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## **STATISTICAL RELEASE** P4141

# Electricity generated and available for distribution (Preliminary)

September 2024

Embargoed until: 7 November 2024 13:00

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October 2024 5 December 2024



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#### Electricity generated (produced) in South Africa: results for September 2024

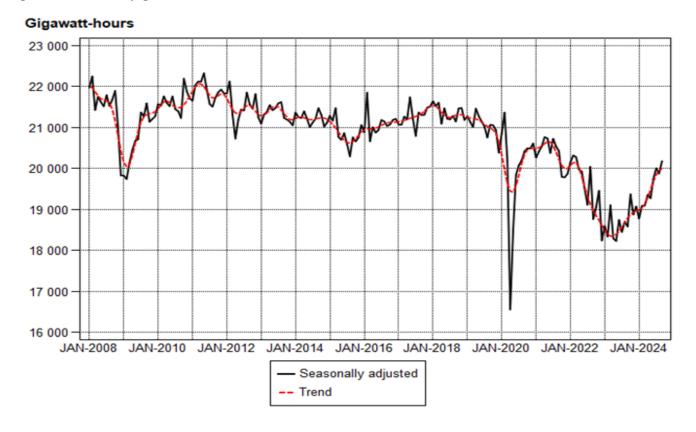
Table A - Key growth rates in the volume of electricity generated

	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24
Year-on-year % change, unadjusted	5,7	5,5	5,4	8,5	6,3	8,5
Month-on-month % change, seasonally adjusted	1,4	-0,4	2,4	1,4	-0,7	1,6
3-month % change, seasonally adjusted <sup>1</sup>	1,4	1,4	2,5	2,6	3,3	2,9

<sup>&</sup>lt;sup>1</sup> Percentage change between the previous 3 months and the 3 months ending in the month indicated.

Electricity generation (production) increased by 8,5% year-on-year in September 2024. Seasonally adjusted electricity generation increased by 1,6% in September 2024 compared with August 2024. This followed month-on-month changes of -0,7% in August 2024 and 1,4% in July 2024. Seasonally adjusted electricity generation increased by 2,9% in the third quarter of 2024 compared with the second quarter of 2024.

Figure 1 - Electricity generated in South Africa



#### Electricity distributed (consumed) in South Africa: results for September 2024

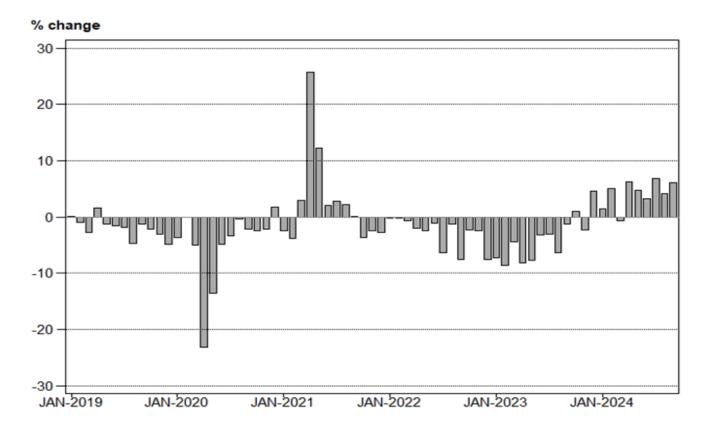
Table B - Key growth rates in the volume of electricity distributed

	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24
Year-on-year % change, unadjusted	6,2	4,7	3,3	6,9	4,2	6,1
Month-on-month % change, seasonally adjusted	1,9	-0,5	1,0	1,7	-1,1	0,3
3-month % change, seasonally adjusted <sup>1</sup>	0,7	0,5	1,7	1,8	2,0	1,5

<sup>&</sup>lt;sup>1</sup> Percentage change between the previous 3 months and the 3 months ending in the month indicated.

Electricity distribution (consumption) increased by 6,1% year-on-year in September 2024. Seasonally adjusted electricity distribution increased by 0,3% month-on-month in September 2024, following month-on-month changes of -1,1% in August 2024 and 1,7% in July 2024. Seasonally adjusted electricity distribution increased by 1,5% in the third quarter of 2024 compared with the second quarter of 2024.

