Statistics South Africa

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Statistical release

P4141

Electricity generated and available for distribution (Preliminary)

October 2015

Embargoed until:
3 December 2015
13:00

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Forthcoming issue:	Expected release date:
November 2015	7 January 2016

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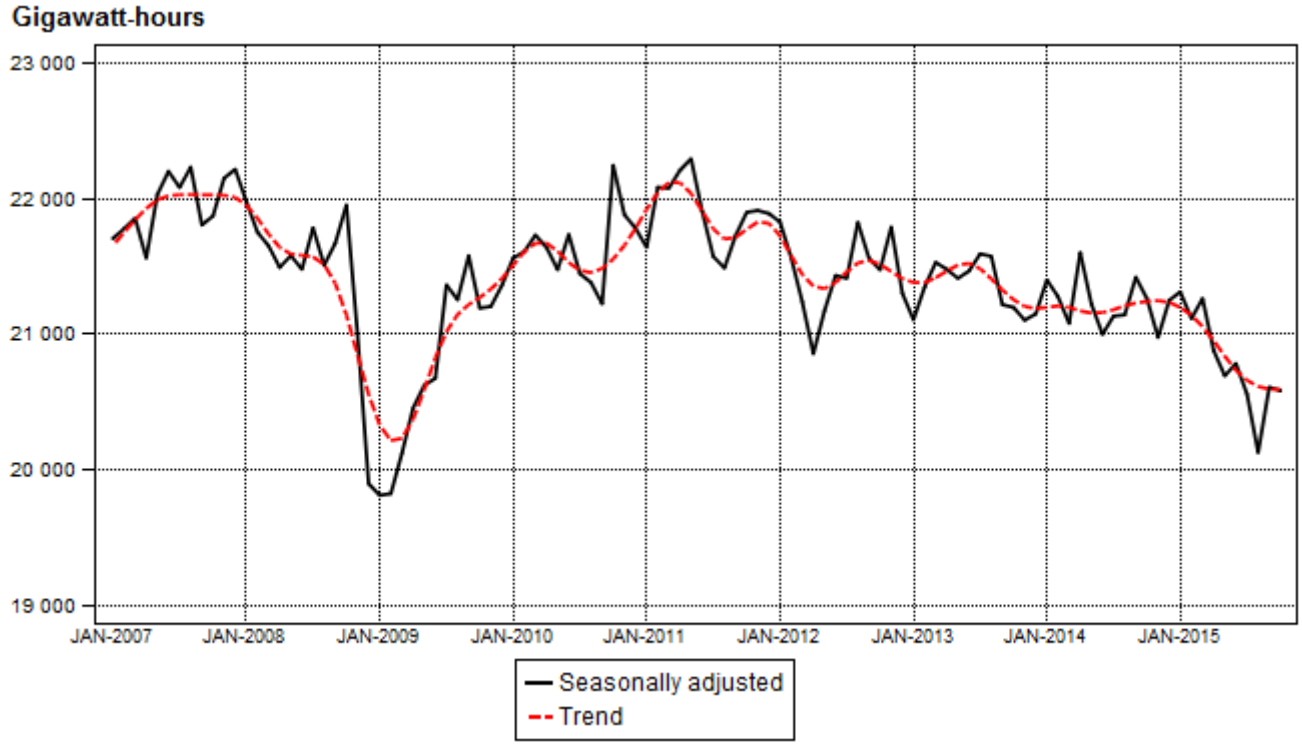
	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15
Year-on-year % change, unadjusted	-2,5	-1,1	-2,7	-4,9	-3,7	-3,2
Month-on-month % change, seasonally adjusted	-0,9	0,4	-1,0	-2,1	2,4	-0,1
3-month % change, seasonally adjusted [1]	-1,4	-2,1	-2,0	-2,2	-1,7	-1,2

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

Electricity generation (production) decreased by 3,2% year-on-year in October 2015. Seasonally adjusted electricity generation decreased by 0,1% in October 2015 compared with September 2015. This followed month-on-month changes of 2,4% in September 2015 and -2,1% in August 2015. Seasonally adjusted electricity generation decreased by 1,2% in the three months ended October 2015 compared with the previous three months.

