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# Electricity generated and available for distribution January 2006

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 $\begin{tabular}{ll} Table A-Selected key figures regarding electricity generated and available for distribution \\ for January 2006 \end{tabular}$ 

Estimates	January 2006	% change between January 2005 and January 2006	% change between November 2004 to January 2005 and November 2005 to January 2006
Electricity available for distribution (Gigawatt-hours)	18 612	+2,6	+2,1
Index of the physical volume of electricity production (2005=100)	99,8	+2,3	+1,8

## Seasonally adjusted estimates

Electricity available for

Index of the physical volume of electricity production (2005=100)

distribution (Gigawatt-hours)

January 2006	% change between December 2005 and January 2006	% change between August to October 2005 and November 2005 to January 2006
19 015	-0,1	+1,7
102,9	+0,2	+3,1

#### Key findings regarding electricity generated and available for distribution for January 2006

#### Consumption of electricity increases

The estimated volume of electricity consumed (available for distribution) for January 2006 increased by 2,6% (+463 Gigawatt-hours) compared with January 2005 (see tables A and 7). Furthermore, the estimated consumption of electricity for the three months ending January 2006, after seasonal adjustment, increased by 1,7% (+938 Gigawatt-hours) compared with the three months ending October 2005 (see tables A and B).

#### **Production of electricity increases**

The estimated production of electricity for the three months ending January 2006, after seasonal adjustment, increased by 3,0% (+1 827 Gigawatt-hours) compared with the previous three months ending October 2005 (see table B). Furthermore, the estimated production of electricity for January 2006 increased by 2,3% (+449 Gigawatt-hours) compared with January 2005 (see table 7). Production of electricity reported by Eskom increased by 2,3% (+430 Gigawatt-hours) during the same period.

Table B - Percentage change in the seasonally adjusted quantity of electricity generated and available for distribution between the current quarter and the previous quarter

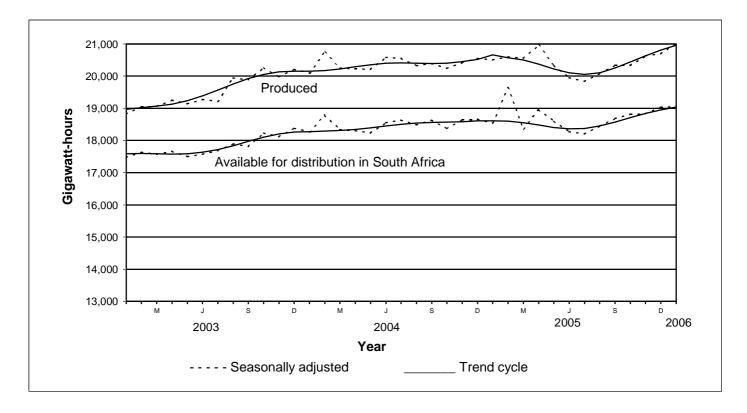
	Seasonally   adjusted	Seasonally adjusted	Percentage change	Quantity    difference
	quantity	quantity	between	between
	August to	November 2005	August to	August to
	October	to	October 2005	October 2005
	2005	January 2006	and	and
			November 2005	November 2005
	ĺ	İ	to	to
	į i	İ	January 2006	January 2006
	Gigawatt-hours	Gigawatt-hours		Gigawatt-hours
Electricity produced	+60 740	+62 567	+3,0	+1 827
Electricity available for distribution in South Africa	+55 940	+56 878	+1,7	+938

Table C - Percentage change between the current quarter and the corresponding quarter of 2005

			Percentage	Quantity
	Actual	Actual	change	difference
	quantity	quantity	between	between
	November 2004	November 2005	November 2004	November 2004
	to	to	to	to
	January 2005	January 2006	January 2005	January 2005
			and	and November
			November 2005	2005 to
			to	January 2006
	Gigawatt-hours	Gigawatt-hours	January 2006	Gigawatt-hours
Electricity produced	   59 622	60 709	+1,8	+1 087
Purchased outside South Africa (import)	2 154	2 574	+19,5	+420
Consumed in power stations and	İ			į
auxiliary systems	4 418	4 587	+3,8	+169
Sold outside South Africa (export)	3 141	3 330	+6,0	+189
Electricity available for distribution in South Africa	54 217	55 365	+2,1	+1 148

Figure 1 below shows the seasonally adjusted and trend patterns for electricity produced and available for distribution in South Africa between January 2003 and January 2006. There was a gradual upward movement in the trend cycles from the beginning of 2003 until the end. From March 2004, the increase in electricity produced was less marked and has shown a declining trend between February and July 2005. The trend of electricity available for distribution in South Africa has shown a similar pattern. An increasing trend in both electricity produced and electricity available for distribution is evident since August 2005.

