

# **ELECTRICITY, GAS, WATER AND SEWERAGE OPERATIONS** AUSTRALIA

EMBARGO: 11.30AM (CANBERRA TIME) WED 21 DEC 2005

## CONTENTS

	<i>page</i>
Notes .....	2
List of tables .....	3
Abbreviations .....	4

### CHAPTERS

<b>1</b> Contribution to national and state output .....	5
<b>2</b> Electricity supply industry .....	8
<b>3</b> Gas supply industry .....	15
<b>4</b> Water supply, sewerage and drainage services industry .....	21

### ADDITIONAL INFORMATION

Explanatory Notes .....	23
Appendix: Survey changes .....	29
Technical Note 1: Methodology .....	30
Technical Note 2: Data reliability .....	33
Technical Note 3: Relative standard errors .....	34
Glossary .....	35

## INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or John Ridley on Sydney (02) 9268 4541.

## NOTES

- ABOUT THIS PUBLICATION** This publication presents estimates for the electricity supply, gas supply, and water supply, sewerage and drainage services industries for 2003–04 from the Economic Activity Survey, together with data on a comparable basis for 2001–02 and 2002–03.
- CHANGES TO THIS PUBLICATION** This publication includes the first release of employment estimates (and related ratios) using the new statistical infrastructure described in the previous issue of this publication. These were not included in the previous issue, due to methodological problems in deriving employment data from the taxation system data used. (See the Appendix for details.) A time series of employment estimates using the new statistical infrastructure is presented in tables 2.1, 3.1 and 4.1.
- Estimates of most assets and liabilities items (and related ratios) are not available from the 2003–04 collection, and hence are not included in this issue.
- REVISIONS** Data for 2001–02 and 2002–03 have been revised since the previous issue of this publication. All comparisons with earlier years are based on revised data. Revisions to key data items are presented in tables 2.1, 3.1 and 4.1. Revised data for other items are available on-line in updated versions of the original datasets. Please see below.
- INFORMATION AVAILABLE ON-LINE** The text components of this publication are available free on-line. A PDF publication and extended data spreadsheets are also available free on-line. To access this information, go to the ABS website home page <<http://abs.gov.au>>.

Susan Linacre  
Acting Australian Statistician

## LIST OF TABLES .....

page

### CONTRIBUTION TO NATIONAL AND STATE OUTPUT

- 1.1** Production volumes, gross value added, 2002–03 and 2003–04 ..... 6
- 1.2** Industry contribution to total factor income, 2003–04 ..... 7

### ELECTRICITY SUPPLY INDUSTRY, STATES, TERRITORIES AND AUSTRALIA

#### SUMMARY, 2001–02 TO 2003–04

- 2.1** Key data ..... 11

#### FINANCIAL OPERATIONS

- 2.2** Financial performance ..... 12
- 2.3** Industry value added ..... 13
- 2.4** Acquisition and disposal of assets ..... 13

#### INDUSTRY PERFORMANCE MEASURES

- 2.5** Selected performance measures ..... 14

### GAS SUPPLY INDUSTRY

#### SUMMARY, 2001–02 TO 2003–04

- 3.1** Key data ..... 17

#### FINANCIAL OPERATIONS

- 3.2** Financial performance ..... 18
- 3.3** Industry value added ..... 19
- 3.4** Acquisition and disposal of assets ..... 19

#### INDUSTRY PERFORMANCE MEASURES

- 3.5** Selected performance measures ..... 20

### WATER SUPPLY, SEWERAGE AND DRAINAGE SERVICES INDUSTRY

- 4.1** Key data, 2001–02 to 2003–04 ..... 22
- 4.2** Financial operations, summary ..... 22

## ABBREVIATIONS .....

'000	thousand
\$b	billion (thousand million) dollars
\$m	million dollars
ABN	Australian Business Number
ABR	Australian Business Register
ABS	Australian Bureau of Statistics
ABSBR	Australian Bureau of Statistics Business Register
ACT	Australian Capital Territory
ANZSIC	Australian and New Zealand Standard Industrial Classification
ATO	Australian Taxation Office
Aust.	Australia
BAS	Business Activity Statement
BIT	business income tax
cat. no.	Catalogue number
EAS	Economic Activity Survey
EBIT	earnings before interest and tax
f.o.b.	free on board
FRC	full retail contestability
GST	goods and services tax
IVA	industry value added
NEM	National Electricity Market
no.	number
NSW	New South Wales
NT	Northern Territory
OPBT	operating profit before tax
Qld	Queensland
RSE	relative standard error
SA	South Australia
SISCA	Standard Institutional Sector Classification of Australia
Tas.	Tasmania
TAU	type of activity unit
TNTS	The New Tax System
UJV	unincorporated joint venture
Vic.	Victoria
WA	Western Australia

## GROSS VALUE ADDED

Table 1.1 illustrates the growth of Australian industries over time using chain volume measures of their gross value added. Chain volume measures take into account the effects of price changes.

Of the seventeen industries shown in table 1.1, *ELECTRICITY, GAS AND WATER SUPPLY* ranked lowest in its average annual growth rate over the past 10 years and equal fourteenth over the past 25 years, with increases of 1.3% and 2.5% respectively. By comparison, the highest growth rates were recorded by *COMMUNICATION SERVICES*, with annualised rates of 6.1% and 6.7% for the 10 year and 25 year periods.

## TOTAL FACTOR INCOME

Table 1.2 shows the contribution of industries to the production (as measured by total factor income) of each state and territory, as well as Australia, in 2003–04. For the purposes of this table, the activity of general government and the ownership of dwellings are each treated as industries.

Of the nineteen industries shown in the table, *ELECTRICITY, GAS AND WATER SUPPLY* ranked fifteenth (at 2.5%) in its contribution to Australian production for 2003–04. The largest share of production was attributable to *MANUFACTURING*, at 11.9%. The contribution of *ELECTRICITY, GAS AND WATER SUPPLY* was greatest in Tasmania (at 5.8% of total factor income), and smallest in New South Wales and the Northern Territory (2.1% each). In Tasmania, the *ELECTRICITY, GAS AND WATER SUPPLY* industry was the seventh largest contributor to total production, its highest ranking of any state or territory; the next highest was in South Australia, where it ranked twelfth.

## 1.1 PRODUCTION VOLUMES (a), Gross value added

Industry	CHAIN VOLUME MEASURES		Change from 2002-03 to 2003-04	AVERAGE ANNUAL CHANGE OVER LAST	
	2002-03	2003-04		10 years	25 years
	\$m	\$m		%	%
Agriculture, forestry and fishing	18 549	24 374	31.4	3.1	2.0
Mining	34 346	33 178	-3.4	2.4	3.5
Manufacturing	88 233	89 027	0.9	2.1	1.8
<b>Electricity, gas and water supply</b>	<b>17 699</b>	<b>17 829</b>	<b>0.7</b>	<b>1.3</b>	<b>2.5</b>
Construction	48 307	51 494	6.6	5.1	3.5
Wholesale trade	38 324	41 122	7.3	4.7	3.2
Retail trade	39 815	42 761	7.4	4.4	3.4
Accommodation, cafes and restaurants	15 843	16 730	5.6	3.9	3.3
Transport and storage	38 323	40 075	4.6	4.3	3.7
Communication services	20 675	21 298	3.0	6.1	6.7
Finance and insurance	60 786	63 096	3.8	4.5	4.5
Property and business services	82 369	85 231	3.5	5.2	5.0
Government administration and defence	30 238	30 737	1.7	2.5	2.6
Education	35 015	35 435	1.2	1.7	2.5
Health and community services	46 410	47 964	3.3	3.9	3.8
Cultural and recreational services	13 456	13 887	3.2	2.9	3.0
Personal and other services	17 822	18 223	2.3	3.6	3.0
<b>Total all industries</b>	<b>646 210</b>	<b>672 461</b>	<b>4.1</b>	<b>3.7</b>	<b>3.3</b>

(a) Reference year for chain volume measures is 2003-04.

Note: The volume estimates contained in this table are derived from quarterly Business Surveys.

Source: Australian National Accounts: National Income, Expenditure and Product, June Quarter 2005 (cat. no. 5206.0), table 45.

**1.2**

## INDUSTRY CONTRIBUTION TO TOTAL FACTOR INCOME

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
<i>Industry</i>	%	%	%	%	%	%	%	%	%
Agriculture, forestry and fishing	2.0	3.3	4.4	6.2	4.6	5.7	3.1	0.1	3.4
Mining	1.7	1.4	6.7	2.2	18.0	1.3	19.9	—	4.5
Manufacturing	12.1	14.9	9.9	14.2	9.0	13.7	3.6	1.6	11.9
<b>Electricity, gas and water supply</b>	<b>2.1</b>	<b>2.6</b>	<b>2.4</b>	<b>3.7</b>	<b>2.8</b>	<b>5.8</b>	<b>2.1</b>	<b>2.5</b>	<b>2.5</b>
Construction	6.5	6.2	8.0	7.1	8.2	6.5	7.6	8.1	6.9
Wholesale trade	5.8	6.1	5.6	4.6	4.6	4.1	2.6	2.2	5.5
Retail trade	5.2	5.6	7.0	5.5	5.2	6.7	4.9	4.4	5.6
Accommodation, cafes and restaurants	2.5	1.7	2.9	2.1	1.6	2.7	2.8	2.3	2.2
Transport and storage	4.9	4.6	6.0	4.8	5.1	5.2	4.9	2.8	5.0
Communication services	3.1	3.4	2.8	2.5	2.4	2.5	3.0	2.3	3.0
Finance and insurance	10.3	9.0	5.4	6.5	4.7	6.5	2.9	3.6	8.0
Property and business services	13.6	12.5	9.2	9.0	10.2	5.4	8.9	14.1	11.7
Government administration and defence	3.5	2.6	4.4	3.3	2.3	5.6	8.1	26.1	3.9
Education	4.2	5.0	4.6	5.0	3.6	5.1	4.8	5.6	4.5
Health and community services	6.0	6.5	6.1	7.7	5.7	9.0	6.5	6.0	6.3
Cultural and recreational services	2.1	1.9	1.4	1.7	1.4	1.4	2.4	2.6	1.8
Personal and other services	2.0	2.4	2.6	2.8	2.4	2.4	2.5	2.9	2.3
Ownership of dwellings	10.3	8.5	8.3	9.1	6.4	7.7	6.5	8.4	8.9
General government(a)	2.0	1.7	2.5	2.1	1.7	2.8	3.0	4.4	2.0

— nil or rounded to zero (including null cells)

(a) State details for general government gross operating surplus by industry are not available.

Source: Australian National Accounts: State Accounts, 2003–04 (cat. no. 5220.0), Analysis of results (page 6).

INTRODUCTION

Statistics in this chapter relate to the electricity supply industry as defined by the Australian and New Zealand Standard Industrial Classification (ANZSIC). These data are presented at the ABN unit / TAU level and, therefore, can contain data about activities normally associated with industries other than electricity supply. (See Explanatory Notes paragraphs 4–19 for further details.) The commentary refers mainly to the tables in this chapter, preceded by some industry background material. The Glossary provides definitions for the more specific terms used.

