

STATISTICAL RELEASE

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Electricity generated and available for distribution (Preliminary)

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Nicolai Claassen
(012) 310 8007

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Electricity generated (produced) in South Africa: results for March 2019

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

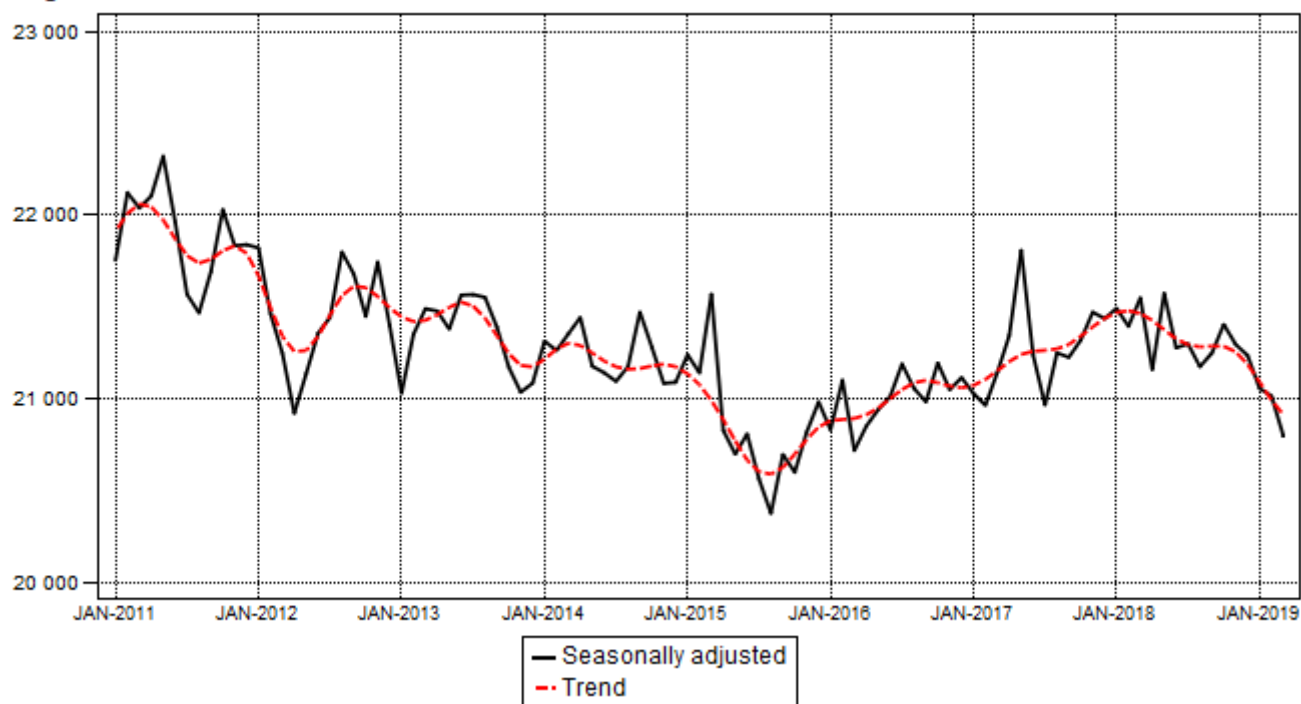
	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
Year-on-year % change, unadjusted	0,8	-0,2	-1,6	-2,1	-1,9	-2,9
Month-on-month % change, seasonally adjusted	0,7	-0,5	-0,3	-0,9	-0,2	-1,0
3-month % change, seasonally adjusted ¹	-0,5	0,3	0,3	-0,4	-1,0	-1,7

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

Electricity generation (production) decreased by 2,9% year-on-year in March 2019. Seasonally adjusted electricity generation decreased by 1,0% in March 2019 compared with February 2019. This followed month-on-month changes of -0,2% in February 2019 and -0,9% in January 2019. Seasonally adjusted electricity generation decreased by 1,7% in the first quarter of 2019 compared with the fourth quarter of 2018.