Figure 1 – Electricity produced and available for distribution in South Africa from 2003 to 2006



P J Lehohla Statistician-General

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#### Notes

Forthcoming issues	Issue	Expected release date
	February 2006	06 April 2006
Purpose of the survey	used to compile estimates of the	ctricity generated and available for distribution survey are e Gross Domestic Product (GDP) and its components, which of the economy and formulation of economic policy.
Response rate	The response rate for the surve January 2006 was 100%.	y on electricity generated and available for distribution for
Changes to this publication	· ·	s been changed from 2000 to 2005. In accordance with the s have to be rebased every five years to a new base year.

Table 1 - Total volume of electricity available for distribution in South Africa: 2001 to 2006

Month	2	001	2	2002		2	2003		2004		2005		2	006
  January	16	064	16	191		 17	095	1	7 850	18	149	1/	18	612
February	14	871	15	215		16	168	1'	7 277	17	169			
March	16	320	16	552		17	655	18	3 476	18	487			
April	15	515	16	362		16	905	1'	7 524	18	133			
May	16	929	17	852		18	159	18	909	19	224			
June	16	788	18	017		18	330	19	337	18	983			
July	18	021	18	956		19	183	20	156	19	657			
August	17	300	18	064		18	714	19	265	19	191			
September	16	277	17	125		17	526	18	362	18	384			
October	16	794	17	741		18	480	18	3 714	19	127			
November	15	960	17	233		17	790	18	314	18	523			
December	15	224	16	712		17	456	1'	754	18	230			
   Year	196	063	206	020	2	 13	461	22	938	223	257			

<sup>1/</sup> Preliminary

Table 2 - Seasonally adjusted total volume of electricity available for distribution in South Africa: 2001 to 2006

Month     Month	2001	2002	2003	   2004 	   2005 	   2006 	% change  between  current and  previous month
January	16 398	16 527	17 466	18 230	18 540	19 015	-0,1
February	16 202	16 575	17 611	18 762	18 643		į
March	16 226	16 451	17 541	18 335	18 358		j
April	16 178	17 075	17 665	18 311	18 959		j
May	16 269	17 193	17 508	18 271	18 606		
June	16 154	17 315	17 606	18 590	18 274		
July	16 652	17 507	17 720	18 618	18 202		
August	16 498	17 286	17 944	18 507	18 445		
September	16 460	17 340	17 801	18 644	18 675		
October	16 528	17 453	18 200	18 418	18 820		
November	16 240	17 522	18 086	18 617	18 828		
December	16 136	17 633	18 335	18 564	19 035		

Table 3 - Indices of the physical volume of electricity production: 2001 to 2006

Base : 2005=100

Month	2001	2002	2003	2004	2005		2006
  January	84,8	84,7	89,6	95,5	97,6	1/	99,8
February	77,5	79,0	84,7	92,2	91,7		
March	84,7	85,7	92,9	98,7	100,2		
April	80,5	85,1	90,1	94,7	98,1		
May	88,6	94,1	97,2	102,4	102,9		
June	87,0	94,8	98,5	105,0	101,6		
July	95,6	99,4	102,5	109,5	105,5		
August	92,9	94,5	102,4	104,3	103,0		
September	86,4	90,3	97,0	99,5	99,1		
October	88,4	94,3	102,2	102,1	102,5		
November	83,8	91,5	96,4	98,5	99,4		
December	79,2	87,4	94,0	96,0	98,2		
Year	85,8	90,1	95,6	 99,9	100,0		

1/ Preliminary

Table 4 - Seasonally adjusted indices of the physical volume of electricity production: 2001 to 2006

Base : 2005=100

	2001	2002	2003	2004     	2005	2006	% change  between  current and  previous month
January	86,8	86,8	92,1	98,3	100,6	102,9	+0,2
February	85,0	86,8	93,1	101,3	100,7		
March	84,8	85,9	93,2	99,1	100,6		
April	84,6	89,3	94,4	99,1	102,6		
May	85,2	90,6	93,7	99,0	99,6		
June	83,4	90,9	94,5	100,9	97,7		
July	88,1	91,7	94,6	101,2	97,6		
August	88,3	90,0	97,7	99,6	98,4		
September	86,8	90,7	97,4	99,9	99,5		
October	85,9	91,6	99,2	99,2	99,6		
November	85,2	93,0	97,9	100,0	101,0		
December	84,5	92,7	99,0	100,6	102,7		

Table 5 - Total volume of electricity imported: 2001 to 2006

Month	2001	2002	2003	2004	2005	2006
January	569	670	705	828	729	1/ 872
February	488	643	637	811	714	
March	665	783	706	863	533	
April	774	733	547	641	598	
May	629	658	569	547	849	
June	797	704	518	560	813	
July	479	702	792	607	856	
August	282	721	424	618	883	
September	507	637	266	590	686	
October	713	454	272	536	836	
November	636	477	583	746	865	
December	708	691	720	679	837	
   Year	7 247	7 873	6 739	8 026	9 199	