INDUSTRY CHANGES

Since 1991, governments in Australia have been introducing a competitive market for electricity, referred to as the National Electricity Market (NEM), into the southern and eastern states. In 1994, the introduction of competitive wholesale and retail electricity markets through the NEM resulted in trading across state borders. (Please see <<http://www.nemmco.com.au>>, the website of the National Electricity Market Management Company, for more details.) Western Australia has also experienced the effects of privatisation but is not part of the NEM, for reasons of geography. Tasmania is scheduled to enter the NEM in July 2006.

Partly as a result, the concept of state bounded entities continues to lose relevance. State data for the electricity supply industry in this publication are allocated on the basis of state of head office (see Explanatory Notes paragraph 32 for more details).

Another continuing trend has been the diversification of energy businesses with the aim of providing their customers with a wider range of energy services. This has seen electricity businesses enter the gas market and, conversely, gas businesses enter the electricity market as opportunities expand within these markets. Because each business unit reporting in ABS surveys is classified to one industry, based on its predominant activity, such diversification can affect the statistics in this chapter and those in Chapter 3 Gas Supply Industry.

Deregulation has also allowed new entities to come into the market and compete for customers. It has also resulted in a number of long established entities being dismantled or sold off. Disaggregation has tended to involve the creation of new entities specialising in electricity generation, transmission, distribution, wholesaling or retailing, to replace single entities which previously undertook all or most of these functions. The effect on industry structure has been to change single entities wholly classified to the electricity supply industry into a number of smaller entities, most of which are classified to the electricity supply industry, but some of which may be classified to other industries. Those entities classified to other industries do not contribute to the statistics for the electricity supply industry. Examples of activities formerly carried out by businesses classified to the electricity supply industry, but which are now largely carried out by specialist businesses classified to other industries, are network construction, repair and maintenance of electricity transmission towers, and power pole inspection.



*Effect on these data*

These changes to business structures have a direct impact on the data presented in this publication, but not all impacts are in the same direction. Where several smaller specialist business units wholly classified to the electricity supply industry have been created from one vertically integrated business, transactions between these businesses are recorded in the statistics (such as sales from the generating business to the distributing business). Previously, such transactions were internal to a single business and generally were not recorded in the statistics. This situation tends to increase sales and purchases values for the industry, but should have little direct effect on statistics for industry value added, operating profits or capital expenditure. On the other hand, the estimates of several data items (wages and salaries and capital expenditure in particular) for the electricity supply industry will be reduced if activities such as those mentioned in the previous paragraph are now carried out by businesses classified to other industries.

Generally, private sector businesses which are engaged in the electricity supply industry and conduct their own construction and maintenance operations tend to do so through separate business units (typically classified to ANZSIC Division E, CONSTRUCTION), which employ most of the staff engaged in those activities. Government owned businesses in this industry, by contrast, are more likely to employ these staff in a business unit which is classified to the electricity supply industry.

## EMPLOYMENT

At the national level, employment in the electricity supply industry was virtually stable, at 36,504 persons, at the end of June 2004 (192 persons fewer than twelve months earlier). Of the states and territories available for publication, employment increased most strongly in New South Wales (by 603 persons, or 4.8%). The industry in Victoria employed 503 (or 7.9%) fewer persons at the end of June 2004 than at the end of June 2003, and 499 (18.9%) fewer persons in South Australia.

Employment in the electricity supply industry nationally is 2.8% (or 985 persons) higher than at the end of June 2002.

## WAGES AND SALARIES

Similarly, wages and salaries paid by the electricity supply industry increased by only 1% (\$26m) in 2003–04. This national movement reflects decreases of \$41m (23.8%) in South Australia and \$26m (5.4%) in Victoria, and increases for the other states and territories overall. Over the period from 2001–02 to 2003–04, the electricity supply industry's wages and salaries expenses have increased in current price terms by 6.2%.

## INCOME AND EXPENDITURE

At \$32.2b, sales and service income of the electricity supply industry nationally in 2003–04 was unchanged from its value in 2002–03. A decrease of \$0.9b (10.4%) for Victoria was offset by movements in the other states and territories overall, including an increase of \$0.6b (6.5%) in New South Wales.

Operating Profit Before Tax (OPBT), however, increased nationally by \$1.4b (65.8%) to \$3.5b in 2003–04, thereby restoring the industry's OPBT to a level similar to that of 2001–02 (when it was \$3.7b). The main contributors to this improved result were a \$417m (2.7%) decrease in purchases of goods and materials and an increase of \$794m (392%) in other income. This increase largely reflects the non-recurrence of one-off factors associated with asset writedowns in 2002–03. Of the states and territories for which data are available for publication, purchases of goods and materials fell by \$786m (24.2%) in Victoria and by \$128m (11.9%) in South Australia, but increased by \$330m

INCOME AND EXPENDITURE <i>continued</i>	(6.0%) in New South Wales. Other income increased by \$387m in Victoria and by \$225m in Queensland. The national increase in trading profit, which excludes other income, was more modest, at 3.0% (\$335m).
INDUSTRY VALUE ADDED	The electricity supply industry's \$12.8b of industry value added in 2003–04 represented an increase of 3.4% (or \$422m) over the preceding year. Although sales and service income increased only marginally, the reduction of \$417m in purchases of goods and materials and a further fall of \$183m (2.7%) in other intermediate input expenses led to this more substantial increase in IVA. IVA of the electricity supply industry in New South Wales increased by \$300m (or 8.4%).
CAPITAL EXPENDITURE	<p>Net capital expenditure for the electricity supply industry in 2003–04 decreased by \$778m (14.2%) to \$4.7b. This amount was similar to the extent of the decrease in Victoria (from \$1.8b to \$1.1b). Queensland also recorded a substantial fall (from \$1.4b to \$0.9b). Net capital expenditure showed only small increases in New South Wales and South Australia, implying a net increase of \$0.3b in the other states and territories overall.</p> <p>Victoria's net capital expenditure was substantially affected by a decrease of \$0.9b (94.4%) in capital expenditure on other assets. In Queensland, a large increase (\$0.4b) in asset disposals had a substantial effect.</p> <p>Note that these values in this issue include intangible assets for the first time (see paragraph 30 of the Explanatory Notes and the relevant definitions in the Glossary). Estimates of capital expenditure on two types of assets – plant, machinery and equipment, and dwellings, other buildings and structures – are directly comparable between years, as intangible assets are not relevant to these categories. Acquisition of dwellings, other buildings and structures by the electricity supply industry increased by 3.6%, or \$66m, between 2002–03 and 2003–04. An increase of 10.9%, or \$308m, occurred in outlays on plant, machinery and equipment.</p>
PERFORMANCE RATIOS	Most performance ratios for the electricity supply industry for 2003–04 changed little from their values for 2002–03. A decline from 17.8 to 9.8 in the ratio of acquisitions to disposals of assets reflects reduced outlays on asset purchases and an increase in the value of assets sold.

## 2.1 SUMMARY

	Employment at end of June	Wages and salaries(a)	Sales and service income(b)	Industry value added	Wages and salaries per person employed	Wages and salaries to sales and service income	Sales and service income per person employed	Industry value added per person employed
	no.	\$m	\$m	\$m	\$'000	ratio	\$'000	\$'000
NEW SOUTH WALES								
2001-02	12 164	873.1	9 584.5	3 305.3	71.8	0.09	788.0	271.7
2002-03	12 676	923.8	9 931.2	3 569.0	72.9	0.09	783.4	281.5
2003-04	13 279	987.9	10 580.6	3 869.3	74.4	0.09	796.8	291.4
VICTORIA								
2001-02	6 208	454.7	7 062.1	3 771.3	73.3	0.06	1 137.6	607.5
2002-03	6 379	484.1	8 938.4	3 442.5	75.9	0.05	1 401.2	539.7
2003-04	5 876	458.0	8 004.8	3 432.1	77.9	0.06	1 362.2	584.0
QUEENSLAND								
2001-02	8 543	589.9	6 352.7	2 436.8	69.0	0.09	743.6	285.2
2002-03	8 651	603.7	6 691.7	2 553.2	69.8	0.09	773.5	295.1
2003-04	8 621	621.6	6 714.9	2 596.0	72.1	0.09	778.9	301.1
SOUTH AUSTRALIA								
2001-02	2 386	150.2	2 550.7	866.6	63.0	0.06	1 069.2	363.3
2002-03	2 646	173.4	2 754.9	954.4	65.5	0.06	1 041.3	360.8
2003-04	2 147	132.1	2 766.8	954.6	61.5	0.05	1 288.9	444.7
WESTERN AUSTRALIA								
2001-02	2 806	np	np	np	np	np	np	np
2002-03	2 801	np	np	np	np	np	np	np
2003-04	2 882	np	np	np	np	np	np	np
TASMANIA								
2001-02	np	112.8	1 002.3	507.4	np	np	np	np
2002-03	np	120.4	1 100.4	578.9	np	np	np	np
2003-04	np	np	np	np	np	np	np	np
NORTHERN TERRITORY								
2001-02	770	np	np	np	np	np	np	np
2002-03	795	np	np	np	np	np	np	np
2003-04	831	np	np	np	np	np	np	np
AUSTRALIAN CAPITAL TERRITORY								
2001-02	np	np	np	np	np	np	np	np
2002-03	np	60.1	608.5	175.8	np	np	np	np
2003-04	np	np	np	np	np	np	np	np
AUSTRALIA								
2001-02	35 519	2 451.9	29 234.0	12 078.6	69.0	0.08	823.1	340.1
2002-03	36 696	2 577.9	32 200.1	12 337.5	70.2	0.08	877.5	336.2
2003-04	36 504	2 603.9	32 213.8	12 759.2	71.3	0.08	882.5	349.5

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Excludes the drawings of working proprietors.  
(b) Includes rent, leasing and hiring income.

