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Foreword

The Department of Infrastructure and Transport assists the Australian Government to improve infrastructure across Australia, foster an efficient, sustainable, competitive, safe and secure transport system for all transport users and coordinate community infrastructure and services in rural, regional and local government areas. These goals cannot be achieved without ready reference to a wide range of up-to-date statistics.

The main aim of this publication, is to provide a single comprehensive annual source of Australian infrastructure statistics for use by policymakers, industry leaders, transport analysts and the wider Australian community.

The publication is primarily a source of long-term, aggregate time series infrastructure statistics. In most cases the time series extend to 2009–10. A brief introduction is provided to explain the structure of the publication and areas identified for further development. Most statistics included in the publication are currently collected by BITRE or other Australian, state or territory government agencies.

This new publication, *Australian Infrastructure Statistics Yearbook*, expands the scope of the previous *Australian Infrastructure Statistics Yearbook* by adding time series statistics for measures of water, energy and communications infrastructure and the use of this infrastructure.

The Yearbook is presented in five Parts:

- Part I: Infrastructure and the Economy,
- Part T: Transport,
- Part E: Energy,
- Part C: Communications, and
- Part W: Water.

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Glen Malam at BITRE managed and coordinated the project.

Gary Dolman
Head of Bureau
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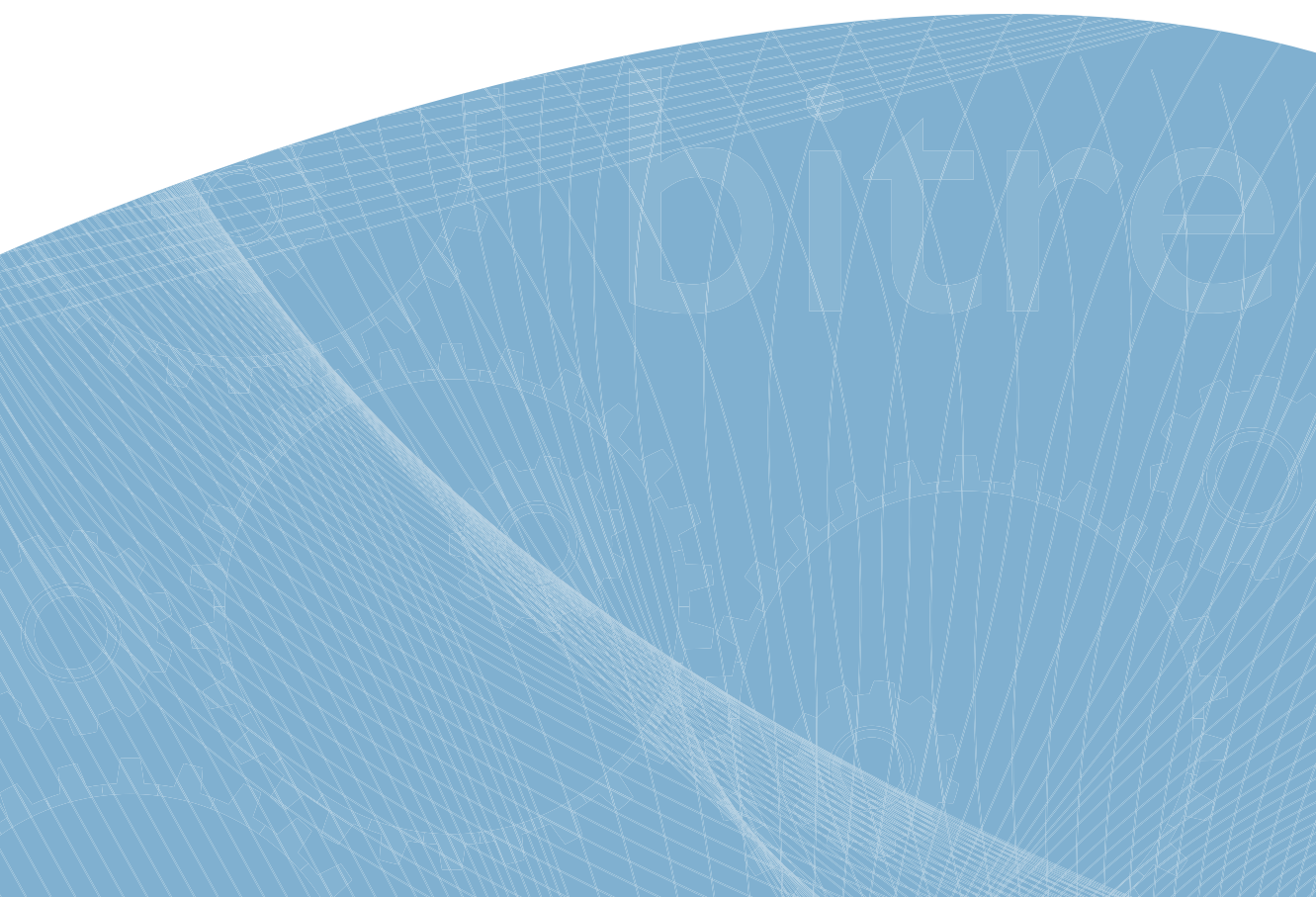
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Introduction



Introduction

The goal of the *Australian Infrastructure Statistics Yearbook* is to provide a comprehensive, coherent summary of major economic infrastructure in Australia and its use. A framework of time series statistics was developed with this end in mind. A range of datasets of varying quality are available. Datasets that meet BITRE requirements for accuracy and reliability are included; however, there are a number of areas of the framework where suitable datasets are not currently compiled. These areas of unmet statistical demand are highlighted in the section headed For Further Development.

The framework

Part I of the Yearbook provides a summary of major economic infrastructure and several statistical measures likely to influence investment in, and use of, major economic infrastructure. The rest of the Yearbook is divided into four sections, focussing on each of the four themes of major economic infrastructure:

- Part T, for transport infrastructure;
- Part E, for energy infrastructure;
- Part C, for communications infrastructure; and
- Part W, for water infrastructure.