Figure 1 – Electricity generated in South Africa

Gigawatt-hours



Electricity distributed (consumed) in South Africa: results for March 2019

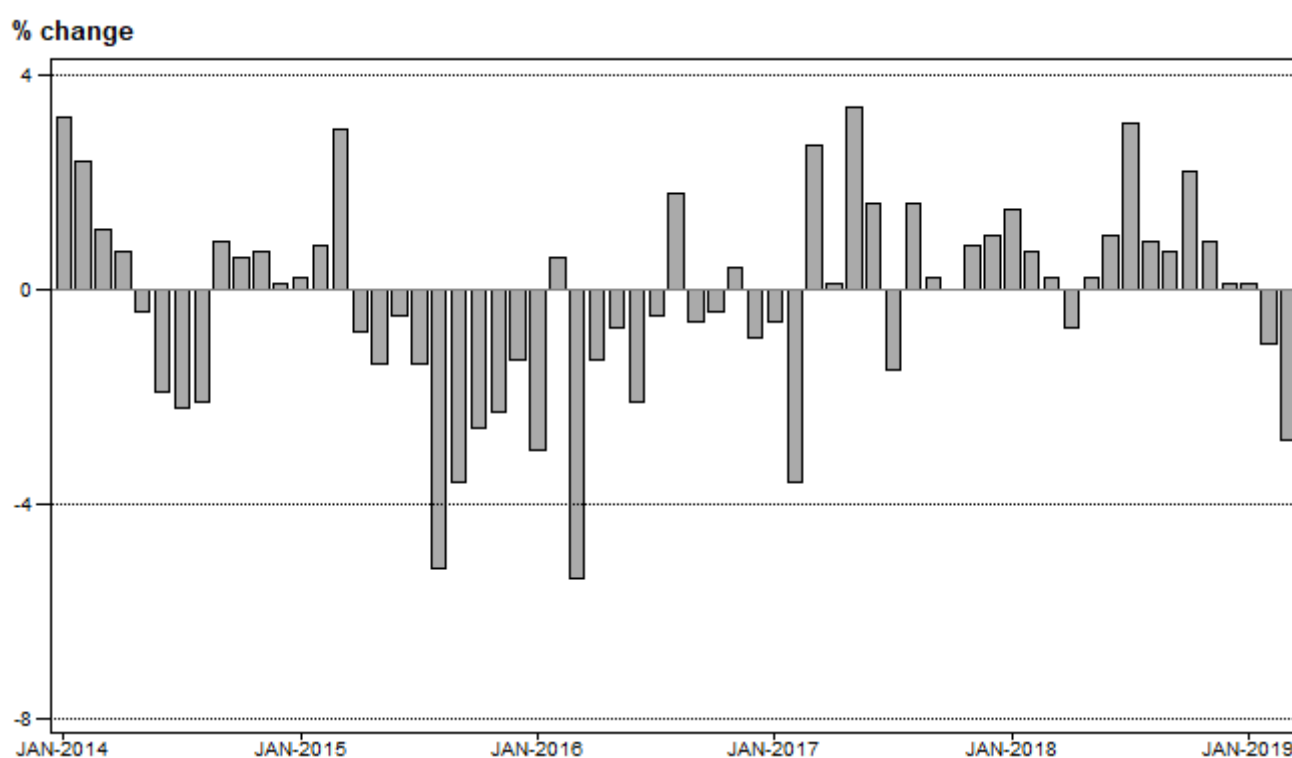
Table B – Key growth rates in the volume of electricity distributed

	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
Year-on-year % change, unadjusted	2,2	0,9	0,1	0,1	-1,0	-2,8
Month-on-month % change, seasonally adjusted	0,8	-1,2	0,9	-0,7	-1,2	-1,2
3-month % change, seasonally adjusted ¹	-0,3	-0,1	0,0	-0,5	-0,6	-1,7

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

Electricity distribution (consumption) decreased by 2,8% year-on-year in March 2019. Seasonally adjusted electricity distribution decreased by 1,2% month-on-month in March 2019, following month-on-month changes of -1,2% in February 2019 and -0,7% in January 2019. Seasonally adjusted electricity distribution decreased by 1,7% in the first quarter of 2019 compared with the fourth quarter of 2018.

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	2013	2014	2015	2016	2017	2018	2019 ¹
Jan	99,9	101,4	101,3	99,2	100,0	102,4	100,3
Feb	93,9	93,7	93,1	95,8	92,1	93,9	92,1
Mar	103,3	102,6	103,7	99,5	102,2	103,4	100,4
Apr	100,4	99,7	96,4	97,3	98,1	97,6	
May	105,0	103,9	101,4	102,7	107,4	106,5	
Jun	106,1	103,6	102,6	103,1	104,8	105,1	
Jul	110,4	108,1	105,4	108,4	106,5	108,8	
Aug	108,2	106,0	101,1	105,1	105,9	105,5	
Sep	101,0	102,2	98,6	99,7	100,8	100,0	
Oct	103,7	104,2	101,0	103,2	104,5	105,3	
Nov	100,0	99,3	98,0	100,2	101,9	101,7	
Dec	96,9	97,5	97,3	98,1	99,6	98,0	
Total	102,4	101,9	100,0	101,0	102,0	102,4	

¹ Latest month is preliminary.