## 2.2 FINANCIAL PERFORMANCE

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Sales and service income(a)	10 580.6	8 004.8	6 714.9	2 766.8	np	np	np	np	32 213.8
Less									
Purchases of goods and materials	5 829.4	2 462.3	4 117.5	951.0	np	np	np	np	14 868.6
Rent, leasing and hiring expenses	45.5	20.5	29.3	8.8	np	np	np	np	132.9
Freight and cartage expenses	2.8	7.1	19.9	16.0	np	np	np	np	142.6
Motor vehicle running expenses	33.0	10.7	17.9	4.3	np	np	np	np	81.7
Repair and maintenance expenses	112.6	187.2	69.7	26.8	np	np	np	np	466.9
Contract, subcontract and commission expenses	874.2	1 328.0	696.9	787.5	np	np	np	np	4 229.4
Other selected expenses	432.3	755.9	254.5	241.4	np	np	np	np	1 962.2
<i>Purchases and selected expenses</i>	<i>7 329.7</i>	<i>4 771.7</i>	<i>5 205.7</i>	<i>2 035.8</i>	np	np	np	np	<i>21 884.3</i>
Plus									
Opening inventories	319.4	162.6	149.0	65.0	np	np	np	np	830.3
Less									
Closing inventories	287.8	172.1	168.3	64.7	np	np	np	np	826.9
<i>Cost of sales</i>	<i>7 361.3</i>	<i>4 762.3</i>	<i>5 186.4</i>	<i>2 036.2</i>	np	np	np	np	<i>21 887.8</i>
Plus									
Capitalised purchases	286.9	46.6	551.6	174.2	np	np	np	np	1 133.6
<b>Trading profit</b>	<b>3 506.2</b>	<b>3 289.1</b>	<b>2 080.2</b>	<b>904.9</b>	np	np	np	np	<b>11 459.6</b>
Plus									
Funding from government for operational costs	88.5	5.2	256.7	5.9	np	np	np	np	466.6
Interest income	113.0	291.0	72.1	30.3	np	np	np	np	540.3
Other income	281.1	252.7	170.7	85.4	np	np	np	np	996.1
Less									
Wages and salaries(b)	987.9	458.0	621.6	132.1	np	np	np	np	2 603.9
Employer contributions into superannuation	80.2	42.6	45.6	13.1	np	np	np	np	248.6
Workers' compensation premiums/costs	14.3	5.0	3.8	—	np	np	np	np	43.7
<i>Selected labour costs</i>	<i>1 082.3</i>	<i>505.5</i>	<i>670.9</i>	<i>145.2</i>	np	np	np	np	<i>2 896.2</i>
Less									
Depreciation and amortisation	928.6	842.3	814.8	279.7	np	np	np	np	3 380.5
Insurance premiums	53.7	62.3	31.8	12.9	np	np	np	np	192.1
Natural resource royalties expenses	0.1	15.1	7.5	1.4	np	np	np	np	24.1
Bad and doubtful debts	20.8	27.9	7.9	7.4	np	np	np	np	89.9
Plus									
Capitalised wages and salaries	169.9	76.7	213.2	29.7	np	np	np	np	529.8
<b>Earnings before interest and tax</b>	<b>2 073.2</b>	<b>2 461.7</b>	<b>1 259.8</b>	<b>609.6</b>	np	np	np	np	<b>7 409.7</b>
Less									
Interest expenses	726.3	1 743.8	546.4	486.1	np	np	np	np	3 866.0
<b>Operating profit before tax</b>	<b>1 346.8</b>	<b>717.8</b>	<b>713.5</b>	<b>123.5</b>	np	np	np	np	<b>3 543.7</b>

— nil or rounded to zero (including null cells)

(a) Includes rent, leasing and hiring income.

np not available for publication but included in totals where applicable, unless otherwise indicated

(b) Excludes the drawings of working proprietors.

**2.3** INDUSTRY VALUE ADDED(a)

	<i>NSW</i>	<i>Vic.</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas.</i>	<i>NT</i>	<i>ACT</i>	<i>Aust.</i>
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Sales and service income(b)	10 580.6	8 004.8	6 714.9	2 766.8	np	np	np	np	32 213.8
Plus									
Funding from government for operational costs	88.5	5.2	256.7	5.9	np	np	np	np	466.6
Capital work done for own use	456.8	123.4	764.8	203.9	np	np	np	np	1 663.4
Change in inventories	-31.6	9.4	19.4	-0.4	np	np	np	np	-3.4
Less									
Purchases of goods and materials	5 829.4	2 462.3	4 117.5	951.0	np	np	np	np	14 868.6
Other intermediate input expenses	1 395.6	2 248.5	1 042.2	1 070.6	np	np	np	np	6 712.6
<b>Industry value added</b>	<b>3 869.3</b>	<b>3 432.1</b>	<b>2 596.0</b>	<b>954.6</b>	np	np	np	np	<b>12 759.2</b>

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) For the definition of industry value added, see the Glossary term.

(b) Includes rent, leasing and hiring income.

**2.4** ACQUISITION(a) AND DISPOSAL OF ASSETS

	<i>NSW</i>	<i>Vic.</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas.</i>	<i>NT</i>	<i>ACT</i>	<i>Aust.</i>
	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m	\$m
Capital expenditure on									
Plant, machinery and equipment	564.8	707.6	688.1	355.6	np	np	np	np	3 132.5
Dwellings, other buildings and structures	706.6	301.3	581.5	106.8	np	np	np	np	1 916.6
Other (including land and intangible assets)	46.6	54.1	31.6	30.1	np	np	np	np	200.3
<i>Total</i>	<i>1 318.0</i>	<i>1 062.9</i>	<i>1 301.2</i>	<i>492.4</i>	np	np	np	np	<i>5 249.4</i>
Disposal of assets	56.8	12.6	433.4	3.8	np	np	np	np	534.8
<b>Net capital expenditure</b>	<b>1 261.2</b>	<b>1 050.4</b>	<b>867.8</b>	<b>488.6</b>	np	np	np	np	<b>4 714.5</b>

np not available for publication but included in totals where applicable, unless otherwise indicated

(a) Items listed include value of capital work done for own use – reported in table 2.3.

## 2.5 SELECTED PERFORMANCE MEASURES

		NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
<b>Labour</b>										
Selected labour costs per person employed	\$'000	81.5	86.0	77.8	67.6	np	np	np	np	79.3
Industry value added to selected labour costs	times	3.6	6.8	3.9	6.6	np	np	np	np	4.4
<b>Profitability</b>										
Trading profit margin	%	33.1	41.1	31.0	32.7	np	np	np	np	35.6
<b>Debt</b>										
Interest coverage	times	2.9	1.4	2.3	1.3	np	np	np	np	1.9
<b>Capital expenditure</b>										
Acquisitions to disposals	times	23.2	84.5	3.0	130.4	np	np	np	np	9.8

np not available for publication but included in totals where applicable, unless otherwise indicated

INTRODUCTION

Statistics in this chapter relate to the gas supply industry as defined by the Australian and New Zealand Standard Industrial Classification (ANZSIC). These data are presented at the ABN unit / TAU level and, therefore, can contain data about activities normally associated with industries other than gas supply. (See Explanatory Notes paragraphs 4–19 for further details.) The commentary refers mainly to the tables in this chapter, preceded by some industry background material. The Glossary provides definitions for the more specific terms used.

INDUSTRY CHANGES

The current gas supply industry reflects the results of the restructuring which began in the early 1990s. Most states and territories have committed, under the terms of the 1997 National Gas Pipelines Access Agreement, to work towards implementing full retail contestability (FRC) to give all gas users their choice of supplier. FRC was introduced in NSW and the ACT in January 2002, and in Victoria in October 2002. Western Australia introduced market reforms to the retail gas market in May 2004. These reforms include the introduction of FRC and several new customer protection mechanisms. South Australia commenced in July 2004 and it will be introduced in Queensland from July 2007. Natural gas has recently been introduced into Tasmania by pipeline from Victoria and FRC is operating now for connections to the embryonic distribution network.

As in the electricity supply industry, vertically integrated businesses have formed separate business units to undertake various stages of distribution and other activities. Increasingly, competition has been introduced along the various stages of the distribution chain with the entry of new businesses.

This has resulted in the reporting of transactions between distributors and with other specialist businesses. Such transactions were not recorded separately under the vertically integrated business model. The effect on the statistics in this publication has been to substantially increase the value of 'gross' variables such as sales and service income and total expenses (and their component items), but to have a much lesser effect on 'net' variables such as industry value added (IVA), earnings before interest and tax (EBIT) and operating profit before tax (OPBT). In general, changes to these net variables reflect improved efficiencies in the industry or changes in sources of funding rather than changed industry structures.

Over time, as the market continues to develop, businesses have gradually rationalised and restructured their operations. This has resulted in several businesses widening their networks through corporate takeovers to include activities not previously undertaken by gas supply businesses. Conversely, some activities previously undertaken by gas supply businesses are now being undertaken by businesses classified to other industries, in particular, electricity supply and pipeline transport.

EMPLOYMENT	<p>The gas supply industry employed 2,166 persons at the end of June 2004, 110 persons (or 5.4%) more than twelve months earlier. Employment in the industry was 8.5% (or 202 persons) lower than at the end of June 2002.</p>
WAGES AND SALARIES	<p>Wages and salaries paid by the gas supply industry decreased slightly, by 2.7% (\$2.6m) to \$92m, in 2003–04. Over the period from 2001–02 to 2003–04, the gas supply industry's wages and salaries expenses have fallen in current price terms by 18.2%.</p>
INCOME AND EXPENDITURE	<p>Sales and service income of the gas supply industry in 2003–04 was \$5.7b, 7.0% (or \$369m) higher than in 2002–03. A larger increase, of \$520m (or 18.3%), in purchases of goods and materials was the main contributor to a decline of 8.8% (or \$101m) in trading profit.</p> <p>Operating Profit Before Tax (OPBT) increased by \$15m (3.1%) to \$500m in 2003–04. Major contributors to this movement were increases in interest income (from \$13m to \$80m) and other income (from \$41m to \$90m), which compensated for the decline in trading profit (as above).</p>
INDUSTRY VALUE ADDED	<p>At \$1.1b, gas supply industry value added in 2003–04 was 8.7% (or \$102m) lower than the preceding year. As well as the relative increases already mentioned in sales and service income and purchases of goods and materials, other intermediate input expenses declined (by 4.2%, or \$55m).</p>
CAPITAL EXPENDITURE	<p>Net capital expenditure for the gas supply industry in 2003–04 increased by \$39m (13.8%) to \$323m. Note that this value in this issue includes intangible assets for the first time (see paragraph 30 of the Explanatory Notes and the relevant definitions in the Glossary).</p> <p>Acquisition of plant, machinery and equipment by the gas supply industry increased by 59.0%, or \$51m, between 2002–03 and 2003–04. An increase of 38.8%, or \$41m, occurred in outlays on dwellings, other buildings and structures. However, the acquisition of other assets (including land and intangible assets) fell by 52.5%, or \$50m.</p>
PERFORMANCE RATIOS	<p>A decline in the gas supply industry's trading profit ratio (from 21.7% to 18.5%) reflects reduced trading profit and the increase in sales and service income, both mentioned above.</p>



**3.1** SUMMARY

	<i>Employment at end of June</i>	<i>Wages and salaries(a)</i>	<i>Sales and service income(b)</i>	<i>Industry value added</i>	<i>Wages and salaries per person employed</i>	<i>Wages and salaries to sales and service income</i>	<i>Sales and service income per person employed</i>	<i>Industry value added per person employed</i>
	no.	\$m	\$m	\$m	\$'000	ratio	\$'000	\$'000
2001-02	2 368	112.7	5 739.0	1 139.4	47.6	0.02	2 423.6	481.2
2002-03	2 056	94.8	5 305.0	1 168.3	46.1	0.02	2 580.0	568.2
2003-04	2 166	92.2	5 674.4	1 066.4	42.6	0.02	2 619.3	492.3

(a) Excludes the drawings of working proprietors.

(b) Includes rent, leasing and hiring income.