Figure 2 - Electricity distributed in South Africa: year-on-year percentage change





#### **Tables**

Table 1 - Index of the volume of electricity generated (Base: 2019=100)

Month	2018	2019	2020	2021	2022	2023	2024
Jan	101,5	99,5	97,1	93,9	93,0	85,7	86,4
Feb	93,1	91,3	92,2	88,2	87,9	79,4	82,7
Mar	102,5	99,5	95,5	97,2	96,2	90,8	90,8
Apr	96,8	98,5	76,1	95,5	91,9	84,1	88,9
May	105,5	104,9	91,1	102,2	97,9	89,4	94,3
Jun	104,2	104,3	98,3	101,4	97,3	93,7	98,8
Jul	107,9	107,1	102,3	105,7	97,6	94,3	102,3
Aug	104,6	102,1	99,7	101,7	99,5	93,1	99,0
Sep	99,2	98,7	95,7	95,7	87,9	87,0	94,4
Oct	104,5	102,5	99,7	96,2	92,5	94,0	
Nov	100,9	98,2	95,7	92,2	90,5	87,8	
Dec	97,1	93,3	94,3	90,8	83,3	87,0	
Total	101,5	100,0	94,8	96,7	93,0	88,9	

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

Month	2019	2020	2021	2022	2023	2024	2024 year-to-date
Jan	-2,0	-2,4	-3,3	-1,0	-7,8	0,8	0,8
Feb	-1,9	1,0	-4,3	-0,3	-9,7	4,2	2,4
Mar	-2,9	-4,0	1,8	-1,0	-5,6	0,0	1,6
Apr	1,8	-22,7	25,5	-3,8	-8,5	5,7	2,6
May	-0,6	-13,2	12,2	-4,2	-8,7	5,5	3,2
Jun	0,1	-5,8	3,2	-4,0	-3,7	5,4	3,6
Jul	-0,7	-4,5	3,3	-7,7	-3,4	8,5	4,3
Aug	-2,4	-2,4	2,0	-2,2	-6,4	6,3	4,6
Sep	-0,5	-3,0	0,0	-8,2	-1,0	8,5	5,1
Oct	-1,9	-2,7	-3,5	-3,8	1,6		
Nov	-2,7	-2,5	-3,7	-1,8	-3,0		
Dec	-3,9	1,1	-3,7	-8,3	4,4		
Total	-1,5	-5,2	2,0	-3,8	-4,4		

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

Manth		Base: 20	019=100		Month-on-month % change				
Month	2021	2022	2023	2024	2021	2022	2023	2024	
Jan	96,3	95,7	88,4	89,2	-1,6	1,4	2,0	-1,5	
Feb	97,0	96,6	87,1	90,7	0,7	0,9	-1,5	1,7	
Mar	97,6	96,4	90,8	90,7	0,6	-0,2	4,2	0,0	
Apr	98,7	94,9	86,9	92,0	1,1	-1,6	-4,3	1,4	
May	98,5	94,7	86,6	91,6	-0,2	-0,2	-0,3	-0,4	
Jun	96,8	92,6	89,1	93,8	-1,7	-2,2	2,9	2,4	
Jul	98,5	90,8	87,7	95,1	1,8	-1,9	-1,6	1,4	
Aug	97,6	95,2	88,9	94,4	-0,9	4,8	1,4	-0,7	
Sep	97,1	89,2	88,3	95,9	-0,5	-6,3	-0,7	1,6	
Oct	94,1	90,6	92,1		-3,1	1,6	4,3		
Nov	94,0	92,5	89,7		-0,1	2,1	-2,6		
Dec	94,4	86,7	90,6		0,4	-6,3	1,0		

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

Month	2019	2020	2021	2022	2023	2024
Jan	19 132	18 444	18 002	17 974	16 664	16 920
Feb	17 493	17 491	16 825	16 815	15 362	16 129
Mar	18 930	17 976	18 522	18 408	17 592	17 465
Apr	18 711	14 379	18 078	17 709	16 271	17 275
May	19 943	17 254	19 371	18 897	17 433	18 257
Jun	19 609	18 664	19 049	18 838	18 232	18 839
Jul	20 224	19 533	20 082	18 814	18 239	19 495
Aug	19 105	19 038	19 459	19 220	17 981	18 740
Sep	18 605	18 216	18 230	16 857	16 648	17 661
Oct	19 367	18 883	18 203	17 784	17 970	
Nov	18 539	18 153	17 713	17 281	16 886	
Dec	17 678	17 979	17 496	16 173	16 923	
Total	227 336	216 010	221 030	214 770	206 201	