To enable comparison and aggregation across infrastructure types, the Yearbook uses a common statistical framework across each of the main infrastructure parts. Where data are available, statistics are provided using common measures.

The statistical framework covers several key areas:

- Physical infrastructure. Measures include the value and capacity of infrastructure at a given time ('stock' measures); additions to the amount of infrastructure (construction) and reductions (depreciation) that take place during the year ('flow' measures); and measures of the quality of the infrastructure.
- Inputs. Measures of non-capital inputs to activities that rely on infrastructure.
- Activity. Measures of activities associated with the infrastructure. These activities may be grouped into themes. For example, for Part T (transport), these themes include freight, passengers, road, rail, aviation and maritime.
- Impacts. Measures of the external impact of activities. These impacts include safety and security issues as well as greenhouse gas emissions and other pollution.

Part I Infrastructure and the economy

Chapter I of Part I provides several key macroeconomic indicators that are likely to influence, or be influenced by, activity associated with infrastructure. Where available, the contribution of detailed infrastructure industries to the key macroeconomic indicator is provided. This chapter provides estimates of production, employment, wages and salaries, prices, international trade, interest rates, the Australian currency exchange rate and the Australian resident population.

Chapter 2 of Part I summarises infrastructure construction activity across the four forms of major economic infrastructure covered in the Yearbook.

Part I Transport

Chapter 1: Transport infrastructure. This chapter provides a number of measures of the construction of transport infrastructure as well as measures of the length of roads available for public use and road construction price indexes.

Chapter 2: Freight. In its broadest sense, freight transport describes the movement of physical items between locations. A summary of freight statistics is provided classified by mode of transport. Freight is further classified into bulk and non-bulk segments. Two measures of freight transport are currently provided in the framework: the weight of freight moved in Australia (measured in millions of tonnes) and freight by weight and distance moved (measured in tonne kilometres—the transport task performed in moving one tonne of freight one kilometre).

Chapter 3: Passengers. In a similar fashion, passenger transport describes the movement of people between locations. This definition of passengers does not include drivers of freight vehicles when they are employed for freight purposes but does include drivers of freight vehicles when they are being used to transport passengers (e.g. private use of light commercial vehicles). The framework provides a summary of passenger statistics classified by mode of transport (some measures of walking and cycling to work are available in Table T 3.4, but estimates for recreational boating are not currently provided in this publication). Two measures of passenger transport are currently provided in the framework: the number of people transported and the number of passenger kilometres travelled (a measure of the transport task performed in moving one passenger one kilometre).

Chapters 4–7: Road, Rail, Aviation, Shipping. These chapters focus on the four main motorised modes of transport: road, rail, aviation and shipping. Where possible, data are classified by location in terms of state or territory (interstate, intrastate, intercapital) or level of urbanisation.

Price data are included in the framework to provide an indication of the costs of each mode of transport. Price estimates for shipping and rail are not readily available.

The framework also includes estimates for the size and characteristics of the various modal vehicle fleets.

Chapters 8 (Safety) and Chapter 9 (Energy and the Environment) complete the statistical framework for transport infrastructure with a summary of some key impacts of transport activity.

Chapter 8 presents statistics for transport accidents and casualties with comparisons by mode of transport; state or territory of accident; and severity of injuries.

Chapter 9 provides direct energy consumption and emissions data by transport activity. This includes estimates for fuel sales, fuel prices and the production and international trade of transport fuels, classified by petroleum fuel type, as well as estimates of transport emissions, classified by transport mode and emission type.

Part E Energy

Chapter 1: Energy infrastructure. This chapter provides a number of measures of energy infrastructure construction as well as measures of the length of electricity networks, capacity of electricity generation plants and reliability of electricity supply.

Chapter 2: Energy inputs. Chapter 2 provides a summary of inputs to energy infrastructure; including measures of mineral energy reserves, and energy used in the generation of electricity and natural gas distribution.

Chapter 3: Energy production and trade. The first few tables in Chapter 3 provide a summary of energy production in Australia of all main primary fuels and energy imports and exports. The remaining tables provide energy usage details for key specific energy types:

- For electricity, detailed usage statistics are provided by state/territory and industry, with further detail provided for the number of customers and electricity prices facing residential consumers in each capital city.
- For gas, detailed usage statistics are provided by state/territory and industry, as well as gas prices facing residential consumers in each capital city.
- For black coal, detailed usage statistics are provided by state/territory and industry, as well as time series statistics for export prices for black coal.
- For brown coal, detailed usage statistics are provided, classified by industry for New South Wales and Victoria.
- For petroleum fuels, detailed usage statistics are provided by state/territory and industry, as well as time series statistics for a range of international measures of crude oil prices.

Chapter 4: Energy impacts. Measures of the external impacts of energy usage are provided for serious injuries and greenhouse gas emissions. The electricity generation industry plays a unique role in greenhouse gas statistics within the Kyoto framework: Greenhouse gas emissions from the electricity generation industry represent all 'scope 2' ('upstream' or indirect) emissions for other industries (see Table E 4.2).

Part C Communication

The Yearbook focuses on key networks that enable economic activity. Telecommunications networks are a vital part of Australian infrastructure; however, the telecommunications industry is becoming increasingly integrated with the radiocommunications and broadcasting industries. At the same time, rapid advances in technology have enabled a dramatic expansion in the capacity of existing physical infrastructure in the communications industry.

To provide a meaningful summary of Australian communications infrastructure, Part C includes measures of both physical infrastructure (see Chapter 1) and technology investments that enhance infrastructure capacity (see Chapter 2). Chapter 3 provides estimates for fixed and mobile telephone and internet subscribers and internet service providers.