## 3.2 FINANCIAL PERFORMANCE

	\$m
.....	
Sales and service income(a)	5 674.4
Less	
Purchases of goods and materials	3 360.8
Rent, leasing and hiring expenses	19.7
Freight and cartage expenses	40.9
Motor vehicle running expenses	23.0
Repair and maintenance expenses	48.5
Contract, subcontract and commission expenses	906.5
Other selected expenses	227.2
<i>Purchases and selected expenses</i>	<i>4 626.7</i>
Plus	
Opening inventories	25.6
Less	
Closing inventories	19.0
<i>Cost of sales</i>	<i>4 633.3</i>
Plus	
Capitalised purchases	9.6
<b>Trading profit</b>	<b>1 050.7</b>
Plus	
Funding from government for operational costs	3.4
Interest income	80.3
Other income	89.6
Less	
Wages and salaries(b)	92.2
Employer contributions into superannuation	8.8
Workers' compensation premiums/costs	1.7
<i>Selected labour costs</i>	<i>102.7</i>
Less	
Depreciation and amortisation	204.4
Insurance premiums	11.5
Natural resource royalties expenses	—
Bad and doubtful debts	11.0
Plus	
Capitalised wages and salaries	0.5
<b>Earnings before interest and tax</b>	<b>894.8</b>
Less	
Interest expenses	395.1
<b>Operating profit before tax</b>	<b>499.8</b>

.....

— nil or rounded to zero (including null cells)

(a) Includes rent, leasing and hiring income.

(b) Excludes the drawings of working proprietors.

### 3.3 INDUSTRY VALUE ADDED(a) .....

	\$m
.....	
Sales and service income(b)	5 674.4
Plus	
Funding from government for operational costs	3.4
Capital work done for own use	10.1
Change in inventories	-6.6
Less	
Purchases of goods and materials	3 360.8
Other intermediate input expenses	1 254.0
<b>Industry value added</b>	<b>1 066.4</b>

.....

(a) For the definition of industry value added, see the Glossary term.

(b) Includes rent, leasing and hiring income.

### 3.4 ACQUISITION(a) AND DISPOSAL OF ASSETS .....

	\$m
.....	
Capital expenditure on	
Plant, machinery and equipment	137.7
Dwellings, other buildings and structures	147.3
Other (including land and intangible assets)	45.1
<i>Total</i>	330.0
Disposal of assets	6.8
<b>Net capital expenditure</b>	<b>323.3</b>

.....

(a) Items listed include value of capital work done for own use – reported in table 3.3.

**3.5** SELECTED PERFORMANCE MEASURES .....

.....

<b>Labour</b>		
Selected labour costs per person employed	\$'000	47.4
Industry value added to selected labour costs	times	10.4
<b>Profitability</b>		
Trading profit margin	%	18.5
<b>Debt</b>		
Interest coverage	times	2.3
<b>Capital expenditure</b>		
Acquisitions to disposals	times	48.7

.....

## CHAPTER 4

# WATER SUPPLY, SEWERAGE AND DRAINAGE SERVICES INDUSTRY .....

### INTRODUCTION

This chapter presents statistics about the water supply, sewerage and drainage services industry as defined by the Australian and New Zealand Standard Industrial Classification (ANZSIC). Both private and government units are included in the scope of the survey. In a manner similar to the electricity and gas supply industries, the water supply, sewerage and drainage services industry is also undergoing a process of reform. At the same time, changes in the structure of public sector units recorded on the ABS's Business Register can affect the statistics, by reclassifying business units engaged in these activities between this industry and ANZSIC Division M, GOVERNMENT ADMINISTRATION AND DEFENCE.

### EMPLOYMENT

The water supply, sewerage and drainage services industry employed 21,346 persons at the end of June 2004, 1,018 persons (or 4.6%) fewer than twelve months earlier. Employment in the industry was 2.1% (or 468 persons) lower than at the end of June 2002.

### INDUSTRY PERFORMANCE

Wages and salaries paid by the water supply, sewerage and drainage services industry increased by 6.6% (\$79m), to \$1.3b, in 2003–04. Over the period from 2001–02 to 2003–04, the industry's wages and salaries expenses have increased in current price terms by 18.4%.

For the water supply, sewerage and drainage services industry, all of the financial performance indicators fell in 2003–04.

The industry earned \$7.6b in sales and service income in 2003–04, 4.1% (or \$322m) less than in 2002–03. Trading profit declined by 5.8%, earnings before interest and tax declined by 13.2% and operating profit before tax declined by 14.2%.

At \$5.0b, industry value added of the water supply, sewerage and drainage services industry in 2003–04 was 5.0% (or \$264m) lower than in the preceding year.

### CAPITAL EXPENDITURE

Net capital expenditure for the water supply, sewerage and drainage services industry in 2003–04 increased by \$143m (7.4%) to \$2.1b. Note that this value in this issue includes intangible assets for the first time (see paragraph 30 of the Explanatory Notes and the relevant definitions in the Glossary).

## 4.1 SUMMARY

	<i>Employment at end of June</i>	<i>Wages and salaries (a)</i>	<i>Sales and service income (b)</i>	<i>Industry value added</i>	<i>Wages and salaries per person employed</i>	<i>Wages and salaries to sales and service income</i>	<i>Sales and service income per person employed</i>	<i>Industry value added per person employed</i>
	no.	\$m	\$m	\$m	\$'000	ratio	\$'000	\$'000
2001-02	21 814	1 070.3	7 247.8	4 881.7	49.1	0.15	332.3	223.8
2002-03	22 364	1 188.9	7 935.5	5 294.9	53.2	0.15	354.8	236.8
2003-04	21 346	1 267.5	7 613.3	5 030.8	59.4	0.17	356.7	235.7

(a) Excludes the drawings of working proprietors.

(b) Includes rent, leasing and hiring income.

## 4.2 FINANCIAL OPERATIONS, Summary

\$m

<b>Financial performance</b>	
Sales and service income(a)	7 613.3
Purchases and selected expenses	3 755.4
Trading profit	4 143.2
Selected labour costs	1 369.6
Earnings before interest and tax	2 971.8
Operating profit before tax	2 371.1
<b>Industry value added</b>	<b>5 030.8</b>
<b>Acquisition and disposal of assets</b>	
Capital expenditure	2 137.4
Disposal of assets	61.3
Net capital expenditure	2 076.1

(a) Includes rent, leasing and hiring income.

## EXPLANATORY NOTES .....

### INTRODUCTION

**1** This publication, *Electricity, Gas, Water and Sewerage Operations, Australia, 2003–04* (cat. no. 8226.0), presents data of the economic and financial performance of these utilities 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), 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** The utilities industries collection is conducted annually as a component of the ABS's Economic Activity Survey (EAS):

- A sample of approximately 520 utilities industries 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 approximately 770 utilities 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

**4** 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).

**5** 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.

**6** 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.

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

## STATISTICAL UNITS USED

*continued*

## SCOPE AND COVERAGE

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

**9** The scope of the 2003–04 utilities industries collection comprises all businesses (including non-employed 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

**10** 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.

**11** 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. This particularly occurs in both the Australian Capital Territory and the Northern Territory, where water, sewerage and drainage data exclude data for their major water suppliers, because those businesses are classified to the electricity supply industry. 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.

**12** 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.

**13** 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.

**14** 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 utilities industries collection. For example, a local government council might be recorded on the ABSBR as comprising separate TAUs covering its general services, electricity supply, water supply, and sewerage operations. The last two TAUs are in scope of the utilities industries collection, but the first two TAUs are not.



## SCOPE AND COVERAGE

*continued*

**15** 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.

**16** Unincorporated joint ventures (UJVs) within the utilities 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.

**17** The utilities industries collection includes such businesses which are operators and/or participants in UJVs. Generally, each participant supplies data of its share of income, while the operator reports all expenses and employment.

**18** 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.

**19** 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

**20** 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.

**21** Financial data presented incorporate all units in scope of the particular utilities industries collection that were in production stage 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

**22** For information about this subject, see Technical Notes 2 and 3.

## INDUSTRY PERFORMANCE MEASURES

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

**24** 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 managers and accountants in the accounting policy and practices they adopt. For example, the way profit is measured is affected by management policy on such issues as depreciation rates, bad debt provisions and write off, and goodwill write off.

**25** A range of performance measures, usually expressed as ratios, can be produced from the data available from businesses' financial statements. The ratios presented in this publication comprise:

- labour ratios, which relate output and employment to labour costs
- 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

## INDUSTRY PERFORMANCE

MEASURES *continued*

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

**26** Explanation of each ratio can be found in the Glossary.

**27** 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.

**28** The varying degree to which businesses consolidate their accounts may also affect the ratios calculated.

**29** 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.

## CAPITAL EXPENDITURE

## ESTIMATES

**30** The data of capital expenditure, disposals of assets and net capital expenditure presented in this issue (tables 2.4, 3.4 and 4.2) include intangible assets for the first time. This aligns the presentation of these data for the utilities industry with that used elsewhere in ABS industry statistics. Any analysis of capital expenditure data over time should take this change into account.

## PRESENTATION OF INDUSTRY

## VALUE ADDED

**31** The presentation of the components of industry value added, for the electricity and gas supply industries (tables 2.3 and 3.3), has been slightly changed from that of previous issues of this publication. Capitalised purchases are no longer separately shown in these tables, but are included with current purchases in the item 'Purchases of goods and materials'. Consequently, the remaining 'minus' item has been respecified as 'Other intermediate input expenses' to exclude current purchases. The previous item 'Intermediate input expenses' had included them. These changes align the presentation of industry value added for the utilities industries with that used elsewhere in ABS industry statistics, and have no effect on the derivation of industry value added itself. Estimates of the value of capitalised purchases continue to be available from tables 2.2 and 3.2.

## STATE AND TERRITORY

## ESTIMATES

**32** State and territory estimates for the electricity supply industry are presented in Chapter 2. To enable the production of these estimates, state or territory data for businesses included in the mail out survey were allocated to the state/territory of their head office (rather than the reported state/territory of activity). Care should, therefore, be taken in interpreting state/territory movements for this industry. This is because the state/territory data can be affected by any interstate changes in the head office of individual businesses, as well as by actual increases/decreases in activity. The relevant data for all other businesses, including those whose contribution was sourced from BIT data, were allocated to their state/territory of operations as recorded on the ABSBR.

## DATA ADJUSTED

**33** 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 0.4%, with most states and territories being affected to a similar degree
- for GAS SUPPLY, an increase of 0.7%
- for WATER SUPPLY, SEWERAGE AND DRAINAGE SERVICES, an increase of 0.1%.

## ACKNOWLEDGMENT

**34** ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation 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

**35** The ABS produces industry estimates for a range of selected industries (including utilities) and these results are to be available in *Australian Industry, 2003–04* (cat. no. 8155.0) expected to be released in March 2006. National estimates of employment, 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.

