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Statistical release

P4141

Electricity generated and available for distribution (Preliminary)

January 2015

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Results for January 2015

Table A – Selected key figures regarding electricity generated and available for distribution

Actual estimates	January 2015	% change between January 2014 and January 2015	% change between November 2013 to January 2014 and November 2014 to January 2015
Electricity available for distribution (Gigawatt-hours)	19 152	-1,3	-1,2
Index of the physical volume of electricity production (2010=100)	96,0	-1,5	-1,5

Seasonally adjusted estimates	January 2015	% change between December 2014 and January 2015	% change between August to October 2014 and November 2014 to January 2015
Electricity available for distribution (Gigawatt-hours)	19 339	0,5	-0,3
Index of the physical volume of electricity production (2010=100)	97,3	0,5	-0,7

Consumption of electricity

The actual estimated volume of electricity consumption decreased by 1,3% year-on-year in January 2015. Seasonally adjusted electricity consumption increased by 0,5% month-on-month in January 2015, following a month-on-month increase of 0,5% in December 2014.

Production of electricity

Electricity production decreased by 1,5% year-on-year in January 2015. Seasonally adjusted electricity production increased by 0,5% month-on-month in January 2015, following a month-on-month increase of 1,1% in December 2014.

Figure 1 – Electricity production in South Africa

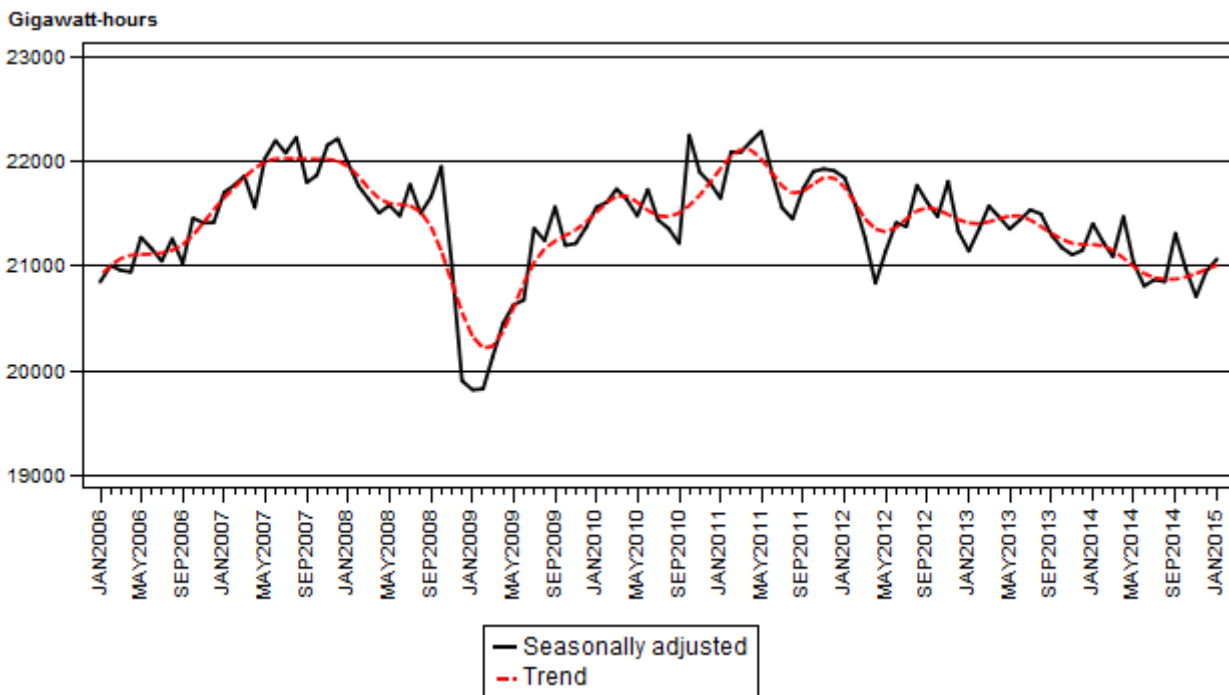


Table B – Comparison of the seasonally adjusted volume of electricity generated and available for distribution between the three months ended January 2015 and the previous three months

