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STATISTICAL RELEASE
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Electricity generated and available for distribution (Preliminary)

January 2022

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Electricity generated (produced) in South Africa: results for January 2022

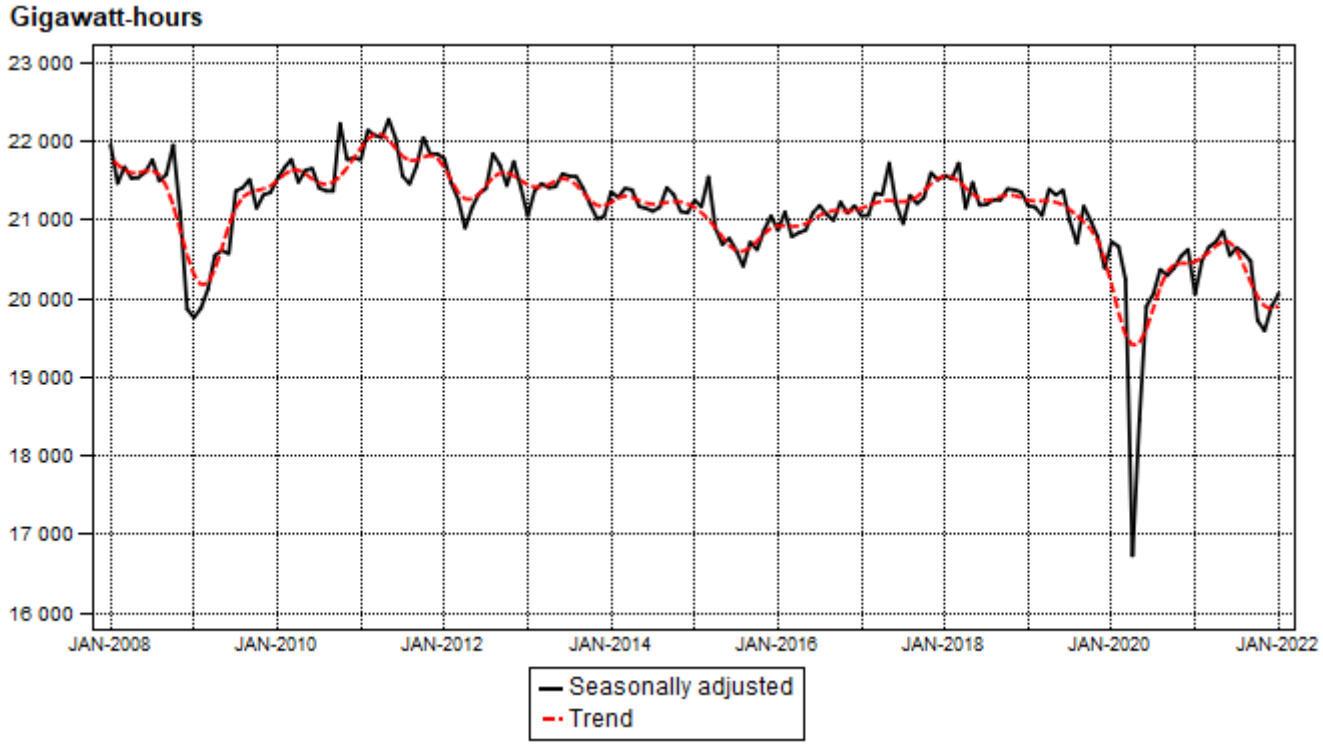
Table A – Key growth rates in the volume of electricity generated

	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
Year-on-year % change, unadjusted	2,0	0,0	-3,4	-3,7	-3,7	-1,1
Month-on-month % change, seasonally adjusted	-0,3	-0,5	-3,8	-0,6	1,6	0,7
3-month % change, seasonally adjusted [1]	-0,7	-0,6	-2,1	-3,2	-4,1	-2,1

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

Electricity generation (production) decreased by 1,1% year-on-year in January 2022. Seasonally adjusted electricity generation increased by 0,7% in January 2022 compared with December 2021. This followed month-on-month changes of 1,6% in December 2021 and -0,6% in November 2021. Seasonally adjusted electricity generation decreased by 2,1% in the three months ended January 2022 compared with the previous three months.

