

# Generation and consumption of electricity P4141

January 2000  
Embargo: 13:00  
Date: 2 March 2000

Read the following [notice](#) with regard to the eleven official languages

© Copyright, 2000

Users may apply or process this data, provided Statistics South Africa is acknowledged as the original source of the data; that it is specified that the application and/or analysis is the result of the user's independent processing of the data; and that neither the basic data nor any reprocessed version or application thereof may be sold or offered for sale in any form whatsoever.

Dr F M Orkin  
Head: Statistics South Africa

A complete set of Stats SA publications is available in the Stats SA Library,  
and in the following public libraries:

|                                                    |                                         |
|----------------------------------------------------|-----------------------------------------|
| State Library, Pretoria                            | Library of Parliament, Cape Town        |
| South African Library, Cape Town                   | Bloemfontein Public Library             |
| Natal Society Library, Pietermaritzburg            | Johannesburg Public Library             |
| Central Reference Library, Mmabatho                | Central Regional Library, Pietersburg   |
| Central Reference Library, Nelspruit               | Central Reference Collection, Kimberley |
| Eastern Cape Library Services, King William's Town |                                         |

## Contents

Editorial Page

Notes

## Tables

Table 1 Electricity consumed in South Africa: 1995 to 2000

Table 2 Indices of the physical volume of electricity production: 1995 to 2000

Table 3 Electricity produced and consumed in power stations, purchased and sold outside South Africa and consumed in South Africa

## Additional information

Explanatory notes

Technical notes

Glossary

## For more information

## Key figures for the month ended January 2000

| <b>Actual estimates</b>                                | <b>January<br/>2000</b> | <b>% change<br/>between<br/>January 1999<br/>and<br/>January 2000</b> | <b>% change<br/>between<br/>November 1998<br/>to January 1999<br/>and<br/>November 1999<br/>to January 2000</b> |
|--------------------------------------------------------|-------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Electricity consumed (Gigawatt-hours)                  | 15 464                  | +2,1%                                                                 | +3,6%                                                                                                           |
| Index of the physical volume of electricity production | 104,3                   | -2,4%                                                                 | +0,2%                                                                                                           |

| Seasonally adjusted estimates                          | January 2000 | % change between December 1999 and January 2000 | % change between August 1999 to October 1999 and November 1999 to January 2000 |
|--------------------------------------------------------|--------------|-------------------------------------------------|--------------------------------------------------------------------------------|
| Electricity consumed (Gigawatt-hours)                  | 15 910       | -1,6%                                           | +0,9%                                                                          |
| Index of the physical volume of electricity production | 106,5        | -2,6%                                           | -0,4%                                                                          |

### Key findings for the month ended January 2000

#### Consumption of electricity increases

*Consumption of electricity in South Africa for the three months up to January 2000 increased slightly by 0,9% (+414 Gigawatt-hours) after seasonal adjustment, compared with the previous three months. However, the seasonally adjusted consumption of electricity decreased by 1,6% between December 1999 and January 2000.*

Production of electricity in South Africa for the three months up to January 2000, after seasonal adjustment, decreased by 0,3% (-158 Gigawatt-hours) compared with the previous three months. The seasonally adjusted imports of electricity during this period increased by 14,1% or 275 Gigawatt-hours and the seasonally adjusted exports of electricity to neighbouring countries decreased by 21,3% or 262 Gigawatt-hours during the above-mentioned period.

# Notes

## Forthcoming issues Issue Expected release date

February 2000 6 April 2000

**Purpose of the survey** The Generation and Consumption of Electricity Survey is a countrywide survey covering a sample of electricity undertakings and establishments conducting activities concerned with the generation or transmission and distribution of electricity in the formal non-agricultural business sector of the South African economy. The information received is used to estimate key economic statistics used by the private and public sectors. The information is also used to calculate production indices in order to compile estimates of the Gross Domestic Product and its components which are used to develop government policy.

