

## Statistical release

# Electricity generated and available for distribution (preliminary)

**July 2009** 

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#### SUMMARY OF FINDINGS: ELECTRICITY GENERATED AND AVAILABLE FOR DISTRIBUTION (JULY 2009)

#### **Key figures**

Table A – Selected key figures regarding electricity generated and available for distribution for July 2009

| Actual estimates  | July 2009<br>1/ | % change<br>between<br>July 2008<br>and July 2009 | % change<br>between<br>May to July<br>2008 and May<br>to July 2009 | % change<br>between<br>January to<br>July 2008<br>and January<br>to July 2009 |
|---|-----------------|---|--|---|
| Electricity available for distribution (Gigawatt-hours)           | 21 152          | -2,1  | -3,2   | -5,3  |
| Index of the physical volume of electricity production (2005=100) | 112,8           | -2,0  | -3,4   | -6,0  |

<sup>1/</sup> Preliminary.

| Seasonally adjusted estimates                                     | July 2009 | % change between<br>June and July<br>2009 | % change between<br>February to<br>April 2009<br>and May to<br>July 2009 |  |
|---|-----------|---|--|--|
| Electricity available for distribution (Gigawatt-hours)           | 19 484    | 2,1                                       | 2,9  |  |
| Index of the physical volume of electricity production (2005=100) | 103,9     | 2,5                                       | 3,1  |  |

#### **Key findings**

#### Seasonally adjusted consumption of electricity increases

Electricity consumption after seasonal adjustment for July 2009 increased by 2,1% compared with June 2009 and by 2,9% for the three months ended July 2009 compared with the previous three months ended April 2009 (see Tables A, B and 3). However, the actual estimated consumption of electricity was 2,1% lower (-458 Gigawatt-hours) in July 2009 compared with July 2008 (see Tables A, 2 and 9a) and 5,3% lower (-7 322 Gigawatt-hours) in the first seven months of 2009 compared with the first seven months of 2008 (see Tables A and 9b).

#### Seasonally adjusted production of electricity increases

The estimated seasonally adjusted production of electricity for the three months ended July 2009 increased by 3,1% compared with the previous three months. The actual production of electricity in July 2009 (23 023 Gigawatt-hours) represents a decline of 2,0% compared with the July 2008 figure, the smallest annual decrease for 2009 thus far (see Tables A, 5 and 9a).

#### Distribution of electricity by Eskom to the provinces lower than a year ago

Electricity distributed to the provinces for the first seven months of 2009 was 4,9% lower (-6 319 Gigawatt-hours) compared with the first seven months of 2008. Lower figures were reported for eight provinces during this period ranging from -11,4% for Mpumalanga to -1,8% for Northern Cape. KwaZulu-Natal was the only province with an increase (1,6%) during this period (see Table 10).

#### International trade in electricity

The volume of electricity imported from outside South African borders increased from 6 021 Gigawatt-hours in the first seven months of 2008 to 7 136 Gigawatt-hours in the first seven months of 2009, representing an increase of 18,5% (1 115 Gigawatt-hours). The volume of electricity exported to neighbouring countries for the first seven months of 2009 decreased by 3,5% (-278 Gigawatt-hours) compared with the first seven months of 2008 (see Table 9b).

Table B – Comparison of the seasonally adjusted quantity of electricity generated and available for distribution between the current quarter and the previous quarter

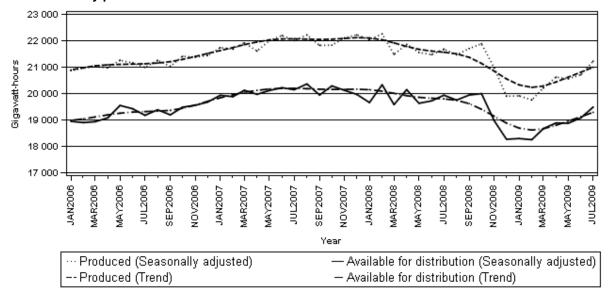
| Gigawatt-hours   | Seasonally<br>adjusted<br>quantity<br>February to<br>April 2009 | Seasonally<br>adjusted<br>quantity<br>May to July<br>2009 | % change<br>between<br>February to<br>April 2009<br>and May to<br>July 2009 | Quantity difference<br>between February<br>to<br>April 2009 and May<br>to<br>July 2009 |
|--|---|---|---|--|
| Electricity produced                                   | 60 586  | 62 497  | 3,2   | 1 911  |
| Electricity available for distribution in South Africa | 55 795  | 57 433  | 2,9   | 1 638  |

