

# Electricity generated and available for distribution

September 2004

**Embargoed until:  
4 November 2004  
13:00**

**Key figures as at the end of September 2004**

**Actual estimates**

	<b>September 2004</b>	<b>% change between September 2003 and September 2004</b>	<b>% change between July 2003 to September 2003 and July 2004 to September 2004</b>	<b>% change between January 2003 to September 2003 and January 2004 to September 2004</b>
Electricity available for distribution (Gigawatt-hours)	18 116	+4,8	+4,4	+4,7
Electricity imported (Gigawatt-hours)	590	+121,8	+22,5	+17,4
Electricity exported (Gigawatt-hours)	1 048	-0,3	+7,0	+33,0
Index of the physical volume of electricity production (2000=100)	114,2	+2,6	+3,9	+5,6

**Seasonally adjusted estimates**

	<b>September 2004</b>	<b>% change between August 2004 and September 2004</b>	<b>% change between April 2004 to June 2004 and July 2004 to September 2004</b>
Electricity available for distribution (Gigawatt-hours)	18 397	+0,9	+0,9
Electricity imported (Gigawatt-hours)	681	+5,6	+12,7
Electricity exported (Gigawatt-hours)	957	-1,6	-5,8
Index of the physical volume of electricity production (2000=100)	114,7	+0,5	+0,0

## Key findings as at the end of September 2004

### Electricity available for distribution increases

*The volume of electricity available for distribution for the three months ended September 2004, after seasonal adjustment, increased by 0,9% (+515 Gigawatt-hours) compared with the preceding three months. An increase of 1,1% was reported by Eskom while 'other producers' reported a decrease of 2,1% during the above-mentioned period. Furthermore, the electricity available for distribution for September 2004 increased by 4,8% (+837 Gigawatt-hours) compared with September 2003. Electricity available for distribution in South Africa for the first nine months of 2004 increased by 4,7% (+7 482 Gigawatt-hours) compared with the first nine months of 2003.*

### Production of electricity remains on the same level

*The production of electricity for the three months ended September 2004, after seasonal adjustment, was on the same level as the preceding three months. However, the production of electricity for September 2004 increased by 2,6% (+514 Gigawatt-hours) compared with September 2003. The production of electricity for the three months ended September 2004 was 3,9% (+2 352 Gigawatt-hours) higher than for the corresponding three months of 2003. The production of electricity in South Africa for the first nine months of 2004 increased by 5,6% (+9 628 Gigawatt-hours) compared with the first nine months of 2003.*

### Import of electricity increases

*The import of electricity for September 2004 increased by 121,8% (+324 Gigawatt-hours) compared with September 2003. Furthermore, the import of electricity in South Africa for the first nine months of 2004 increased by 17,4% (+901 Gigawatt-hours) compared with the first nine months of 2003. The contribution of electricity imported to total electricity available for distribution in South Africa, increased from 3,3% during the first nine months of 2003 to 3,7% during the corresponding months of 2004.*

### Export of electricity higher in 2004 than 2003

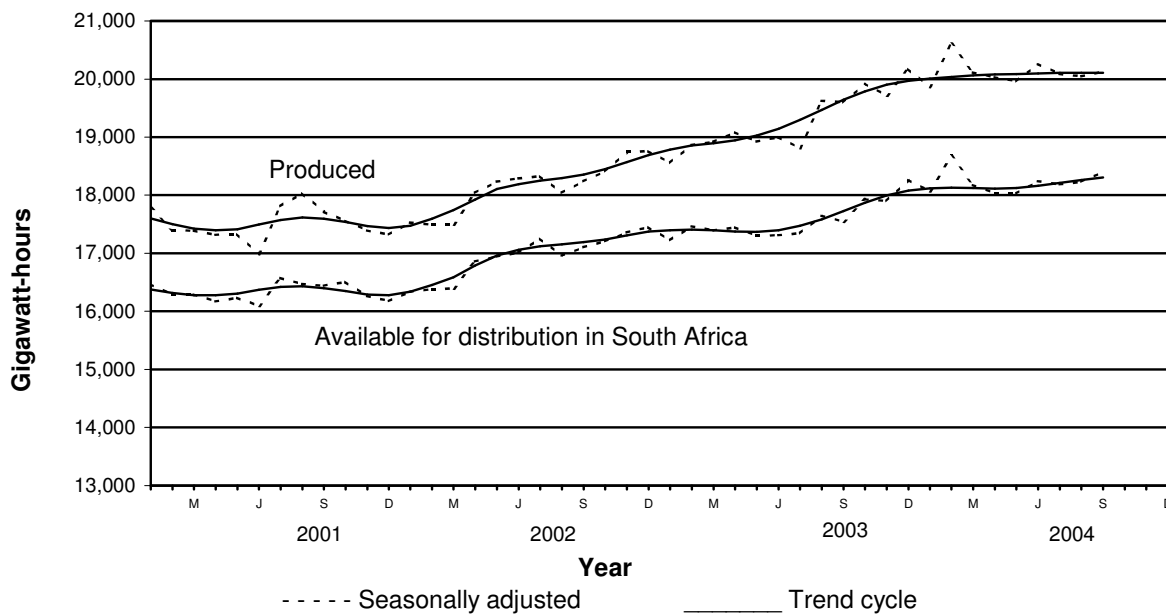
*The export of electricity for the first nine months of 2004 increased by 33,0% (+2 290 Gigawatt-hours) compared with the first nine months of 2003. However, the export of electricity for September 2004 is slightly lower (-3 Gigawatt-hours) compared with September 2003.*

