



Australian Bureau of Statistics

8226.0 - Electricity, Gas, Water and Sewerage Operations, Australia, 2005-06

Latest ISSUE Released at 11:30 AM (CANBERRA TIME) 17/09/2007

Explanatory Notes

EXPLANATORY NOTES

INTRODUCTION

1 This publication, **Electricity, Gas, Water and Sewerage Operations, Australia, 2005-06** (cat. no. 8226.0), presents estimates of the economic and financial performance of these industries.

2 These industries, as specified in Division D **Electricity, gas and water supply** of the **Australian and New Zealand Standard Industrial Classification (ANZSIC)** (cat. no. 1292.0), 1993 edition, comprise:

- **Electricity supply** (ANZSIC Group 361), which relates to the generation, transmission or distribution of electricity
- **Gas supply** (ANZSIC Group 362), which relates to the manufacture of town gas from coal and/or petroleum, or the mains distribution of town gas, natural gas or liquefied petroleum gas
- **Water supply, sewerage and drainage services** (ANZSIC Group 370), which relates to the storage, purification or supply of water, or the operation of sewerage or drainage systems, including sewage treatment plants.

3 From 2006-07 reference year the Economic Activity Survey (EAS) results will be compiled using the 2006 edition of ANZSIC (an updated version of the industry classification) and new methodologies. As a result, a new series of these estimates will commence from 2006-07. When 2006-07 data are released, they will be accompanied by data for 2004-05 and 2005-06 on a comparable basis.

4 The electricity, gas and water supply industry collection is conducted annually as a component of the ABS's Economic Activity Survey (EAS):

- A sample of 422 electricity, gas and water supply industry businesses were asked by the ABS to provide employment details and data obtained from their financial statements, mainly via mail out questionnaires. (The sample comprised all businesses classified to the electricity and gas supply industries and which were above certain cutoffs (see Technical Note 1); and a sample of businesses classified to the water supply, sewerage and drainage services industry.)
- Key financial data for 1,101 electricity, gas and water supply industry businesses, which had been supplied by them to the Australian Taxation Office (ATO) on business income tax returns (BIT data), were then used to supplement the ABS's directly collected information. Section 16(4)(ga) of the **Income Tax Assessment Act 1936** provides for the ATO to pass information to the Australian Statistician for the purposes of the **Census and Statistics Act 1905**.

STATISTICAL UNITS USED

5 Statistical units are those entities from which statistics are collected, or about which statistics are compiled. In ABS economic statistics, the statistical unit is generally the business. All businesses in the EAS are recorded on the ABS Business Register (ABSBR).

6 The ABS uses an economic statistics units model on the ABSBR to describe the characteristics of businesses, and the structural relationships between related businesses. Within large and diverse business groups, the units model is used also to define reporting units that can provide data to the ABS at suitable levels of detail.

7 This units model allocates businesses to one of two sub-populations:

- Most businesses and organisations in Australia need to obtain an Australian Business Number (ABN). The vast majority of these businesses are simple in structure and are allocated to the population which is maintained by the ATO. These are termed (by the ABS) ABN units.
- The remaining businesses are in the ABS maintained population, and are

termed type of activity units, or TAUs.

8 Together these two sub-populations (of ABN units and TAUs) make up the ABSBR population, from which the EAS samples are taken.

9 For details about the ABSBR and how ABN units and TAUs contribute to the industry statistics in this publication, see Technical Note 1.

SCOPE AND COVERAGE

10 The scope of the 2005-06 electricity, gas and water supply industry collection comprises all businesses (including non-employing businesses) on the ABSBR at time of selection, whose industry is classified to ANZSIC Division D **Electricity, gas and water supply**. This division comprises the following subdivisions and their component groups and classes: 36 Electricity and Gas Supply 361 Electricity Supply 3610 Electricity Supply 362 Gas Supply 3620 Gas Supply 37 Water Supply, Sewerage and Drainage Services 370 Water Supply, Sewerage and Drainage Services 3701 Water Supply 3702 Sewerage and Drainage Services

11 Statistics in this publication are presented by chapter for each of ANZSIC Groups 361 **Electricity supply**, 362 **Gas supply**, and 370 **Water supply, sewerage and drainage services**.