**Table 1 - Electricity consumed in South Africa: 1994 to 1999 1/**

| Gigawatt-hours              |         |         |         |         |         |        |
|-----------------------------|---------|---------|---------|---------|---------|--------|
| Month                       | 1995    | 1996    | 1997    | 1998    | 1999    | 2000   |
| Actual figures              |         |         |         |         |         |        |
| J                           | 13 782  | 14 155  | 15 009  | 15 403  | 15 153  | 15 464 |
| F                           | 12 858  | 13 710  | 14 088  | 14 459  | 14 360  |        |
| M                           | 14 145  | 14 361  | 15 155  | 15 714  | 15 791  |        |
| A                           | 13 350  | 14 006  | 15 247  | 14 923  | 15 063  |        |
| M                           | 14 687  | 15 315  | 16 423  | 16 261  | 16 327  |        |
| J                           | 14 998  | 15 325  | 16 474  | 16 280  | 16 393  |        |
| J                           | 15 440  | 16 862  | 17 187  | 16 867  | 17 051  |        |
| A                           | 14 994  | 16 151  | 16 303  | 16 417  | 16 708  |        |
| S                           | 13 939  | 14 698  | 15 503  | 15 536  | 15 937  |        |
| O                           | 14 306  | 15 356  | 16 005  | 15 957  | 16 322  |        |
| N                           | 14 070  | 14 792  | 15 235  | 15 136  | 15 831  |        |
| D                           | 13 534  | 14 207  | 14 878  | 14 563  | 15 184  |        |
| Year                        | 170 103 | 178 938 | 187 507 | 187 516 | 190 120 |        |
| Seasonally adjusted figures |         |         |         |         |         |        |
| J                           | 14 089  | 14 460  | 15 312  | 15 764  | 15 540  | 15 910 |
| F                           | 14 150  | 15 048  | 15 421  | 15 804  | 15 673  |        |
| M                           | 14 146  | 14 325  | 15 100  | 15 693  | 15 772  |        |
| A                           | 14 113  | 14 782  | 16 070  | 15 723  | 15 849  |        |
| M                           | 14 282  | 14 805  | 15 832  | 15 668  | 15 748  |        |

|   |        |        |        |        |        |
|---|--------|--------|--------|--------|--------|
| J | 14 166 | 14 512 | 15 650 | 15 512 | 15 667 |
| J | 14 099 | 15 433 | 15 769 | 15 515 | 15 721 |
| A | 14 061 | 15 189 | 15 350 | 15 509 | 15 803 |
| S | 14 117 | 14 892 | 15 692 | 15 661 | 16 057 |
| O | 14 148 | 15 177 | 15 763 | 15 652 | 16 005 |
| N | 14 427 | 15 186 | 15 627 | 15 504 | 16 208 |
| D | 14 394 | 15 146 | 15 883 | 15 531 | 16 161 |

Table 2 - Indices of the physical volume of electricity production : 1994 to 1999

Base : 1995=100

| Month                       | 1995  | 1996  | 1997  | 1998  | 1999  | 2000  |
|-----------------------------|-------|-------|-------|-------|-------|-------|
| Actual indices              |       |       |       |       |       |       |
| J                           | 97,5  | 100,6 | 108,3 | 109,6 | 106,9 | 104,3 |
| F                           | 90,7  | 98,5  | 101,5 | 102,8 | 100,5 |       |
| M                           | 99,8  | 103,6 | 109,5 | 110,6 | 109,4 |       |
| A                           | 93,9  | 100,5 | 109,6 | 105,5 | 101,7 |       |
| M                           | 102,6 | 109,9 | 117,8 | 115,4 | 110,6 |       |
| J                           | 105,2 | 110,1 | 118,3 | 115,4 | 111,6 |       |
| J                           | 108,7 | 121,1 | 124,1 | 119,9 | 117,4 |       |
| A                           | 105,6 | 115,8 | 118,0 | 111,9 | 114,9 |       |
| S                           | 98,5  | 105,7 | 112,9 | 109,1 | 109,4 |       |
| O                           | 101,4 | 110,7 | 115,8 | 112,6 | 111,9 |       |
| N                           | 99,9  | 107,3 | 110,0 | 106,2 | 108,4 |       |
| D                           | 96,2  | 102,7 | 106,7 | 101,3 | 102,4 |       |
| Year                        | 100,0 | 107,2 | 112,7 | 110,0 | 108,8 |       |
| Seasonally adjusted indices |       |       |       |       |       |       |
| J                           | 99,8  | 102,8 | 110,7 | 111,9 | 109,1 | 106,5 |
| F                           | 99,5  | 107,8 | 110,6 | 111,9 | 109,3 |       |
| M                           | 100,1 | 104,0 | 110,2 | 111,5 | 110,4 |       |
| A                           | 99,2  | 106,2 | 115,6 | 111,3 | 107,3 |       |
| M                           | 99,7  | 106,4 | 113,7 | 111,3 | 106,6 |       |
| J                           | 99,5  | 104,6 | 112,8 | 110,4 | 106,9 |       |
| J                           | 99,2  | 110,7 | 113,5 | 109,8 | 107,6 |       |
| A                           | 99,2  | 109,2 | 111,5 | 105,9 | 108,8 |       |
| S                           | 99,4  | 106,5 | 113,5 | 109,4 | 109,6 |       |
| O                           | 100,1 | 109,0 | 113,6 | 110,1 | 109,3 |       |
| N                           | 102,1 | 109,6 | 112,3 | 108,4 | 110,7 |       |
| D                           | 102,0 | 109,2 | 113,7 | 108,1 | 109,3 |       |