Chapter 4: Communications usage. This chapter provides estimates of internet usage and internet commerce, as well as telecommunication prices facing residential customers in each capital city, indicative broadband subscription prices and domain name registration statistics.

Chapter 5: Communication security provides statistics for the number of telephone numbers registered on the do not call register and the number of emergency calls to 000 and 112.

Part W Water

A significant number of tables presented in Part W: Water were compiled by BITRE using data published by the National Water Commission (NWC) and their state and territory partners in two annual National Performance Reports (NPR); one for urban utilities and the other for rural water service providers.

The urban and rural NPRs provide comprehensive data on water supply and wastewater treatment activity for each major water utility in Australia using a common set of measures. While the data provided in the NPRs are comprehensive, records for a number of utilities are incomplete, so simply aggregating the published data to create Yearbook tables would underestimate state and national totals. To address this issue, prior to aggregating NPR data BITRE filled in missing records by researching utilities' annual reports, council reports, state health authorities' water records or used statistical imputation techniques.

Chapter 1: Water infrastructure. This chapter provides measures of the construction of water infrastructure that are consistent with construction measures used in earlier parts of the Yearbook. In addition, there are several stock measures (including the current value of water infrastructure assets, the capacity of major water storage dams, the current holdings of major water storage dams, and the length of water distribution networks) and infrastructure quality measures for water supply, wastewater treatment and rural water supply networks.

Chapter 2: Inputs to water supply. Table 2.1 provides volume estimates for total Australian rainfall each calendar year. The remaining tables in Chapter 2 provide measures of:

- sources of water used in urban and rural water distribution networks and sources of wastewater for wastewater treatment networks
- water supply prices facing residential customers in each capital city
- power consumed to provide rural water distribution
- trading activity in rural water markets.

Chapter 3: Water usage. Chapter 3 provides a summary of annual water usage in Australia. Statistics are provided for the services provided by major water utilities (urban water, urban wastewater and rural water) in terms of the population that their networks serve, the number of customer connections to the network and the volume and nature of water supplied. In addition, Chapter 3 also provides a summary of water consumed by agriculture, including water sourced from rural water supply networks as well as other sources.

Chapter 4: Water health and emissions. Chapter 4 provides measures of water quality for urban water supply, sewer overflows to the environment and greenhouse gas emissions from urban and rural water supply and wastewater treatment.

For further development

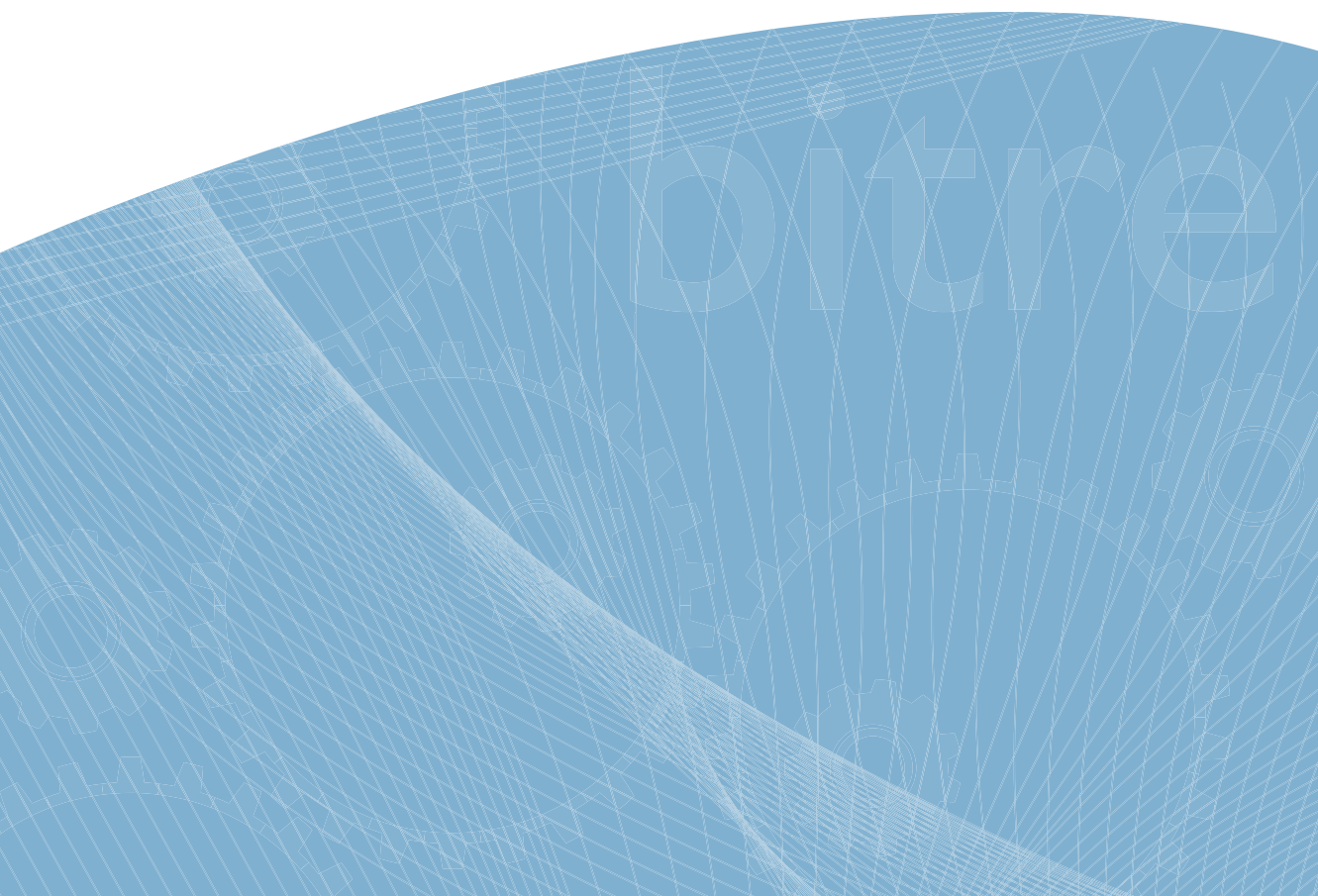
The preparation of a publication such as this highlights the differences between the conceptual framework and the reality of the infrastructure statistics that are currently available. There are several areas of the framework where current statistical coverage is sparse and further compilation work is required to present a complete statistical picture of Australian infrastructure activity.