Figure 1 – Electricity generated in South Africa



Electricity distributed (consumed) in South Africa: results for January 2022

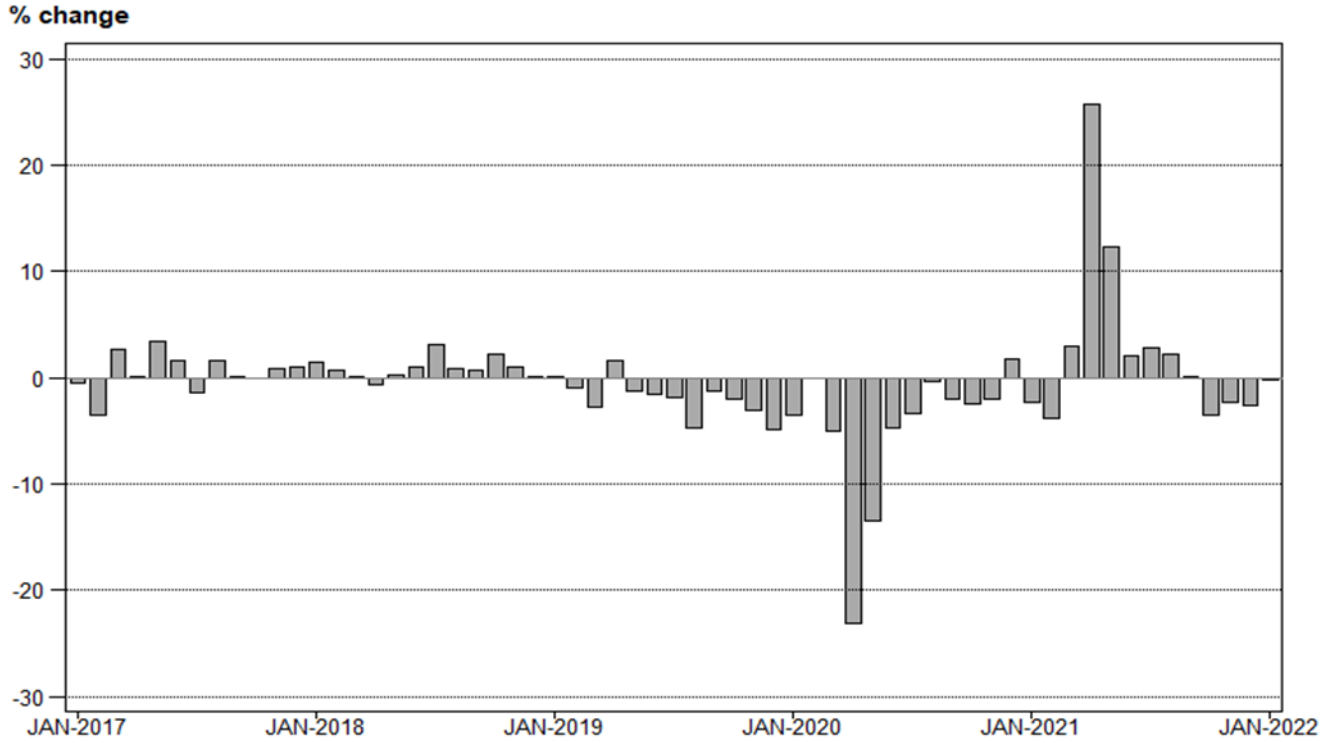
Table B – Key growth rates in the volume of electricity distributed

	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22
Year-on-year % change, unadjusted	2,2	0,1	-3,6	-2,4	-2,7	-0,2
Month-on-month % change, seasonally adjusted	0,8	-1,0	-4,1	0,4	1,8	0,9
3-month % change, seasonally adjusted [1]	-0,5	0,6	-1,0	-2,6	-3,7	-1,3