Table C – Comparison of actual estimates between the current quarter and the corresponding quarter of the previous year

| Gigawatt-hours   | Actual quantity<br>May<br>to July 2008 | Actual quantity<br>May<br>to July 2009 | % change<br>between<br>May to July<br>2008 and May<br>to July 2009 | Quantity difference<br>between May to<br>July<br>2008 and May to<br>July<br>2009 |
|--|--|--|--|--|
| Electricity produced                                   | 68 066                                 | 65 729                                 | -3,4   | -2 337   |
| Purchased outside South Africa (import)                | 2 852                                  | 3 065                                  | 7,5  | 213  |
| Consumed in power stations and auxiliary systems       | 4 897                                  | 4 769                                  | -2,6   | -128   |
| Sold outside South Africa (export)                     | 3 531                                  | 3 507                                  | -0,7   | -24  |
| Electricity available for distribution in South Africa | 62 490                                 | 60 517                                 | -3,2   | -1 973   |

Figure 1 below shows the seasonally adjusted and trend patterns for electricity produced and available for distribution in South Africa from January 2006 to July 2009.

Figure 1 - Electricity produced and available for distribution in South Africa from 2006 to 2009



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#### **Detailed results: Tables**

Table 1 – Total volume of electricity available for distribution in South Africa: 2004 to 2009

| Month     | Gigawatt-hours |         |         |         |         |           |  |  |  |
|-----------|----------------|---------|---------|---------|---------|-----------|--|--|--|
|           | 2004           | 2005    | 2006    | 2007    | 2008    | 2009      |  |  |  |
| January   | 17 850         | 18 149  | 18 603  | 19 561  | 19 256  | 17 919    |  |  |  |
| February  | 17 277         | 17 169  | 17 396  | 18 301  | 18 668  | 16 757    |  |  |  |
| March     | 18 476         | 18 487  | 18 982  | 20 160  | 19 603  | 18 694    |  |  |  |
| April     | 17 524         | 18 133  | 18 122  | 18 982  | 19 127  | 17 935    |  |  |  |
| May       | 18 909         | 19 224  | 20 312  | 20 901  | 20 365  | 19 549    |  |  |  |
| June      | 19 337         | 18 983  | 20 166  | 21 020  | 20 515  | 19 816    |  |  |  |
| July      | 20 156         | 19 657  | 20 632  | 21 780  | 21 610  | 1/ 21 152 |  |  |  |
| August    | 19 265         | 19 191  | 20 307  | 21 353  | 20 736  |           |  |  |  |
| September | 18 362         | 18 384  | 18 987  | 19 732  | 19 725  |           |  |  |  |
| October   | 18 714         | 19 127  | 19 663  | 20 435  | 20 138  |           |  |  |  |
| November  | 18 314         | 18 523  | 19 244  | 19 785  | 18 640  |           |  |  |  |
| December  | 17 754         | 18 230  | 18 909  | 19 160  | 17 541  |           |  |  |  |
| Year      | 221 938        | 223 257 | 231 323 | 241 170 | 235 924 | _         |  |  |  |

<sup>1/</sup> Preliminary.

Table 2 - Annual percentage change in electricity available for distribution in South Africa: 2004 to 2009

| Month     |      |      | Percentage ch | nange 1/ |      |       |
|-----------|------|------|---------------|----------|------|-------|
|           | 2004 | 2005 | 2006          | 2007     | 2008 | 2009  |
| January   | 4,4  | 1,7  | 2,5           | 5,1      | -1,6 | -6,9  |
| February  | 6,9  | -0,6 | 1,3           | 5,2      | 2,0  | -10,2 |
| March     | 4,7  | 0,1  | 2,7           | 6,2      | -2,8 | -4,6  |
| April     | 3,7  | 3,5  | -0,1          | 4,7      | 0,8  | -6,2  |
| Мау       | 4,1  | 1,7  | 5,7           | 2,9      | -2,6 | -4,0  |
| June      | 5,5  | -1,8 | 6,2           | 4,2      | -2,4 | -3,4  |
| July      | 5,1  | -2,5 | 5,0           | 5,6      | -0,8 | -2,1  |
| August    | 2,9  | -0,4 | 5,8           | 5,2      | -2,9 |       |
| September | 4,8  | 0,1  | 3,3           | 3,9      | 0,0  |       |
| October   | 1,3  | 2,2  | 2,8           | 3,9      | -1,5 |       |
| November  | 2,9  | 1,1  | 3,9           | 2,8      | -5,8 |       |
| December  | 1,7  | 2,7  | 3,7           | 1,3      | -8,4 |       |
| Year      | 4,0  | 0,6  | 3,6           | 4,3      | -2,2 |       |

