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Electricity generated and available for distribution (Preliminary)

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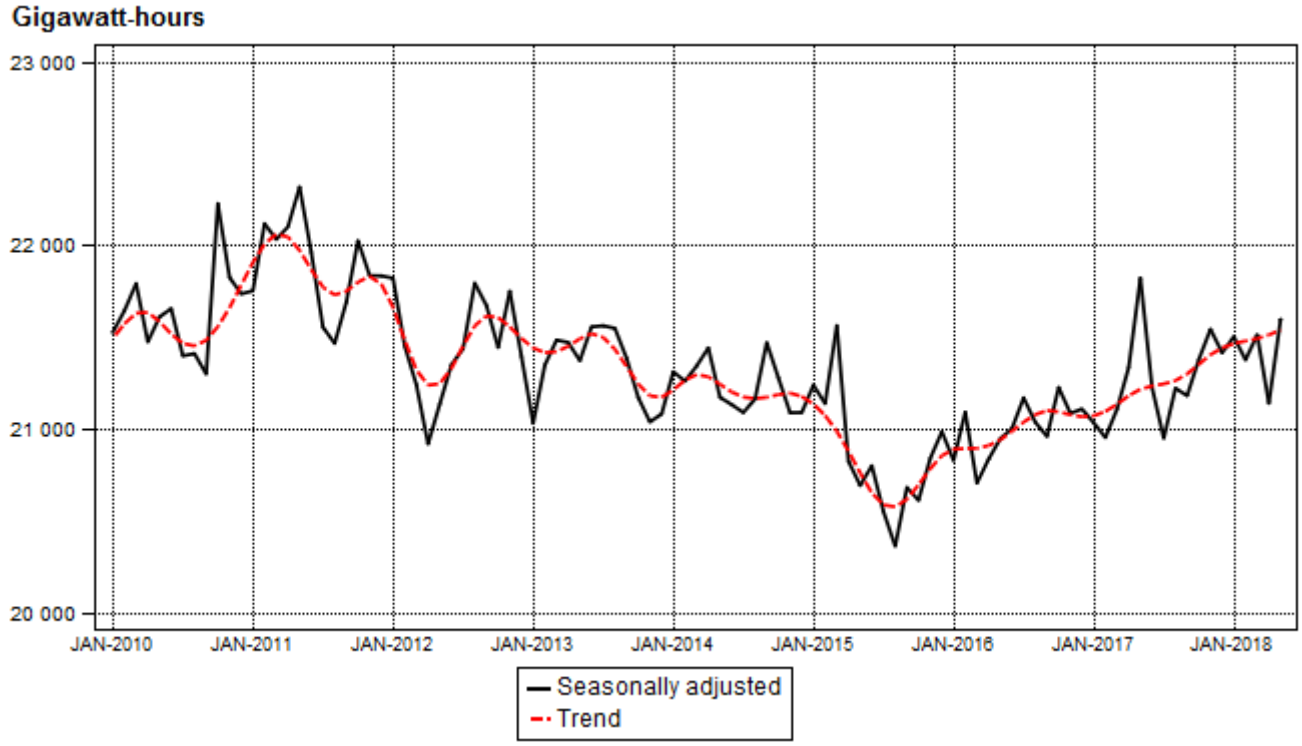
	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
Year-on-year % change, unadjusted	1,5	2,4	2,0	1,2	-0,5	-0,8
Month-on-month % change, seasonally adjusted	-0,6	0,4	-0,6	0,6	-1,6	2,1
3-month % change, seasonally adjusted [1]	1,6	1,1	0,3	0,1	-0,7	-0,1

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

Electricity generation (production) decreased by 0,8% year-on-year in May 2018. Seasonally adjusted electricity generation increased by 2,1% in May 2018 compared with April 2018. This followed month-on-month changes of -1,6% in April 2018 and 0,6% in March 2018. Seasonally adjusted electricity generation decreased by 0,1% in the three months ended May 2018 compared with the previous three months.

