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Electricity generated and available for distribution (Preliminary)

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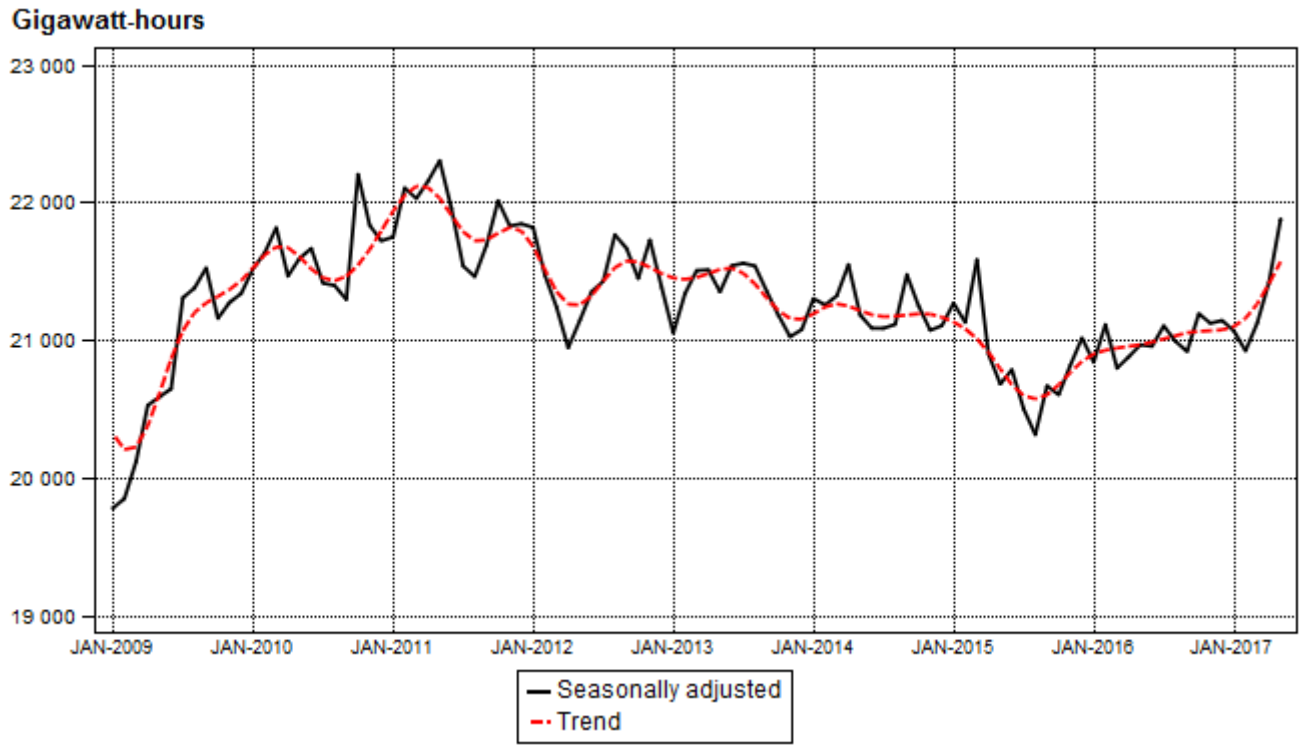
	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17
Year-on-year % change, unadjusted	0,8	0,8	-3,9	2,7	0,8	4,6
Month-on-month % change, seasonally adjusted	0,1	-0,4	-0,7	1,0	1,4	2,1
3-month % change, seasonally adjusted [1]	0,7	0,4	-0,2	-0,6	0,2	2,0

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

Electricity generation (production) increased by 4,6% year-on-year in May 2017. Seasonally adjusted electricity generation increased by 2,1% in May 2017 compared with April 2017. This followed month-on-month changes of 1,4% in April 2017 and 1,0% in March 2017. Seasonally adjusted electricity generation increased by 2,0% in the three months ended May 2017 compared with the previous three months.