1/ As indicated by electricity available for distribution

\* Revised

**Table 3 Electricity produced and consumed in power stations purchased and sold outside South Africa and consumed in South Africa**

Gigawatt-hours

| Description                                      | Year<br>1999 | January | December | January | January - January |
|--------------------------------------------------|--------------|---------|----------|---------|-------------------|
|                                                  |              | 2000    |          | 1999    |                   |
| Total - All producers                            |              |         |          |         |                   |
| Electricity produced                             |              |         |          |         |                   |
| Actual figures                                   | 203 012      | 16 227  | 15 935   | 16 629  |                   |
| Seasonally adjusted figures                      |              | 16 652  | 16 991   | 17 038  |                   |
| Purchased outside South Africa                   | 6 673        | 660     | 791      | 185     |                   |
| Consumed in power stations and auxiliary systems | 15 299       | 1 226   | 1 217    | 1 315   |                   |
| Sold outside South Africa                        | 4 266        | 197     | 325      | 346     |                   |
| Electricity consumed in South Africa 1/          |              |         |          |         |                   |
| Actual figures                                   | 190 120      | 15 464  | 15 184   | 15 153  |                   |
| Seasonally adjusted figures                      |              | 15 910  | 16 161   | 15 540  |                   |
| Eskom                                            |              |         |          |         |                   |
| Electricity produced                             |              |         |          |         |                   |
| Actual figures                                   | 192 391      | 15 414  | 15 056   | 15 662  |                   |
| Seasonally adjusted figures                      |              | 15 828  | 16 057   | 16 057  |                   |
| Purchased outside South Africa                   | 6 673        | 660     | 791      | 185     |                   |
| Consumed in power stations and auxiliary systems | 14 144       | 1 138   | 1 129    | 1 222   |                   |
| Sold outside South Africa                        | 4 266        | 197     | 325      | 346     |                   |
| Electricity consumed in South Africa 1/          |              |         |          |         |                   |
| Actual figures                                   | 180 654      | 14 739  | 14 393   | 14 279  |                   |
| Seasonally adjusted figures                      |              | 15 185  | 15 330   | 14 664  |                   |

---

1/ As indicated by electricity available for distribution  
\* Revised

## Additional information

### 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 detailed information regarding the number of electricity units produced and consumed in South Africa and the number of units purchased and sold outside South Africa on a monthly basis.

**2** This statistical release reflects indices of the physical volume of electricity production. In accordance with international practice, the indices have to be rebased every five years to a new base year. The indices in this statistical release have been calculated on the basis of 1995=100 and were published in the October 1997 Statistical release P4141 (entitled Generation and Consumption of Electricity) on 4 December 1997. Both actual and seasonally adjusted figures are presented.

**3** In order to improve timeliness, some information for the current month may have been estimated due to late response. These estimates will be revised in the next statistical release(s) as soon as better information is available.

**4** Production indices and electricity consumed in South Africa are reflected from January 1995 in this statistical release, in order to provide users with comparable time series.

**Scope of the survey 5** This survey covers electricity undertakings or establishments conducting activities 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.

**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.

**Statistical unit 7** 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. An electricity undertaking or establishment with a total generating capacity of less than 500 kilowatt is excluded. Each statistical unit is classified to an industry (cf. paragraph 6).

**Survey methodology and design 8** The survey is collected by mail each month from a sample of 24 electricity undertakings or establishments.

**Sample design 9** Business Address Register of Stats SA provided the population frame from which undertakings and establishments were selected for inclusion in the sample. A stratified systematic sample design based on electricity generated was used. All statistical units were 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 was the electricity generated by the electricity undertaking or establishment. All large undertakings or establishments (size category one cases) are completely enumerated. A sample was drawn from medium and small size undertakings and establishments by systematically selecting undertakings or establishments with equal probability.