12 The ANZSIC-based industry statistics presented in this publication are compiled differently from activity statistics. Each ABN unit or TAU on the ABSBR has been classified (by the ATO and the ABS respectively) to a single industry irrespective of any diversity of activities undertaken. The industry class allocated is the one which relates to those activities that provide the main source of income. For example, a business which derives most of its income from electricity generation activities would have all operations included in the aggregates and ratios for **Electricity supply**, even if significant secondary activities (such as water supply, coal mining, or retailing) were also undertaken. However, where a business makes a significant economic contribution to different ANZSIC industries, the ABS includes the business in the ABS maintained population, and 'splits' the TAU's reported data between the

industries involved. Significance is determined using total income.

13 Some electricity is generated by businesses mainly engaged in other activities (e.g. manufacturing) solely, or in part, to provide power for those activities. Such electricity generation is not treated as part of the electricity supply industry and, therefore, does not contribute to these statistics.

14 Businesses mainly engaged in the distribution of liquefied petroleum gas in bulk or in containers are not treated as part of the gas supply industry, as they are classified to ANZSIC Division F **Wholesale trade**.

15 The ABS maintained population of the ABSBR includes all organisations classified to the general government sector according to the **Standard Institutional Sector Classification of Australia (SISCA)**. Where a general government authority operates a number of business units, each coinciding with a 'division' or 'line of business' with separate and comprehensive accounts, then each of these business units is recorded as a separate TAU on the ABSBR. Each TAU is then classified by industry according to its predominant activity. Such TAUs classified to the **Water supply, sewerage and drainage services** subdivision are then in scope of the electricity, gas and water supply industry collections. For example, a local government council might be recorded on the ABSBR as comprising four separate TAUs covering its general services, electricity supply, water supply, and sewerage operations. The water and sewerage TAUs are in scope of the collection, but the other TAUs are not.

16 Prior to recent industry reforms, the electricity supply industry was largely vertically integrated, i.e. the activities of generation, transmission and distribution of electricity were conducted within a single business. After restructuring following the industry reforms, these activities are now more often conducted by separate businesses. This has resulted in increases to some data items, e.g. the sale of electricity may be recorded by both the generator and the distributor. The gas supply industry has undergone similar reform and restructuring.

17 Unincorporated joint ventures (UJVs) within the electricity, gas and water supply industries are arrangements which allow the sharing of expertise, resources and risk associated with specific projects. This occurs through the participation of a number of organisations (by investment) in a specific operation

(e.g. a power station). Some of these organisations may not otherwise be involved in that industry.

18 The electricity, gas and water supply industry collection includes such businesses which are operators and/or participants in any UJVs. Generally, each participant supplies data of its share of income, while the operator reports all expenses and employment.

19 The ABS attempts to maintain a current understanding of the structure of the large, complex and diverse business groups that form the ABS maintained population on the ABSBR, through direct contact with those businesses. Resultant changes in their structures on the ABSBR can affect:

- the availability of such businesses (or units within them) for inclusion in the annual economic collections
- the delineation of the units, within those groups, for which data are to be reported.

20 The ABS attempts to obtain data for those businesses which ceased operation during the year, but it is not possible to obtain data for all of them.

REFERENCE PERIOD

21 The period covered by each collection is, in general, the 12 months ended 30 June. Where businesses are unable to supply information on this basis, an accounting period for which data can be provided is used for data other than that relating to employment. Such businesses make a substantial contribution to some of the estimates presented in this publication. As a result, the estimates can reflect trading conditions that prevailed in periods outside the twelve months ended June in the relevant year.

22 It should be noted that, although financial data estimates relate to the full twelve months, employment estimates relate to the last pay period ending in June of the given year. As such, estimates of wages and salaries per person employed will be affected by any fluctuations in employment during the reference period.