Figure 1 – Electricity generated in South Africa



Electricity distributed (consumed) in South Africa: results for May 2018

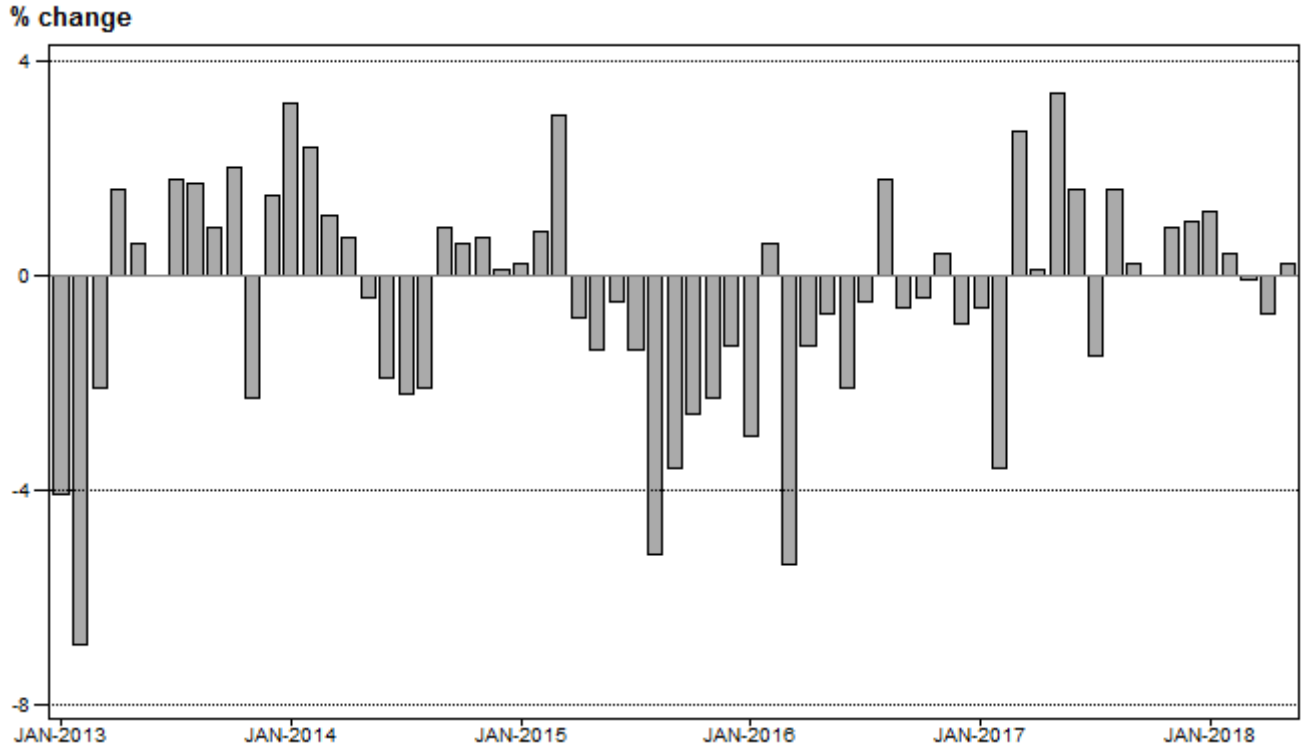
Table B – Key growth rates in the volume of electricity distributed

	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18
Year-on-year % change, unadjusted	1,0	1,2	0,4	-0,1	-0,7	0,2
Month-on-month % change, seasonally adjusted	0,2	-0,3	-0,4	1,1	-1,4	2,9
3-month % change, seasonally adjusted [1]	1,1	0,8	0,5	0,2	-0,2	0,8