### Export compared to import

*The export of electricity exceeded the import of electricity by 52,2% (+3 165 Gigawatt-hours) in the first nine months of 2004. In comparison, during the first nine months of 2003, 34,3% (+1 776 Gigawatt-hours) more electricity was exported than imported.*

Figure 1 below shows the seasonally adjusted and trend patterns for electricity produced and available for distribution in South Africa between January 2001 and September 2004. There was a gradual upward movement in the trend cycle until the end of 2003 and since January 2004 the trend leveled out. Since the middle of 2004, the trend cycle of electricity available for distribution in South Africa is showing a slight upward movement.

**Figure 1 – Electricity produced and available for distribution in South Africa from 2001 to 2004**



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**Notes**

<b>Forthcoming issues</b>	<b>Issue</b>	<b>Expected release date</b>
	October 2004	2 December 2004
<b>Purpose of the survey</b>	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.	
<b>Response rate</b>	The response rate for the survey on electricity generated and available for distribution for September 2004 was 100%.	
<b>Name change of statistical release</b>	As from the July 2004 publication the name of the monthly Statistical Release P4141: <i>Generation and consumption of electricity</i> , changed to <i>Electricity generated and available for distribution</i> .	

**Table 1 - Total volume of electricity available for distribution in South Africa: 1999 to 2004**

Gigawatt-hours						
Month	1999	2000	2001	2002	2003	2004
January	15 153	15 512	16 064	15 968	16 837	17 640
February	14 360	15 224	14 871	15 005	15 940	17 080
March	15 791	16 225	16 320	16 353	17 424	18 237
April	15 063	15 399	15 515	16 172	16 728	17 327
May	16 327	17 064	16 929	17 642	17 974	18 726
June	16 393	16 818	16 788	17 763	18 116	19 111
July	17 051	17 759	18 021	18 743	18 939	19 901
August	16 708	17 214	17 300	17 842	18 462	19 043
September	15 937	16 180	16 277	16 892	17 279	18 116 1/
October	16 322	16 709	16 794	17 523	18 213	
November	15 831	16 161	15 960	17 005	17 515	
December	15 184	15 395	15 224	16 440	17 211	
<b>Year</b>	<b>190 120</b>	<b>195 660</b>	<b>196 063</b>	<b>203 348</b>	<b>210 638</b>	

**Table 2 - Seasonally adjusted total volume of electricity available for distribution in South Africa: 1999 to 2004**

Gigawatt-hours						
Month	1999	2000	2001	2002	2003	2004
January	15 488	15 854	16 419	16 317	17 224	18 066
February	15 686	16 645	16 243	16 406	17 465	18 673
March	15 798	16 253	16 293	16 314	17 395	18 179
April	15 773	16 163	16 173	16 859	17 448	18 031
May	15 688	16 387	16 267	16 974	17 297	18 029
June	15 743	16 142	16 120	17 016	17 310	18 243
July	15 744	16 380	16 583	17 201	17 348	18 186
August	15 859	16 361	16 475	17 031	17 647	18 235
September	16 063	16 312	16 460	17 091	17 541	18 397
October	16 030	16 419	16 505	17 215	17 925	
November	16 158	16 490	16 273	17 352	17 900	
December	16 164	16 391	16 158	17 428	18 263	

1/ Preliminary.