Figure 1 – Electricity generated in South Africa



Electricity distributed (consumed) in South Africa: results for May 2017

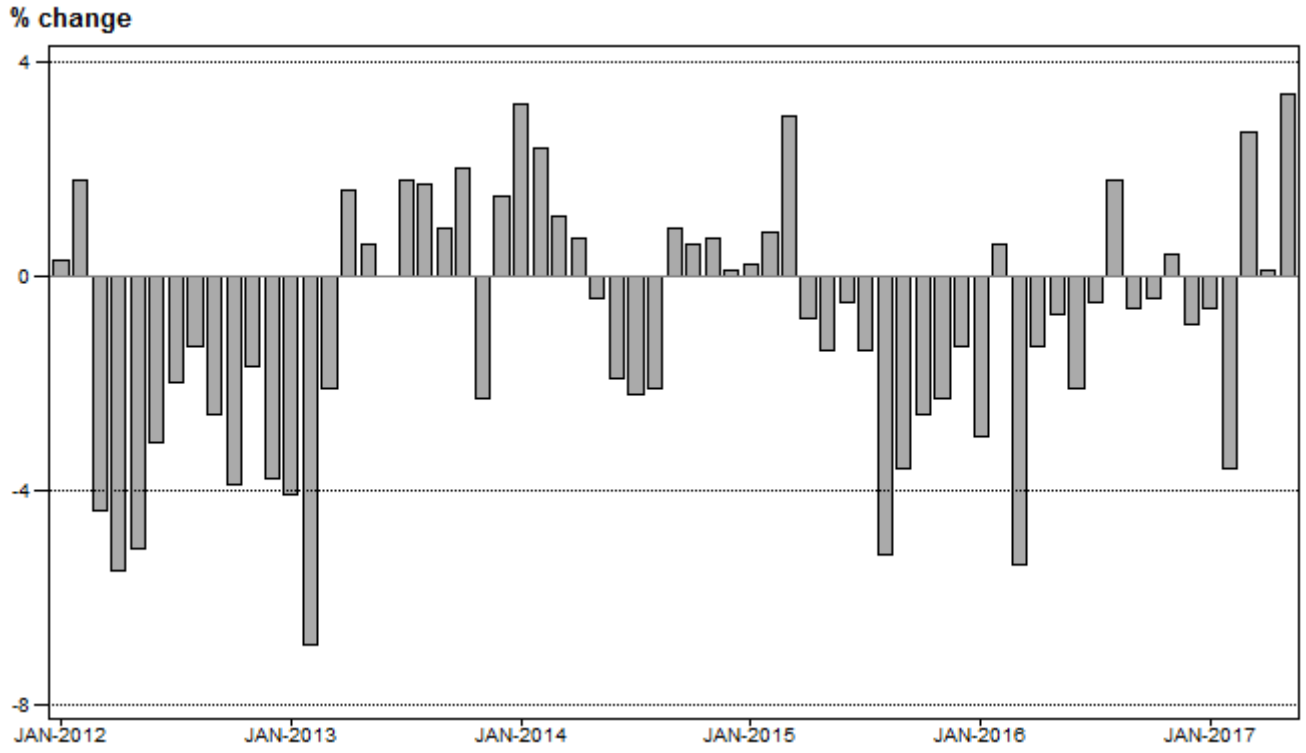
Table B – Key growth rates in the volume of electricity distributed

	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17
Year-on-year % change, unadjusted	-0,9	-0,6	-3,6	2,7	0,1	3,4
Month-on-month % change, seasonally adjusted	0,1	-0,1	0,2	1,1	0,5	1,6
3-month % change, seasonally adjusted [1]	0,8	0,3	0,0	0,3	1,1	2,1

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

Electricity distribution (consumption) increased by 3,4% year-on-year in May 2017. Seasonally adjusted electricity distribution increased by 1,6% month-on-month in May 2017, following month-on-month changes of 0,5% in April 2017 and 1,1% in March 2017. Seasonally adjusted electricity distribution increased by 2,1% in the three months ended May 2017 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: 2015=100)

Month	2011	2012	2013	2014	2015	2016	2017 [1]
Jan	101,9	103,0	99,9	101,4	101,3	99,2	100,0
Feb	96,8	97,4	93,9	93,7	93,1	95,8	92,1
Mar	106,9	103,0	103,3	102,6	103,7	99,5	102,2
Apr	102,6	96,4	100,4	99,7	96,4	97,3	98,1
May	109,9	104,1	105,0	103,9	101,4	102,7	107,4
Jun	108,5	106,1	106,1	103,6	102,6	103,1	
Jul	110,9	109,7	110,4	108,1	105,4	108,4	
Aug	107,7	109,4	108,2	106,0	101,1	105,1	
Sep	103,1	102,4	101,0	102,2	98,6	99,7	
Oct	106,9	104,9	103,7	104,2	101,0	103,2	
Nov	103,9	103,3	100,0	99,3	98,0	100,2	
Dec	100,3	97,6	96,9	97,5	97,3	98,1	
Total	**105,0**	**103,1**	**102,4**	**101,9**	**100,0**	**101,0**	

[1] Latest month is preliminary.