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

Month	2020	2021	2022	2023	2024	2024 year-to-date
Jan	-3,6	-2,4	-0,2	-7,3	1,5	1,5
Feb	0,0	-3,8	-0,1	-8,6	5,0	3,2
Mar	-5,0	3,0	-0,6	-4,4	-0,7	1,8
Apr	-23,2	25,7	-2,0	-8,1	6,2	2,9
May	-13,5	12,3	-2,4	-7,7	4,7	3,3
Jun	-4,8	2,1	-1,1	-3,2	3,3	3,3
Jul	-3,4	2,8	-6,3	-3,1	6,9	3,8
Aug	-0,4	2,2	-1,2	-6,4	4,2	3,9
Sep	-2,1	0,1	-7,5	-1,2	6,1	4,1
Oct	-2,5	-3,6	-2,3	1,0		
Nov	-2,1	-2,4	-2,4	-2,3		
Dec	1,7	-2,7	-7,6	4,6		
Total	-5,0	2,3	-2,8	-4,0		

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

Manth		Gigawa	tt-hours		Month-on-month % change				
Month	2021	2022	2023	2024	2021	2022	2023	2024	
Jan	18 438	18 484	17 169	17 442	-1,4	1,6	2,1	-1,0	
Feb	18 413	18 382	16 720	17 540	-0,1	-0,6	-2,6	0,6	
Mar	18 562	18 424	17 576	17 431	0,8	0,2	5,1	-0,6	
Apr	18 617	18 209	16 724	17 763	0,3	-1,2	-4,8	1,9	
May	18 613	18 223	16 854	17 673	0,0	0,1	0,8	-0,5	
Jun	18 129	17 905	17 304	17 843	-2,6	-1,7	2,7	1,0	
Jul	18 710	17 536	17 006	18 141	3,2	-2,1	-1,7	1,7	
Aug	18 743	18 466	17 253	17 943	0,2	5,3	1,5	-1,1	
Sep	18 546	17 155	16 960	18 001	-1,1	-7,1	-1,7	0,3	
Oct	17 902	17 524	17 705		-3,5	2,2	4,4		
Nov	18 108	17 707	17 307		1,2	1,0	-2,2		
Dec	18 192	16 820	17 622		0,5	-5,0	1,8		

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

	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Sep-24 year-on- year % change
Total - all producers						
Generated	19 852	20 796	21 524	20 838	19 879	8,5
Inflow into South Africa	925	900	830	823	628	-22,3
Consumed in power stations and auxiliary systems	1 616	1 728	1 748	1 719	1 539	2,9
Outflow from South Africa	904	1 130	1 111	1 204	1 307	34,3
Distributed in South Africa	18 257	18 839	19 495	18 740	17 661	6,1
National electricity supplier						
Generated	17 437	18 248	18 967	18 108	17 278	9,3
Inflow into South Africa	925	900	830	823	628	-22,3
Consumed in power stations and auxiliary systems	1 518	1 622	1 640	1 614	1 455	3,9
Outflow from South Africa	904	1 130	1 111	1 204	1 307	34,3
Distributed in South Africa	15 940	16 396	17 046	16 114	15 144	6,4

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

	Jan – Sep 2023 (GWh)	Jan – Sep 2024 (GWh)	% change between Jan – Sep 2023 and Jan – Sep 2024	Difference between Jan – Sep 2023 and Jan – Sep 2024 (GWh)
Total - all producers				
Generated	167 827	176 315	5,1	8 488
Inflow into South Africa	8 080	7 717	-4,5	-363
Consumed in power stations and auxiliary systems	13 263	14 091	6,2	828
Outflow from South Africa	8 219	9 163	11,5	944
Distributed in South Africa	154 422	160 781	4,1	6 359
National electricity supplier				
Generated	145 555	153 386	5,4	7 831
Inflow into South Africa	8 080	7 717	-4,5	-363
Consumed in power stations and auxiliary systems	12 359	13 222	7,0	863
Outflow from South Africa	8 219	9 163	11,5	944
Distributed in South Africa	133 056	138 718	4,3	5 662