Gigawatt-hours	Seasonally adjusted volume August to October 2014	Seasonally adjusted volume November 2014 to January 2015	% change between August to October 2014 and November 2014 to January 2015	Quantity difference between August to October 2014 and November 2014 to January 2015
Electricity produced	63 142	62 724	-0,7	-418
Electricity available for distribution in South Africa	57 885	57 733	-0,3	-152

Table C – Comparison of actual estimates between the three months ended January 2015 and the three months ended January 2014

Gigawatt-hours	Actual volume November 2013 to January 2014	Actual volume November 2014 to January 2015	% change between November 2013 to January 2014 and November 2014 to January 2015	Quantity difference between November 2013 to January 2014 and November 2014 to January 2015
Electricity produced	62 079	61 138	-1,5	-941
Purchased outside South Africa (import) 1/	2 926	3 206	9,6	280
Consumed in power stations and auxiliary systems	4 470	4 498	0,6	28
Sold outside South Africa (export) 2/	3 458	3 473	0,4	15
Electricity available for distribution in South Africa	57 078	56 376	-1,2	-702

1/ Physical energy flowing into South Africa as measured by the metering systems at the South African borders.

2/ Physical energy flowing out of South Africa as measured by the metering systems at the South African borders.

Please note:

The statistical release for electricity generated and available for distribution (P4141) for February 2015 will be published using a revised layout. The release will include an annexure showing the changes in layout.

In particular, note that the index of the volume of electricity generated will be provided in Tables 1 – 3 (previously Tables 4 – 6).

The release for January 2015 in the new layout is available on request.

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Tables

Table 1 – Total volume of electricity available for distribution in South Africa: 2010–2015

Month	Gigawatt-hours					
	2010	2011	2012	2013	2014	2015
January	19 396	19 616	19 676	18 860	19 409	1/ 19 152
February	18 181	18 455	18 783	17 493	17 859	
March	20 186	20 518	19 623	19 202	19 328	
April	19 102	19 539	18 466	18 762	18 810	
May	20 435	20 938	19 869	19 991	19 794	
June	20 800	20 914	20 274	20 270	19 721	
July	21 307	21 162	20 743	21 119	20 454	
August	20 540	20 617	20 345	20 689	20 044	
September	19 256	19 619	19 100	19 269	19 217	
October	20 371	20 198	19 413	19 781	19 589	
November	19 702	19 763	19 426	18 968	18 814	
December	18 996	19 189	18 456	18 701	18 410	
Year	238 272	240 528	234 174	233 105	231 449	

1/ Preliminary.

Table 2 – Annual percentage change in electricity available for distribution in South Africa: 2010–2015

Month	% change 2/					
	2010	2011	2012	2013	2014	2015
January	8,2	1,1	0,3	-4,1	2,9	-1,3
February	8,5	1,5	1,8	-6,9	2,1	
March	8,0	1,6	-4,4	-2,1	0,7	
April	6,5	2,3	-5,5	1,6	0,3	
May	4,5	2,5	-5,1	0,6	-1,0	
June	4,9	0,5	-3,1	-0,0	-2,7	
July	0,7	-0,7	-2,0	1,8	-3,1	
August	0,7	0,4	-1,3	1,7	-3,1	
September	-0,7	1,9	-2,6	0,9	-0,3	
October	2,4	-0,8	-3,9	1,9	-1,0	
November	2,4	0,3	-1,7	-2,4	-0,8	
December	0,8	1,0	-3,8	1,3	-1,6	
Year	3,8	0,9	-2,6	-0,5	-0,7	

2/ The annual percentage change is the change in the volume of electricity available for distribution of the relevant month of the current year compared with the corresponding month of the previous year expressed as a percentage.

