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**MANUFACTURING PRODUCTION, AUSTRALIA  
ENERGY PRODUCTS  
JANUARY 1991**

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**ELECTRONIC  
SERVICES**

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**TABLE 1. ELECTRICITY**  
(million kWh)

| Period                | Total                     |                   |                         |                           |          |
|-----------------------|---------------------------|-------------------|-------------------------|---------------------------|----------|
|                       | Thermal(a)<br>(351.02.04) | Hydro<br>(351.03) | Original<br>(351.02-04) | Seasonally<br>adjusted(b) | Trend(c) |
| 1987-88               | 122,143                   | 14,725            | 136,867                 | ..                        | ..       |
| 1988-89               | 129,823                   | 15,031            | 144,854                 | ..                        | ..       |
| 1989-90               | 137,191                   | 15,765            | 152,956                 | ..                        | ..       |
| 1989—                 |                           |                   |                         |                           |          |
| November              | 10,797                    | 1,241             | 12,038                  | 12,557                    | 12,664   |
| December              | 10,787                    | 1,189             | 11,977                  | 12,567                    | 12,722   |
| 1990—                 |                           |                   |                         |                           |          |
| January               | 11,360                    | 976               | 12,336                  | 12,980                    | 12,799   |
| February              | 10,719                    | 1,074             | 11,793                  | 12,924                    | 12,868   |
| March                 | 11,603                    | 1,274             | 12,877                  | 12,931                    | 12,908   |
| April                 | 10,837                    | 1,087             | 11,923                  | 12,803                    | 12,922   |
| May                   | 11,683                    | 1,623             | 13,306                  | 12,927                    | 12,917   |
| June                  | 12,514                    | 1,475             | 13,988                  | 13,130                    | 12,898   |
| July                  | 12,520                    | 1,482             | 14,002                  | 12,551                    | 12,883   |
| August                | 12,565                    | 1,773             | 14,338                  | 13,037                    | 12,893   |
| September             | 11,023                    | 1,844             | 12,867                  | 13,087                    | 12,933   |
| October               | 11,021                    | 1,739             | 12,761                  | 12,726                    | 13,005   |
| November              | 10,521                    | 1,928             | 12,449                  | 13,022                    | 13,103   |
| December              | 11,314                    | 1,371             | 12,686                  | 13,349                    | 13,210   |
| 1991—                 |                           |                   |                         |                           |          |
| January               | 11,558                    | 1,250             | 12,807                  | 13,472                    | 13,335   |
| 1989-90: July to Jan. | 79,835                    | 9,232             | 89,069                  | ..                        | ..       |
| 1990-91: July to Jan. | 80,522                    | 11,387            | 91,910                  | ..                        | ..       |

For footnotes see end of table.

TABLE 1. ELECTRICITY—continued  
(million kWh)

| Period                | NSW(d) | Vic (d) | Qld(d) | SA<br>and<br>NT(d)<br>(31.02.04) | WA(d)  | Tas.(d) | Australia |
|-----------------------|--------|---------|--------|----------------------------------|--------|---------|-----------|
| 1987-88               | 49,702 | 33,343  | 23,724 | 10,118                           | 11,114 | 8,866   | 136,867   |
| 1988-89               | 51,813 | 36,139  | 25,371 | 10,589                           | 11,950 | 8,993   | 144,854   |
| 1989-90               | 53,900 | 38,734  | 27,020 | 10,665                           | 13,538 | 9,097   | 152,956   |
| 1989—                 |        |         |        |                                  |        |         |           |
| November              | 4,123  | 2,990   | 2,203  | 905                              | 1,092  | 725     | 12,038    |
| December              | 3,834  | 3,252   | 2,212  | 843                              | 1,124  | 711     | 11,977    |
| 1990—                 |        |         |        |                                  |        |         |           |
| January               | 4,031  | 3,207   | 2,294  | 919                              | 1,171  | 714     | 12,336    |
| February              | 3,985  | 2,994   | 2,189  | 855                              | 1,114  | 655     | 11,793    |
| March                 | 4,610  | 3,124   | 2,318  | 888                              | 1,215  | 722     | 12,877    |
| April                 | 4,245  | 3,008   | 2,131  | 749                              | 1,099  | 690     | 11,923    |
| May                   | 5,000  | 3,223   | 2,251  | 846                              | 1,175  | 810     | 13,306    |
| June                  | 5,062  | 3,798   | 2,234  | 888                              | 1,180  | 827     | 13,988    |
| July                  | 4,887  | 3,646   | 2,419  | 918                              | 1,243  | 889     | 14,002    |
| August                | 5,228  | 3,649   | 2,424  | 941                              | 1,231  | 865     | 14,338    |
| September             | 4,716  | 3,318   | 2,302  | 650                              | 1,100  | 780     | 12,867    |
| October               | 4,828  | 2,937   | 2,392  | 685                              | 1,154  | 764     | 12,761    |
| November              | 4,378  | 3,118   | 2,357  | 712                              | 1,172  | 711     | 12,449    |
| December              | 4,383  | 3,328   | 2,368  | 697                              | 1,195  | 715     | 12,686    |
| 1991—                 |        |         |        |                                  |        |         |           |
| January               | 4,490  | 3,273   | 2,314  | 759                              | 1,262  | 708     | 12,807    |
| 1989-90: July to Jan. | 30,998 | 22,587  | 15,897 | 6,439                            | 7,754  | 5,393   | 89,069    |
| 1990-91: July to Jan. | 32,910 | 23,269  | 16,577 | 5,363                            | 8,357  | 5,432   | 91,910    |