23 Financial data presented incorporate all units in scope of the particular electricity, gas and water supply industry collection that were in operation at any time during the year. They also include any temporarily inactive units, i.e. those units which were in the development stage or which were not in production, but which still existed and held assets and liabilities and/or incurred some non-operating expenses (e.g. depreciation, administration costs).

RELIABILITY OF ESTIMATES

24 For information about this subject, see Technical Note 2.

INDUSTRY PERFORMANCE MEASURES

25 This publication presents a wide range of data that can be used to analyse business and industry performance.

26 Differences in accounting policy and practices across businesses and industries can lead to some inconsistencies in the data input to the statistics. Although much of the accounting process is subject to standards, there is still a great deal of flexibility left to individual managers and accountants in the accounting policies and practices that they adopt. For example, the way profit is measured is affected by management policy about such issues as depreciation rates, bad debt provisions and write off, and goodwill write off. The varying degree to which businesses consolidate their accounts may also affect any industry performance measures calculated.

27 A range of performance measures, usually expressed as ratios, can be produced from the data available from businesses' financial statements. Others, relating to labour inputs, can be derived by expressing financial or economic variables on a per person employed basis. The performance measures presented in this publication comprise:

- profitability ratios, which measure the rate of profit on sales
- debt ratios, which indicate the ability of businesses to meet the cost of debt financing
- labour measures, which relate output, labour costs and employment

- capital expenditure ratios, which indicate the extent of business investment in capital assets.

28 A further explanation of each ratio can be found in the Glossary.

29 Those ratios compiled from a combination of flow (whole period) and level (beginning or end of period) items need to be treated with additional caution. Ratios which include both level and flow items in their derivation may be volatile due to the timing differences involved. It may, therefore, be preferable to base any analysis on a range of data presented rather than focusing on one variable.

30 The above limitations are not meant to imply that analysis based on these data should be avoided, only that they should be borne in mind when interpreting the data presented in this publication.

INTERNATIONAL FINANCIAL REPORTING STANDARDS

31 The new Australian equivalents to International Financial Reporting Standards (AIFRS) began to be progressively implemented in Australia from 1 January 2005. As a result, a number of items in the financial accounts of Australian businesses have been affected by changed definitions, which have in turn affected both Income Statements and Balance Sheets. A range of ABS economic collections source data from financial accounts of businesses, and use those data to derive economic statistics. There have been no changes in the associated economic definitions.

32 After monitoring data items since March quarter 2005 it has been concluded that most affected published data series have been affected by data breaks, but that the magnitude of such breaks cannot be determined without imposing disproportionate load upon data providers to ABS surveys and other administratively collected data. ABS will continue to monitor developments and report any significant identified impacts or changes in methodology as a result of AIFRS.

STATE AND TERRITORY ESTIMATES

33 State and territory estimates for the electricity supply industry are no longer presented in this publication, due to data quality issues.

NEW BUSINESSES

34 Data in this publication have been adjusted to allow for lags in processing new businesses to the ABSBR. The effects of these adjustments on Australian estimates of sales and service income are:

- for **Electricity supply**, an increase of 0.2%
- for **Gas supply**, an increase of 0.1%
- for **Water supply, sewerage and drainage services**, an increase of 0.2%.

ACKNOWLEDGMENT

35 ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued co-operation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the **Census and Statistics Act 1905**.

RELATED PUBLICATIONS

36 The ABS produces industry estimates for a range of selected industries (including utilities) and these results are to be available in **Australian Industry, 2005-06** (cat. no. 8155.0) expected to be released on 7 December 2007. National estimates of income, expenditure and associated ratios will be available at the ANZSIC division level (with a greater range of data available via the ABS web site in spreadsheet form). Some data presenting greater detail are considered experimental at this stage, while the methodology used to produce them is reviewed and improved. These consist of national estimates of income, expenses, operating profit before tax (OPBT), and wages and salaries, at the ANZSIC class level, and state/territory estimates of these items at the ANZSIC division level.