Table 3 – Seasonally adjusted total volume of electricity available for distribution in South Africa: 2010–2015

Month	Gigawatt-hours						% change between current and previous month
	2010	2011	2012	2013	2014	2015	
January	19 706	19 888	19 916	19 054	19 605	19 339	0,5
February	19 865	20 149	19 724	19 076	19 430		
March	20 027	20 353	19 470	19 305	19 202		
April	19 895	20 338	19 218	19 320	19 616		
May	19 841	20 360	19 340	19 476	19 291		
June	19 988	20 109	19 514	19 547	19 053		
July	19 789	19 703	19 352	19 738	19 107		
August	19 583	19 638	19 334	19 664	19 036		
September	19 468	19 868	19 385	19 562	19 511		
October	20 283	20 074	19 241	19 562	19 338		
November	20 083	20 105	19 748	19 280	19 145		
December	19 869	20 094	19 329	19 559	19 249		

Table 4 – Indices of the physical volume of electricity production: 2010–2015

Month	Base: 2010=100					
	2010	2011	2012	2013	2014	2015
January	97,6	98,1	99,2	96,2	97,5	1/ 96,0
February	91,1	93,3	93,8	90,5	90,0	
March	101,3	103,0	99,3	99,6	98,4	
April	96,2	98,9	92,9	96,7	95,7	
May	102,3	105,9	100,3	101,2	99,6	
June	103,8	104,6	102,2	102,2	99,1	
July	106,6	106,8	105,7	106,4	103,2	
August	103,2	103,7	105,4	104,2	101,2	
September	97,0	99,4	98,7	97,3	97,4	
October	104,6	103,1	101,1	99,9	98,9	
November	100,0	100,1	99,5	96,2	94,3	
December	96,3	96,7	94,0	93,2	92,3	
Year	100,0	101,1	99,3	98,6	97,3	

1/ Preliminary.

Table 5 – Annual percentage change in indices of the physical volume of electricity production: 2010–2015

Month	% change 2/					
	2010	2011	2012	2013	2014	2015
January	8,8	0,5	1,1	-3,0	1,4	-1,5
February	9,1	2,4	0,5	-3,5	-0,6	
March	8,1	1,7	-3,6	0,3	-1,2	
April	6,1	2,8	-6,1	4,1	-1,0	
May	3,8	3,5	-5,3	0,9	-1,6	
June	5,1	0,8	-2,3	-0,0	-3,0	
July	0,2	0,2	-1,0	0,7	-3,0	
August	0,5	0,5	1,6	-1,1	-2,9	
September	-1,5	2,5	-0,7	-1,4	0,1	
October	5,0	-1,4	-1,9	-1,2	-1,0	
November	3,3	0,1	-0,6	-3,3	-2,0	
December	1,8	0,4	-2,8	-0,9	-1,0	
Year	4,1	1,1	-1,8	-0,7	-1,4	

2/ The annual percentage change is the change in the index of the physical volume of electricity production of the relevant month of the current year compared with the corresponding month of the previous year expressed as a percentage.

Table 6 – Seasonally adjusted indices of the physical volume of electricity production: 2010–2015

Month	Base: 2010=100						% change between current and previous month
	2010	2011	2012	2013	2014	2015	
January	99,6	100,0	100,9	97,7	98,9	97,3	0,5
February	99,9	102,1	99,8	98,7	98,1		
March	100,4	102,1	98,3	99,7	97,4		
April	99,9	102,5	96,3	99,2	99,2		
May	99,2	103,0	97,7	98,7	97,2		
June	100,4	101,2	98,9	99,1	96,1		
July	99,1	99,6	98,8	99,5	96,4		
August	98,7	99,1	100,6	99,3	96,3		
September	98,0	100,4	99,8	98,4	98,5		
October	102,8	101,2	99,2	97,9	96,9		
November	101,2	101,3	100,8	97,5	95,7		
December	100,7	101,2	98,6	97,7	96,8		

Table 7 – Total volume of electricity imported: 2010–2015 1/

Month	Gigawatt-hours					
	2010	2011	2012	2013	2014	2015
January	1 122	1 088	1 085	676	1 020	2/ 1 057
February	995	730	1 063	407	873	
March	1 040	1 112	945	455	854	
April	931	912	1 068	559	664	
May	1 074	907	1 066	919	902	
June	1 019	1 009	1 044	881	882	
July	1 117	979	903	965	945	
August	1 109	1 108	465	930	935	
September	1 068	974	474	839	867	
October	770	911	451	891	1 086	
November	1 018	1 073	654	854	1 120	
December	930	1 087	788	1 052	1 029	
Year	12 193	11 890	10 006	9 428	11 177	

1/ Physical energy flowing into South Africa as measured by the metering systems at the South African borders.