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

Month	2012	2013	2014	2015	2016	2017	*2017 year-to-date*
Jan	1,1	-3,0	1,5	-0,1	-2,1	0,8	*0,8*
Feb	0,6	-3,6	-0,2	-0,6	2,9	-3,9	*-1,5*
Mar	-3,6	0,3	-0,7	1,1	-4,1	2,7	*-0,1*
Apr	-6,0	4,1	-0,7	-3,3	0,9	0,8	*0,2*
May	-5,3	0,9	-1,0	-2,4	1,3	4,6	*1,1*
Jun	-2,2	0,0	-2,4	-1,0	0,5		
Jul	-1,1	0,6	-2,1	-2,5	2,8		
Aug	1,6	-1,1	-2,0	-4,6	4,0		
Sep	-0,7	-1,4	1,2	-3,5	1,1		
Oct	-1,9	-1,1	0,5	-3,1	2,2		
Nov	-0,6	-3,2	-0,7	-1,3	2,2		
Dec	-2,7	-0,7	0,6	-0,2	0,8		
Total	**-1,8**	**-0,7**	**-0,5**	**-1,9**	**1,0**		

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

Month	Base: 2015=100				Month-on-month % change			
	2014	2015	2016	2017	2014	2015	2016	2017
Jan	102,1	102,0	99,9	101,0	1,0	0,8	-0,9	-0,4
Feb	101,9	101,3	101,2	100,3	-0,2	-0,7	1,3	-0,7
Mar	102,2	103,5	99,7	101,3	0,3	2,2	-1,5	1,0
Apr	103,3	100,2	100,1	102,7	1,1	-3,2	0,4	1,4
May	101,6	99,2	100,5	104,9	-1,6	-1,0	0,4	2,1
Jun	101,1	99,7	100,5		-0,5	0,5	0,0	
Jul	101,1	98,3	101,2		0,0	-1,4	0,7	
Aug	101,2	97,4	100,7		0,1	-0,9	-0,5	
Sep	103,0	99,1	100,3		1,8	1,7	-0,4	
Oct	101,9	98,8	101,6		-1,1	-0,3	1,3	
Nov	101,0	99,8	101,3		-0,9	1,0	-0,3	
Dec	101,2	100,8	101,4		0,2	1,0	0,1	

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

Month	2012	2013	2014	2015	2016	2017 [1]
Jan	19 676	18 860	19 457	19 491	18 902	18 786
Feb	18 783	17 493	17 917	18 060	18 167	17 511
Mar	19 623	19 202	19 415	19 998	18 910	19 416
Apr	18 466	18 762	18 895	18 739	18 504	18 522
May	19 869	19 991	19 907	19 620	19 481	20 143
Jun	20 274	20 270	19 891	19 797	19 377	
Jul	20 743	21 119	20 661	20 368	20 266	
Aug	20 345	20 689	20 255	19 209	19 549	
Sep	19 100	19 271	19 450	18 757	18 646	
Oct	19 413	19 795	19 905	19 389	19 318	
Nov	19 426	18 984	19 126	18 684	18 756	
Dec	18 456	18 733	18 752	18 503	18 342	
Total	**234 174**	**233 169**	**233 631**	**230 615**	**228 218**	

[1] Latest month is preliminary.