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

Electricity distribution (consumption) decreased by 0,2% year-on-year in January 2022. Seasonally adjusted electricity distribution increased by 0,9% month-on-month in January 2022, following month-on-month changes of 1,8% in December 2021 and 0,4% in November 2021. Seasonally adjusted electricity distribution decreased by 1,3% in the three months ended January 2022 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	2016	2017	2018	2019	2020	2021	2022 [1]
Jan	99,2	100,1	102,4	100,4	97,9	94,8	93,8
Feb	95,9	92,2	93,9	92,1	93,0	89,0	
Mar	99,6	102,2	103,4	100,4	96,4	98,1	
Apr	97,4	98,1	97,6	99,4	76,7	96,3	
May	102,7	107,4	106,5	105,9	91,9	103,1	
Jun	103,2	104,8	105,1	105,2	99,1	102,3	
Jul	108,4	106,5	108,8	108,1	103,2	106,7	
Aug	105,1	106,0	105,5	103,0	100,5	102,5	
Sep	99,8	100,8	100,0	99,6	96,5	96,5	
Oct	103,2	104,6	105,4	103,4	100,5	97,1	
Nov	100,3	101,9	101,8	99,0	96,6	93,0	
Dec	98,2	99,6	98,0	94,1	95,1	91,6	
Total	**101,1**	**102,0**	**102,4**	**100,9**	**95,6**	**97,6**	

[1] Latest month is preliminary.

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

Month	2017	2018	2019	2020	2021	2022	*2022 year-to-date*
Jan	0,9	2,3	-2,0	-2,5	-3,2	-1,1	*-1,1*
Feb	-3,9	1,8	-1,9	1,0	-4,3		
Mar	2,6	1,2	-2,9	-4,0	1,8		
Apr	0,7	-0,5	1,8	-22,8	25,6		
May	4,6	-0,8	-0,6	-13,2	12,2		
Jun	1,6	0,3	0,1	-5,8	3,2		
Jul	-1,8	2,2	-0,6	-4,5	3,4		
Aug	0,9	-0,5	-2,4	-2,4	2,0		
Sep	1,0	-0,8	-0,4	-3,1	0,0		
Oct	1,4	0,8	-1,9	-2,8	-3,4		
Nov	1,6	-0,1	-2,8	-2,4	-3,7		
Dec	1,4	-1,6	-4,0	1,1	-3,7		
Total	**0,9**	**0,4**	**-1,5**	**-5,3**	**2,1**		

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

Month	Base: 2015=100				Month-on-month % change			
	2019	2020	2021	2022	2019	2020	2021	2022
Jan	101,4	99,2	96,0	96,0	-0,9	1,6	-2,8	0,7
Feb	101,3	99,0	98,1		-0,1	-0,2	2,2	
Mar	100,8	96,9	98,9		-0,5	-2,1	0,8	
Apr	102,4	80,1	99,2		1,6	-17,3	0,3	
May	102,1	88,4	99,9		-0,3	10,4	0,7	
Jun	102,4	95,3	98,4		0,3	7,8	-1,5	
Jul	100,5	96,0	98,9		-1,9	0,7	0,5	
Aug	99,1	97,5	98,6		-1,4	1,6	-0,3	
Sep	101,4	97,2	98,1		2,3	-0,3	-0,5	
Oct	100,5	97,6	94,4		-0,9	0,4	-3,8	
Nov	99,5	98,4	93,8		-1,0	0,8	-0,6	
Dec	97,6	98,8	95,3		-1,9	0,4	1,6	

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

Month	2017	2018	2019	2020	2021	2022 [1]
Jan	18 820	19 106	19 132	18 444	18 002	17 974
Feb	17 539	17 667	17 493	17 491	16 825	
Mar	19 441	19 470	18 930	17 976	18 522	
Apr	18 550	18 421	18 711	14 379	18 078	
May	20 161	20 207	19 943	17 254	19 371	
Jun	19 720	19 926	19 609	18 664	19 049	
Jul	19 997	20 626	20 224	19 533	20 082	
Aug	19 880	20 053	19 105	19 038	19 459	
Sep	18 707	18 839	18 605	18 216	18 230	
Oct	19 352	19 785	19 367	18 883	18 203	
Nov	18 940	19 123	18 539	18 153	17 713	
Dec	18 562	18 582	17 678	17 979	17 496	
Total	**229 669**	**231 805**	**227 336**	**216 010**	**221 030**	

[1] Latest month is preliminary.