Publication layout

Diagrams are provided at the commencement of each Part which summarise statistics presented in the tables that follow. These diagrams highlight the areas of the conceptual framework where statistics are unknown or not available.

Throughout this publication, End Notes are numbered consecutively within each Part. References provided at the bottom of tables relate to the most recent issue of the statistical publication. Where a complete time series is not available from the most recent issue, earlier issues were used.

PART I: Infrastructure and the economy



TRANSPORT

ENERGY

COMMUNICATION

WATER

INFRASTRUCTURE ASSETS AT 30 JUNE 2008

811 390 km
length of Australian
roads
(TT 1.3)

779 916 circuit km
above ground
transmission network
108 818 circuit km
underground
transmission network
47 402 MW generation
capacity
(TE 1.2a, TE 1.2b & TE 1.3)

\$13 274m net capital
IT stock for information,
media and
telecommunications
industry
(TC 2.3)

141 755 km urban
water mains
119 988 km sewer mains
58 589 km rural water
network
(TW 1.7, TW 1.11 &
TW 1.15f)

CHANGES DURING THE YEAR

\$22 680.3m
engineering
construction activity
(TI 2.1d)

\$22 215.7m
engineering
construction activity
(TI 2.1d)

\$3 994.1m
engineering
construction activity
\$3 244m
investment in IT by
information, media and
telecommunications
industry
\$2 464m
consumption of IT
by information, media
and telecommunications
industry
(TI 2.1d, TC 2.1 & TC 2.2)

\$8 721m
total capital
expenditure by utilities
\$7 484m
engineering
construction activity
(TW 1.5a, TW 1.5b,
TW 1.5c & TI 2.1d)

INFRASTRUCTURE ASSETS AT 30 JUNE 2009

817 089 km
length of Australian
roads
(TT 1.3)

780 735 circuit km
above ground
transmission network
113 705 circuit km
underground
transmission network
48 542 MW generation
capacity
(TE 1.2a, TE 1.2b &
TE 1.3)

\$13 846m net capital
IT stock for information,
media and
telecommunications
industry
(TC 2.3)

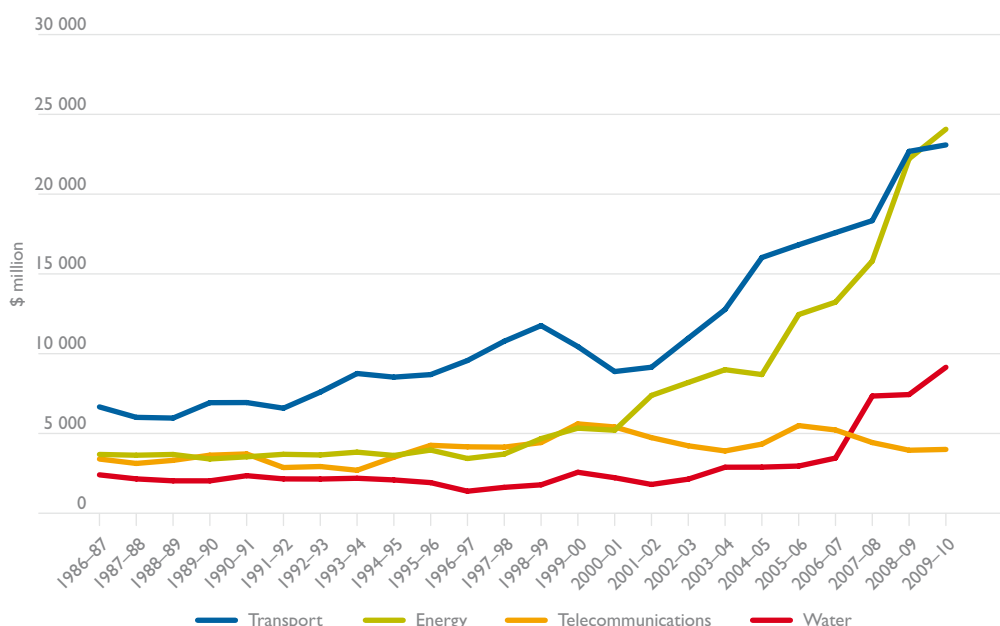
\$117 892m
written down
replacement cost of
utilities' fixed
assets
143 289 km urban
water mains
121 371 km sewer mains
56 314 km rural water
network
(TW 1.2a, TW 1.2b,
TW 1.2c, TW 1.7,
TW 1.11 & TW 1.15f)

PART I

Infrastructure and the economy

The main source of infrastructure statistics used by BITRE is the ABS publication, *Engineering Construction Activity* (ABS cat. no. 8762.0). This publication provides measures of non-building construction, classified by major form of infrastructure: transport (roads, rail, ports, etc), energy (electricity and gas transmission networks, etc), telecommunications networks, and water supply and distribution networks.

FI 2 Infrastructure construction activity, adjusted by chain volume index



Since 2001, Australian real infrastructure construction activity has increased strongly, mainly due to sharp increases in the construction of transport and energy infrastructure. Transport infrastructure construction slowed at around the end of 2009, however, recent quarterly statistics suggest construction activity is increasing again.

Water infrastructure construction expenditure increased sharply in 2007 and again more recently, reflecting work conducted on the South East Queensland Water Grid and the recent Victorian desalination plant.