**36** The following publications and electronic releases also contain information about the utilities industry:

*Australian Bureau of Statistics Business Register, Counts of Businesses – Summary*

*Tables*, cat. no. 8161.0.55.001, released on 7 October 2005 – Annual release

*Australian Industry, 2001–02 and 2002–03*, cat. no. 8155.0, released on 7 February 2005 – 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, 2003–04*, cat. no. 5220.0, released on 18 November 2004 – Annual publication

*Australian System of National Accounts: Concepts, Sources and Methods, 2000*, cat. no. 5216.0, released on 21 December 2000 – irregular publication

*Australia's Environment: Issues and Trends, 2003*, cat. no. 4613.0, released on 31 July 2003 – Annual publication

*Business Indicators, Australia*, cat. no. 5676.0 – Quarterly publication

*Directory of Electricity, Gas, Water and Sewerage Statistics*, cat. no. 1140.0, released on 1 May 2001 – Irregular publication

*Energy and Greenhouse Gas Emissions Accounts, Australia, 1992–93 to 1997–98*, cat. no. 4604.0, released on 16 May 2001 – Irregular publication

*Energy Statistics, Australia, 2001–02*, cat. no. 4649.0.55.001, released on 19 December 2003 – Irregular publication

*Environment Protection Expenditure, Australia, 2000–01*, cat. no. 4603.0, released on 4 September 2002 – Biennial publication

*Environmental Issues: People's Views and Practices, March 2004*, cat. no. 4602.0, released on 24 November 2004 – Annual publication

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

*Information Paper: ABS Statistics and The New Tax System, 2000*, cat. no. 1358.0, released on 26 April 2000 – Irregular publication

*Information Paper: Improvements in ABS Economic Statistics [Arising from The New Tax System]*, cat. no. 1372.0, released on 6 May 2002 – Irregular 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

*Labour Price Index, Australia*, cat. no. 6345.0 – Quarterly publication

## RELATED PUBLICATIONS

*continued**Manufacturing Production, Australia*, cat. no. 8301.0.55.001

– Quarterly electronic publication

*Private New Capital Expenditure and Expected Expenditure, Australia*, cat. no. 5625.0

– Quarterly publication

*Research and Experimental Development, Businesses, Australia, 2003–04*, cat. no.

8104.0, released on 28 September 2005 – Annual publication

*Water Account, Australia, 2000–01*, cat. no. 4610.0, released on 19 May 2004

– Irregular publication

*Year Book Australia, 2005*, cat. no. 1301.0, released on 21 January 2005

– Annual publication

**37** 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*

**38** 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 WSA's annual publication

*Australia's Urban Water Industry: WSA Facts*)

Productivity Commission, Melbourne (03) 9653 2100 and Canberra (02) 6240 3200

website <<http://www.pc.gov.au>>ABS DATA AVAILABLE ON  
REQUEST

**39** 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

**40** 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 33), this 'rounding rule' also applies to employment estimates.

**41** 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.

## EMPLOYMENT ESTIMATES

- 1** Over time, the ABS's annual data of industry performance have generally included measures of employment.
- 2** There are three main purposes for estimating employment:
  - to generate statistics by business size range, employment being a frequently used and well understood measure of business size; estimation of employment for each business is a prerequisite for categorising businesses for this purpose
  - to show the relative importance of each industry as an employer
  - to provide measures of labour input and labour productivity.
- 3** One implication of the use of Business Income Tax (BIT) data in these statistics is that no direct measure of employment is available for those units which contribute to the estimates through the BIT source. This is because the ATO does not collect information about employment numbers. Unlike financial variables, which have a direct relationship to the data available from the BIT files, employment data are not amenable to being modelled using the same techniques. This characteristic became increasingly apparent as the utilities industries data for 2001–02 and 2002–03 were being prepared for release.
- 4** Hence, the previous issue of this publication, which presented estimates for the utilities industries for 2001–02 and 2002–03, did not include employment estimates. Since then, further work has been undertaken to devise a suitable methodology. As a result, employment estimates have been restored to this issue. These estimates have been calculated for the two prior years, as well as for 2003–04. These time series are presented in tables 2.1, 3.1 and 4.1. Previously published estimates are not comparable with the estimates included in this publication.
- 5** In estimating employment for units whose data are sourced from the BIT files, the new methodology takes into account :
  - whether a business is recorded as paying wages and salaries
  - whether a business is an incorporated entity
  - whether a business is a sole proprietorship
  - for those businesses that are partnerships of individuals, industry averages (derived from the ABS's Labour Force Survey) are used to estimate the number of partners per partnership
  - for those businesses that are partnerships of businesses, the number of partners per partnership is zero.
- 6** For each business, an estimate of employee numbers is derived from its value of wages and salaries (if any) using industry averages. For unincorporated businesses, these employee numbers are then added to the estimate of working proprietors or partners to produce an estimate of the total employment of the business. These estimates are then aggregated to the directly collected data to produce the estimates included in this publication.
- 7** This methodology may be subject to refinement over time as further data become available.
- 8** For further information about the employment estimates included in this publication, please contact John Ridley on (02) 9268 4541 or john.ridley@abs.gov.au.

## TECHNICAL NOTE 1      **METHODOLOGY** .....

### INTRODUCTION

**1** The industry estimates in this publication are produced using a combination of ABS directly collected data and Business Income Tax (BIT) data sourced from the Australian Taxation Office (ATO).

**2** The directly collected data have been reported by a sample of utilities businesses, as recorded on the ABS Business Register (ABSBR). 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.

### STATISTICAL UNITS DEFINED ON THE ABS BUSINESS REGISTER

**3** The current economic statistics units model was introduced in mid 2002, to better use the information available as a result of The New Tax System (TNTS). This units model allocates businesses to one of two sub-populations. The vast majority of businesses are in what is called the ATO maintained population, while the remaining businesses are in the ABS maintained population. Together, these two sub-populations make up the ABSBR population.

### ATO MAINTAINED POPULATION

**4** Most businesses and organisations in Australia need to obtain an Australian Business Number (ABN). They are then included on the whole-of-government register of businesses, the Australian Business Register (ABR), which is maintained by the ATO. Most of these businesses have simple structures; therefore, the unit registered for an ABN will satisfy ABS statistical requirements. For these businesses, the ABS has aligned its statistical units structure with the ABN unit. The businesses with simple structures constitute the ATO maintained population, and the ABN unit is used as the statistical unit for all ABS economic collections.

### ABS MAINTAINED POPULATION

**5** For the population of businesses where the ABN unit is not suitable for ABS statistical requirements, the ABS maintains its own units structure through direct contact with the business. These businesses constitute the ABS maintained population. This population consists typically of large, complex and diverse businesses. The statistical units model described below caters for such businesses.

*Enterprise group:* This is a unit covering all the operations in Australia of one or more legal entities under common ownership and/or control. It covers all the operations in Australia of legal entities which are related in terms of the current Corporations Law (as amended by the *Corporations Legislation Amendment Act 1991*), including legal entities such as companies, trusts and partnerships. Majority ownership is not required for control to be exercised.

*Enterprise:* An institutional unit comprising:

- (i) a single legal entity or business entity, or
- (ii) more than one legal entity or business entity within the same enterprise group and in the same institutional sub-sector (i.e. they are all classified to a single Standard Institutional Sector Classification of Australia (SISCA) sub-sector).

ABS MAINTAINED  
POPULATION *continued*

*Type of activity unit (TAU):* The TAU comprises one or more business entities, sub-entities or branches of a business entity within an enterprise group that can report production and employment data for similar economic activities. When a minimum set of data items are available, a TAU is created which covers all the operations within an industry subdivision (and the TAU is classified to the relevant subdivision of the ANZSIC). Where a business cannot supply adequate data for each industry, a TAU is formed which contains activity in more than one industry subdivision.

**6** For more information about the effects of the introduction of this economic statistics units model, refer to *Information Paper: Improvements in ABS Economic Statistics [Arising from The New Tax System]* (cat. no. 1372.0).

CONTRIBUTION OF THE  
STATISTICAL UNITS TO THE  
ESTIMATES  
*Comparison over time*

**7** The units model described above replaced one in which the statistical unit was known as the management unit. This earlier model was last used in the utilities collection for the 2000–01 year.

**8** For 2001–02 and later years, the contributing statistical units are:

- the ABN unit for businesses with simple structures
- the TAU for businesses with complex structures.

(In most cases, employing ABN units / TAUs concurred with the management units used prior to the 2001–02 year.)

TAUs

**9** All units in the ABS maintained population (i.e. TAUs) classified to the utilities industries were eligible to be selected for direct collection. Direct collection of data from these units is necessary because:

- many large and complex employing businesses have more than one legal entity, making it difficult to identify all legal entities for that business in the BIT data
- BIT data do not include all of the detailed information that the ABS requires from large and complex businesses.

ABN units

**10** The balance of units on the ABSBR classified to the utilities industries were ABN units, from the ATO maintained population. Cut-offs were established which determined the way in which each ABN unit contributed to the statistics:

- First, ABN units with annualised Business Activity Statement (BAS) total sales (used in lieu of EAS total income) at or greater than the cut-offs set for individual ANZSIC categories were eligible to be selected for direct collection of data by the ABS. If selected, they were sent the same mail out questionnaire for completion that was sent to selections from the ABS maintained population.
- Second, ABN units with annualised BAS total sales below the cut-offs were excluded from direct collection. For these units, BIT data were obtained and added to the directly collected estimates to produce the statistics in this publication.

CUT-OFFS FOR ABN UNITS

**11** Cut-offs for ABN units were originally established for the 2001–02 collection year, which was the first to incorporate BIT data from the ATO. More information about how the initial cut-offs were set is shown in Appendix 1: Survey Changes in the 2001–02 and 2002–03 issue of this publication. Turnover cut-offs have not changed from the initial year.

**12** The current cut-offs are:

- \$1,005,000 for ANZSIC Subdivision 36
- \$1,000,000 for ANZSIC Subdivision 37.

UTILITIES INDUSTRY  
ESTIMATES

**13** Therefore, the 2003–04 utilities industries estimates have been derived as follows:

- A mail-out survey (which included a sample component for businesses classified to WATER SUPPLY, SEWERAGE AND DRAINAGE SERVICES) was used to estimate the contribution of:
  - all businesses in the ABS maintained population
  - those businesses at or above the cut-offs in the ATO maintained population
  - 'tax exempt' businesses, that are not required to complete business income tax returns (and so would otherwise not contribute to the statistics).
- For the balance of businesses (i.e. in the ATO maintained population below the cut-offs for their ANZSIC category), their contribution was sourced from BIT data, with some more detailed breakdowns produced using proportional relationships derived from the sample survey. The derivation of employment estimates is discussed in the Appendix.

*Income contribution by unit  
type*

**14** An indication of the importance of these populations to the data can be gained from their contribution to the estimate of sales and service income. The following table shows their proportional contributions to this estimate for each of the utilities industries.

CONTRIBUTION TO SALES AND SERVICE INCOME (a)

ABSBR unit	ELECTRICITY SUPPLY UNITS USING			GAS SUPPLY UNITS USING			WATER SUPPLY, SEWERAGE AND DRAINAGE SERVICES UNITS USING		
	<i>ATO BIT data</i>	<i>Directly collected data</i>	<i>Total</i>	<i>ATO BIT data</i>	<i>Directly collected data</i>	<i>Total</i>	<i>ATO BIT data</i>	<i>Directly collected data</i>	<i>Total</i>
	%	%	%	%	%	%	%	%	%
ABN unit	0.5	3.1	3.6	0.4	14.3	14.7	1.3	5.7	7.0
TAU	—	96.4	96.4	—	85.3	85.3	—	93.0	93.0
<b>Total</b>	<b>0.5</b>	<b>99.5</b>	<b>100.0</b>	<b>0.4</b>	<b>99.6</b>	<b>100.0</b>	<b>1.3</b>	<b>98.7</b>	<b>100.0</b>

— nil or rounded to zero (including null cells)

(a) Includes rent, leasing and hiring income.



