	0,1	*0,1*
Feb	0,8	0,7	-3,6	0,7	-1,0	*-0,4*
Mar	3,0	-5,3	2,7	0,1	-2,8	*-1,2*
Apr	-0,7	-1,2	0,1	-0,7	1,6	*-0,5*
May	-1,4	-0,7	3,4	0,2	-1,3	*-0,7*
Jun	-0,3	-2,1	1,6	1,0	-1,6	*-0,9*
Jul	-1,3	-0,5	-1,5	3,1	-1,9	*-1,0*
Aug	-5,0	1,7	1,6	0,9	-4,7	*-1,5*
Sep	-3,4	-0,6	0,1	0,7	-1,2	*-1,5*
Oct	-2,5	-0,3	0,0	2,2	-2,1	*-1,5*
Nov	-2,1	0,4	0,8	1,0	-3,1	*-1,7*
Dec	-1,2	-0,9	1,0	0,1		
Total	**-1,2**	**-1,0**	**0,5**	**0,9**		

Table 6 – Seasonally adjusted volume of electricity distributed in South Africa

Month	Gigawatt-hours				Month-on-month % change			
	2016	2017	2018	2019	2016	2017	2018	2019
Jan	19 082	18 987	19 262	19 283	-0,8	-0,3	-0,2	-0,7
Feb	19 093	19 027	19 226	19 040	0,1	0,2	-0,2	-1,3
Mar	18 875	19 257	19 347	18 739	-1,1	1,2	0,6	-1,6
Apr	18 953	19 249	19 040	19 307	0,4	0,0	-1,6	3,0
May	19 020	19 543	19 527	19 221	0,4	1,5	2,6	-0,4
Jun	18 854	19 047	19 247	19 072	-0,9	-2,5	-1,4	-0,8
Jul	19 051	18 890	19 389	18 968	1,0	-0,8	0,7	-0,5
Aug	18 840	19 183	19 391	18 482	-1,1	1,6	0,0	-2,6
Sep	18 928	19 010	19 307	19 084	0,5	-0,9	-0,4	3,3
Oct	19 218	19 079	19 442	18 992	1,5	0,4	0,7	-0,5
Nov	18 989	19 214	19 291	18 717	-1,2	0,7	-0,8	-1,4
Dec	19 046	19 294	19 414		0,3	0,4	0,6	

Table 7 – Volume of electricity by category (gigawatt-hours)

	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19 [1]	Nov-19 year-on-year % change
Total - all producers						
Generated	22 552	21 500	20 781	21 571	20 653	-2,8
Inflow into South Africa	825	766	817	900	903	18,2
Consumed in power stations and auxiliary systems	1 843	1 780	1 737	1 747	1 660	2,8
Outflow from South Africa	1 310	1 380	1 255	1 358	1 365	7,6
Distributed in South Africa	20 224	19 105	18 605	19 367	18 531	-3,1
Eskom						
Generated	20 381	19 368	18 833	19 569	18 695	-2,5
Inflow into South Africa	825	766	817	900	903	18,2
Consumed in power stations and auxiliary systems	1 739	1 673	1 671	1 672	1 600	3,9
Outflow from South Africa	1 310	1 380	1 255	1 358	1 365	7,6
Distributed in South Africa	18 157	17 081	16 723	17 439	16 633	-2,9

[1] Preliminary.

Table 8 – Year-to-date volume of electricity by category: year-on-year percentage change and difference

	Jan – Nov 2018 (GWh)	Jan – Nov 2019 (GWh)	% change between Jan – Nov 2018 and Jan – Nov 2019	Difference between Jan – Nov 2018 and Jan – Nov 2019 (GWh)
Total - all producers				
Generated	235 890	232 929	-1,3	-2 961
Inflow into South Africa	8 786	8 851	0,7	65
Consumed in power stations and auxiliary systems	18 280	18 480	1,1	200
Outflow from South Africa	13 175	13 648	3,6	473
Distributed in South Africa	213 223	209 650	-1,7	-3 573
Eskom				
Generated	214 814	210 911	-1,8	-3 903
Inflow into South Africa	8 786	8 851	0,7	65
Consumed in power stations and auxiliary systems	17 524	17 632	0,6	108
Outflow from South Africa	13 175	13 648	3,6	473
Distributed in South Africa	192 899	188 481	-2,3	-4 418

Table 9 – Volume of electricity delivered to provinces (gigawatt-hours)