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

Electricity distribution (consumption) increased by 0,2% year-on-year in May 2018. Seasonally adjusted electricity distribution increased by 2,9% month-on-month in May 2018, following month-on-month changes of -1,4% in April 2018 and 1,1% in March 2018. Seasonally adjusted electricity distribution increased by 0,8% in the three months ended May 2018 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	2012	2013	2014	2015	2016	2017	2018 [1]
Jan	103,0	99,9	101,4	101,3	99,2	100,0	102,4
Feb	97,4	93,9	93,7	93,1	95,8	92,1	93,9
Mar	103,0	103,3	102,6	103,7	99,5	102,2	103,4
Apr	96,4	100,4	99,7	96,4	97,3	98,1	97,6
May	104,1	105,0	103,9	101,4	102,7	107,4	106,5
Jun	106,1	106,1	103,6	102,6	103,1	104,8	
Jul	109,7	110,4	108,1	105,4	108,4	106,5	
Aug	109,4	108,2	106,0	101,1	105,1	105,9	
Sep	102,4	101,0	102,2	98,6	99,7	100,8	
Oct	104,9	103,7	104,2	101,0	103,2	104,5	
Nov	103,3	100,0	99,3	98,0	100,2	101,9	
Dec	97,6	96,9	97,5	97,3	98,1	99,6	
Total	**103,1**	**102,4**	**101,9**	**100,0**	**101,0**	**102,0**	

[1] Latest month is preliminary.

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

Month	2013	2014	2015	2016	2017	2018	*2018 year-to-date*
Jan	-3,0	1,5	-0,1	-2,1	0,8	2,4	*2,4*
Feb	-3,6	-0,2	-0,6	2,9	-3,9	2,0	*2,2*
Mar	0,3	-0,7	1,1	-4,1	2,7	1,2	*1,8*
Apr	4,1	-0,7	-3,3	0,9	0,8	-0,5	*1,2*
May	0,9	-1,0	-2,4	1,3	4,6	-0,8	*0,8*
Jun	0,0	-2,4	-1,0	0,5	1,6		
Jul	0,6	-2,1	-2,5	2,8	-1,8		
Aug	-1,1	-2,0	-4,6	4,0	0,8		
Sep	-1,4	1,2	-3,5	1,1	1,1		
Oct	-1,1	0,5	-3,1	2,2	1,3		
Nov	-3,2	-0,7	-1,3	2,2	1,7		
Dec	-0,7	0,6	-0,2	0,8	1,5		
Total	**-0,7**	**-0,5**	**-1,9**	**1,0**	**1,0**		

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

Month	Base: 2015=100				Month-on-month % change			
	2015	2016	2017	2018	2015	2016	2017	2018
Jan	101,8	99,9	100,8	103,1	0,7	-0,7	-0,4	0,4
Feb	101,3	101,1	100,5	102,5	-0,5	1,2	-0,3	-0,6
Mar	103,4	99,3	101,2	103,1	2,1	-1,8	0,7	0,6
Apr	99,8	99,9	102,3	101,4	-3,5	0,6	1,1	-1,6
May	99,2	100,4	104,6	103,5	-0,6	0,5	2,2	2,1
Jun	99,7	100,7	101,8		0,5	0,3	-2,7	
Jul	98,5	101,5	100,4		-1,2	0,8	-1,4	
Aug	97,6	100,9	101,7		-0,9	-0,6	1,3	
Sep	99,2	100,5	101,6		1,6	-0,4	-0,1	
Oct	98,8	101,8	102,5		-0,4	1,3	0,9	
Nov	99,9	101,1	103,3		1,1	-0,7	0,8	
Dec	100,6	101,2	102,7		0,7	0,1	-0,6	

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

Month	2013	2014	2015	2016	2017	2018 [1]
Jan	18 860	19 457	19 491	18 902	18 786	19 020
Feb	17 493	17 917	18 060	18 167	17 511	17 584
Mar	19 202	19 415	19 998	18 910	19 416	19 389
Apr	18 762	18 895	18 739	18 504	18 522	18 400
May	19 991	19 907	19 620	19 481	20 143	20 183
Jun	20 270	19 891	19 797	19 377	19 696	
Jul	21 119	20 661	20 368	20 266	19 972	
Aug	20 689	20 255	19 209	19 549	19 853	
Sep	19 271	19 450	18 757	18 646	18 675	
Oct	19 795	19 905	19 389	19 318	19 317	
Nov	18 984	19 126	18 684	18 756	18 919	
Dec	18 733	18 752	18 503	18 342	18 532	
Total	**233 169**	**233 631**	**230 615**	**228 218**	**229 342**	

[1] Latest month is preliminary.

