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Statistical release P4141

Electricity generated and available for distribution (Preliminary)

May 2015

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Electricity generated (produced): results for May 2015

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

	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15
Year-on-year % change, unadjusted	-1,0	-1,5	-2,1	-0,2	-4,5	-3,5
Month-on-month % change, seasonally adjusted	1,0	0,2	-0,8	0,9	-2,0	-0,8
3-month % change, seasonally adjusted ¹	-0,8	-1,0	-0,5	0,2	-0,4	-1,1

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

Electricity generation (production) decreased by 3,5% year-on-year in May 2015. Seasonally adjusted electricity generation decreased by 0,8% in May 2015 compared with April 2015. This followed month-on-month changes of -2,0% in April 2015 and 0,9% in March 2015. Seasonally adjusted electricity generation decreased by 1,1% in the three months ended May 2015 compared with the previous three months.





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

	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15
Year-on-year % change, unadjusted	-1,6	-1,3	-0,8	1,6	-2,2	-2,7
Month-on-month % change, seasonally adjusted	0,5	0,2	-0,3	1,1	-1,5	-1,5
3-month % change, seasonally adjusted ¹	-0,1	-0,5	-0,5	0,3	0,2	-0,6

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

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 May 2015. Seasonally adjusted electricity distribution decreased by 1,5% month-on-month in May 2015, following month-on-month changes of -1,5% in April 2015 and 1,1% in March 2015. Seasonally adjusted electricity distribution decreased by 0,6% in the three months ended May 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	97,5	96,0
Feb	83,5	91,1	93,3	93,8	90,5	90,0	88,1
Mar	93,7	101,3	103,0	99,3	99,6	98,4	98,2
Apr	90,7	96,2	98,9	92,9	96,7	95,7	91,4
Мау	98,6	102,3	105,9	100,3	101,2	99,6	96,1
Jun	98,8	103,8	104,6	102,2	102,2	99,1	
Jul	106,4	106,6	106,8	105,7	106,4	103,2	
Aug	102,7	103,2	103,7	105,4	104,2	101,2	
Sep	98,5	97,0	99,4	98,7	97,3	97,4	
Oct	99,6	104,6	103,1	101,1	99,9	98,9	
Nov	96,8	100,0	100,1	99,5	96,2	94,3	
Dec	94,6	96,3	96,7	94,0	93,2	92,3	
Total	96,1	100,0	101,1	99,3	98,6	97,3	

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	1,4	-1,5	-1,5
Feb	9,1	2,4	0,5	-3,5	-0,6	-2,1	-1,8
Mar	8,1	1,7	-3,6	0,3	-1,2	-0,2	-1,2
Apr	6,1	2,8	-6,1	4,1	-1,0	-4,5	-2,0
Мау	3,8	3,5	-5,3	0,9	-1,6	-3,5	-2,4
Jun	5,1	0,8	-2,3	0,0	-3,0		
Jul	0,2	0,2	-1,0	0,7	-3,0		
Aug	0,5	0,5	1,6	-1,1	-2,9		
Sep	-1,5	2,5	-0,7	-1,4	0,1		
Oct	5,0	-1,4	-1,9	-1,2	-1,0		
Nov	3,3	0,1	-0,6	-3,3	-2,0		
Dec	1,8	0,4	-2,8	-0,9	-1,0		
Total	4,0	1,1	-1,8	-0,7	-1,4		

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

Month		Base: 20	010=100		Month-on-month % change			
wonth	2012	2013	2014	2015	2012	2013	2014	2015
Jan	100,5	97,2	98,4	96,8	-0,7	-1,3	0,8	0,2
Feb	99,7	98,7	98,0	96,0	-0,8	1,5	-0,4	-0,8
Mar	98,2	99,6	97,1	96,9	-1,5	0,9	-0,9	0,9
Apr	96,4	99,2	99,4	95,0	-1,8	-0,4	2,4	-2,0
Мау	97,8	98,9	97,6	94,2	1,5	-0,3	-1,8	-0,8
Jun	99,1	99,3	96,4		1,3	0,4	-1,2	
Jul	98,9	99,7	96,6		-0,2	0,4	0,2	
Aug	100,7	99,4	96,4		1,8	-0,3	-0,2	
Sep	99,9	98,4	98,5		-0,8	-1,0	2,2	
Oct	99,2	97,9	96,9		-0,7	-0,5	-1,6	
Nov	100,7	97,4	95,6		1,5	-0,5	-1,3	
Dec	98,5	97,6	96,6		-2,2	0,2	1,0	

Month	2010	2011	2012	2013	2014	2015 ¹
Jan	19 396	19 616	19 676	18 860	19 409	19 152
Feb	18 181	18 455	18 783	17 493	17 859	17 713
Mar	20 186	20 518	19 623	19 202	19 328	19 631
Apr	19 102	19 539	18 466	18 762	18 810	18 400
May	20 435	20 938	19 869	19 991	19 794	19 262
Jun	20 800	20 914	20 274	20 270	19 721	
Jul	21 307	21 162	20 743	21 119	20 454	
Aug	20 540	20 617	20 345	20 689	20 044	
Sep	19 256	19 619	19 100	19 269	19 217	
Oct	20 371	20 198	19 413	19 781	19 589	
Nov	19 702	19 763	19 426	18 968	18 814	
Dec	18 996	19 189	18 456	18 701	18 410	
Total	238 272	240 528	234 174	233 105	231 449	