2/ Preliminary.

Table 8 – Total volume of electricity exported: 2010–2015 1/

Month	Gigawatt-hours					
	2010	2011	2012	2013	2014	2015
January	1 217	1 133	1 247	1 115	1 183	2/ 1 156
February	1 128	1 069	1 212	1 095	1 085	
March	1 252	1 279	1 242	1 187	1 219	
April	1 170	1 190	1 174	1 132	999	
May	1 177	1 241	1 322	1 196	1 046	
June	1 132	1 174	1 335	1 158	1 092	
July	1 206	1 247	1 350	1 183	1 171	
August	1 275	1 298	1 295	1 185	1 167	
September	1 248	1 288	1 165	1 166	1 194	
October	1 338	1 378	1 300	1 237	1 363	
November	1 316	1 381	1 233	1 219	1 191	
December	1 209	1 286	1 160	1 056	1 126	
Year	14 668	14 964	15 035	13 929	13 836	

1/ Physical energy flowing out of South Africa as measured by the metering systems at the South African borders.

2/ Preliminary.

Table 9a – Electricity produced and consumed in power stations, purchased and sold outside South Africa and available for distribution in South Africa (monthly figures)

		Gigawatt-hours				
		January 2014	December 2014	January 2015 1/	% change between January 2014 and January 2015	Difference between January 2014 and January 2015
Total - All producers	Electricity produced	21 090	19 978	20 769	-1,5	-321
	Purchased outside South Africa (import) 2/	1 020	1 029	1 057	3,6	37
	Consumed in power stations and auxiliary systems	1 518	1 472	1 519	0,1	1
	Sold outside South Africa (export) 3/	1 183	1 126	1 156	-2,3	-27
	Electricity available for distribution in South Africa	19 409	18 410	19 152	-1,3	-257
ESKOM	Electricity produced	20 236	18 939	19 755	-2,4	-481
	Purchased outside South Africa (import) 2/	1 020	1 029	1 057	3,6	37
	Consumed in power stations and auxiliary systems	1 450	1 401	1 446	-0,3	-4
	Sold outside South Africa (export) 3/	1 183	1 126	1 156	-2,3	-27
	Electricity available for distribution in South Africa	18 623	17 441	18 211	-2,2	-412

1/ Preliminary.

2/ Physical energy flowing into South Africa as measured by the metering systems at the South African borders.

3/ Physical energy flowing out of South Africa as measured by the metering systems at the South African borders.

Table 10 – Total volume of electricity delivered by Eskom to provinces for 2014 and 2015 1/

Period		Gigawatt-hours									Total South Africa
		Western Cape	Eastern Cape	Northern Cape	Free State	KwaZulu-Natal	North West	Gauteng	Mpumalanga	Limpopo	
2014	January	1 963	674	400	654	3 569	2 093	4 559	2 868	982	17 762
	February	1 887	621	349	604	3 295	1 934	4 370	2 649	907	16 616
	March	1 967	750	365	649	3 507	1 975	4 747	2 842	973	17 775
	April	1 882	753	346	641	3 411	1 887	4 634	2 770	987	17 311
	May	1 953	799	368	662	3 538	1 985	5 121	2 922	1 029	18 377
	June	1 927	789	367	642	3 419	1 835	5 447	2 900	1 028	18 354
	July	2 050	778	361	665	3 397	2 174	5 584	2 962	1 019	18 990
	August	1 944	750	350	646	3 311	2 165	5 421	2 917	1 017	18 521
	September	1 865	715	356	619	3 271	1 965	5 066	2 828	1 057	17 742
	October	1 930	721	359	639	3 405	2 104	4 974	2 908	1 020	18 060
	November	1 814	677	370	609	3 305	2 050	4 806	2 800	973	17 404
	December	1 861	708	421	615	3 225	1 988	4 382	2 679	972	16 851
	Year	23 043	8 735	4 412	7 645	40 653	24 155	59 111	34 045	11 964	213 763
2015	January 2/	1 965	670	395	640	3 494	2 045	4 478	2 811	978	17 476

1/ Wholesale energy (Gigawatt-hours) as delivered by Eskom to the various provinces.

2/ Preliminary.