FI 3 Infrastructure construction activity, by sector, adjusted by chain volume index



Since 2000, private involvement in the construction of infrastructure has increased sharply, initially in the form of private sector-owned projects, then from 2005 in the form of private sector construction of public sector projects. Public sector construction activity gradually decreased between 1987 and 2007, but has increased sharply from 2008.

The economy

TI 1.1a Australian gross domestic product, major infrastructure industries

	Chain volume measures I						
	Gross value added, at basic prices 2						
Financial year	Transport, postal and warehousing	Energy	Gas	Information media and telecommunications	Water Supply and waste services	Gross Domestic Product	Major infrastructure industries as percentage of GDP
		Electricity					
			\$ million				%
1974-75	16 538	4 489	130	4 819	5 813	422 585	7.5
1975-76	16 452	4 657	215	4 544	5 903	433 713	7.3
1976-77	17 815	5 039	308	4 751	6 103	448 822	7.6
1977-78	20 065	5 320	379	5 046	5 654	452 899	8.1
1978-79	20 387	5 638	444	5 455	5 813	471 529	8.0
1979-80	20 994	5 942	537	5 863	6 296	485 882	8.2
1980-81	22 280	6 332	561	6 490	6 324	502 440	8.4
1981-82	22 618	6 602	857	7 005	6 384	518 658	8.4
1982-83	21 795	6 709	853	7 315	6 761	506 625	8.6
1983-84	22 894	7 091	938	7 750	6 752	529 922	8.6
1984-85	24 754	7 526	1 049	8 351	7 098	557 111	8.8
1985-86	26 254	7 911	1 031	9 062	7 215	582 469	8.8
1986-87	26 741	8 247	1 012	9 749	7 174	597 339	8.9
1987-88	27 919	8 740	1 085	10 607	7 356	632 416	8.8
1988-89	29 189	9 212	1 160	11 479	7 536	657 332	8.9
1989-90	29 924	9 679	1 243	12 831	7 896	680 830	9.0
1990-91	30 128	9 860	1 177	13 538	8 260	679 201	9.3
1991-92	30 791	10 088	1 156	14 515	8 167	682 285	9.5
1992-93	30 998	10 394	1 169	16 211	8 101	710 163	9.4
1993-94	32 688	10 761	1 236	17 708	8 346	738 330	9.6
1994-95	34 662	11 003	1 320	19 802	8 610	767 418	9.8
1995-96	37 425	11 178	1 334	20 928	8 588	799 507	9.9
1996-97	38 964	11 139	1 340	22 455	8 531	831 267	9.9
1997-98	39 828	11 576	1 395	24 277	8 816	869 385	9.9
1998-99	40 933	11 760	1 486	26 031	9 017	914 244	9.8
1999-00	42 404	12 118	1 548	26 798	8 987	950 369	9.7
2000-01	44 027	12 292	1 594	27 761	9 216	970 057	9.8
2001-02	45 444	12 214	1 605	28 541	9 605	1 007 926	9.7
2002-03	48 196	12 369	1 653	30 320	9 696	1 040 908	9.8
2003-04	49 761	12 614	1 685	31 683	9 405	1 084 166	9.7
2004-05	52 671	12 754	1 668	32 457	9 383	1 116 248	9.8
2005-06	54 318	13 217	1 676	33 797	9 245	1 150 644	9.8
2006-07	57 457	13 272	1 775	35 908	9 335	1 191 655	9.9
2007-08	60 608	13 629	1 833	38 127	8 909	1 237 320	9.9
2008-09	59 876	14 248	1 848	38 528	9 190	1 255 241	9.9
2009-10	61 298	14 396	1 904	38 986	9 624	1 283 219	9.8

1,2 See End Notes.
Source: ABS (2010b).

TI 1.1b Australian gross domestic product, transport industry

Chain volume measures I							
Financial year	Gross value added, at basic prices 2					Gross Domestic Product	Transport industry as percentage of GDP
	Transport			Transport, postal and storage services	Total transport, postal and warehousing		
	Road	Air and space	Rail, pipeline and other transport 3				
	\$ million					%	
1974–75	4 492	791	3 579	9 629	16 538	422 585	4.0
1975–76	4 424	829	3 588	9 289	16 452	433 713	3.8
1976–77	4 987	839	3 727	9 726	17 815	448 822	4.0
1977–78	5 887	919	3 818	10 156	20 065	452 899	4.5
1978–79	5 836	1 018	3 774	10 469	20 387	471 529	4.3
1979–80	5 738	1 120	4 157	11 290	20 994	485 882	4.3
1980–81	6 434	1 100	4 220	11 158	22 280	502 440	4.5
1981–82	6 577	1 129	4 275	10 934	22 618	518 658	4.4
1982–83	6 437	1 072	4 007	10 210	21 795	506 625	4.3
1983–84	6 605	1 128	4 346	11 438	22 894	529 922	4.3
1984–85	7 096	1 217	4 894	12 475	24 754	557 111	4.4
1985–86	7 493	1 323	5 231	12 782	26 254	582 469	4.5
1986–87	7 438	1 462	5 216	13 099	26 741	597 339	4.6
1987–88	7 882	1 635	5 315	13 474	27 919	632 416	4.4
1988–89	8 474	1 736	5 400	13 872	29 189	657 332	4.4
1989–90	8 870	1 504	5 736	14 227	29 924	680 830	4.4
1990–91	8 628	1 748	5 732	14 357	30 128	679 201	4.4
1991–92	8 906	2 036	5 747	14 281	30 791	682 285	4.7
1992–93	8 709	2 249	5 923	14 285	30 998	710 163	4.4
1993–94	9 134	2 461	6 168	15 064	32 688	738 330	4.4
1994–95	10 023	2 675	6 143	15 920	34 662	767 418	4.5
1995–96	11 102	2 860	6 566	17 034	37 425	799 507	4.7
1996–97	11 601	3 040	6 749	17 668	38 964	831 267	4.8
1997–98	12 061	3 030	6 728	18 143	39 828	869 385	4.7
1998–99	12 476	3 086	6 819	18 693	40 933	914 244	4.5
1999–00	13 050	3 250	7 034	19 183	42 404	950 369	4.5
2000–01	13 436	3 508	7 105	19 945	44 027	970 057	4.5
2001–02	14 196	3 293	7 407	20 729	45 444	1 007 926	4.5
2002–03	15 202	3 726	7 801	21 515	48 196	1 040 908	4.6
2003–04	16 253	3 949	7 943	21 682	49 761	1 084 166	4.6
2004–05	17 226	4 365	8 122	22 901	52 671	1 116 248	4.7
2005–06	18 081	4 613	8 214	23 331	54 318	1 150 644	4.7
2006–07	19 958	5 014	8 198	24 282	57 457	1 191 655	4.8
2007–08	21 200	5 177	8 793	25 506	60 608	1 237 320	4.9
2008–09	19 754	4 947	8 953	26 222	59 876	1 255 241	4.8
2009–10	20 493	4 882	9 002	26 921	61 298	1 283 219	4.8