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

Month	2014	2015	2016	2017	2018	2019	2019 year-to-date
Jan	1,5	-0,1	-2,1	0,8	2,4	-2,1	-2,1
Feb	-0,2	-0,6	2,9	-3,9	2,0	-1,9	-2,0
Mar	-0,7	1,1	-4,1	2,7	1,2	-2,9	-2,3
Apr	-0,7	-3,3	0,9	0,8	-0,5		
May	-1,0	-2,4	1,3	4,6	-0,8		
Jun	-2,4	-1,0	0,5	1,6	0,3		
Jul	-2,1	-2,5	2,8	-1,8	2,2		
Aug	-2,0	-4,6	4,0	0,8	-0,4		
Sep	1,2	-3,5	1,1	1,1	-0,8		
Oct	0,5	-3,1	2,2	1,3	0,8		
Nov	-0,7	-1,3	2,2	1,7	-0,2		
Dec	0,6	-0,2	0,8	1,5	-1,6		
Total	-0,5	-1,9	1,0	1,0	0,4		

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

Month	Base: 2015=100				Month-on-month % change			
	2016	2017	2018	2019	2016	2017	2018	2019
Jan	99,9	100,8	103,0	100,9	-0,7	-0,4	0,2	-0,9
Feb	101,2	100,5	102,6	100,7	1,3	-0,3	-0,4	-0,2
Mar	99,3	101,4	103,3	99,7	-1,9	0,9	0,7	-1,0
Apr	100,0	102,3	101,4		0,7	0,9	-1,8	
May	100,4	104,5	103,4		0,4	2,2	2,0	
Jun	100,7	101,8	102,0		0,3	-2,6	-1,4	
Jul	101,6	100,5	102,1		0,9	-1,3	0,1	
Aug	100,9	101,9	101,5		-0,7	1,4	-0,6	
Sep	100,6	101,8	101,9		-0,3	-0,1	0,4	
Oct	101,6	102,2	102,6		1,0	0,4	0,7	
Nov	100,9	102,9	102,1		-0,7	0,7	-0,5	
Dec	101,2	102,8	101,8		0,3	-0,1	-0,3	

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

Month	2014	2015	2016	2017	2018	2019 ¹
Jan	19 457	19 491	18 902	18 786	19 074	19 099
Feb	17 917	18 060	18 167	17 511	17 642	17 472
Mar	19 415	19 998	18 910	19 416	19 449	18 910
Apr	18 895	18 739	18 504	18 522	18 400	
May	19 907	19 620	19 481	20 143	20 183	
Jun	19 891	19 797	19 377	19 696	19 901	
Jul	20 661	20 368	20 266	19 972	20 592	
Aug	20 255	19 209	19 549	19 853	20 030	
Sep	19 450	18 757	18 646	18 675	18 812	
Oct	19 905	19 389	19 318	19 317	19 747	
Nov	19 126	18 684	18 756	18 907	19 085	
Dec	18 752	18 503	18 342	18 532	18 557	
Total	233 631	230 615	228 218	229 330	231 472	

¹ Latest month is preliminary.**Table 5 – Year-on-year percentage change in electricity distributed in South Africa**

Month	2015	2016	2017	2018	2019	2019 year-to-date
Jan	0,2	-3,0	-0,6	1,5	0,1	0,1
Feb	0,8	0,6	-3,6	0,7	-1,0	-0,4
Mar	3,0	-5,4	2,7	0,2	-2,8	-1,2
Apr	-0,8	-1,3	0,1	-0,7		
May	-1,4	-0,7	3,4	0,2		
Jun	-0,5	-2,1	1,6	1,0		
Jul	-1,4	-0,5	-1,5	3,1		
Aug	-5,2	1,8	1,6	0,9		
Sep	-3,6	-0,6	0,2	0,7		
Oct	-2,6	-0,4	0,0	2,2		
Nov	-2,3	0,4	0,8	0,9		
Dec	-1,3	-0,9	1,0	0,1		
Total	-1,3	-1,0	0,5	0,9		