## TECHNICAL NOTE 2      **DATA RELIABILITY** .....

### ABS SURVEY DATA

**1** For 2003–04, the utilities collection was, in part, a sample survey designed primarily to deliver industry group estimates for Australia. State and territory estimates for ANZSIC Group 361 ELECTRICITY SUPPLY are also produced.

### SAMPLE ERROR

**2** The majority of data in this publication have been obtained from a sample of utilities industries businesses. As such, these data are subject to sampling variability; that is, they may differ from the figures that would have been produced if the data had been obtained from all utilities industries businesses in the population. The measure of the likely difference as used by the ABS is given by the standard error, which indicates the extent to which an estimate might have varied by chance because the data were obtained from only a sample of units. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if the data had been obtained from all units, and about 19 chances in 20 that the difference will be less than two standard errors.

**3** The standard error can also be expressed as a percentage of the estimate, and this is known as the relative standard error (RSE). RSEs at the industry group level for selected data items representing the full range of data contained in this publication are shown in Technical Note 3. Detailed RSEs can be made available on request.

**4** Note that RSEs for ANZSIC Groups 361 ELECTRICITY SUPPLY and 362 GAS SUPPLY are generally very small: this is because the only sampled contribution to these estimates has been from BIT data. See Technical Note 1 paragraph 13 for details.

**5** The size of the RSE may be a misleading indicator of the reliability of some of the estimates for trading profit, OPBT, EBIT and IVA. Estimates of these variables may legitimately include positive and negative values, reflecting the financial performance of individual businesses. In these cases, the aggregated estimate can be small relative to the contribution of individual businesses, resulting in a standard error which is large relative to the estimate.

### NON-SAMPLE ERROR

**6** All data presented in this publication are subject to non-sample error.

**7** The imprecision due to sampling variability, which is measured by the standard error, should not be confused with inaccuracies that may occur because of inadequacies in available sources from which the population frame was compiled, imperfections in reporting by providers, errors made in collection such as in recording and coding data, and errors made in processing data. Inaccuracies of this kind are referred to collectively as non-sampling error and may occur in any enumeration, whether a full census or a sample.

**8** Although it is not possible to quantify non-sampling error, every effort is made to reduce it to a minimum. Collection forms are designed to be easy to complete and assist businesses to report accurately. Efficient and effective operating procedures and systems are used to compile the statistics. The ABS compares data from different ABS (and non-ABS) sources relating to the one industry, to ensure consistency and coherence.

**9** There are also non-sampling errors associated with the BIT data sourced from the ATO. For example, the ATO treats any non-response by either bringing forward the previous year's data for a non-responding business, or imputing the data as zero if there are no previous data to use.

TECHNICAL NOTE 3      **RELATIVE STANDARD ERRORS** .....

361 ELECTRICITY SUPPLY .....

	<i>Employment at end of June</i>	<i>Wages and salaries(a)</i>	<i>Sales and service income(b)</i>	<i>Industry value added</i>
	%	%	%	%
NSW	—	—	—	—
Vic.	0.1	0.1	—	0.1
Qld	—	—	—	—
SA	—	—	—	0.1
WA	—	—	0.8	0.7
Tas.	—	—	—	—
NT	—	—	—	—
ACT	—	—	0.1	0.2
<b>Aust.</b>	—	—	—	<b>0.1</b>

— nil or rounded to zero (including null cells)

(a) Excludes the drawings of working proprietors.

(b) Includes rent, leasing and hiring income.

362 GAS SUPPLY .....

	<i>Employment at end of June</i>	<i>Wages and salaries(a)</i>	<i>Sales and service income(b)</i>	<i>Industry value added</i>
	%	%	%	%
	0.1	0.1	—	2.2

— nil or rounded to zero (including null cells)

(a) Excludes the drawings of working proprietors.

(b) Includes rent, leasing and hiring income.

370 WATER SUPPLY,  
SEWERAGE AND DRAINAGE  
SERVICES .....

	<i>Employment at end of June</i>	<i>Wages and salaries(a)</i>	<i>Sales and service income(b)</i>	<i>Industry value added</i>
	%	%	%	%
	2.6	3.2	3.1	2.9

(a) Excludes the drawings of working proprietors.

(b) Includes rent, leasing and hiring income.

## GLOSSARY

Data presented in this publication have been compiled from the standard financial accounts of businesses; therefore, the definition of each reported item aligns closely with that adopted in standard business accounting practice. Definitions of particular terms, as used in this publication, are also included.

<b>ABN unit</b>	<p>The statistical unit used to represent businesses, and for which statistics are reported, in most cases. The ABN unit is the business unit which has registered for an ABN, and thus appears on the ATO administered Australian Business Register. In most cases, the ABN unit represents the legal entity. This unit is suitable for ABS statistical needs when the business is simple in structure. For more significant and diverse businesses where the ABN unit is not suitable for ABS statistical needs, the statistical unit used is the type of activity unit (TAU).</p> <p>In most cases, employing ABN units / TAUs concurred with the management units used prior to the 2001–02 year.</p>
<b>Acquisitions</b>	See the entries for the various capital expenditure entries.
<b>Acquisitions to disposals</b>	The number of times that the value of assets acquired exceeds the value of disposal of assets, i.e. acquisitions / disposal of assets.
<b>Bad and doubtful debts</b>	Represents the amount of bad debts, doubtful debts and/or provision for bad and doubtful debts, net of bad and doubtful debts previously written-off but recovered.
<b>Business</b>	<p>A business is generally considered to be a person, partnership, or corporation engaged in business or commerce; for example, an electricity generating business.</p> <p>In this publication, the term represents the ABN unit or type of activity unit (TAU), which are the two standard statistical units for the 2003–04 utilities collection (these two units are explained under separate entries). For details, see Explanatory Notes paragraphs 4–8.</p>
<b>Business Activity Statement (BAS) total sales</b>	Represented by the form item G1 <i>Total sales</i> on businesses' Business Activity Statements, supplied by them to the ATO. This item comprises all payments and other consideration (including GST) received during the nominated tax period for supplies made in the course of business.
<b>Capital expenditure on dwellings, other buildings and structures</b>	Capital expenditure incurred acquiring dwellings, other buildings and structures, including roads, factories, warehouses, offices, bridges, transmission lines, pumping stations, dams and bridges. Represents expenditure before deduction of trade-in allowances, and includes expenses (except capitalised interest) incurred during the year in acquiring such assets.
<b>Capital expenditure on other assets (including land and intangible assets)</b>	Capital expenditure incurred acquiring other assets (including land and intangible assets). Intangible asset purchases may include items such as patents, licences and goodwill. Also included is computer software capitalised, including capitalised computer software licence fees, installation costs, the purchase or development of large databases, software developed in-house (but excluded is software maintenance expenditure), and capitalised payments to contractors and consultants for software development. Note that if the cost of software and hardware cannot be separated, the total cost is included in acquisition of plant, machinery and equipment.
<b>Capital expenditure on plant, machinery and equipment</b>	Capital expenditure incurred acquiring plant, machinery and other equipment, including motor vehicles. Represents expenditure before deduction of trade-in allowances, and includes expenses (except capitalised interest) incurred during the year in acquiring such assets.

<b>Capital work done for own use</b>	Capitalised work done by the employees or proprietors of a business in manufacturing, constructing, installing or repairing assets, in mineral and petroleum exploration activities, and the in-house development of computer software, for use by the business or for rental or lease. This work is valued at the capitalised costs of the materials and the wages and salaries involved.
<b>Capitalised purchases</b>	Goods drawn from inventories for use as fixed tangible assets in capital work done by the employees or proprietors of a business for use by the business or for rental or lease.
<b>Capitalised wages and salaries</b>	Capitalised payments for work done by employees of a business in manufacturing, constructing, installing or repairing assets, in mineral and petroleum exploration activities, and in the in-house development of computer software, for use by the business or for rental or lease.
<b>Chain volume measures</b>	<p>Annually-reweighted chain Laspeyres volume indexes referenced to the current price values in a chosen reference year (i.e. the year when the quarterly chain volume measures sum to the current price annual values). Chain Laspeyres volume measures are compiled by linking together (compounding) movements in volumes, calculated using the average prices of the previous financial year, and applying the compounded movements to the current price estimates of the reference year. Quarterly chain volume estimates are benchmarked to annual chain volume estimates, so that the quarterly estimates for a financial year sum to the corresponding annual estimate.</p> <p>Generally, chain volume measures are not additive. In other words, component chain volume measures do not sum to a total in the way original current price components do. In order to minimize the impact of this property, the ABS uses the latest base year as the reference year. A change in reference year changes levels but not growth rates, although some revision to recent growth rates can be expected because of the introduction of a more recent base year (and revisions to the current price estimates underlying the chain volume measures).</p> <p>For details, see <i>Australian National Accounts: National Income, Expenditure and Product, June Quarter 2005</i> (cat. no. 5206.0).</p>
<b>Change in inventories</b>	The value of total closing inventories less total opening inventories.
<b>Closing inventories</b>	The value of all inventories of finished goods (including mineral ores), work-in-progress (less progress payments billed), raw materials, fuels and containers at the end of the reporting period.
<b>Contract, subcontract and commission expenses</b>	Payments to other businesses and self-employed persons for work done or sales made on a contract or commission basis. Payments to persons paid by commission without a retainer are also included. For the electricity supply industry, includes transmission fees, distribution fees, network charges and grid fees. (Pipeline charges are included in freight and cartage expenses.)
<b>Cost of sales</b>	The sum of purchases, selected expenses and opening inventories less closing inventories.
<b>Current prices</b>	Estimates at current prices are valued at the prices of the period to which the observation relates. For example, estimates for 2003–04 are valued using 2003–04 prices. This contrasts to chain volume measures, where the prices used in valuation refer to the prices of a previous period.
<b>Depreciation and amortisation</b>	Depreciation/amortisation allowed on buildings and other fixed tangible assets. Includes, for lessees only, depreciation/amortisation in respect of finance leases.
<b>Disposal of assets</b>	Proceeds from the sale of tangible assets (plant, machinery, equipment, land, dwellings, other buildings and structures), and intangible assets (such as patents, licences and goodwill). Includes the disposal of motor vehicles.
<b>Earnings before interest and tax (EBIT)</b>	Profit prior to the deduction of interest expenses and income tax.