(a) Includes electricity generated by diesel power stations. (b) See paragraph 3, Explanatory Notes. (c) See paragraph 6 to 8, Explanatory Notes. (d) Statistics relate to generation of electricity within each State and take no account of interchange between States. Furthermore, details for Victoria exclude Victorian entitlements to generation from the Hume Power Station and the Snowy Mountains Hydro-electric Scheme.

TABLE 2. GAS  
(million megajoules)

| Period                | Gas available for issue through mains |         |        |        |               |     |          | Australia                 |          |
|-----------------------|---------------------------------------|---------|--------|--------|---------------|-----|----------|---------------------------|----------|
|                       | NSW<br>and<br>ACT                     | Vic.    | Qld    | SA     | WA<br>(30.01) | Tas | Original | Seasonally<br>adjusted(a) | Trend(b) |
|                       |                                       |         |        |        |               |     |          |                           |          |
| 1987-88               | 93,685                                | 154,637 | 27,308 | 83,101 | 143,391       | 54  | 502,176  | ..                        | ..       |
| 1988-89               | 95,819                                | 159,033 | 26,691 | 86,546 | 145,518       | 56  | 513,663  | ..                        | ..       |
| 1989-90               | 100,450                               | 167,497 | 26,722 | 85,069 | 156,571       | 63  | 536,371  | ..                        | ..       |
| 1989—                 |                                       |         |        |        |               |     |          |                           |          |
| November              | 8,117                                 | 11,008  | 1,641  | 7,304  | 12,738        | 4   | 40,812   | 44,193                    | 44,847   |
| December              | 6,970                                 | 8,886   | 2,749  | 6,449  | 13,955        | 4   | 39,014   | 44,783                    | 44,083   |
| 1990—                 |                                       |         |        |        |               |     |          |                           |          |
| January               | 6,498                                 | 8,493   | 2,041  | 6,355  | 13,396        | 3   | 36,785   | 44,112                    | 43,610   |
| February              | 6,969                                 | 9,027   | 1,780  | 5,565  | 12,193        | 4   | 35,536   | 42,616                    | 43,321   |
| March                 | 7,931                                 | 9,707   | 2,197  | 6,563  | 12,945        | 4   | 39,347   | 42,474                    | 43,255   |
| April                 | 7,627                                 | 10,834  | 2,141  | 5,664  | 12,848        | 4   | 39,117   | 43,332                    | 43,328   |
| May                   | 8,747                                 | 15,981  | 2,415  | 6,756  | 13,146        | 7   | 47,051   | 44,137                    | 43,516   |
| June                  | 9,100                                 | 19,487  | 2,309  | 7,337  | 13,206        | 7   | 51,446   | 44,840                    | 43,805   |
| July                  | 9,966                                 | 19,872  | 1,980  | 7,833  | 12,798        | 7   | 52,456   | 42,329                    | 44,096   |
| August                | 10,011                                | 20,309  | 2,063  | 8,084  | 12,788        | 8   | 53,263   | 45,180                    | 44,225   |
| September             | 8,415                                 | 15,872  | 2,334  | 6,506  | 12,705        | 6   | 45,839   | 43,423                    | 44,162   |
| October               | 8,448                                 | 15,475  | 2,479  | 6,755  | 12,679        | 5   | 45,841   | 44,683                    | 43,981   |
| November              | 7,402                                 | 14,231  | 2,298  | 6,315  | 11,196        | 5   | 41,446   | 44,549                    | 43,709   |
| December              | 6,717                                 | 10,917  | 2,130  | 5,298  | 11,075        | 4   | 43,143   | 44,547                    | 43,369   |
| 1991—                 |                                       |         |        |        |               |     |          |                           |          |
| January               | 6,267                                 | 10,535  | 2,072  | 5,293  | 11,580        | 4   | 35,751   | 42,798                    | 43,092   |
| 1989-90: July to Jan. | 60,077                                | 102,461 | 15,880 | 53,184 | 92,235        | 37  | 323,873  | ..                        | ..       |
| 1990-91: July to Jan. | 57,225                                | 107,211 | 15,356 | 46,084 | 84,821        | 39  | 310,739  | ..                        | ..       |