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

Month	2018	2019	2020	2021	2022	*2022 year-to-date*
Jan	1,5	0,1	-3,6	-2,4	-0,2	*-0,2*
Feb	0,7	-1,0	0,0	-3,8		
Mar	0,1	-2,8	-5,0	3,0		
Apr	-0,7	1,6	-23,2	25,7		
May	0,2	-1,3	-13,5	12,3		
Jun	1,0	-1,6	-4,8	2,1		
Jul	3,1	-1,9	-3,4	2,8		
Aug	0,9	-4,7	-0,4	2,2		
Sep	0,7	-1,2	-2,1	0,1		
Oct	2,2	-2,1	-2,5	-3,6		
Nov	1,0	-3,1	-2,1	-2,4		
Dec	0,1	-4,9	1,7	-2,7		
Total	**0,9**	**-1,9**	**-5,0**	**2,3**		

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

Month	Gigawatt-hours				Month-on-month % change			
	2019	2020	2021	2022	2019	2020	2021	2022
Jan	19 317	18 665	18 225	18 367	-0,6	1,6	-2,5	0,9
Feb	19 137	18 487	18 450		-0,9	-1,0	1,2	
Mar	18 991	18 048	18 658		-0,8	-2,4	1,1	
Apr	19 259	14 981	18 597		1,4	-17,0	-0,3	
May	19 195	16 578	18 757		-0,3	10,7	0,9	
Jun	19 097	17 950	18 329		-0,5	8,3	-2,3	
Jul	18 818	18 209	18 635		-1,5	1,4	1,7	
Aug	18 426	18 554	18 776		-2,1	1,9	0,8	
Sep	19 018	18 403	18 585		3,2	-0,8	-1,0	
Oct	18 948	18 438	17 817		-0,4	0,2	-4,1	
Nov	18 671	18 530	17 885		-1,5	0,5	0,4	
Dec	18 369	18 699	18 212		-1,6	0,9	1,8	

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

	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22 [1]	Jan-22 year-on-year % change
Total - all producers						
Generated	20 137	20 253	19 412	19 111	19 582	-1,0
Inflow into South Africa	927	783	1 021	1 104	1 099	28,1
Consumed in power stations and auxiliary systems	1 637	1 607	1 518	1 493	1 512	-3,7
Outflow from South Africa	1 197	1 225	1 202	1 226	1 194	12,9
Distributed in South Africa	18 230	18 203	17 713	17 496	17 974	-0,2
Eskom						
Generated	17 775	17 886	17 082	16 852	17 484	-0,7
Inflow into South Africa	927	783	1 021	1 104	1 099	28,1
Consumed in power stations and auxiliary systems	1 542	1 521	1 428	1 413	1 448	-3,3
Outflow from South Africa	1 197	1 225	1 202	1 226	1 194	12,9
Distributed in South Africa	15 963	15 923	15 473	15 317	15 941	0,2

[1] Preliminary.

Table 8 – Volume of electricity delivered to provinces (gigawatt-hours)

Province	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22 [1]	Jan-22 year-on-year % change
Western Cape	1 646	1 582	1 539	1 582	1 703	0,8
Eastern Cape	770	745	706	697	759	8,9
Northern Cape	501	473	472	466	495	-2,8
Free State	887	865	859	831	860	1,3
KwaZulu-Natal	3 297	3 278	3 156	3 191	3 246	-0,6
North West	1 796	1 889	1 863	1 808	1 870	5,5
Gauteng	4 717	4 639	4 491	4 293	4 388	-1,7
Mpumalanga	2 497	2 634	2 532	2 538	2 571	-3,1
Limpopo	1 734	1 746	1 735	1 742	1 756	1,2
Total	**17 844**	**17 851**	**17 354**	**17 147**	**17 648**	**0,1**

[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 January 2022 was 96%. The collection rate for December 2021 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.

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 email 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:
Click to download Electricity seasonal adjustment September 2017

Note: Owing to the impact of the COVID-19 lockdown, a transitory change adjustment was applied to April 2020. Transitory (temporary) change describes a temporary effect on the level of a series after a certain point in time. The methodology will be reviewed as more data points are added to the time series.

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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