

Electricity generated and available for distribution

August 2004

**Embargoed until:
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Key figures as at the end of August 2004

Actual estimates

	August 2004	% change between August 2003 and August 2004	% change between June to August 2003 and June to August 2004	% change between January to August 2003 and January to August 2004
Electricity available for distribution (Gigawatt-hours)	19 043	+3,1	+4,6	+4,7
Electricity imported (Gigawatt-hours)	618	+45,8	+2,9	+11,8
Electricity exported (Gigawatt-hours)	1 049	+1,8	+17,1	+38,9
Index of the physical volume of electricity production (2000=100)	119,9	+2,0	+5,2	+6,0

**Seasonally adjusted
estimates**

	August 2004	% change between July and August 2004	% change between March to May 2004 and June to August 2004
Electricity available for distribution (Gigawatt-hours)	18 214	+0,2	+0,7
Index of the physical volume of electricity production (2000=100)	114,1	-0,3	+0,5

Key findings as at the end of August 2004

Electricity available for distribution increases

The volume of electricity available for distribution for the three months ended August 2004, after seasonal adjustment, increased by 0,7% (+373 Gigawatt-hours) compared with the preceding three months. An increase of 0,7% was reported by Eskom while 'other producers' reported a decrease of 0,8% during the above-mentioned period. Furthermore, the electricity available for distribution for August 2004 increased by 3,1% (+581 Gigawatt-hours) compared with August 2003. Electricity available for distribution in South Africa for the first eight months of 2004 increased by 4,7% (+6 645 Gigawatt-hours) compared with the first eight months of 2003.

Production of electricity increases

The production of electricity for the three months ended August 2004, after seasonal adjustment, increased by 0,5% (+262 Gigawatt-hours) compared with the preceding three months. Furthermore, the production of electricity for August 2004 increased by 2,0% (+424 Gigawatt-hours) compared with August 2003. The production of electricity for the three months ended August 2004 was 5,2% (+3 159 Gigawatt-hours) higher than for the corresponding three months of 2003. The production of electricity in South Africa for the first eight months of 2004 increased by 6,0% (+9 116 Gigawatt-hours) compared with the first eight months of 2003.

Import of electricity increases

The import of electricity for August 2004 increased by 45,8% (+194 Gigawatt-hours) compared with August 2003. Furthermore, the import of electricity in South Africa for the first eight months of 2004 increased by 11,8% (+577 Gigawatt-hours) compared with the first eight months of 2003.

Export of electricity increases

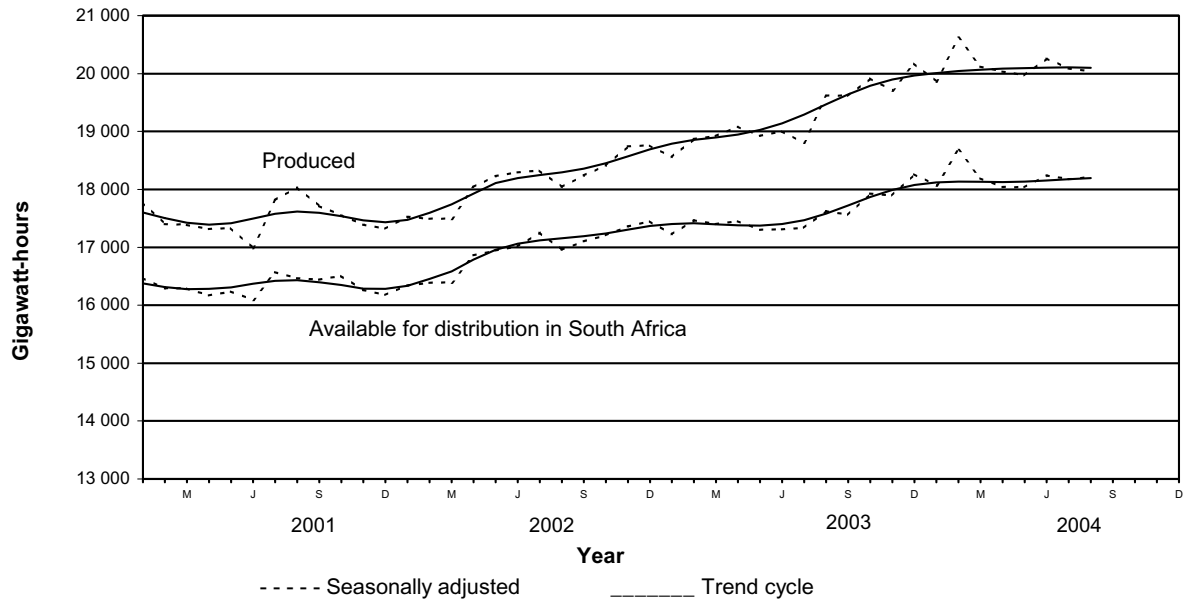
The export of electricity for August 2004 increased by 1,8% (+19 Gigawatt-hours) compared with August 2003. The export of electricity for the first eight months of 2004 increased by 38,9% (+2 293 Gigawatt-hours) compared with the first eight months of 2003.

Export compared to import

Although both the import and export of electricity are on the increase, the export of electricity for the first eight months of 2004 exceeded the import of electricity by 49,4% (+2 707 Gigawatt-hours). In comparison, during the first eight months of 2003, 20,2% (+991 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 August 2004. There was a gradual upward movement in the trend cycle until the end of 2003 and since January 2004 the trend leveled out.