<sup>1/</sup> The percentage change is the change in the volume of electricity available for distribution of the relevant year compared with the volume of electricity available for distribution of the previous year expressed as a percentage.

Table 3 – Seasonally adjusted total volume of electricity available for distribution in South Africa: 2004 to 2009

|           |        |        |        | Gigawatt-hours | i      |        |   |
|-----------|--------|--------|--------|----------------|--------|--------|---|
| Month     | 2004   | 2005   | 2006   | 2007           | 2008   | 2009   | % change<br>between<br>current and<br>previous<br>month |
| January   | 18 200 | 18 489 | 18 943 | 19 931         | 19 657 | 18 291 | 0,1   |
| February  | 18 750 | 18 642 | 18 896 | 19 880         | 20 332 | 18 247 | -0,2  |
| March     | 18 391 | 18 440 | 18 930 | 20 122         | 19 580 | 18 667 | 2,3   |
| April     | 18 361 | 19 056 | 19 075 | 19 969         | 20 147 | 18 881 | 1,1   |
| Мау       | 18 156 | 18 478 | 19 547 | 20 114         | 19 629 | 18 872 | 0,0   |
| June      | 18 570 | 18 254 | 19 421 | 20 220         | 19 721 | 19 077 | 1,1   |
| July      | 18 733 | 18 278 | 19 172 | 20 143         | 19 936 | 19 484 | 2,1   |
| August    | 18 464 | 18 358 | 19 383 | 20 363         | 19 751 |        |   |
| September | 18 596 | 18 608 | 19 190 | 19 943         | 19 942 |        |   |
| October   | 18 477 | 18 923 | 19 481 | 20 288         | 19 995 | _      |   |
| November  | 18 618 | 18 819 | 19 552 | 20 119         | 18 969 |        |   |
| December  | 18 546 | 18 995 | 19 675 | 19 967         | 18 264 |        |   |

Table 4 – Indices of the physical volume of electricity production: 2004 to 2009

| Month     | Base: 2005=100 |       |       |       |       |          |  |  |  |
|-----------|----------------|-------|-------|-------|-------|----------|--|--|--|
| Month     | 2004           | 2005  | 2006  | 2007  | 2008  | 2009     |  |  |  |
| January   | 95,5           | 97,6  | 99,8  | 103,9 | 105,3 | 95,0     |  |  |  |
| February  | 92,2           | 91,7  | 94,0  | 97,2  | 99,7  | 88,5     |  |  |  |
| March     | 98,7           | 100,2 | 103,3 | 107,8 | 105,6 | 99,3     |  |  |  |
| April     | 94,7           | 98,1  | 98,0  | 100,9 | 102,0 | 96,1     |  |  |  |
| May       | 102,4          | 102,9 | 108,1 | 112,0 | 109,6 | 104,5    |  |  |  |
| June      | 105,0          | 101,6 | 107,3 | 112,5 | 108,8 | 104,8    |  |  |  |
| July      | 109,5          | 105,5 | 110,8 | 116,6 | 115,1 | 1/ 112,8 |  |  |  |
| August    | 104,3          | 103,0 | 109,1 | 114,1 | 110,3 |          |  |  |  |
| September | 99,5           | 99,1  | 101,8 | 105,5 | 104,8 |          |  |  |  |
| October   | 102,1          | 102,5 | 107,2 | 109,1 | 109,4 |          |  |  |  |
| November  | 98,5           | 99,4  | 103,3 | 106,9 | 101,4 |          |  |  |  |
| December  | 96,0           | 98,2  | 100,9 | 104,6 | 93,6  |          |  |  |  |
| Year      | 99,9           | 100,0 | 103,6 | 107,6 | 105,5 | -        |  |  |  |

<sup>1/</sup> Preliminary.