Figure 1 – Electricity generated in South Africa



Electricity distributed (consumed) in South Africa: results for October 2015

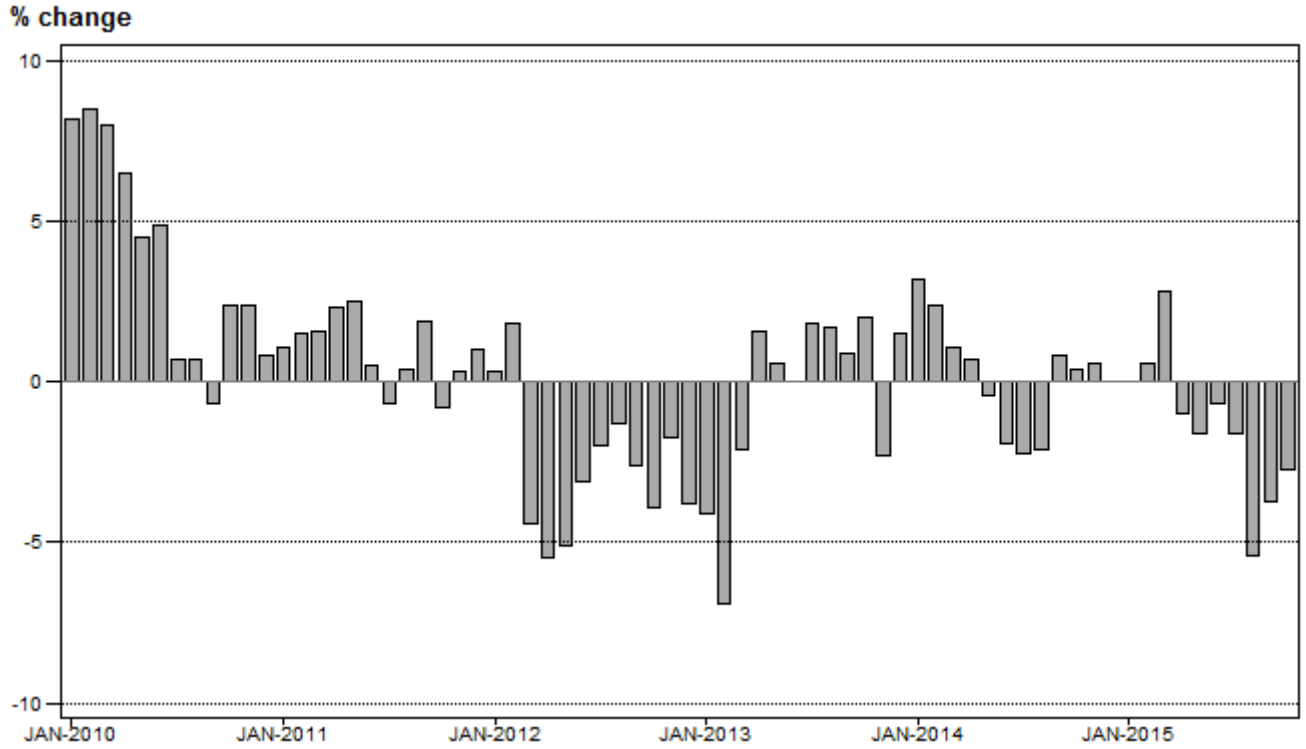
Table B – Key growth rates in the volume of electricity distributed

	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15
Year-on-year % change, unadjusted	-1,6	-0,7	-1,6	-5,4	-3,7	-2,7
Month-on-month % change, seasonally adjusted	-1,5	0,0	-0,6	-3,7	3,0	0,6
3-month % change, seasonally adjusted [1]	-0,7	-1,9	-2,3	-3,1	-2,6	-2,0

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

Electricity distribution (consumption) decreased by 2,7% year-on-year in October 2015. Seasonally adjusted electricity distribution increased by 0,6% month-on-month in October 2015, following month-on-month changes of 3,0% in September 2015 and -3,7% in August 2015. Seasonally adjusted electricity distribution decreased by 2,0% in the three months ended October 2015 compared with the previous three months.

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



PJ Lehohla
Statistician-General

Tables

Table 1 – Index of the volume of electricity generated (Base: 2010=100)

Month	2009	2010	2011	2012	2013	2014	2015 [1]
Jan	89,7	97,6	98,1	99,2	96,2	97,7	97,4
Feb	83,5	91,1	93,3	93,8	90,5	90,3	89,6
Mar	93,7	101,3	103,0	99,3	99,6	98,8	99,8
Apr	90,7	96,2	98,9	92,9	96,7	96,0	92,8
May	98,6	102,3	105,9	100,3	101,2	100,1	97,6
Jun	98,8	103,8	104,6	102,2	102,2	99,8	98,7
Jul	106,4	106,6	106,8	105,7	106,4	104,1	101,3
Aug	102,7	103,2	103,7	105,4	104,2	102,2	97,2
Sep	98,5	97,0	99,4	98,7	97,3	98,4	94,8
Oct	99,6	104,6	103,1	101,1	99,9	100,3	97,1
Nov	96,8	100,0	100,1	99,5	96,3	95,6	
Dec	94,6	96,3	96,7	94,0	93,4	93,8	
Total	**96,1**	**100,0**	**101,1**	**99,3**	**98,7**	**98,1**	

[1] Latest month is preliminary.