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

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

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

Month	Gigawatt-hours				Month-on-month % change			
	2015	2016	2017	2018	2015	2016	2017	2018
Jan	19 590	19 044	18 962	19 170	0,4	-0,8	-0,2	-0,3
Feb	19 513	19 057	18 975	19 102	-0,4	0,1	0,1	-0,4
Mar	19 977	18 882	19 227	19 315	2,4	-0,9	1,3	1,1
Apr	19 311	18 917	19 274	19 048	-3,3	0,2	0,2	-1,4
May	19 200	19 047	19 593	19 596	-0,6	0,7	1,7	2,9
Jun	19 169	18 842	19 047		-0,2	-1,1	-2,8	
Jul	19 106	19 006	18 865		-0,3	0,9	-1,0	
Aug	18 584	18 789	19 101		-2,7	-1,1	1,3	
Sep	18 950	18 867	18 914		2,0	0,4	-1,0	
Oct	19 108	19 205	19 096		0,8	1,8	1,0	
Nov	19 067	18 936	19 178		-0,2	-1,4	0,4	
Dec	19 198	18 995	19 222		0,7	0,3	0,2	

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

	Jan-18	Feb-18	Mar-18	Apr-18	May-18 [1]	May-18 year-on-year % change
Total - all producers						
Generated	21 341	19 565	21 563	20 345	22 192	-0,9
Inflow into South Africa	745	654	700	744	810	10,8
Consumed in power stations and auxiliary systems	1 652	1 500	1 671	1 658	1 757	2,7
Outflow from South Africa	1 414	1 135	1 204	1 030	1 061	-16,1
Distributed in South Africa	19 020	17 584	19 389	18 400	20 183	0,2
Eskom						
Generated	19 248	17 782	19 805	18 619	20 389	-2,1
Inflow into South Africa	745	654	700	744	810	10,8
Consumed in power stations and auxiliary systems	1 583	1 442	1 616	1 596	1 686	2,6
Outflow from South Africa	1 414	1 135	1 204	1 030	1 061	-16,1
Distributed in South Africa	16 996	15 859	17 685	16 736	18 451	-1,1

[1] Preliminary.

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

	Jan – May 2017 (GWh)	Jan – May 2018 (GWh)	% change between Jan – May 2017 and Jan – May 2018	Difference between Jan – May 2017 and Jan – May 2018 (GWh)
Total - all producers				
Generated	104 176	105 006	0,8	830
Inflow into South Africa	3 659	3 653	-0,2	-6
Consumed in power stations and auxiliary systems	7 603	8 238	8,4	635
Outflow from South Africa	5 853	5 844	-0,2	-9
Distributed in South Africa	94 378	94 576	0,2	198
Eskom				
Generated	95 946	95 843	-0,1	-103
Inflow into South Africa	3 659	3 653	-0,2	-6
Consumed in power stations and auxiliary systems	7 276	7 923	8,9	647
Outflow from South Africa	5 853	5 844	-0,2	-9
Distributed in South Africa	86 474	85 727	-0,9	-747

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

Province	Jan-18	Feb-18	Mar-18	Apr-18	May-18 [1]	May-18 year-on-year % change
Western Cape	1 899	1 788	1 938	1 791	1 892	-2,9
Eastern Cape	740	674	731	687	769	0,5
Northern Cape	571	494	540	481	486	1,3
Free State	837	752	802	758	849	-2,4
KwaZulu-Natal	3 474	3 256	3 567	3 400	3 684	0,8
North West	2 469	2 309	2 543	2 429	2 620	-1,1
Gauteng	4 475	4 226	4 631	4 539	5 225	0,2
Mpumalanga	2 975	2 695	2 998	2 740	3 030	1,3
Limpopo	1 211	1 062	1 227	1 209	1 260	6,6
Total	**18 649**	**17 257**	**18 976**	**18 034**	**19 814**	**0,3**

[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 2018 was 100%. The collection rate for April 2018 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 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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