Table 5 – Annual percentage change in indices of the physical volume of electricity production: 2004 to 2009

| Month     | Percentage change |      |      |      |       |       |  |  |  |
|-----------|-------------------|------|------|------|-------|-------|--|--|--|
|           | 2004              | 2005 | 2006 | 2007 | 2008  | 2009  |  |  |  |
| January   | 6,6               | 2,2  | 2,3  | 4,1  | 1,3   | -9,8  |  |  |  |
| February  | 8,9               | -0,5 | 2,5  | 3,4  | 2,6   | -11,2 |  |  |  |
| March     | 6,2               | 1,5  | 3,1  | 4,4  | -2,0  | -6,0  |  |  |  |
| April     | 5,1               | 3,6  | -0,1 | 3,0  | 1,1   | -5,8  |  |  |  |
| May       | 5,3               | 0,5  | 5,1  | 3,6  | -2,1  | -4,7  |  |  |  |
| June      | 6,6               | -3,2 | 5,6  | 4,8  | -3,3  | -3,7  |  |  |  |
| July      | 6,8               | -3,7 | 5,0  | 5,2  | -1,3  | -2,0  |  |  |  |
| August    | 1,9               | -1,2 | 5,9  | 4,6  | -3,3  |       |  |  |  |
| September | 2,6               | -0,4 | 2,7  | 3,6  | -0,7  |       |  |  |  |
| October   | -0,1              | 0,4  | 4,6  | 1,8  | 0,3   |       |  |  |  |
| November  | 2,2               | 0,9  | 3,9  | 3,5  | -5,1  |       |  |  |  |
| December  | 2,1               | 2,3  | 2,7  | 3,7  | -10,5 |       |  |  |  |
| Year      | 4,4               | 0,1  | 3,7  | 3,8  | -2,0  |       |  |  |  |

<sup>1/</sup> The percentage change is the change in the index of the physical volume of electricity production of the relevant year compared with the index of the physical volume of electricity production of the previous year expressed as a percentage.

Table 6 – Seasonally adjusted indices of the physical volume of electricity production: 2004 to 2009

|           |       |       |       | Base: 200 | 05=100 |       |   |
|-----------|-------|-------|-------|-----------|--------|-------|---|
| Month     | 2004  | 2005  | 2006  | 2007      | 2008   | 2009  | % change between<br>current and<br>previous month |
| January   | 98,0  | 100,1 | 102,2 | 106,5     | 107,9  | 97,5  | 0,1   |
| February  | 101,1 | 100,3 | 102,7 | 106,2     | 109,0  | 96,7  | -0,8  |
| March     | 98,7  | 100,1 | 102,9 | 107,3     | 105,2  | 99,0  | 2,4   |
| April     | 99,1  | 102,9 | 102,7 | 105,8     | 107,1  | 101,0 | 2,0   |
| May       | 98,5  | 99,0  | 104,1 | 107,8     | 105,6  | 100,7 | -0,3  |
| June      | 100,9 | 97,9  | 103,6 | 108,7     | 105,1  | 101,4 | 0,7   |
| July      | 101,4 | 97,8  | 102,8 | 107,8     | 106,2  | 103,9 | 2,5   |
| August    | 99,6  | 98,3  | 104,1 | 108,8     | 105,1  |       |   |
| September | 100,4 | 100,2 | 103,0 | 106,9     | 106,3  |       |   |
| October   | 99,5  | 100,1 | 104,8 | 106,9     | 107,2  |       |   |
| November  | 100,1 | 100,9 | 104,7 | 108,3     | 102,7  |       | _   |
| December  | 100,4 | 102,4 | 105,0 | 108,8     | 97,4   |       |   |