1,2,3 See End Notes.

Source: ABS (2010b).

TI 1.2a Australian employment, major infrastructure industries—transport and storage

August reference month	Transport and storage total employment								Total	Total Aust employ- ment	Total Transport and storage as % of total employ- ment
	Transport					Postal and courier services	Transport support services	Where- housing and storage services			
	Road	Rail	Water	Air and space	Other						
	thousands										%
1985	159.1	74.1	5.6	33.1	14.0	13.2	49.4	8.6	357.0	6 675.5	5.3
1986 ⁴	171.8	73.3	6.1	35.1	14.9	14.3	49.5	11.2	376.6	6 928.9	5.4
1987	170.0	65.7	5.7	32.5	12.7	13.2	44.6	7.8	353.0	7 103.7	5.0
1988	171.8	60.5	5.2	34.4	13.6	14.1	46.1	9.1	355.2	7 362.0	4.8
1989	185.5	59.2	6.3	43.9	12.6	15.0	48.3	11.5	383.0	7 726.5	5.0
1990	193.4	48.7	6.6	40.0	10.9	15.5	42.6	17.0	375.5	7 822.4	4.8
1991	186.3	54.6	7.7	38.8	10.8	14.8	41.8	14.5	370.3	7 650.3	4.8
1992	185.5	42.4	5.4	35.9	10.1	14.1	37.5	13.8	345.7	7 636.7	4.5
1993	172.2	48.1	^a 3.7	35.7	9.1	13.9	40.5	16.5	340.5	7 636.3	4.5
1994	177.0	44.0	7.1	36.5	14.4	56.4	41.1	19.2	396.3	7 897.4	5.0
1995	185.5	39.9	7.3	40.5	13.5	63.5	41.1	15.2	407.2	8 231.3	4.9
1996	186.4	40.9	10.2	48.1	17.2	69.0	36.8	21.0	430.9	8 332.8	5.2
1997	196.3	38.4	7.5	46.5	14.5	74.5	38.6	15.9	433.0	8 324.3	5.2
1998	192.9	30.4	8.0	46.9	12.4	79.1	36.9	20.0	426.6	8 555.6	5.0
1999	207.8	27.8	8.5	45.1	11.4	73.9	45.7	25.4	445.6	8 692.1	5.1
2000	207.2	30.4	9.7	56.7	8.2	82.7	35.7	30.6	463.8	8 990.3	5.2
2001	216.0	28.8	11.2	53.8	8.2	81.9	38.0	27.1	466.8	9 043.9	5.2
2002	205.9	28.4	8.4	46.0	7.1	79.4	36.7	28.0	442.4	9 230.0	4.8
2003	219.4	32.9	8.7	48.7	8.3	78.8	39.9	27.3	464.8	9 415.2	4.9
2004	222.0	29.9	13.7	40.9	9.3	82.9	40.1	36.8	493.9	9 564.3	5.2
2005	217.0	30.5	8.8	50.8	7.5	87.3	42.7	41.7	501.1	9 990.1	5.0
2006	232.9	33.3	12.4	45.9	7.8	76.1	45.8	43.9	508.6	10 242.6	5.0
2007	236.7	30.8	12.9	47.1	14.1	88.9	45.2	48.7	541.6	10 547.3	5.1
2008	230.3	49.0	9.4	49.2	9.0	97.9	56.6	57.2	570.8	10 843.2	5.3
2009	235.2	53.1	8.4	50.7	11.8	99.3	71.7	25.2	579.0	10 859.9	5.3
2010	220.1	47.6	7.3	52.2	9.5	94.3	80.1	43.6	570.8	11 208.3	5.1

^a Subject to sampling variability too high for most practical purposes.

⁴ See End Notes.

Source: ABS (2010k).