(a) See paragraph 5, Explanatory Notes. (b) See paragraph 6 to 8, Explanatory Notes.

TABLE 3. PETROLEUM REFINERY INPUT AND PRODUCTS (a)  
(megallitres)

| Period               | Petroleum based feedstock(b) | Auto-motive gasoline | Aviation turbine fuel | Fuel oil | Auto-motive diesel oil | Industrial and marine diesel fuel | Bitumen |
|----------------------|------------------------------|----------------------|-----------------------|----------|------------------------|-----------------------------------|---------|
| 1987-88              | 34,960                       | 15,997               | 3,123                 | 2,078    | 9,399                  | 229                               | 513     |
| 1988-89              | 36,018                       | 15,913               | 3,338                 | 2,272    | 9,774                  | 175                               | 582     |
| 1989-90              | 36,377                       | 16,315               | 3,302                 | 2,479    | 10,282                 | 142                               | 557     |
| 1989—                |                              |                      |                       |          |                        |                                   |         |
| October              | 2,985                        | 1,323                | 280                   | 205      | 852                    | 17                                | 46      |
| November             | 3,039                        | 1,255                | 231                   | 235      | 884                    | 11                                | 51      |
| December             | 3,066                        | 1,356                | 270                   | 230      | 897                    | 9                                 | 72      |
| 1990—                |                              |                      |                       |          |                        |                                   |         |
| January              | 3,135                        | 1,499                | 287                   | 256      | 989                    | 21                                | 37      |
| February             | 2,977                        | 1,185                | 293                   | 224      | 843                    | 10                                | 39      |
| March                | 3,085                        | 1,334                | 295                   | 182      | 901                    | 9                                 | 64      |
| April                | 3,137                        | 1,397                | 324                   | 181      | 856                    | 16                                | 44      |
| May                  | 3,131                        | 1,401                | 261                   | 209      | 849                    | 8                                 | 43      |
| June                 | 3,120                        | 1,479                | 262                   | 209      | 900                    | 11                                | 49      |
| July                 | 2,932                        | 1,366                | 301                   | 230      | 791                    | 11                                | 38      |
| August               | 2,957                        | 1,323                | 239                   | 167      | 848                    | 12                                | 44      |
| September            | 2,868                        | 1,316                | 248                   | 154      | 824                    | 14                                | 45      |
| October              | 2,912                        | 1,319                | 298                   | 268      | 766                    | 9                                 | 49      |
| November             | 3,216                        | 1,310                | 350                   | 229      | 871                    | 10                                | 60      |
| December             | 3,291                        | 1,512                | 310                   | 185      | 937                    | 11                                | 53      |
| 1989-90 July to Dec. | 17,342                       | 8,020                | 1,580                 | 1,218    | 4,944                  | 67                                | 281     |
| 1990-91 July to Dec. | 18,176                       | 8,146                | 1,526                 | 1,233    | 5,037                  | 67                                | 289     |

(a) Produced by Australian refineries from imported and indigenous petroleum. Source: Australian Bureau of Agricultural and Resource Economics. (b) Refinery input includes the input of crude and enriched crude.