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

Month	Gigawatt-hours				Month-on-month % change			
	2016	2017	2018	2019	2016	2017	2018	2019
Jan	19 037	18 942	19 200	19 210	-0,8	-0,2	-0,1	-0,7
Feb	19 063	18 981	19 170	18 985	0,1	0,2	-0,2	-1,2
Mar	18 884	19 249	19 393	18 754	-0,9	1,4	1,2	-1,2
Apr	18 924	19 269	19 052		0,2	0,1	-1,8	
May	19 033	19 573	19 568		0,6	1,6	2,7	
Jun	18 845	19 053	19 248		-1,0	-2,7	-1,6	
Jul	19 016	18 872	19 360		0,9	-0,9	0,6	
Aug	18 804	19 124	19 327		-1,1	1,3	-0,2	
Sep	18 889	18 958	19 274		0,5	-0,9	-0,3	
Oct	19 193	19 060	19 420		1,6	0,5	0,8	
Nov	18 917	19 135	19 183		-1,4	0,4	-1,2	
Dec	18 983	19 219	19 354		0,3	0,4	0,9	

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

	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19 ¹	Mar-19 year-on-year % change
Total - all producers						
Generated	21 203	20 421	20 909	19 196	20 923	-3,0
Inflow into South Africa	764	901	915	749	707	-7,0
Consumed in power stations and auxiliary systems	1 615	1 554	1 610	1 438	1 581	-5,4
Outflow from South Africa	1 268	1 211	1 115	1 035	1 138	-5,5
Distributed in South Africa	19 085	18 557	19 099	17 472	18 910	-2,8
Eskom						
Generated	19 137	18 297	18 762	17 383	18 960	-4,3
Inflow into South Africa	764	901	915	749	707	-7,0
Consumed in power stations and auxiliary systems	1 540	1 465	1 541	1 374	1 511	-6,5
Outflow from South Africa	1 268	1 211	1 115	1 035	1 138	-5,5
Distributed in South Africa	17 093	16 522	17 020	15 723	17 018	-4,1

¹ Preliminary.**Table 8 – Year-to-date volume of electricity by category: year-on-year percentage change and difference**

	Jan – Mar 2018 (GWh)	Jan – Mar 2019 (GWh)	% change between Jan – Mar 2018 and Jan – Mar 2019	Difference between Jan – Mar 2018 and Jan – Mar 2019 (GWh)
Total - all producers				
Generated	62 469	61 028	-2,3	-1 441
Inflow into South Africa	2 271	2 371	4,4	100
Consumed in power stations and auxiliary systems	4 823	4 629	-4,0	-194
Outflow from South Africa	3 753	3 288	-12,4	-465
Distributed in South Africa	56 165	55 481	-1,2	-684
Eskom				
Generated	56 835	55 105	-3,0	-1 730
Inflow into South Africa	2 271	2 371	4,4	100
Consumed in power stations and auxiliary systems	4 641	4 426	-4,6	-215
Outflow from South Africa	3 753	3 288	-12,4	-465
Distributed in South Africa	50 712	49 761	-1,9	-951

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

Province	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19 ¹	Mar-19 year-on-year % change
Western Cape	1 823	1 822	1 913	1 827	1 896	-2,2
Eastern Cape	743	695	734	676	724	-1,0
Northern Cape	539	539	595	515	566	4,8
Free State	810	797	842	760	792	-1,2
KwaZulu-Natal	3 541	3 496	3 607	3 245	3 544	-0,6
North West	2 517	2 423	2 395	2 221	2 455	-3,5
Gauteng	4 572	4 208	4 449	4 178	4 534	-2,1
Mpumalanga	2 890	2 892	2 927	2 599	2 833	-5,5
Limpopo	1 261	1 253	1 281	1 166	1 251	2,0
Total	18 696	18 126	18 743	17 186	18 596	-2,0

¹ Preliminary.

Survey information

Introduction	1	<p>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:</p> <ul style="list-style-type: none"> • 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. <p>Both unadjusted and seasonally adjusted figures are published.</p>
	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 <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 March 2019 was 100%. The collection rate for February 2019 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	<p>Normally revised figures are due to:</p> <ul style="list-style-type: none"> • late submission of data to Stats SA; and • revisions or corrections by respondents to previous reported data. <p>Data are edited at enterprise level.</p>
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 <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 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: 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 <i>Standard Industrial Classification of all Economic Activities</i> (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

Technical enquiries

Tsholofelo Ditinti	Telephone number: (012) 310 6990 Email: tsholofelod@statssa.gov.za
Nicolai Claassen	Telephone number: (012) 310 8007 Email: nicolaic@statssa.gov.za

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User information services	Telephone number: (012) 310 8600 Email address: info@statssa.gov.za
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Postal address	Private Bag X44, Pretoria, 0001
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