TI 1.2b Australian employment, major infrastructure industries—energy

August reference month	Energy total employment					Total	Total Aust employ- ment	Energy as % of total employ- ment
	Mining		Petroleum and coal product manufacturing	Electricity supply	Gas supply			
	Coal mining	Oil and gas extraction						
	<i>thousands</i>							
								%
1985	37.2	^a 2.3	6.7	81.4	10.5	138.0	6 675.5	2.1
1986 ⁴	32.2	^a 1.5	6.0	84.2	9.6	133.5	6 928.9	1.9
1987	39.2	^a 1.7	6.2	72.8	11.2	131.0	7 103.7	1.8
1988	33.2	^a 3.8	5.1	73.8	8.4	124.3	7 362.0	1.7
1989	28.8	^a 3.4	7.5	66.9	10.4	117.2	7 726.5	1.5
1990	28.2	4.5	9.5	62.3	5.2	109.6	7 822.4	1.4
1991	33.2	5.2	6.6	62.8	7.2	115.1	7 650.3	1.5
1992	26.2	6.7	9.1	62.3	8.3	112.7	7 636.7	1.5
1993	29.5	^a 3.1	6.4	54.9	7.8	101.7	7 636.3	1.3
1994	22.6	^a 2.7	7.6	55.6	8.1	96.7	7 897.4	1.2
1995	24.1	4.0	5.2	49.3	7.6	90.1	8 231.3	1.1
1996	20.6	2.6	7.4	38.8	7.6	77.0	8 332.8	0.9
1997	22.8	3.5	8.9	37.6	6.4	79.3	8 324.3	1.0
1998	19.6	5.9	6.6	37.6	6.0	75.8	8 555.6	0.9
1999	18.6	^a 4.0	6.3	38.3	5.6	72.7	8 692.1	0.8
2000	16.4	6.0	9.9	36.5	^a 2.9	71.6	8 990.3	0.8
2001	22.1	^a 4.0	13.8	44.9	5.0	89.8	9 043.9	1.0
2002	17.5	^a 4.8	13.2	37.4	6.0	78.9	9 230.0	0.9
2003	20.3	5.4	6.2	58.0	5.1	95.0	9 415.2	1.0
2004	18.5	5.5	8.2	41.2	^a 4.0	77.3	9 564.3	0.8
2005	28.0	7.3	7.8	45.9	7.2	96.3	9 990.1	1.0
2006	29.2	8.7	10.0	36.5	6.7	91.1	10 242.6	0.9
2007	25.0	10.6	7.0	40.6	10.3	93.5	10 547.3	0.9
2008	35.7	14.3	^a 5.7	46.4	10.6	112.6	10 843.2	1.0
2009	41.6	11.7	^a 6.0	61.1	9.9	130.3	10 859.9	1.2
2010	44.9	15.8	6.6	69.3	7.5	144.1	11 208.3	1.3

^a Subject to sampling variability too high for most practical purposes.

⁴ See End Notes.

Source: ABS (2010k).

TI 1.2c Australian employment, major infrastructure industries—communication

August reference month	Communication total employment			Total Aust employment	Communication services as % of total employment
	Telecommunication services	Internet service providers, web search portals and data processing services	Total		
		<i>thousands</i>			<i>%</i>
1985	135.0	11.7	146.7	6 675.5	2.2
1986 ⁴	134.9	11.9	146.8	6 928.9	2.1
1987	126.2	11.4	137.6	7 103.7	1.9
1988	122.0	11.3	133.3	7 362.0	1.8
1989	126.1	11.8	137.9	7 726.5	1.8
1990	131.1	12.4	143.5	7 822.4	1.8
1991	119.2	11.5	130.7	7 650.3	1.7
1992	104.0	10.6	114.6	7 636.7	1.5
1993	103.5	10.5	114.0	7 636.3	1.5
1994	74.2	9.5	83.7	7 897.4	1.1
1995	79.8	11.0	90.9	8 231.3	1.1
1996	91.5	12.7	104.3	8 332.8	1.3
1997	75.3	13.0	88.3	8 324.3	1.1
1998	70.8	14.5	85.4	8 555.6	1.0
1999	73.3	14.2	87.5	8 692.1	1.0
2000	89.2	^a 20.5	109.7	8 990.3	1.2
2001	86.4	19.5	106.0	9 043.9	1.2
2002	86.3	21.0	107.3	9 230.0	1.2
2003	93.6	20.7	114.3	9 415.2	1.2
2004	89.3	^a 18.9	108.2	9 564.3	1.1
2005	96.8	20.0	116.8	9 990.1	1.2
2006	98.9	21.7	120.6	10 242.6	1.2
2007	97.4	23.4	120.8	10 547.3	1.1
2008	97.2	16.2	113.4	10 843.2	1.0
2009	85.5	^a 7.6	93.1	10 859.9	0.9
2010	91.2	8.2	99.4	11 208.3	0.9

^a Subject to sampling variability too high for most practical purposes.

⁴ See End Notes.

Source: ABS (2010k).

TI 1.2d Australian employment, major infrastructure industries—water

August reference month	Water supply, sewerage and drainage services	Total Aust employment	Water supply, sewerage and drainage services as % of total employment
<i>thousands</i>			
1985	46.8	6 675.5	0.7
1986 ⁴	43.7	6 928.9	0.6
1987	35.7	7 103.7	0.5
1988	31.8	7 362.0	0.4
1989	35.5	7 726.5	0.5
1990	36.5	7 822.4	0.5
1991	32.6	7 650.3	0.4
1992	33.7	7 636.7	0.4
1993	32.1	7 636.3	0.4
1994	28.5	7 897.4	0.4
1995	27.7	8 231.3	0.3
1996	21.8	8 332.8	0.3
1997	22.0	8 324.3	0.3
1998	25.7	8 555.6	0.3
1999	22.8	8 692.1	0.3
2000	25.1	8 990.3	0.3
2001	20.7	9 043.9	0.2
2002	23.4	9 230.0	0.3
2003	18.9	9 415.2	0.2
2004	24.0	9 564.3	0.3
2005	26.5	9 990.1	0.3
2006	30.2	10 242.6	0.3
2007	25.7	10 547.3	0.2
2008	36.7	10 843.2	0.3
2009	28.2	10 859.9	0.3
2010	39.0	11 208.3	0.3

⁴ See End Notes.
Source: ABS (2010k).

TI 1.3a Australian average weekly earnings,⁵ transport industry

May reference month	Road	Rail	Water	Air and space	Other transport	All industries
\$						
1996	612.00	797.80	669.50	836.30	486.50	573.70
1998	642.60	842.20	1 061.30	1 019.50	^b 472.10	610.20
2000	643.30	940.90	1 094.20	1 088.90	np	652.80
2002	754.90	1 027.20	869.80	1 000.60	np	697.60
2004	782.00	1 147.70	^b 883.60	1 062.40	np	756.50
2006 ⁶	908.50	1 433.40	1 089.70	1 176.40	np	822.50
2008	971.10	1 374.70	1 404.00	1 312.10	1 104.10	915.30

np not available for publication but included in the total.