Explanatory notes

Introduction	1	Statistics South Africa (Stats SA) conducts a monthly sample survey of the electricity industry covering electricity undertakings and establishments (branches). This statistical release contains information regarding the volume of electricity units generated and available for distribution in South Africa, the volume of units purchased and sold outside South Africa and the volume of units distributed by Eskom by province on a monthly basis. Both actual and seasonally adjusted figures are published.
	2	This statistical release reflects indices of the physical volume of electricity production on the basis of 2010=100. In accordance with international practice, the indices have to be rebased every five years to a new base year.
	3	In order to improve timeliness of the publication, 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 generated and available for distribution 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 or transmission and distribution of electricity. 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 January 2015 was 100%. The improved collection rate for December 2014 was 100%.
Statistical unit	8	The basic 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. Each statistical unit is classified to an industry (see paragraph 5).
Survey methodology and design	9	All statistical units are stratified by type of economic activity according to the <i>Standard Industrial Classification of all Economic Activities</i> (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 category one cases) 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 kilowatt is excluded from the sample.
	10	The survey is conducted by mail, email and telephone. Information is collected from a sample of 24 electricity undertakings or establishments.
Monthly production indices	11	The calculation of the monthly production indices is based on the volume of electricity units produced.

Benchmarking	12	The index of physical volume of electricity production should provide an accurate reflection of the trend of activities of the relevant industry. The level of activities, as measured by the monthly electricity generated and available for distribution 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. It is necessary to adjust the level of activities as measured by the monthly sample survey to the level of activities as measured periodically by the Census of electricity, gas and steam. This procedure, whereby the latest results of an economic census are used to compile more accurate level estimates for a certain year, is known as benchmarking.
	13	The results of the 1995 Census of electricity, gas and steam served as a benchmark to verify or adjust the level of the monthly physical volume of electricity production indices collected through the monthly sample survey. The level adjustments were done on the volume indices for August of the relevant census year (the 1995 census year covered the period 1 January 1995 to 31 December 1995 and therefore, the benchmarking was done using the index of August 1995 as reference point).
Seasonal adjustment	14	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 a time series so that the effects of other influences on the series can be more clearly recognised. 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	15	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.
Related publications	16	Users may also wish to refer to the following publications which are available from Stats SA : <ul style="list-style-type: none"> • <i>Bulletin of Statistics</i>; • <i>South African Statistics</i>; and • <i>Stats in Brief</i>.
Rounding-off of figures	17	Where necessary, the figures in the tables have been rounded off to the nearest digit shown. There may therefore be slight discrepancies between the sums of the constituent items and the totals shown.

Glossary

Consumption of electricity	For purposes of this release the term 'consumption of electricity' is used interchangeably with the term 'electricity available for distribution'.										
Electricity undertaking	An electricity undertaking is an undertaking concerned with the generation or transmission and distribution of electricity, including electrical power installations, which, as subsidiary divisions of undertakings, produce electricity for regular use by these undertakings.										
Index of physical volume of electricity production	A statistical measure of the change in the volume of production of electricity in a given period and the volume of production of electricity in the base period. The base period is 2010. The production in the base period is set at 100.										
Industry	An industry consists of a group of undertakings or establishments engaged in the same or similar kinds of economic activity. Industries are defined in the <i>System of National Accounts (SNA)</i> in the same way as in the 1993 <i>Standard Industrial Classification of all Economic Activities (SIC)</i> , Fifth Edition, Report No. 09-90-02 of January 1993.										
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	<table><tr><td>GDP</td><td>Gross domestic product</td></tr><tr><td>ISIC</td><td>International Standard Industrial Classification</td></tr><tr><td>SIC</td><td>Standard Industrial Classification of all Economic Activities</td></tr><tr><td>Stats SA</td><td>Statistics South Africa</td></tr><tr><td>*</td><td>Revised figures</td></tr></table>	GDP	Gross domestic product	ISIC	International Standard Industrial Classification	SIC	Standard Industrial Classification of all Economic Activities	Stats SA	Statistics South Africa	*	Revised figures
GDP	Gross domestic product										
ISIC	International Standard Industrial Classification										
SIC	Standard Industrial Classification of all Economic Activities										
Stats SA	Statistics South Africa										
*	Revised figures										

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