Table 7 – Total volume of electricity imported: 2004 to 2009

| Month     | Gigawatt-hours |       |       |        |        |          |  |  |
|-----------|----------------|-------|-------|--------|--------|----------|--|--|
|           | 2004 2005      |       | 2006  | 2007   | 2008   | 2009     |  |  |
| January   | 828            | 729   | 872   | 1 088  | 638    | 1 102    |  |  |
| February  | 811            | 714   | 646   | 942    | 885    | 999      |  |  |
| March     | 863            | 533   | 581   | 973    | 802    | 1 064    |  |  |
| April     | 641            | 598   | 587   | 1 055  | 844    | 906      |  |  |
| May       | 547            | 849   | 879   | 900    | 761    | 937      |  |  |
| June      | 560            | 813   | 881   | 880    | 1 002  | 1 088    |  |  |
| July      | 607            | 856   | 926   | 984    | 1 089  | 1/ 1 040 |  |  |
| August    | 618            | 883   | 930   | 1 045  | 1 076  |          |  |  |
| September | 590            | 686   | 971   | 1 026  | 1 044  |          |  |  |
| October   | 536            | 836   | 682   | 1 040  | 645    |          |  |  |
| November  | 746            | 865   | 862   | 796    | 711    | _        |  |  |
| December  | 679            | 837   | 965   | 619    | 1 075  |          |  |  |
| Year      | 8 026          | 9 199 | 9 782 | 11 348 | 10 572 |          |  |  |

<sup>1/</sup> Preliminary.

Table 8 – Total volume of electricity exported: 2004 to 2009

| Month     | Gigawatt-hours |        |        |        |        |          |  |  |
|-----------|----------------|--------|--------|--------|--------|----------|--|--|
| monar     | 2004 2005      |        | 2006   | 2007   | 2008   | 2009     |  |  |
| January   | 1 037          | 1 030  | 1 056  | 1 134  | 1 280  | 1 096    |  |  |
| February  | 977            | 901    | 1 050  | 1 060  | 1 101  | 979      |  |  |
| March     | 1 027          | 968    | 1 129  | 1 231  | 1 136  | 1 100    |  |  |
| April     | 951            | 991    | 1 017  | 1 132  | 998    | 1 086    |  |  |
| May       | 944            | 1 083  | 1 046  | 1 203  | 1 120  | 1 109    |  |  |
| June      | 1 057          | 1 096  | 1 102  | 1 256  | 1 162  | 1 175    |  |  |
| July      | 1 140          | 1 102  | 1 239  | 1 301  | 1 249  | 1/ 1 223 |  |  |
| August    | 1 049          | 1 144  | 1 262  | 1 252  | 1 220  |          |  |  |
| September | 1 048          | 1 134  | 1 239  | 1 186  | 1 203  |          |  |  |
| October   | 1 112          | 1 161  | 1 311  | 1 252  | 1 258  |          |  |  |
| November  | 1 082          | 1 119  | 1 186  | 1 256  | 1 252  |          |  |  |
| December  | 1 029          | 1 155  | 1 129  | 1 233  | 1 189  |          |  |  |
| Year      | 12 453         | 12 884 | 13 766 | 14 496 | 14 168 |          |  |  |

<sup>1/</sup> Preliminary.

Table 9a – Electricity produced and consumed in power stations, purchased and sold outside South Africa and available for distribution in South Africa (monthly figures)

|             |  | Gigawatt-hours |           |                 |   |  |  |  |
|-------------|--|----------------|-----------|-----------------|---|--|--|--|
|             |  | July 2008      | June 2009 | July 2009<br>1/ | % change<br>between<br>July 2008<br>and July 2009 | Difference between<br>July 2008<br>and July 2009 |  |  |
| Total - All | Electricity produced                                   | 23 498         | 21 384    | 23 023          | -2,0  | -475   |  |  |
| producers   | Purchased outside South Africa (import)                | 1 089          | 1 088     | 1 040           | -4,5  | -49  |  |  |
|             | Consumed in power stations and auxiliary systems       | 1 728          | 1 481     | 1 687           | -2,4  | -41  |  |  |
|             | Sold outside South Africa (export)                     | 1 249          | 1 175     | 1 223           | -2,1  | -26  |  |  |
|             | Electricity available for distribution in South Africa | 21 610         | 19 816    | 21 152          | -2,1  | -458   |  |  |
| ESKOM       | Electricity produced                                   | 22 515         | 20 723    | 22 212          | -1,3  | -303   |  |  |
|             | Purchased outside South Africa (import)                | 1 089          | 1 088     | 1 040           | -4,5  | -49  |  |  |
|             | Consumed in power stations and auxiliary systems       | 1 626          | 1 408     | 1 615           | -0,7  | -11  |  |  |
|             | Sold outside South Africa (export)                     | 1 249          | 1 175     | 1 223           | -2,1  | -26  |  |  |
|             | Electricity available for distribution in South Africa | 20 730         | 19 227    | 20 414          | -1,5  | -316   |  |  |

<sup>1/</sup> Preliminary.