<b>Electricity supply industry</b>	Comprises businesses classified to ANZSIC Group 361 ELECTRICITY SUPPLY. This group consists of units mainly engaged in the generation, transmission or distribution of electricity. It excludes units mainly engaged in the construction, repair or maintenance of electricity transmission towers or lines, power station buildings or water storage dams; included in Division E CONSTRUCTION.
<b>Employer contributions into superannuation</b>	Includes salary sacrifice. Also includes all employer contributions to superannuation funds (including the employer productivity contribution) and provisions for employer contributions to superannuation funds. Employee contributions are excluded.
<b>Employment at end of June</b>	Number of persons working for utilities industries businesses during the last pay period ending in June of the given year. Includes working proprietors and partners, employees absent on paid or prepaid leave, employees on workers' compensation who continue to be paid through the payroll, and contract miners paid through the payroll. Excludes persons paid by commission only, non-salaried directors, and self-employed persons such as consultants and contractors.  For details of how employment estimates have been derived, see the Appendix.
<b>Enterprise</b>	An institutional unit comprising: <ul style="list-style-type: none"> <li>■ a single legal entity or business entity, or</li> <li>■ more than one legal entity or business entity within the same enterprise group and in the same institutional sub-sector (i.e. they are all classified to a single Standard Institutional Sector Classification of Australia (SISCA) sub-sector).</li> </ul>
<b>Enterprise group</b>	A unit covering all the operations in Australia of one or more legal entities under common ownership and/or control. It covers all the operations in Australia of legal entities which are related in terms of the current Corporations Law (as amended by the <i>Corporations Legislation Amendment Act 1991</i> ), including legal entities such as companies, trusts and partnerships. Majority ownership is not required for control to be exercised.
<b>Freight and cartage expenses</b>	Includes pipeline charges, and handling charges and payments to owner/drivers for delivery of minerals. Excludes the cost of delivery by own vehicles and employees, overseas freight and cartage on goods exported, and payments to couriers.
<b>Funding from government for operational costs</b>	Funding from federal, state and/or local government for operational costs (e.g. wages and salaries, rent, food). Includes bounties, subsidies, export grants, apprenticeship and traineeship schemes, community service obligation, and amounts reimbursed under the Australian Government's Energy Grants (Credits) Scheme.
<b>Funding from government for specific capital items</b>	As reported by providers.
<b>Gas supply industry</b>	Comprises businesses classified to ANZSIC Group 362 GAS SUPPLY. This group consists of units mainly engaged in the manufacture of town gas from coal and/or petroleum or in the distribution of manufactured town gas, natural gas or liquefied petroleum gas through a system of mains, including pipelines operated on own account.  It excludes units mainly engaged in: <ul style="list-style-type: none"> <li>■ treating natural gas to produce purified natural gas or liquefied hydrocarbon gases, or operating natural gas absorption or separation plants; included in Division B MINING</li> <li>■ manufacturing liquefied petroleum gases in conjunction with petroleum refining; included in Division C MANUFACTURING</li> <li>■ construction, repair or maintenance of gas mains; included in Division E CONSTRUCTION</li> <li>■ wholesaling or retailing liquefied petroleum gas in bottles or bulk (except through a mains system); included in Division F WHOLESALE TRADE</li> <li>■ operating pipelines for the transport of gas on a contract or fee basis; included in Division I TRANSPORT AND STORAGE.</li> </ul>

<b>Gross value added</b>	The value of output at basic prices minus the value of intermediate consumption at purchasers' prices. The term is used to describe gross product by industry and by institutional sector. Basic prices valuation of output removes the distortion caused by variations in the incidence of commodity taxes and subsidies across the output of individual industries. For details, please refer to <i>Australian National Accounts: National Income, Expenditure and Product, June Quarter 2005</i> (cat. no. 5206.0).																
<b>Industry value added (IVA)</b>	<p>IVA represents the value added by an industry to the intermediate inputs used by the industry. IVA is the measure of the contribution by utilities industries businesses to gross domestic product.</p> <p>The derivation of IVA is as follows:</p> <table border="0" style="margin-left: 40px;"> <tr> <td></td> <td>Sales and service income</td> </tr> <tr> <td><i>plus</i></td> <td>Funding from federal, state and/or local government for operational costs</td> </tr> <tr> <td><i>plus</i></td> <td>Capital work done for own use</td> </tr> <tr> <td><i>plus</i></td> <td>Closing inventories</td> </tr> <tr> <td><i>less</i></td> <td>Opening inventories</td> </tr> <tr> <td><i>less</i></td> <td>Purchases of goods and materials</td> </tr> <tr> <td><i>less</i></td> <td>Other intermediate input expenses (for details, see the entry for total expenses)</td> </tr> <tr> <td><i>equals</i></td> <td>IVA</td> </tr> </table> <p>However, it should be noted that IVA is not a measure of operating profit before tax (OPBT). Wage and salary expenses and most other labour costs are not taken into account in its calculation and nor are most insurance premiums, interest expenses or depreciation and a number of lesser expenses (see the entry for total expenses for further detail). On the income side, OPBT includes total income whereas IVA only includes sales and service income.</p> <p>The industry value added variable is related to, but different from, the national accounting variable gross value added immediately above.</p> <p>For national accounts purposes, gross value added is calculated by adjusting industry value added to include General Government units and to also account for some other effects.</p>		Sales and service income	<i>plus</i>	Funding from federal, state and/or local government for operational costs	<i>plus</i>	Capital work done for own use	<i>plus</i>	Closing inventories	<i>less</i>	Opening inventories	<i>less</i>	Purchases of goods and materials	<i>less</i>	Other intermediate input expenses (for details, see the entry for total expenses)	<i>equals</i>	IVA
	Sales and service income																
<i>plus</i>	Funding from federal, state and/or local government for operational costs																
<i>plus</i>	Capital work done for own use																
<i>plus</i>	Closing inventories																
<i>less</i>	Opening inventories																
<i>less</i>	Purchases of goods and materials																
<i>less</i>	Other intermediate input expenses (for details, see the entry for total expenses)																
<i>equals</i>	IVA																
<b>Industry value added per person employed</b>	IVA of utilities industries businesses which operated during the given year ended 30 June divided by the number of persons employed by utilities industries businesses during the last pay period ending in June of that same year.																
<b>Industry value added to selected labour costs</b>	IVA of utilities industries businesses which operated during the year ended 30 June 2004 divided by selected labour costs, i.e. industry value added / selected labour costs.																
<b>Insurance premiums</b>	Premiums for fire, general, accident, public liability, optional third-party and comprehensive motor vehicle insurance, professional indemnity insurance and common law liability.																
<b>Interest coverage</b>	The number of times that businesses can meet their interest expenses from their earnings before interest and tax, i.e. earnings before interest and tax / interest expenses.																
<b>Interest expenses</b>	Includes interest paid on loans from banks, finance companies, partners, and related or unrelated businesses, and in respect of finance leases. Includes interest equivalents, such as hedging costs, and expenses associated with discounted bills.																
<b>Interest income</b>	Includes interest received from bank accounts, loans and finance leases and earnings on discounted bills. Excludes capital repayments received, and charges between companies in the same TAU.																
<b>Intermediate input expenses</b>	For details, see the entry for total expenses.																
<b>Intermediate inputs</b>	<p>Intermediate inputs consist of materials and certain services which are used up in the production process.</p> <p>The calculation is:</p>																

<b>Intermediate inputs</b> <i>continued</i>	Intermediate input expenses (for details, see the entry for total expenses) <i>plus</i> Opening inventories <i>less</i> Closing inventories <i>equals</i> Intermediate inputs
<b>Inventories – opening/closing</b>	The value of all inventories of finished goods (including mineral ores), work-in-progress (less progress payments billed), raw materials, fuels and containers at the beginning and end of the reporting period respectively.
<b>Management unit</b>	For collections prior to 2001–02, the management unit was the highest-level accounting unit within a business, having regard to industry homogeneity, for which accounts were maintained. In nearly all cases, it coincided with the legal entity owning the business (i.e. company, partnership, trust, sole operator, etc.).
<b>Motor vehicle running expenses</b>	Includes expenditure on registration fees, compulsory third-party insurance premiums, fuel and repair and maintenance expenses. Excludes expenses for off-road motor vehicles (e.g. forklifts, mobile plant).
<b>Natural resource royalties expenses</b>	Includes payments under mineral lease arrangements, and resource rent taxes and royalties. Excludes payments for royalties from intellectual property (e.g. patents, copyrights, etc.), and computer software licence fees, both of which are included under other operating expenses. See the entry for total expenses for the definition of other operating expenses.
<b>Net capital expenditure</b>	The value of total capital expenditure less proceeds received from the disposal of assets.
<b>Opening inventories</b>	The value of all inventories of finished goods (including mineral ores), work-in-progress (less progress payments billed), raw materials, fuels and containers at the beginning of the reporting period.
<b>Operating profit before tax (OPBT)</b>	Profit before extraordinary items are brought to account and prior to the deduction of income tax and appropriations to owners (e.g. dividends paid).
<b>Other income</b>	Includes natural resource royalties income, dividend income and other income such as net profit (or loss) on the sale of fixed tangible assets, net profit (or loss) resulting from variations in foreign exchange rates/transactions, and funding from federal, state and/or local government for specific capital items. It excludes extraordinary profits or losses, i.e. those not associated with the normal operations of the business and of a non-recurring nature.
<b>Other intermediate input expenses</b>	Comprises intermediate input expenses less current purchases of goods, materials and services used in production (i.e. excludes any capitalised purchases). (Further detail is included in the entry for total expenses.)
<b>Other selected expenses</b>	Includes expenditure on management fees/charges paid to related and unrelated businesses, bank charges other than interest, audit and other accounting expenses, legal fees, advertising expenses, postal and telecommunication expenses, office supplies and printing expenses, travelling, accommodation and entertainment expenses, staff training, payments for royalties from intellectual property (e.g. patents, copyrights, etc.), payments to employment agencies for staff, payroll tax, fringe benefits tax, land tax, land rates, and computer software expenses not capitalised. Some of these expense items are treated as intermediate input expenses in the calculation of industry value added. For details, see the entry for total expenses.
<b>Production volumes</b>	See the entry for chain volume measures.
<b>Purchases and selected expenses</b>	Purchases of goods and materials, rent, leasing and hiring expenses, freight and cartage expenses, motor vehicle running expenses, repair and maintenance expenses, contract, subcontract and commission expenses, and other selected expenses.

<b>Purchases of goods and materials</b>	Purchases of materials, components, explosives, containers, packaging materials, fuels, electricity and water, and purchases of other goods for resale (including water for distribution). Also includes capitalised purchases. Excludes purchases of parts and fuels for motor vehicles, but includes fuels for off-road vehicles, such as forklifts and mobile plant.
<b>Reference period</b>	For each collection year, businesses are asked to report data for the financial year ended 30 June. However, if a business has a different financial year, it is asked to report (apart from employment) for the 12 month period which ends between 1 October of the previous year and 30 September of the current year. This period is then used as a substitute for the financial year ended 30 June. For example, for the 2003–04 collection, a business may have reported data for the year ended 31 December 2003.
<b>Rent, leasing and hiring expenses</b>	Payments for the rent, leasing and hiring of land, dwellings, other buildings and structures, motor vehicles, plant, machinery and other equipment (including telecommunication equipment). Includes operating lease payments; excludes finance lease payments.
<b>Rent, leasing and hiring income</b>	For details, see the entry for sales and service income.
<b>Repair and maintenance expenses</b>	Includes computer software and hardware maintenance, and repair and maintenance of off-road motor vehicles. Excludes wages and salaries of own employees and the repair and maintenance costs of on-road motor vehicles.
<b>Sales and service income</b>	Includes: <p><i>Sales of goods</i></p> <ul style="list-style-type: none"> <li>■ whether or not produced by the business (including goods produced for the business on a commission basis). Includes sales or transfers to related businesses or to overseas branches of the business, progress payments relating to long term contracts if they are billed in the period, delivery charges not separately invoiced to customers, and sales of goods produced by the business from crude materials purchased. Excludes excise and duties received on behalf of the Government, sales of assets, royalties income, interest income, and delivery charges separately invoiced to customers. Exports are valued free on board (f.o.b.) (i.e. export freight charges are excluded).</li> <li>■ includes income from rates (e.g. water, sewerage, irrigation and drainage rates).</li> </ul> <p><i>Income from services</i></p> <ul style="list-style-type: none"> <li>■ includes income from consulting services, repair, maintenance and service income and fees, contract, subcontract and commission income, management fees/charges from related and unrelated businesses, installation charges, delivery charges separately invoiced to customers and royalties from intellectual property (e.g. patents, copyrights, etc.). For the electricity supply and gas supply industries, also includes transmission and distribution income. Excludes natural resource royalties income, interest income, and delivery charges not separately invoiced to customers.</li> </ul> <p><i>Rent, leasing and hiring income</i></p> <ul style="list-style-type: none"> <li>■ derived from the ownership of land, dwellings, buildings and other structures, motor vehicles, plant, machinery and other equipment. Excludes royalties from mineral leases, income from finance leases and payments received under hire purchase arrangements. This item is included in sales and service income, but is not separately published. (Under the current international standards, rent, leasing and hiring income is classified as service income.)</li> </ul> <p>These are valued net of discounts given and exclusive of goods and services tax (GST). Extraordinary items are also excluded.</p>
<b>Sales and service income per person employed</b>	The value of sales and service income of utilities industries businesses which operated during the given year ended 30 June divided by the number of persons employed by utilities industries businesses during the last pay period ending in June of that same year.