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

Month	2010	2011	2012	2013	2014	2015	*2015 year-to-date*
Jan	8,8	0,5	1,1	-3,0	1,6	-0,3	*-0,3*
Feb	9,1	2,4	0,5	-3,5	-0,2	-0,8	*-0,5*
Mar	8,1	1,7	-3,6	0,3	-0,8	1,0	*0,0*
Apr	6,1	2,8	-6,1	4,1	-0,7	-3,3	*-0,8*
May	3,8	3,5	-5,3	0,9	-1,1	-2,5	*-1,2*
Jun	5,1	0,8	-2,3	0,0	-2,3	-1,1	*-1,2*
Jul	0,2	0,2	-1,0	0,7	-2,2	-2,7	*-1,4*
Aug	0,5	0,5	1,6	-1,1	-1,9	-4,9	*-1,9*
Sep	-1,5	2,5	-0,7	-1,4	1,1	-3,7	*-2,1*
Oct	5,0	-1,4	-1,9	-1,2	0,4	-3,2	*-2,2*
Nov	3,3	0,1	-0,6	-3,2	-0,7		
Dec	1,8	0,4	-2,8	-0,6	0,4		
Total	**4,1**	**1,1**	**-1,8**	**-0,6**	**-0,6**		

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

Month	Base: 2010=100				Month-on-month % change			
	2012	2013	2014	2015	2012	2013	2014	2015
Jan	100,8	97,5	98,9	98,5	-0,3	-0,9	1,2	0,3
Feb	99,6	98,6	98,3	97,6	-1,2	1,1	-0,6	-0,9
Mar	98,1	99,5	97,4	98,2	-1,5	0,9	-0,9	0,6
Apr	96,4	99,2	99,8	96,5	-1,7	-0,3	2,5	-1,7
May	97,8	98,9	98,1	95,6	1,5	-0,3	-1,7	-0,9
Jun	99,0	99,2	97,0	96,0	1,2	0,3	-1,1	0,4
Jul	98,9	99,8	97,7	95,0	-0,1	0,6	0,7	-1,0
Aug	100,8	99,7	97,7	93,0	1,9	-0,1	0,0	-2,1
Sep	99,6	98,0	99,0	95,2	-1,2	-1,7	1,3	2,4
Oct	99,2	97,9	98,2	95,1	-0,4	-0,1	-0,8	-0,1
Nov	100,7	97,5	96,9		1,5	-0,4	-1,3	
Dec	98,4	97,7	98,2		-2,3	0,2	1,3	

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

Month	2010	2011	2012	2013	2014	2015 [1]
Jan	19 396	19 616	19 676	18 860	19 457	19 463
Feb	18 181	18 455	18 783	17 493	17 917	18 028
Mar	20 186	20 518	19 623	19 202	19 415	19 961
Apr	19 102	19 539	18 466	18 762	18 895	18 706
May	20 435	20 938	19 869	19 991	19 907	19 581
Jun	20 800	20 914	20 274	20 270	19 891	19 759
Jul	21 307	21 162	20 743	21 119	20 661	20 324
Aug	20 540	20 617	20 345	20 689	20 253	19 160
Sep	19 256	19 619	19 100	19 271	19 428	18 707
Oct	20 371	20 198	19 413	19 795	19 876	19 339
Nov	19 702	19 763	19 426	18 984	19 103	
Dec	18 996	19 189	18 456	18 733	18 728	
Total	**238 272**	**240 528**	**234 174**	**233 169**	**233 531**	

[1] Latest month is preliminary.

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

Month	2011	2012	2013	2014	2015	*2015 year-to-date*
Jan	1,1	0,3	-4,1	3,2	0,0	*0,0*
Feb	1,5	1,8	-6,9	2,4	0,6	*0,3*
Mar	1,6	-4,4	-2,1	1,1	2,8	*1,2*
Apr	2,3	-5,5	1,6	0,7	-1,0	*0,6*
May	2,5	-5,1	0,6	-0,4	-1,6	*0,2*
Jun	0,5	-3,1	0,0	-1,9	-0,7	*0,0*
Jul	-0,7	-2,0	1,8	-2,2	-1,6	*-0,2*
Aug	0,4	-1,3	1,7	-2,1	-5,4	*-0,9*
Sep	1,9	-2,6	0,9	0,8	-3,7	*-1,2*
Oct	-0,8	-3,9	2,0	0,4	-2,7	*-1,4*
Nov	0,3	-1,7	-2,3	0,6		
Dec	1,0	-3,8	1,5	0,0		
Total	**0,9**	**-2,6**	**-0,4**	**0,2**		