<sup>1/</sup> Preliminary

Table 6 - Total volume of electricity exported: 2001 to 2006

Month	2001	2002	2003	2004	2005	2006
January	616	558	578	1 037	1 030 1	/ 1 056
February	470	478	508	977	901	
March	498	529	607	1 027	968	
April	463	525	619	951	991	
May	508	578	805	944	1 083	
June	496	601	798	1 057	1 096	
July	543	614	944	1 140	1 102	
August	569	605	1 030	1 049	1 144	
September	581	628	1 051	1 048	1 134	
October	630	626	1 116	1 112	1 161	
November	598	600	1 025	1 082	1 119	
December	547	608	1 055	1 029	1 155	
   Year	6 519	6 950	10 136	12 453	12 884	

<sup>1/</sup> Preliminary.

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

Description	   Janua:   2005	ry		ember 2005	Janu 2006	-	between	Difference   between  January  2005  and  January  2006
Total - All producers								
Electricity produced	19	928	20	040	20	377	+2,3	+449
Purchased outside South Africa (import)		729		837		872	+19,6	+143
Consumed in power stations and								
auxiliary systems	1		1	492		580		
Sold outside South Africa (export)	1	030	1	155	1	056	+2,5	+26
Electricity available for distribution in South Africa	18	149	18	230	18	612	+2,6	+463
Electricity produced	19	085	19	169	19	515	+2,3	+430
Purchased outside South Africa (import)	İ	729		837		872	+19,6	+143
Consumed in power stations	i							
and auxiliary systems	j 1	386	1	411	1	496	+7,9	+110
Sold outside South Africa (export)	j 1	030	1	155	1	056	+2,5	+26
Electricity available for distribution in South Africa	17	398	17	440	17	835	+2,5	+437

<sup>1/</sup> Preliminary.

Table 8a - Electricity distributed by Eskom by province for 2005 and 2006 1/

Month	Western Cape	Eastern Cape	Northern Ca	ape   Free State	KwaZulu-Natal	
2005	21 445	7 713	4 64	49 8 980	43 049	
2005						
January	1 795	616	42	24 765	3 599	
February	1 516	585	38	30 727	3 406	
March	1 650	633	43	37 747	3 642	
April	1 583	627	33	35 742	3 534	
May	1 871	667	35	58 779	3 558	
June	1 860	672	35	761	3 536	
July	1 895	690	38	30 793	3 713	
August	1 991	659	37	75 785	3 666	
September	1 837	672	38	35 735	3 531	
October	1 831	666	42	24 746	3 712	
November	1 790	632	39	90 700	3 589	
December	1 826	594	40	700	3 563	
2006						
January 2/	1 852	626	38	38 712	3 611	
Year to date	1 852	626	38	38 712	3 611	

Table 8b - Electricity distributed by Eskom by province for 2005 and 2006 (concluded) 1/

Month	North West	Gauteng	Mpumalanga	Limpopo  Tota	l South Africa
2005	24 865	55 107	29 469	10 281	205 558
2005					
January	2 172	4 402	2 206	858	16 837
February	2 056	4 052	2 285	815	15 823
March	2 171	4 494	2 378	854	17 005
April	2 089	4 489	2 675	676	16 751
May	2 173	4 730	2 582	909	17 626
June	2 068	4 760	2 449	899	17 364
July	2 042	5 057	2 498	925	17 993
August	1 937	4 866	2 319	932	17 530
September	1 996	4 493	2 373	860	16 882
October	2 050	4 776	2 703	861	17 769
November	2 070	4 672	2 467	821	17 131
December	2 041	4 316	2 534	871	16 847
2006					
January 2/	2 073	4 442	2 635	904	17 242
Year to date	2 073	4 442	2 635	904	17 242

 $<sup>1/\,</sup>$  Wholesale energy as delivered by Eskom to the various provinces.

<sup>2/</sup> Preliminary.

#### **Explanatory notes**

#### Introduction

- 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 available for distribution 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.
- This statistical release reflects indices of the physical volume of electricity production on the basis of 2005=100. In accordance with international practice, the indices have to be rebased every five years to a new base year.
- 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

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

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 *Standard Industrial Classification of all Economic Activities (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 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

The index of physical volume of electricity production should provide an accurate reflection of the trend of activities of the 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.

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 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

16

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.
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#### 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

An electricity undertaking is an undertaking concerned with the generation or transmission **Electricity undertaking** 

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 2005. The production in

the base period is set at 100.

An industry consists of a group of undertakings or establishments engaged in the same or **Industry** 

similar kinds of economic activity. Industries are defined in the 1993 System of National Accounts (1993 SNA) in the same way as in the Standard Industrial Classification of all

Economic Activities (SIC), Fifth Edition, Report No. 09-90-02.

One unit of electricity is equal to 1 kilowatt-hour (kWh). One gigawatt-hour (gWh) of Unit of electricity

electricity is equal to one million kilowatt-hours.

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