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



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P J Lehohla
 Statistician-General

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Notes

Forthcoming issues	Issue	Expected release date
	September 2004	4 November 2004
Purpose of the survey	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.	
Response rate	The response rate for the survey on electricity generated and available for distribution for August 2004 was 100%.	
Name change of statistical release	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 1/
September	15 937	16 180	16 277	16 892	17 279	
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	
Year	190 120	195 660	196 063	203 348	210 638	

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	15 485	15 854	16 418	16 318	17 226	18 065
February	15 686	16 646	16 245	16 412	17 472	18 678
March	15 799	16 256	16 298	16 320	17 403	18 188
April	15 773	16 163	16 178	16 860	17 451	18 036
May	15 688	16 388	16 269	16 976	17 301	18 036
June	15 743	16 142	16 121	17 014	17 309	18 243
July	15 744	16 380	16 581	17 192	17 337	18 176
August	15 857	16 358	16 468	17 016	17 625	18 214
September	16 063	16 309	16 447	17 109	17 562	
October	16 030	16 418	16 505	17 214	17 925	
November	16 156	16 488	16 272	17 348	17 895	
December	16 164	16 391	16 160	17 425	18 261	

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 1/
September	96,9	99,1	100,5	103,5	111,3	
October	99,1	103,1	102,7	108,3	117,2	
November	96,0	99,1	97,4	104,9	110,4	
December	90,8	93,8	92,1	100,0	107,8	
Year	96,4	100,0	99,7	103,3	109,8	

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	100,0	99,1	99,9	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	98,7	101,6	104,1	107,2	114,5
August	96,4	100,1	102,6	103,0	111,7	114,1
September	97,3	99,4	100,8	103,9	111,8	
October	96,6	100,3	99,6	105,0	113,5	
November	97,9	100,9	99,0	106,7	112,3	
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						
Month	1999	2000	2001	2002	2003	2004
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 1/
September	679	495	507	637	266	
October	688	506	713	454	272	
November	644	601	636	477	583	
December	791	778	708	691	720	
Year	6 673	4 719	7 247	7 873	6 739	

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

Gigawatt-hours						
Month	1999	2000	2001	2002	2003	2004
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 1/
September	480	458	581	628	1 051	
October	440	540	630	626	1 116	
November	432	525	598	600	1 025	
December	325	609	547	608	1 055	
Year	4 266	4 007	6 519	6 950	10 136	

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	August 2003	July 2004	August 2004 1/	January to August 2003	January to August 2004	% change between January to August 2003 and January to August 2004
Total - All producers						
Electricity produced	20 633	22 081	21 057	152 799	161 915	+ 6,0
Purchased outside South Africa (import)	424	607	618	4 898	5 475	+ 11,8
Consumed in power stations and auxilliary systems	1 565	1 647	1 582	11 387	12 143	+ 6,6
Sold outside South Africa (export)	1 030	1 140	1 049	5 889	8 182	+ 38,9
Electricity available for distribution in South Africa	18 462	19 901	19 043	140 420	147 065	+ 4,7
Eskom						
Electricity produced	19 789	21 276	20 298	147 099	156 264	+ 6,2
Purchased outside South Africa (import)	424	607	618	4 898	5 475	+ 11,8
Consumed in power stations and auxilliary systems	1 461	1 566	1 509	10 755	11 581	+ 7,7
Sold outside South Africa (export)	1 030	1 140	1 049	5 889	8 182	+ 38,9
Electricity available for distribution in South Africa	17 722	19 178	18 357	135 353	141 978	+ 4,9

1/ Preliminary

Table 8 - Electricity distributed by Eskom by province for 2004 ^{1/}

Gigawatt-hours					
Month	Western Cape	Eastern Cape	Northern Cape	Free State	North West
January	1 782	516	384	839	2 389
February	1 741	599	369	772	2 230
March	1 826	643	385	791	2 443
April	1 693	567	317	740	2 218
May	1 792	656	354	822	2 418
June	1 734	648	353	837	2 303
July	1 905	693	383	892	2 504
August 2/	1 904	676	371	841	2 430
September					
October					
November					
December					
Year to date	14 377	4 998	2 916	6 534	18 935

Gigawatt-hours					
Month	KwaZulu-Natal	Mpumalanga	Gauteng	Limpopo	Total South Africa
January	3 416	2 087	4 335	788	16 537
February	3 373	2 097	4 144	727	16 052
March	3 496	2 161	4 454	798	16 997
April	3 293	2 065	4 296	761	15 950
May	3 570	2 308	4 749	839	17 508
June	3 971	2 104	4 940	816	17 706
July	3 642	2 206	5 488	859	18 572
August 2/	3 559	2 178	4 898	878	17 735
September					
October					
November					
December					
Year to date	28 320	17 206	37 304	6 466	137 057

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

2/ Preliminary.

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 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. |
| | 2 | 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. |
| | 3 | 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. |
| Scope of the survey | 4 | 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. |
| Classification | 5 | 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. |
| Statistical unit | 6 | 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). |
| Survey methodology and design | 7 | 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. |
| | 8 | The survey is conducted by mail each month collecting information from a sample of 22 electricity undertakings or establishments. |
| Monthly production indices | 9 | The calculation of the monthly production indices is based on the number of electricity units produced. |
| Benchmarking | 10 | 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 August 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.
- 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

Electricity undertaking	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.
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 of electricity production	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.
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 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.
Unit of electricity	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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Enquiries

Telephone number: (012) 310 8600/ 8390/ 8351/ 8496/ 4892/ 8095 (user information services)
(012) 310 8249 (technical enquiries)
(012) 310 8161 (orders)
(012) 310 8490 (library)

Fax number: (012) 310 8310 (technical enquiries)

email: gerdab@statssa.gov.za (technical enquiries)
thabelom@statssa.gov.za (technical enquiries)
info@statssa.gov.za (user information services)
distribution@statssa.gov.za (orders)

Postal address: Private Bag X44, Pretoria, 0001

Produced by Stats SA