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

Month	Gigawatt-hours				Month-on-month % change			
	2012	2013	2014	2015	2012	2013	2014	2015
Jan	19 913	19 040	19 635	19 628	-0,8	-1,4	0,3	0,3
Feb	19 714	19 053	19 468	19 563	-1,0	0,1	-0,9	-0,3
Mar	19 444	19 267	19 195	19 721	-1,4	1,1	-1,4	0,8
Apr	19 199	19 275	19 670	19 466	-1,3	0,0	2,5	-1,3
May	19 364	19 524	19 471	19 169	0,9	1,3	-1,0	-1,5
Jun	19 538	19 582	19 266	19 165	0,9	0,3	-1,1	0,0
Jul	19 382	19 782	19 356	19 046	-0,8	1,0	0,5	-0,6
Aug	19 405	19 769	19 369	18 346	0,1	-0,1	0,1	-3,7
Sep	19 342	19 491	19 631	18 889	-0,3	-1,4	1,4	3,0
Oct	19 224	19 546	19 565	19 009	-0,6	0,3	-0,3	0,6
Nov	19 741	19 297	19 443		2,7	-1,3	-0,6	
Dec	19 316	19 583	19 577		-2,2	1,5	0,7	

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

	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15 [1]	Oct-15 year-on-year % change
Total - all producers						
Generated	21 360	21 917	21 033	20 498	21 016	-3,1
Inflow into South Africa	1 052	1 201	1 033	971	1 144	5,3
Consumed in power stations and auxiliary systems	1 514	1 613	1 517	1 492	1 552	0,7
Outflow from South Africa	1 139	1 181	1 389	1 270	1 269	-6,9
Distributed in South Africa	19 759	20 324	19 160	18 707	19 339	-2,7
Eskom						
Generated	20 026	20 482	19 639	19 079	19 740	-3,0
Inflow into South Africa	1 052	1 201	1 033	971	1 144	5,3
Consumed in power stations and auxiliary systems	1 418	1 513	1 441	1 423	1 477	0,5
Outflow from South Africa	1 139	1 181	1 389	1 270	1 269	-6,9
Distributed in South Africa	18 520	18 989	17 842	17 357	18 138	-2,5

[1] Preliminary.

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

	Jan – Oct 2014 (GWh)	Jan – Oct 2015 (GWh)	% change between Jan – Oct 2014 and Jan – Oct 2015	Difference between Jan – Oct 2014 and Jan – Oct 2015 (GWh)
Total - all producers				
Generated	213 687	209 047	-2,2	-4 640
Inflow into South Africa	9 028	11 018	22,0	1 990
Consumed in power stations and auxiliary systems	15 495	15 090	-2,6	-405
Outflow from South Africa	11 519	11 949	3,7	430
Distributed in South Africa	195 700	193 028	-1,4	-2 672
Eskom				
Generated	202 046	195 636	-3,2	-6 410
Inflow into South Africa	9 028	11 018	22,0	1 990
Consumed in power stations and auxiliary systems	14 746	14 331	-2,8	-415
Outflow from South Africa	11 519	11 949	3,7	430
Distributed in South Africa	184 806	180 375	-2,4	-4 431

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

Province	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15 [1]	Oct-15 year-on-year % change
Western Cape	1 884	1 967	1 943	1 848	1 907	-2,3
Eastern Cape	697	749	729	696	715	-1,4
Northern Cape	461	479	475	479	509	-2,1
Free State	886	939	887	825	840	-2,1
KwaZulu-Natal	3 500	3 624	3 543	3 436	3 486	-5,0
North West	2 376	2 422	2 322	2 363	2 517	-1,6
Gauteng	5 295	5 576	5 099	4 715	4 737	-3,2
Mpumalanga	2 928	2 925	2 739	2 777	2 898	1,0
Limpopo	1 168	1 119	1 141	1 160	1 243	-2,4
Total	**19 197**	**19 800**	**18 878**	**18 299**	**18 852**	**-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 2010.

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 October 2015 was 96%. The collection rate for September 2015 was 96%.

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.

Related publications

10 Users may also refer to the following publications available from Stats SA:

- *Bulletin of Statistics;* and
- *South African Statistics.*

Rounding-off of figures

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

Historical data

12 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

13 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 at
Click to download Electricity seasonal adjustment August 2014.pdf

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 2010. 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.

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