Province	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19 [1]	Nov-19 year-on-year % change
Western Cape	2 018	1 979	1 817	1 855	1 811	-2,7
Eastern Cape	807	793	742	763	733	-1,3
Northern Cape	555	528	543	635	621	15,2
Free State	894	834	779	867	848	4,7
KwaZulu-Natal	3 675	3 608	3 520	3 623	3 442	-2,8
North West	2 248	2 089	2 309	2 450	2 360	-6,2
Gauteng	5 621	4 990	4 625	4 701	4 419	-3,3
Mpumalanga	2 833	2 754	2 680	2 907	2 821	-2,4
Limpopo	1 199	1 136	1 238	1 276	1 226	-2,8
Total	**19 852**	**18 712**	**18 253**	**19 078**	**18 280**	**-2,4**

[1] Preliminary.

Survey information

Introduction

1 Statistics South Africa (Stats SA) conducts a monthly survey covering electricity undertakings and establishments (branches) in the electricity industry. This statistical release contains monthly information regarding the volume of electricity units:

- generated and distributed in South Africa;
- flowing into and out from South Africa as measured by the metering systems at the South African borders; and
- delivered to provinces.

Both unadjusted and seasonally adjusted figures are published.

2 In accordance with international practice, the indices are usually re-based every five years to a new base year. The current base period of the index is 2015.

3 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 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 and/or distribution of electricity (excluding the distribution of purchased electric energy). 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 November 2019 was 96%. The collection rate for October 2019 was 100%.

Statistical unit

8 The 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 (see point 5).

Revised figures

9 Normally revised figures are due to:

- late submission of data to Stats SA; and
- revisions or corrections by respondents to previous reported data.

Data are edited at enterprise level.

Rounding-off of figures

10 Where figures have been rounded off, discrepancies may occur between sums of the component items and the totals.

Historical data

11 Historical electricity data are available on the Stats SA webpage. Click on the following link (Time series data) to access the data electronically.

Past publications

12 Past electricity releases are available on the Stats SA webpage. Click on the following link (Past publications) to access the releases electronically.

Technical notes

Survey methodology and design

1 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 group one) 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 kilowatts is excluded from the sample.

2 The survey is conducted by electronic filing, email, fax and telephone. Information is collected from a sample of 24 electricity undertakings or establishments. As from September 2013, Eskom supplied additional data for independent power producers (IPPs) that were not in the original sample of 24 establishments.

Monthly index of electricity generated

3 The calculation of the monthly index of electricity generated is based on the volume of electricity units produced.

Benchmarking

4 The index of the volume of electricity generated should provide an accurate reflection of the trend of activities of the relevant industry. The level of activities, as measured by the monthly electricity 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.

The results of the 1995 Census of electricity, gas and steam served as a benchmark to verify or adjust the level of the monthly index of the volume of electricity generated collected through the monthly survey. The level adjustments were done on the volume index for July of the relevant census year (the 1995 census year covered the period 1 January to 31 December 1995 and therefore, the benchmarking was done using the index of July 1995 as reference point).

Seasonal adjustment

5 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 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. The X12-ARIMA procedure for electricity generated and available for distribution is described in more detail on the Stats SA website:
Click to download Electricity seasonal adjustment September 2017

Trend cycle

6 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 to estimate the underlying trend cycle.

Month-on-month percentage change

7 The month-on-month percentage change in a variable for any given month is the change between that month and the previous month, expressed as a percentage of the latter.

Year-on-year percentage change

8 The year-on-year percentage change in a variable for any given period is the change between that period and the corresponding period of the previous year, expressed as a percentage of the latter.

Glossary

Electricity undertaking

An undertaking concerned with the generation and distribution of electricity, including electrical power installations, which, as subsidiary divisions of undertakings, produce electricity for regular use by these undertakings.

Index of the volume of electricity generated

A statistical measure of the change in the volume of electricity generated in a given period and the volume of electricity generated in the base period. The base period is 2015. The production in the base period is set at 100.

Industry

An industry is made up of enterprises 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 *Standard Industrial Classification of all Economic Activities* (SIC), Fifth Edition, Report No. 09-90-02 of January 1993.

Inflow into SA

Electricity flowing into South Africa as measured by the metering systems at the South African borders.

Outflow from SA

Electricity flowing from South Africa as measured by the metering systems at the South African borders.

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
GWh	Gigawatt-hour
ISIC	International Standard Industrial Classification
SIC	Standard Industrial Classification of all Economic Activities
SA	South Africa
Stats SA	Statistics South Africa
*	Revised figures

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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.

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
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A large range of data is available via online services. For more details about our electronic data services, contact Stats SA’s user information service.

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

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