**Monthly production indices 10** The calculation of the monthly production indices is based on the number of electri-

**indices** city units produced.

**Benchmarking 11** 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 Generation and Consumption of Electricity sample survey is based on information received from a sample of electricity undertakings and establishments which is weighted according to the original sample design in order 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. The results, due to benchmarking, were published in the October 1997 statistical release P4141 (entitled Generation and Consumption of Electricity) on 4 December 1997.

**12** The results of the 1995 Census of Electricity, Gas and Steam served as benchmarks 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 July of the relevant census year (the 1995 census year covers the period 1 January 1995 to 31 December 1995 and, therefore, the benchmarking was done using the index of July 1995 as reference point).

**Seasonal adjustment 13** 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.

**Trend cycle 14** Smoothed seasonally adjusted estimates are generated using the X-11 Seasonal Adjustment Program above.

**Related publications 15** Users may also wish to refer to the following publications which are available from Stats SA -

Bulletin of Statistics.

SA Statistics.

**Unpublished statistics 16** In some cases Stats SA can also make available statistics which are not published. The statistics can be made available as computer printouts, on diskette or CD Rom. Generally a charge is made for providing unpublished statistics.

**Rounding-off of figures 17** The figures in the tables have, where necessary, been rounded off to the nearest final digit shown. There may, therefore, be slight discrepancies between the sums of the constituent items and the totals shown.

**Pre-release policy 18** Stats SA has adopted the confidential pre-release policy in respect of selected economic indicators and specific government departments. The policy accords with practice among leading statistical agencies. The statistical integrity of the indices and strict observance of the release time has been assured by the following procedure:

In respect of this statistical release, an official representative from the Office of the President, the Deputy President, the Department of Trade and Industry, the Department of Finance and the South African Reserve Bank will receive a copy of the release on a strictly confidential basis two hours in advance of the public issue.

Stats SA pre-release policy may be inspected at its Website, [www.statssa.gov.za](http://www.statssa.gov.za)

Technical notes

**Response rates** The response rate for January 2000 is 100%.

## Glossary

**Electricity undertaking** 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.

**Enterprise (firm)** An enterprise (firm) is a legal entity consisting of one or more establishments (branches) including the head office, but excluding holding or subsidiary companies.

**Establishment (branch)** An establishment (branch) is defined as the smallest economic unit which operates as a separate entity for which comprehensive financial records are kept.

**Index of physical volume** The index of physical volume of electricity production or a production index is a statis-

of electricity production tical measure of the change in the volume of production. The production index of electricity is the ratio between 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 1995. 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 System of National Accounts (1993SNA) in the same way as in the Standard Industrial Classification of all Economic Activities (SIC), Fifth Edition, Report No. 09-90-02.

**Unit of electricity** Unit of electricity is equal to 1 kilowatt-hour (kWh).

## For more 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 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.

Stats SA has copyright on this publication. Users may apply the information as they wish, provided that they acknowledge Stats SA as the source of the basic data wherever they process, apply, utilise, publish or distribute the data: and also that they specify that the relevant application and analysis (where applicable) result from their own processing of the data.

### **Stats SA products**

A complete set of Stats SA publications is available at the Stats SA Library and the following libraries:

State Library, Pretoria

Library of Parliament, Cape Town

South African Library, Cape Town

Bloemfontein Public Library

Natal Society Library, Pietermaritzburg

Johannesburg Public Library

Stats SA also provides a subscription service.

### **Electronic services**

A large range of data are available via on-line services, diskette, CD Rom and computer printouts. For more details about our electronic data services, contact (012) 310 8600.

You can visit us on the Internet at: <http://www.statssa.gov.za>

### **Enquiries**

Telephone number: (012) 310 8095/8390/8351 (user enquiries)

(012) 310 8249/310 8663 (technical enquiries)

(012) 310 8161 (publications)

(012) 310 8490 (library)

Fax number: (012) 310 8332

e-mail: [Corrieb@statssa.pwv.gov.za](mailto:Corrieb@statssa.pwv.gov.za)

[Gerdab@statssa.pwv.gov.za](mailto:Gerdab@statssa.pwv.gov.za)

Postal address: Private Bag X44, Pretoria, 0001

---

---

This page was designed by [Zelma de Bruin](#)