## EXPLANATORY NOTES

## Introduction

This publication is one of a series of ten containing monthly and quarterly production statistics. The titles of other publications of this series are shown in paragraph 9.

## Classification

2. Data contained in these publications are mostly based on monthly or quarterly collections conducted by the Australian Bureau of Statistics (ABS). Most items are identified by the commodity codes used in the Australian Standard Commodity Classification (ASCC), which was developed by the ABS to facilitate greater comparability of manufacturing production commodity statistics with import and export commodity statistics. In cases where data are derived from sources other than ABS collections no commodity code is shown and the source of the data is acknowledged in a footnote.

## Scope and Coverage

3. Manufacturing commodity statistics collected by the ABS exclude details relating to single establishment manufacturing enterprises with fewer than four persons employed and production of establishments predominantly engaged in non-manufacturing activities but which may carry on, in a minor way, some manufacturing. However, except for a few commodities the effect on production levels and movements is marginal.

4. Annual figures shown in this publication are derived by aggregating monthly/quarterly production and relate to production during the year ended 30 June. They may differ from annual manufacturing census data which relate to the census year and, in the case of businesses unable to report on a June year basis include details in respect of substitute accounting periods.

## Seasonal adjustment and trend estimates

5. This publication contains seasonally adjusted statistics of several items. In the seasonal adjustment, account has been taken not only of normal seasonal factors but also, where appropriate, of 'working-day' effects (arising from the varying numbers of Sundays, Mondays, Tuesdays etc. in the month) and the influence of Easter and Australia Day which may, in successive years, affect figures for different months. However, care should be exercised in interpreting the figures for those months in which Christmas/New Year and Easter holidays fall as some manufacturers vary holiday shutdowns in the light of prevailing demand for their products. Details of the methods used in seasonally adjusting these and other series are available on request.

6. The smoothing of seasonally adjusted series to create trend estimates is a means of reducing the impact of the irregular component of the series. The trend estimates

have been derived by applying a 13-term Henderson weighted moving average to the seasonally adjusted series.

7. While this smoothing technique enables estimates of trend to be produced for the latest month, it does result in revisions to the estimates for the most recent months as data for subsequent months become available. Generally subsequent revisions become smaller and after 3 months have little impact on the series. There will also be revisions as a result of revisions to the original estimates and annual reviews of seasonal and 'working day' factors.

8. Users may wish to refer to the ABS Information Papers *A Guide to Smoothing Time Series — Estimates of 'Trend' (1316.0)* and *Time Series Decomposition — An Overview (1317.0)* for more detailed information on smoothing of seasonally adjusted time series data.

#### Related publications

9. Other ABS publications which may be of interest are:

*Manufacturing Production, Australia, Preliminary (8301.0)* — issued monthly

*Manufacturing Production, Australia, Household Appliances and Electrical Equipment (8357.0)* — issued monthly

*Manufacturing Production, Australia, Clothing and Footwear (8358.0)* — issued monthly

*Manufacturing Production, Australia, Food, Drink, Tobacco, Stock and Poultry Food (8359.0)* — issued monthly

*Manufacturing Production, Australia, Fibres, Yarns, Fabrics, Bedding and Floor Coverings (8360.0)* — issued monthly

*Manufacturing Production, Australia, Building Materials and Fittings (8361.0)* — issued monthly

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*Manufacturing Production, Australia, Metal Products (8367.0)* — issued monthly

*Manufacturing Production, Australia, Wood and Wood Products (8369.0)* — issued monthly

*Manufacturing Commodities: Selected Principal Articles Produced, Australia 1986-87, Preliminary (8365.0)*

*Manufacturing Commodities: Principal Articles Produced, Australia 1986-87 (8303.0)*

10. Current publications produced by the ABS are listed in the *Catalogue of Publications and Products, Australia (1101.0)*. The ABS also issues, on Tuesdays and Fridays, a *Publications Advice (1105.0)* which lists publications to be released in the next few days. The Catalogue and Publications Advice are available from any ABS office.

#### Symbols and other usages

- .. not applicable
- r revised since last issue

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