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

Month	2013	2014	2015	2016	2017	*2017 year-to-date*
Jan	-4,1	3,2	0,2	-3,0	-0,6	*-0,6*
Feb	-6,9	2,4	0,8	0,6	-3,6	*-2,1*
Mar	-2,1	1,1	3,0	-5,4	2,7	*-0,5*
Apr	1,6	0,7	-0,8	-1,3	0,1	*-0,3*
May	0,6	-0,4	-1,4	-0,7	3,4	*0,4*
Jun	0,0	-1,9	-0,5	-2,1		
Jul	1,8	-2,2	-1,4	-0,5		
Aug	1,7	-2,1	-5,2	1,8		
Sep	0,9	0,9	-3,6	-0,6		
Oct	2,0	0,6	-2,6	-0,4		
Nov	-2,3	0,7	-2,3	0,4		
Dec	1,5	0,1	-1,3	-0,9		
Total	**-0,4**	**0,2**	**-1,3**	**-1,0**		

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

Month	Gigawatt-hours				Month-on-month % change			
	2014	2015	2016	2017	2014	2015	2016	2017
Jan	19 529	19 593	19 030	18 981	-0,1	0,5	-0,9	-0,1
Feb	19 452	19 588	19 089	19 018	-0,4	0,0	0,3	0,2
Mar	19 416	20 007	18 972	19 230	-0,2	2,1	-0,6	1,1
Apr	19 578	19 385	18 967	19 328	0,8	-3,1	0,0	0,5
May	19 399	19 135	19 027	19 637	-0,9	-1,3	0,3	1,6
Jun	19 328	19 190	18 833		-0,4	0,3	-1,0	
Jul	19 320	19 015	18 921		0,0	-0,9	0,5	
Aug	19 383	18 547	18 790		0,3	-2,5	-0,7	
Sep	19 761	19 024	18 897		2,0	2,6	0,6	
Oct	19 577	19 067	19 101		-0,9	0,2	1,1	
Nov	19 480	19 030	18 976		-0,5	-0,2	-0,7	
Dec	19 487	19 197	19 002		0,0	0,9	0,1	

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

	Jan-17	Feb-17	Mar-17	Apr-17	May-17 [1]	May-17 year-on-year % change
Total - all producers						
Generated	20 847	19 203	21 295	20 444	22 387	4,6
Inflow into South Africa	701	670	765	792	731	-21,4
Consumed in power stations and auxiliary systems	1 524	1 284	1 521	1 563	1 711	15,5
Outflow from South Africa	1 239	1 078	1 122	1 150	1 264	-7,5
Distributed in South Africa	18 786	17 511	19 416	18 522	20 143	3,4
Eskom						
Generated	19 057	17 639	19 600	18 823	20 827	4,6
Inflow into South Africa	701	670	765	792	731	-21,4
Consumed in power stations and auxiliary systems	1 457	1 221	1 458	1 496	1 644	16,7
Outflow from South Africa	1 239	1 078	1 122	1 150	1 264	-7,5
Distributed in South Africa	17 062	16 010	17 784	16 968	18 650	3,3

[1] Preliminary.

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

	Jan – May 2016 (GWh)	Jan – May 2017 (GWh)	% change between Jan – May 2016 and Jan – May 2017	Difference between Jan – May 2016 and Jan – May 2017 (GWh)
Total - all producers				
Generated	103 102	104 176	1,0	1 074
Inflow into South Africa	4 894	3 659	-25,2	-1 235
Consumed in power stations and auxiliary systems	7 129	7 603	6,6	474
Outflow from South Africa	6 902	5 853	-15,2	-1 049
Distributed in South Africa	93 964	94 378	0,4	414
Eskom				
Generated	95 915	95 946	0,0	31
Inflow into South Africa	4 894	3 659	-25,2	-1 235
Consumed in power stations and auxiliary systems	6 792	7 276	7,1	484
Outflow from South Africa	6 902	5 853	-15,2	-1 049
Distributed in South Africa	87 114	86 474	-0,7	-640

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

Province	Jan-17	Feb-17	Mar-17	Apr-17	May-17 [1]	May-17 year-on-year % change
Western Cape	1 870	1 828	2 011	1 822	1 944	2,5
Eastern Cape	838	770	835	777	867	22,5
Northern Cape	552	478	481	379	371	-13,1
Free State	856	777	847	806	870	-1,8
KwaZulu-Natal	3 493	3 214	3 629	3 448	3 621	3,8
North West	2 482	2 120	2 599	2 434	2 614	7,8
Gauteng	4 401	4 182	4 647	4 497	5 200	1,6
Mpumalanga	2 906	2 559	2 878	2 834	2 983	0,4
Limpopo	1 122	970	1 133	1 111	1 167	-0,1
Total	**18 521**	**16 897**	**19 061**	**18 109**	**19 639**	**2,9**

[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 May 2017 was 100%. The improved collection rate for April 2017 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 at
Click to download Electricity seasonal adjustment November 2016

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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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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