Table 9b – Electricity produced and consumed in power stations, purchased and sold outside South Africa and available for distribution in South Africa (cumulative figures)

|             |  | Gigawatt-hours          |                               |  |  |  |  |  |
|-------------|--|-------------------------|-------------------------------|--|--|--|--|--|
|             |  | January to July<br>2008 | January to July<br>2009<br>1/ | % change between January to July 2008 and January to July 2009 | Difference between January to July 2008 and January to July 2009 |  |  |  |
| Total - All | Electricity produced                                   | 152 266                 | 143 077                       | -6,0   | -9 189   |  |  |  |
| producers   | Purchased outside South Africa (import)                | 6 021                   | 7 136                         | 18,5   | 1 115  |  |  |  |
|             | Consumed in power stations and auxiliary systems       | 11 095                  | 10 624                        | -4,2   | -471   |  |  |  |
|             | Sold outside South Africa (export)                     | 8 046                   | 7 768                         | -3,5   | -278   |  |  |  |
|             | Electricity available for distribution in South Africa | 139 144                 | 131 822                       | -5,3   | -7 322   |  |  |  |
| ESKOM       | Electricity produced                                   | 145 878                 | 137 985                       | -5,4   | -7 893   |  |  |  |
|             | Purchased outside South Africa (import)                | 6 021                   | 7 136                         | 18,5   | 1 115  |  |  |  |
|             | Consumed in power stations and auxiliary systems       | 10 456                  | 10 114                        | -3,3   | -342   |  |  |  |
|             | Sold outside South Africa (export)                     | 8 046                   | 7 768                         | -3,5   | -278   |  |  |  |
|             | Electricity available for distribution in South Africa | 133 395                 | 127 240                       | -4,6   | -6 155   |  |  |  |

<sup>1/</sup> Preliminary.