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

Province	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Sep-24 year-on-year % change
Western Cape	1 677	1 654	1 797	1 748	1 590	6,0
Eastern Cape	742	751	824	798	756	6,9
Northern Cape	467	476	495	500	494	4,4
Free State	928	952	996	948	848	8,3
KwaZulu-Natal	3 308	3 296	3 387	3 268	3 233	4,2
North West	1 730	1 808	1 787	1 842	1 736	3,7
Gauteng	4 589	5 120	5 330	4 873	4 468	8,4
Mpumalanga	2 682	2 619	2 698	2 593	2 477	5,8
Limpopo	1 746	1 800	1 722	1 755	1 724	2,3
Total	17 868	18 476	19 035	18 324	17 325	5,7

#### **Explanatory notes**

#### Introduction

- 1 Statistics South Africa (Stats SA) conducts a monthly survey covering enterprises 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.

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 2019.

#### Purpose of the survey

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

This survey covers enterprises 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 enterprises, produce electricity for regular use by these enterprises.

#### Classification

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 enterprise is classified to an industry which reflects the predominant activity. Statistics in this publication are presented at SIC group (five-digit) level.

#### Collection rate

The preliminary collection rate for the survey on electricity generated and available for distribution for September 2024 was 92%. The revised collection rate for August 2024 was 96%.

#### Statistical unit

7 The statistical unit for the collection of information is an enterprise, defined as a legal unit or a combination of legal units that includes and directly controls all functions necessary to carry out its production activities.

#### **Revised figures**

Revised figures are mainly due to late submission of data to Stats SA, or respondents reporting revisions or corrections to their figures. The reasons for routine revisions are outlined in the following schedule. Any unscheduled revisions will be promptly indicated in relevant tables to maintain transparency and accuracy. It is important to note that seasonally adjusted figures are revised monthly.

Statistical release	Reason for revision	Period subject to revision
Sep-24	Additional information from respondents	Aug-24
Oct-24	Additional information from respondents	Sep-24
Nov-24	Additional information from respondents	Oct-24
Dec-24	Additional information from respondents	Nov-24
Jan-25	Additional information from respondents	Dec-24
Feb-25	Additional information from respondents	Jan-25
Mar-25	Additional information from respondents	Feb-25
Apr-25	Additional information from respondents	Mar-25
May-25	Additional information from respondents	Apr-25
Jun-25	Additional information from respondents	May-25
Jul-25	Additional information from respondents	Jun-25
Aug-25	Additional information from respondents	Jul-25
New base year in 2027/28 - periodic, approximately four- to five-year intervals		

#### **Rounding-off of figures**

**9** Where figures have been rounded off, discrepancies may occur between sums of the component items and the totals.

#### Historical data

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

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

- 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 enterprise. All large enterprises (size group one) are completely enumerated. A sample is drawn from medium and small size enterprises by systematically selecting enterprises within each size category. An enterprise with a total generating capacity of less than 500 kilowatts is excluded from the sample.
- The survey is conducted by email and telephone. Information is collected from a sample of 24 enterprises. As from September 2013, the national electricity supplier provided additional data for independent power producers (IPPs) that were not in the original sample of 24 enterprises.

## 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**

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 enterprises conducting activities concerned with the generation and/or distribution of electricity (excluding the distribution of purchased electric energy). These levels are weighted according to the original sample and designed to represent the population of enterprises conducting activities concerned with the generation and/or distribution of electricity.

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

Seasonally adjusted estimates are generated each month using the X-12 Seasonal Adjustment Program developed by the United States Census Bureau. 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 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:

Click to download Electricity seasonal adjustment February 2022.

Trend cycle

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

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**

**Enterprise** 

The enterprise is a legal entity or a combination of legal units that includes and directly controls all functions necessary to carry out its production activities.

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 2019. 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 kilowatthour 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

**IPPs Independent Power Producers** 

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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#### **General information**

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 12 official languages. Since the releases are used extensively locally and by international economic and social-scientific communities, Stats SA releases are published in English.

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Stats SA also provides a subscription service.

#### **Electronic services**

A large range of data is available via online services. For more details about our electronic data services, contact Stats SA's user information service at (012) 310 8600.

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