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

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	2,9	-1,3	-1,3
Feb	1,5	1,8	-6,9	2,1	-0,8	-1,1
Mar	1,6	-4,4	-2,1	0,7	1,6	-0,2
Apr	2,3	-5,5	1,6	0,3	-2,2	-0,7
Мау	2,5	-5,1	0,6	-1,0	-2,7	-1,1
Jun	0,5	-3,1	0,0	-2,7		
Jul	-0,7	-2,0	1,8	-3,1		
Aug	0,4	-1,3	1,7	-3,1		
Sep	1,9	-2,6	0,9	-0,3		
Oct	-0,8	-3,9	1,9	-1,0		
Nov	0,3	-1,7	-2,4	-0,8		
Dec	1,0	-3,8	1,3	-1,6		
Total	0,9	-2,6	-0,5	-0,7		

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

Month		Gigawa	tt-hours		Month-on-month % change			
Month	2012	2013	2014	2015	2012	2013	2014	2015
Jan	19 843	18 981	19 529	19 269	-1,2	-1,8	-0,1	0,2
Feb	19 717	19 054	19 400	19 213	-0,6	0,4	-0,7	-0,3
Mar	19 454	19 279	19 127	19 415	-1,3	1,2	-1,4	1,1
Apr	19 191	19 262	19 562	19 124	-1,4	-0,1	2,3	-1,5
Мау	19 357	19 511	19 341	18 832	0,9	1,3	-1,1	-1,5
Jun	19 544	19 597	19 122		1,0	0,4	-1,1	
Jul	19 387	19 788	19 168		-0,8	1,0	0,2	
Aug	19 363	19 699	19 075		-0,1	-0,4	-0,5	
Sep	19 404	19 575	19 518		0,2	-0,6	2,3	
Oct	19 256	19 581	19 358		-0,8	0,0	-0,8	
Nov	19 738	19 272	19 138		2,5	-1,6	-1,1	
Dec	19 320	19 547	19 232		-2,1	1,4	0,5	

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

	Jan-15	Feb-15	Mar-15	Apr-15	May-15 ¹	May-15 year-on-year % change
Total - all producers						
Generated	20 769	19 068	21 254	19 763	20 784	-3,6
Inflow into South Africa	1 057	1 061	1 163	1 144	1 192	32,2
Consumed in power stations and auxiliary systems	1 519	1 311	1 558	1 457	1 553	-3,7
Outflow from South Africa	1 156	1 106	1 228	1 050	1 161	11,0
Distributed in South Africa	19 152	17 713	19 631	18 400	19 262	-2,7
Eskom						
Generated	19 755	18 187	20 313	18 709	19 706	-3,8
Inflow into South Africa	1 057	1 061	1 163	1 144	1 192	32,2
Consumed in power stations and auxiliary systems	1 446	1 254	1 489	1 389	1 476	-4,0
Outflow from South Africa	1 156	1 106	1 228	1 050	1 161	11,0
Distributed in South Africa	18 211	16 888	18 759	17 415	18 261	-2,9

¹ Preliminary.

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

	Jan – May 2014 (GWh)	Jan – May 2015 (GWh)	% change between Jan – May 2014 and Jan – May 2015	Difference between Jan – May 2014 and Jan – May 2015 (GWh)					
Total - all producers									
Generated	104 096	101 638	-2,4	-2 458					
Inflow into South Africa	4 313	5 617	30,2	1 304					
Consumed in power stations and auxiliary systems	7 677	7 398	-3,6	-279					
Outflow from South Africa	5 532	5 701	3,1	169					
Distributed in South Africa	95 200	94 158	-1,1	-1 042					
Eskom									
Generated	99 328	96 670	-2,7	-2 658					
Inflow into South Africa	4 313	5 617	30,2	1 304					
Consumed in power stations and auxiliary systems	7 327	7 054	-3,7	-273					
Outflow from South Africa	5 532	5 701	3,1	169					
Distributed in South Africa	90 780	89 534	-1,4	-1 246					

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

Province	Jan-15	Feb-15	Mar-15	Apr-15	May-15 ¹	May-15 year-on-year % change
Western Cape	1 965	1 865	1 930	1 815	1 932	-1,1
Eastern Cape	670	605	721	719	727	-9,0
Northern Cape	395	343	415	340	355	-3,5
Free State	640	587	685	610	585	-11,6
KwaZulu-Natal	3 494	3 238	3 529	3 393	3 464	-2,1
North West	2 045	1 914	2 055	1 879	1 890	-4,8
Gauteng	4 478	4 301	4 868	4 608	4 893	-4,5
Mpumalanga	2 811	2 618	2 867	2 674	2 872	-1,7
Limpopo	978	883	960	939	1 011	-1,7
Total	17 476	16 354	18 030	16 977	17 729	-3,5

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 by Eskom 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 <i>Standard Industrial Classification of all Economic Activities</i> (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 <i>International Standard Industrial Classification of all Economic Activities</i> (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 2015 was 95,8%. The improved collection rate for April 2015 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.
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 (<u>Time series data</u>) 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 <i>Standard Industrial Classification of all Economic Activities (SIC)</i> 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 undertaking or establishment 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 email, fax and telephone. Information is collected from a sample of 24 electricity undertakings or 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 <u>Click to download Electricity seasonal adjustment August 2014.pdf</u>
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 GWh Gigaw ISIC Interna SIC Standa SA South Stats SA Statist * Revise	domestic product att-hour tional Standard Industrial Classification rd Industrial Classification of all Economic Activities Africa cs South Africa d figures			

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