Table 10 – Electricity distributed by Eskom to provinces for 2008 and 2009 1/

|        |                      | Gigawatt-hours Gigawatt-hours |                 |                  |               |                   |               |         |                 |         |                          |
|--------|----------------------|-------------------------------|-----------------|------------------|---------------|-------------------|---------------|---------|-----------------|---------|--------------------------|
| Period |                      | Western<br>Cape               | Eastern<br>Cape | Northern<br>Cape | Free<br>State | KwaZulu-<br>Natal | North<br>West | Gauteng | Mpuma-<br>langa | Limpopo | Total<br>South<br>Africa |
| 2008   | January              | 1 928                         | 749             | 396              | 749           | 3 552             | 2 207         | 4 861   | 2 661           | 874     | 17 977                   |
|        | February             | 1 839                         | 758             | 396              | 700           | 3 390             | 2 102         | 4 640   | 2 600           | 898     | 17 323                   |
|        | March                | 1 937                         | 779             | 393              | 749           | 3 363             | 2 217         | 4 945   | 2 801           | 934     | 18 118                   |
|        | April                | 1 893                         | 753             | 363              | 717           | 3 322             | 2 089         | 4 784   | 2 796           | 934     | 17 651                   |
|        | May                  | 1 985                         | 760             | 373              | 796           | 3 417             | 2 141         | 5 414   | 2 990           | 1 015   | 18 891                   |
|        | June                 | 1 987                         | 834             | 374              | 800           | 3 333             | 2 142         | 5 523   | 2 966           | 992     | 18 951                   |
|        | July                 | 2 065                         | 864             | 410              | 839           | 3 571             | 2 234         | 5 919   | 3 078           | 1 044   | 20 024                   |
|        | August               | 1 999                         | 845             | 406              | 757           | 3 575             | 2 180         | 5 438   | 2 937           | 1 039   | 19 176                   |
|        | September            | 1 975                         | 829             | 419              | 785           | 3 460             | 2 093         | 5 009   | 2 806           | 1 005   | 18 381                   |
|        | October              | 1 952                         | 838             | 442              | 803           | 3 575             | 2 192         | 4 983   | 2 985           | 1 010   | 18 780                   |
|        | November             | 1 813                         | 750             | 405              | 754           | 3 425             | 2 052         | 4 665   | 2 594           | 828     | 17 286                   |
|        | December             | 1 872                         | 673             | 391              | 737           | 3 258             | 1 845         | 4 292   | 2 399           | 848     | 16 315                   |
|        | Year                 | 23 245                        | 9 432           | 4 768            | 9 186         | 41 241            | 25 494        | 60 473  | 33 613          | 11 421  | 218 873                  |
|        | Year to date 2008    | 13 634                        | 5 497           | 2 705            | 5 350         | 23 948            | 15 132        | 36 086  | 19 892          | 6 691   | 128 935                  |
| 2009   | January              | 1 886                         | 733             | 408              | 748           | 3 368             | 1 833         | 4 502   | 2 265           | 849     | 16 592                   |
|        | February             | 1 779                         | 625             | 367              | 661           | 3 196             | 1 721         | 4 272   | 2 154           | 752     | 15 527                   |
|        | March                | 1 995                         | 691             | 404              | 739           | 3 553             | 1 936         | 4 716   | 2 442           | 875     | 17 351                   |
|        | April                | 1 812                         | 713             | 350              | 673           | 3 410             | 1 852         | 4 499   | 2 476           | 860     | 16 645                   |
|        | Мау                  | 1 852                         | 799             | 361              | 735           | 3 583             | 2 009         | 5 270   | 2 736           | 935     | 18 280                   |
|        | June                 | 1 891                         | 744             | 368              | 763           | 3 529             | 2 033         | 5 552   | 2 711           | 924     | 18 515                   |
|        | July 2/              | 1 942                         | 789             | 398              | 825           | 3 689             | 2 188         | 6 059   | 2 841           | 975     | 19 706                   |
|        | Year to<br>date 2009 | 13 157                        | 5 094           | 2 656            | 5 144         | 24 328            | 13 572        | 34 870  | 17 625          | 6 170   | 122 616                  |

 $<sup>\</sup>ensuremath{\mathrm{1/\,Wholesale}}$  energy as delivered by Eskom to the various provinces.  $\ensuremath{\mathrm{2/\,Preliminary}}.$ 

#### **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 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.

## Purpose of the 4 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.

## Scope of the 5 survey

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 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.

#### Response rate 7

The response rate for the survey on electricity generated and available for distribution for July 2009 was 99%.

#### Statistical unit 8

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

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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.

The survey is conducted by mail each month collecting information from a sample of 22 electricity undertakings or establishments.

## Monthly production indices

The calculation of the monthly production indices is based on the number of electricity units produced.

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#### Benchmarking 12

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.

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 August 1995 as reference point).

## Seasonal adjustment

14

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 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.

#### Trend cycle 15

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

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

- Bulletin of Statistics.
- SA Statistics.

### Unpublished 17 statistics

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

## Rounding-off figures

18

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

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Stats SA pre-release policy may be inspected at its website, www.statssa.gov.za.

#### Glossary

Consumption of electricity

For purposes of this release the term 'consumption of electricity' is used

interchangeably with the term 'electricity available for distribution'.

**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.

Index of physical volume of electricity production

A statistical measure of the change in 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 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.

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

Industry

GDP Gross Domestic Product

ISIC International Standard Industrial Classification

SIC Standard Industrial Classification of all Economic Activities

Stats SA Statistics South Africa
\* Revised figures

#### **General 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.

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#### Advanced release calendar

An advanced release calendar is disseminated on www.statssa.gov.za

#### Stats SA products

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

National Library of South Africa, Pretoria Division
National Library of South Africa, Cape Town Division
Natal Society Library, Pietermaritzburg
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Johannesburg Public Library
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Central Regional Library, Polokwane
Central Reference Library, Nelspruit
Central Reference Collection, Kimberley
Central Reference Library, Mmabatho

Stats SA also provides a subscription service.

#### **Electronic services**

A large range of data is available via on-line services, diskette, CD and computer printouts.

You can visit us on the Internet at: www.statssa.gov.za

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