**Table 3 - Indices of the physical volume of electricity production: 1999 to 2004**

**Base: 2000=100**

Month	1999	2000	2001	2002	2003	2004
January	94,7	92,5	98,6	97,1	102,7	109,8
February	89,0	91,2	90,1	90,5	97,1	106,0
March	97,0	100,9	98,5	98,5	106,6	113,3
April	90,1	95,9	93,6	97,8	103,6	108,9
May	98,0	106,3	103,0	108,1	111,9	117,9
June	98,9	104,9	101,1	108,6	113,2	120,7
July	104,0	107,8	111,1	114,2	117,7	125,8
August	101,8	105,5	108,0	108,5	117,5	119,9
September	96,9	99,1	100,5	103,5	111,3	114,2
October	99,1	103,1	102,7	108,3	117,2	1/
November	96,0	99,1	97,4	104,9	110,4	
December	90,8	93,8	92,1	100,0	107,8	
<b>Year</b>	<b>96,4</b>	<b>100,0</b>	<b>99,7</b>	<b>103,3</b>	<b>109,8</b>	

**Table 4 - Seasonally adjusted indices of the physical volume of electricity production: 1999 to 2004**

**Base: 2000=100**

Month	1999	2000	2001	2002	2003	2004
January	96,8	94,7	101,2	99,9	105,9	113,4
February	97,3	99,9	99,1	99,8	107,4	117,3
March	97,3	101,3	99,0	99,2	107,5	114,4
April	95,0	101,1	98,5	102,8	108,7	114,2
May	94,2	102,2	99,0	104,1	107,8	113,7
June	94,9	100,7	97,0	104,0	108,2	115,4
July	95,3	98,6	101,6	104,1	107,2	114,5
August	96,4	100,1	102,6	103,1	111,7	114,1
September	97,3	99,4	100,9	103,8	111,7	114,7
October	96,6	100,3	99,6	105,0	113,5	
November	97,9	100,9	99,0	106,7	112,4	
December	97,4	100,6	98,5	106,8	115,0	

1/ Preliminary.



**Table 5 - Total volume of electricity imported: 1999 to 2004**

**Gigawatt-hours**

<b>Month</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
January	185	683	569	670	705	828
February	201	529	488	643	637	811
March	302	6	665	783	706	863
April	682	24	774	733	547	641
May	719	20	629	658	569	547
June	654	2	797	704	518	560
July	515	599	479	702	792	607
August	613	476	282	721	424	618
September	679	495	507	637	266	590
October	688	506	713	454	272	1/
November	644	601	636	477	583	
December	791	778	708	691	720	
<b>Year</b>	<b>6 673</b>	<b>4 719</b>	<b>7 247</b>	<b>7 873</b>	<b>6 739</b>	

**Table 6 - Total volume of electricity exported: 1999 to 2004**

**Gigawatt-hours**

<b>Month</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
January	346	197	616	558	578	1 037
February	267	169	470	478	508	977
March	248	196	498	529	607	1 027
April	217	155	463	525	619	951
May	318	213	508	578	805	944
June	347	193	496	601	798	1 057
July	381	363	543	614	944	1 140
August	465	389	569	605	1 030	1 049
September	480	458	581	628	1 051	1 048
October	440	540	630	626	1 116	1/
November	432	525	598	600	1 025	
December	325	609	547	608	1 055	
<b>Year</b>	<b>4 266</b>	<b>4 007</b>	<b>6 519</b>	<b>6 950</b>	<b>10 136</b>	

1/ Preliminary.

**Table 7 - Electricity produced and consumed in power stations, purchased and sold outside South Africa and available for distribution in South Africa**

Gigawatt-hours						
Description	September 2003	August 2004	September 2004 1/	January to September 2003	January to September 2004	% change between January to September 2003 and January to September 2004
<b>Total - All producers</b>						
Electricity produced	19 535	21 055	20 049	172 334	181 962	+ 5,6
Purchased outside South Africa (import)	266	618	590	5 164	6 065	+ 17,4
Consumed in power stations and auxiliary systems	1 471	1 581	1 475	12 858	13 617	+ 5,9
Sold outside South Africa (export)	1 051	1 049	1 048	6 940	9 230	+ 33,0
Electricity available for distribution in South Africa	17 279	19 043	18 116	157 699	165 181	+ 4,7
<b>Eskom</b>						
Electricity produced	18 801	20 298	19 341	165 900	175 605	+ 5,8
Purchased outside South Africa (import)	266	618	590	5 164	6 065	+ 17,4
Consumed in power stations and auxiliary systems	1 403	1 509	1 415	12 158	12 996	+ 6,9
Sold outside South Africa (export)	1 051	1 049	1 048	6 940	9 230	+ 33,0
Electricity available for distribution in South Africa	16 613	18 357	17 468	151 966	159 446	+ 4,9

1/ Preliminary.