37 The following publications and electronic releases also contain information about the electricity, gas and water supply industries:

Counts of Businesses, including Entries and Exits, June 2003 to June 2006, (cat. no. 8165.0), released on 28 February 2007 - Irregular publication
Australian Industry, 2004-05, (cat. no. 8155.0), released on 21 December 2006 - Annual publication

Australian Labour Market Statistics, (cat. no. 6105.0) - Quarterly publication
Australian National Accounts: National Income, Expenditure and Product, (cat. no. 5206.0) - Quarterly publication

Australian National Accounts: State Accounts, 2005-06 Reissue, (cat. no. 5220.0), released on 13 November 2006 - Annual publication

Business Indicators, Australia, (cat. no. 5676.0) - Quarterly publication

Energy Statistics, Australia, 2001-02, (cat. no. 4649.0.55.001), released on 19 December 2003 - Irregular publication

Household Expenditure Survey, Australia: Summary of Results, 2003-04, (cat. no. 6530.0), released on 11 August 2005 - Quinquennial publication

Job Vacancies, Australia, (cat. no. 6354.0) - Quarterly publication

Labour Costs, Australia, 2002-03, (cat. no. 6348.0.55.001), released on 11 June 2004 - Irregular electronic publication

Manufacturing Production, Australia, (cat. no. 8301.0.55.001) - Quarterly electronic publication

Mining Operations, Australia, 2004-05, (cat. no. 8415.0), released on 27 October 2006 - Annual publication

Private New Capital Expenditure and Expected Expenditure, Australia, (cat. no. 5625.0) - Quarterly publication

Research and Experimental Development, Businesses, Australia, 2005-06, (cat. no. 8104.0), released on 21 August 2007 - Annual publication

Water Account, Australia, 2004-05, (cat. no. 4610.0), released on 28 November 2006 - Irregular publication

Water Use on Australian Farms, 2005-06, (cat. no. 4618.0), released on 14 August 2007 - Irregular publication

Year Book Australia, 2007, (cat. no. 1301.0), released on 24 January 2007 - Annual publication.

38 Current publications and other products released by the ABS are listed in the **Catalogue of Publications and Products** (cat. no. 1101.0). The catalogue is available from any ABS office or the ABS web site <<http://www.abs.gov.au>>. The ABS also issues a daily Release Advice on the web site which details products to be released in the week ahead.

NON-ABS DATA

39 There are a number of external organisations that collect and present data about these industries. Users requiring further information should contact:

Energy Supply Association of Australia Ltd., Melbourne (03) 9670 0188 website <<http://www.esaa.com.au>>

(for key data, see the ESAA's annual publication Electricity Gas Australia)

Australian Water Association Ltd., Sydney 1300 361 426 website <<http://www.awa.asn.au>>

Water Services Association of Australia, Melbourne (03) 9606 0678

website <<http://www.wsaa.asn.au>> (for key data, see the WSAA's annual publication Australia's Urban Water Industry: WSAA Facts)

Productivity Commission, Melbourne (03) 9653 2100 and Canberra (02) 6240 3200 website <<http://www.pc.gov.au>>

Australian Bureau of Agricultural and Resource Economics (ABARE) Canberra, (02) 6272 2000 website <<http://www.abareconomics.com>>.

ABS DATA AVAILABLE ON REQUEST

40 As well as the statistics included in this and related publications, the ABS may have other relevant data available on request and for a charge. Inquiries should be made to the National Information and Referral Service on 1300 135 070.

ROUNDING

41 Where figures have been rounded, discrepancies may occur between totals and the sums of the component items. Due to data being adjusted for lags in processing new businesses to the ABS Business Register (see paragraph 34), this 'rounding rule' also applies to employment estimates.

42 Proportions, ratios and other calculated figures shown in this publication

have been calculated using unrounded estimates and may be different from, but are more accurate than, calculations based on the rounded estimates.

This page last updated 14 September 2007

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