<b>Selected expenses</b>	See the entry for purchases and selected expenses.
<b>Selected labour costs</b>	See the entry for total expenses.
<b>Selected labour costs per person employed</b>	The value of selected labour costs paid by utilities industries businesses which operated during the year ended 30 June 2004 divided by the number of persons employed by utilities industries businesses during the last pay period ending in June 2004.
<b>Standard Institutional Sector Classification of Australia (SISCA)</b>	The SISCA is the central classification among ABS Standard Economic Sector Classifications. It is based on the System of National Accounts 1993 (SNA93) institutional sector classification, and includes the sectors: non-financial corporations, financial corporations, general government, households, non-profit institutions serving households, and rest of the world (which includes only non-resident units, these being excluded from all other sectors). For more information, users should refer to <i>Standard Economic Sector Classifications of Australia (SESCA)</i> (cat. no. 1218.0).
<b>Superannuation</b>	See the entry for employer contributions into superannuation.
<b>Total expenses</b>	<p>For the purposes of calculating economic and accounting variables for utilities industries, expenses incurred by businesses are divided into several categories. However, some expenses are excluded entirely from all such calculations: excluded are capital repayments, costs associated with the transfer of real estate, dividends, donations, export freight charges, extraordinary losses, foreign exchange losses, goods and services tax (GST), excise and duties payable to governments, income tax and other direct taxes, losses on asset sales, and unrealised gains/losses from revaluations of assets.</p> <p>Those expenses used for calculations are categorised as follows:</p> <p><i>Intermediate input expenses</i></p> <p>This category covers the major expenses incurred by businesses in producing and distributing goods and services (except labour costs), and comprises two sub-categories of operating expenses:</p> <p>Purchases of goods, materials and services used in production, which include:</p> <ul style="list-style-type: none"> <li>■ purchases of materials, components, explosives, containers and packaging materials, electricity, fuels and water</li> <li>■ purchases of goods, including electricity, gas and water for distribution, for resale</li> <li>■ motor vehicle running expenses</li> <li>■ freight and cartage expenses</li> <li>■ repair and maintenance expenses</li> <li>■ rent, leasing and hiring expenses (excluding finance lease payments)</li> <li>■ contract, subcontract and commission expenses.</li> </ul> <p>Expenses related to the sale of goods and administrative expenses, which include:</p> <ul style="list-style-type: none"> <li>■ management fees/charges paid to related and unrelated businesses</li> <li>■ bank charges other than interest</li> <li>■ audit and other accounting expenses</li> <li>■ legal fees</li> <li>■ advertising expenses</li> <li>■ postal and telecommunication expenses</li> <li>■ office supplies and printing expenses</li> <li>■ travelling, accommodation and entertainment expenses</li> <li>■ staff training</li> <li>■ payments for royalties from intellectual property (e.g. patents, copyrights, etc.)</li> <li>■ payments to employment agencies for staff.</li> </ul> <p>Excluded from intermediate input expenses are selected labour costs and other operating expenses as detailed below:</p> <p><i>Selected labour costs</i></p> <ul style="list-style-type: none"> <li>■ wages and salaries (including provisions for employee entitlements)</li> <li>■ employer contributions into superannuation (including salary sacrifice)</li> </ul>

<b>Total expenses <i>continued</i></b>	<ul style="list-style-type: none"> <li>■ workers' compensation premiums/costs.</li> </ul> <p><i>Other operating expenses</i></p> <p>Some expenses are excluded from the calculation of intermediate input expenses and selected labour costs, but are included in the calculation of the accounting variable operating profit before tax (OPBT). These expenses include:</p> <ul style="list-style-type: none"> <li>■ bad and doubtful debts</li> <li>■ computer software expenses not capitalised by businesses</li> <li>■ depreciation and amortisation</li> <li>■ insurance premiums (except workers' compensation and compulsory third party motor vehicle insurance premiums)</li> <li>■ interest expenses</li> <li>■ land tax and land rates</li> <li>■ natural resource royalties expenses</li> <li>■ payroll tax and fringe benefits tax.</li> </ul>
<b>Total factor income</b>	<p>That part of the cost of producing the gross domestic product which consists of gross payments to factors of production (labour and capital). It represents the value added by these factors in the process of production and is equivalent to gross domestic product less taxes plus subsidies on production and imports. For details, please refer to <i>Australian National Accounts: State Accounts, 2003–04</i> (cat. no. 5220.0).</p>
<b>Trading profit</b>	<p>A measure of profit directly attributable to trading in goods and services. It is derived by subtracting the cost of sales from the value of sales and service income plus the value of capitalised purchases.</p> <p>It should not be inferred that all of this profit is available as surplus as other expenses such as selected labour costs, depreciation, insurance premiums, royalties, bad debts and interest have not been taken into account. Also, other income items such as funding from government and interest income have not been included.</p>
<b>Trading profit margin</b>	<p>Trading profit as a percentage of sales and service income, i.e. (trading profit / sales and service income) x 100.</p>
<b>Type of activity unit (TAU)</b>	<p>The TAU is the statistical unit used by the ABS to represent businesses, and for which statistics are reported, in cases where the ABN unit is not suitable for ABS statistical needs.</p> <p>The TAU comprises one or more business entities, sub-entities or branches of a business entity within an enterprise group that can report production and employment data for similar economic activities. When a minimum set of data items are available, a TAU is created which covers all the operations within an industry subdivision (and the TAU is classified to the relevant subdivision of the ANZSIC). Where a business cannot supply adequate data for each industry, a TAU is formed which contains activity in more than one industry subdivision.</p> <p>In most cases, employing ABN units / TAUs concurred with the management units used prior to the 2001–02 year.</p>
<b>Utilities industries</b>	<p>Businesses classified to ANZSIC Division D ELECTRICITY, GAS AND WATER SUPPLY. This division comprises three industry groups: 361 ELECTRICITY SUPPLY, 362 GAS SUPPLY and 370 WATER SUPPLY, SEWERAGE AND DRAINAGE SERVICES. See Explanatory Notes paragraphs 4–19 for details.</p>
<b>Wages and salaries</b>	<p>The gross wages and salaries (including capitalised wages and salaries) of all employees of the business. The item includes severance, termination and redundancy payments, salaries and fees of directors and executives, retainers and commissions of persons who received a retainer, bonuses, and annual and other types of leave. Provision expenses for employee entitlements (e.g. provisions for annual leave and leave bonus, long service leave, sick leave, and severance, termination and redundancy payments) are also included. Payments related to salary sacrifice and payments to self-employed persons</p>

---

<b>Wages and salaries <i>continued</i></b>	such as consultants, contractors and persons paid solely by commission without a retainer are excluded. The drawings of working proprietors are also excluded.
<b>Wages and salaries per person employed</b>	The value of wages and salaries paid by utilities industries businesses which operated during the given year ended 30 June divided by the number of persons employed by utilities industries businesses during the last pay period ending in June of the same year.
<b>Wages and salaries to sales and service income ratio</b>	The wages and salaries paid by utilities industries businesses which operated during the year ended 30 June as a proportion of the sales and service income of utilities industries businesses which operated during the same year.
<b>Water supply, sewerage and drainage services industry</b>	<p>Comprises businesses classified to ANZSIC Group 370 WATER SUPPLY, SEWERAGE AND DRAINAGE SERVICES. This group comprises two classes:</p> <ul style="list-style-type: none"> <li>■ 3701 WATER SUPPLY           <p>This class consists of units mainly engaged in the storage, purification or distribution of water, by pipeline or carrier. It includes the operation of irrigation systems concerned with the supply of water to farms, and the supply of steam or hot water. This class excludes units mainly engaged in:</p> <ul style="list-style-type: none"> <li>■ operating irrigation systems concerned with the distribution of water on farms; included in Division A AGRICULTURE, FORESTRY AND FISHING</li> <li>■ the construction or repair of water storage dams, mains or pumping stations; included in Division E CONSTRUCTION.</li> </ul> </li> <li>■ 3702 SEWERAGE AND DRAINAGE SERVICES           <p>This class consists of units mainly engaged in operating sewerage or drainage systems or sewerage treatment plants. It excludes units mainly engaged in the construction or repair of sewerage or storm water drainage systems; included in Division E CONSTRUCTION.</p> </li> </ul>
<b>Workers' compensation premiums/costs</b>	As reported by providers.

## FOR MORE INFORMATION . . .

- INTERNET* **www.abs.gov.au** the ABS web site is the best place to start for access to summary data from our latest publications, information about the ABS, advice about upcoming releases, our catalogue, and Australia Now—a statistical profile.
- LIBRARY* A range of ABS publications is available from public and tertiary libraries Australia-wide. Contact your nearest library to determine whether it has the ABS statistics you require, or visit our web site for a list of libraries.
- CPI INFOLINE* For current and historical Consumer Price Index data, call 1902 981 074 (call cost 77c per minute).
- DIAL-A-STATISTIC* This service now provides only current Consumer Price Index statistics call 1900 986 400 (call cost 77c per minute).

## INFORMATION SERVICE

Data already published that can be provided within five minutes will be free of charge. Our information consultants can also help you to access the full range of ABS information—ABS user pays services can be tailored to your needs, time frame and budget. Publications may be purchased. Specialists are on hand to help you with analytical or methodological advice.

- PHONE* 1300 135 070
- EMAIL* [client.services@abs.gov.au](mailto:client.services@abs.gov.au)
- FAX* 1300 135 211
- POST* Client Services, ABS, GPO Box 796, Sydney NSW 2001

## FREE ACCESS TO PUBLICATIONS

All ABS publications can be downloaded free of charge from the ABS web site.

- WEB ADDRESS* [www.abs.gov.au](http://www.abs.gov.au)



2822600007030

ISSN 1440 1509

RRP \$25.00