**Table 8 - Electricity distributed by Eskom by province for 2004 1/**

<b>Gigawatt-hours</b>					
<b>Month</b>	<b>Western Cape</b>	<b>Eastern Cape</b>	<b>Northern Cape</b>	<b>Free State</b>	<b>KwaZulu-Natal</b>
January	1 782	516	384	839	3 416
February	1 741	599	369	772	3 373
March	1 826	643	385	791	3 496
April	1 693	567	317	740	3 293
May	1 792	656	354	822	3 570
June	1 734	648	353	837	3 971
July	1 905	693	383	892	3 642
August	1 904	676	371	841	3 559
September 2/	1 771	647	378	772	3 455
October					
November					
December					
<b>Year to date</b>	<b>16 148</b>	<b>5 645</b>	<b>3 294</b>	<b>7 306</b>	<b>31 775</b>

<b>Gigawatt-hours</b>					
<b>Month</b>	<b>North West</b>	<b>Gauteng</b>	<b>Mpumalanga</b>	<b>Limpopo</b>	<b>Total South Africa</b>
January	2 389	4 335	2 087	788	16 536
February	2 230	4 144	2 097	727	16 052
March	2 443	4 454	2 161	798	16 997
April	2 218	4 296	2 065	761	15 950
May	2 418	4 749	2 308	839	17 508
June	2 303	4 940	2 104	816	17 706
July	2 504	5 488	2 206	859	18 572
August	2 430	4 898	2 178	878	17 735
September 2/	2 397	4 575	2 029	833	16 857
October					
November					
December					
<b>Year to date</b>	<b>21 332</b>	<b>41 879</b>	<b>19 235</b>	<b>7 299</b>	<b>153 913</b>

1/ Wholesale energy as delivered by Eskom to the various provinces.

2/ Preliminary.

## Explanatory notes

- |                                      |           |   |
|--------------------------------------|-----------|---|
| <b>Introduction</b>                  | <b>1</b>  | 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 number of electricity units generated and consumed in South Africa, the number of units purchased and sold outside South Africa and the number of units distributed by Eskom by province on a monthly basis. Both actual and seasonally adjusted figures are published.  |
|                                      | <b>2</b>  | This statistical release reflects indices of the physical volume of electricity production on the basis of 2000=100. In accordance with international practice, the indices have to be rebased every five years to a new base year.   |
|                                      | <b>3</b>  | 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.   |
| <b>Scope of the survey</b>           | <b>4</b>  | This survey covers electricity undertakings and 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.  |
| <b>Classification</b>                | <b>5</b>  | The 1993 edition of the <i>Standard Industrial Classification of all Economic Activities (SIC)</i> , 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 (ISIC)</i> 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.  |
| <b>Statistical unit</b>              | <b>6</b>  | 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).   |
| <b>Survey methodology and design</b> | <b>7</b>  | All statistical units are stratified by type of economic activity according to the <i>Standard Industrial Classification of all Economic Activities (SIC)</i> 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.   |
|                                      | <b>8</b>  | The survey is conducted by mail each month collecting information from a sample of 22 electricity undertakings or establishments.   |
| <b>Monthly production indices</b>    | <b>9</b>  | The calculation of the monthly production indices is based on the number of electricity units produced.   |
| <b>Benchmarking</b>                  | <b>10</b> | 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, which are weighted according to the original sample, designed 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. |

- 11** 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 September 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 July 1995 as reference point).
- Seasonal adjustment** **12** Seasonally adjusted estimates of all items are generated each month, using the X-11 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 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 behavior.
- Trend cycle** **13** The trend is the long-term pattern or movement of a time series. The X-11 Seasonal Adjustment Program is used for smoothing seasonally adjusted estimates.
- Related publications** **14** Users may also wish to refer to the following publications which are available from Stats SA -
- *Bulletin of Statistics.*
  - *SA Statistics.*
- Unpublished statistics** **15** 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. Generally a charge is made for providing unpublished statistics.
- Rounding-off figures** **16** The figures in the tables have, where necessary, 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.
- Pre-release policy** **17** Stats SA pre-release policy may be inspected at its website, [www.statssa.gov.za](http://www.statssa.gov.za).
- Symbols and abbreviations** **18**
- |          |   |
|----------|---|
| GDP      | Gross Domestic Product  |
| ISIC     | International Standard Industrial Classification              |
| SIC      | Standard Industrial Classification of all Economic Activities |
| Stats SA | Statistics South Africa                                       |
| *        | Revised figures   |

## Glossary

<b>Electricity undertaking</b>	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.
<b>Establishment (branch)</b>	An establishment (branch) is defined as the smallest economic unit, which operates as a separate entity for which comprehensive financial records are kept.
<b>Index of physical volume of electricity production</b>	The index of physical volume of electricity production or a production index is a statistical 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 2000. The production in the base period is set at 100.
<b>Industry</b>	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 1993 System of National Accounts (1993 SNA) in the same way as in the <i>Standard Industrial Classification of all Economic Activities (SIC)</i> , Fifth Edition, Report No. 09-90-02.
<b>Unit of electricity</b>	One unit of electricity is equal to 1 kilowatt-hour (kWh). One gigawatt-hour (gWh) of electricity is equal to one million kilowatt-hours.

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