^b Use estimate with caution as it is subject to a relative standard error between 25 per cent and 50 per cent.

^{5, 6} See End Notes

Source: ABS (2009b) and unpublished data.

TI 1.3b Australian average weekly earnings,⁵ energy industry

May reference month	Electricity supply	Gas supply	All industries
\$			
1996	811.00	763.50	573.70
1998	956.70	833.70	610.20
2000	1 068.90	912.90	652.80
2002	1 136.80	1 093.90	697.60
2004	1 224.50	1 124.70	756.50
2006 ⁶	1 361.60	1 144.00	822.50
2008	1 519.90	1 804.40	915.30

^{5, 6} See End Notes.

Source: ABS (2009b) and unpublished data.

TI 1.3c Australian average weekly earnings,⁵ communication industry

May reference month	Telecommunication services	Radio and television services	Internet publishing and broadcasting	Broadcasting (except internet)	All industries
\$					
1996	806.70	694.50			573.70
1998	974.60	868.40			610.20
2000	1 063.10	994.80			652.80
2002	1 102.60	909.80			697.60
2004	1 106.20	963.30			756.60
2006 ⁶	1 221.30	1 189.70			822.50
2008	1 330.00		^c 632.10	1 221.60	915.30

^c Estimate has a relative standard error greater than 50 per cent and is considered too unreliable for general use.

^{5, 6} See End Notes.

Source: ABS (2009b) and unpublished data.

TI 1.3d Australian average weekly earnings,⁵ water industry

May reference month	Water supply, sewerage and drainage services	All industries
	\$	\$
1996	732.40	573.70
1998	807.70	610.20
2000	806.40	652.80
2002	1 022.40	697.60
2004	1 020.70	756.60
2006 ⁶	1 074.90	822.50
2008	1 130.70	915.30

^{5, 6} See End Notes.

Source: ABS (2009b) and unpublished data.

TI 1.4a Australian producer price indexes, transport industry

Average over financial year	Transport					Water transport support services			Airport operations and other air transport support services ^d	Customs agency services ^d
	Road freight ^d	Rail freight ^d	Water freight ^d	Pipeline transport ^d	Postal and courier services ^e	Stevedoring services ^d	Port and water transport terminal operations ^e	Other water transport support services ^d		
1996–97		109.8				108.1				
1997–98	98.8	105.1				101.7				
1998–99	100.0	100.0	100.0			100.0		100.1	100.0	100.0
1999–00	101.0	94.4	103.8			100.0		93.6	97.2	99.9
2000–01	103.1	95.3	109.8	101.8		97.8		93.7	92.4	101.7
2001–02	105.0	94.9	109.4	102.9	100.0	95.6	100.0	93.8	91.5	102.1
2002–03	107.3	94.8	106.3	103.4	102.0	93.4	100.6	98.0	96.7	104.0
2003–04	110.2	95.7	105.2	101.7	103.8	91.8	100.5	99.3	96.2	105.2
2004–05	115.8	96.7	114.3	107.8	105.9	95.1	105.2	101.0	97.0	107.1
2005–06	123.0	98.0	111.2	107.5	108.3	94.3	107.5	101.0	100.8	109.4
2006–07	126.9	100.1	110.6	107.7	110.4	98.6	116.1	108.4	99.8	110.4
2007–08	131.8	102.0	108.5	112.0	111.6	96.9	120.8	107.7	102.7	111.4
2008–09	141.1	111.0	120.0	126.3	116.3	98.6	127.4	109.3	103.2	114.3
2009–10	140.4	120.0	109.4	130.5	117.9	100.1	143.2	118.9	104.5	115.4

^d Base of each index: 1998–99 = 100.0.^e Base of each index: 2001–02 = 100.0.

Note: Data are not readily available for missing years.

Source: ABS (2011d).

TI 1.4b Australian producer price indexes, communications industry

Average over financial year	Data processing and web hosting services e	Electronic information storage services d
1998–99		100.0
1999–00		99.1
2000–01		94.2
2001–02	100.0	93.9
2002–03	101.6	93.0
2003–04	102.9	95.2
2004–05	103.2	95.5
2005–06	109.7	97.2
2006–07	111.6	93.6
2007–08	112.4	92.4
2008–09	113.8	92.1
2009–10	114.3	90.4

d Base of each index: 1998–99 = 100.0.

e Base of each index: 2001–02 = 100.0.

Note: Data are not readily available for missing years.

Source: ABS (2011d).

TI 1.5a Australian population, by state/territory—capital city

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT 7,8
1970–71	2 977 300	2 515 400	891 100	850 700	711 800	153 100	37 100	160 800
1971–72	3 017 700	2 559 000	915 900	864 100	734 700	153 800	39 900	174 150
1972–73	3 040 800	2 597 200	941 800	877 800	751 700	155 500	42 800	185 100
1973–74	3 063 300	2 632 100	967 400	892 700	775 000	157 800	46 700	197 400
1974–75	3 082 500	2 658 800	979 000	905 100	799 600	160 600	25 700	209 900
1975–76	3 143 800	2 723 700	1 000 900	924 000	832 800	164 400	44 200	226 500
1976–77	3 168 100	2 740 800	1 012 200	934 200	851 800	165 800		232 600
1977–78	3 197 700	2 757 200	1 028 300	942 900	869 000	167 300		236 900
1978–79	3 226 800	2 771 000	1 046 400	944 800	882 900	168 400		239 700
1979–80	3 257 500	2 787 400	1 063 300	948 000	899 400	169 400		243 200
1980–81	3 279 500	2 806 300	1 096 200	953 700	922 000	171 100	56 400	246 500
1981–82	3 318 700	2 833 800	1 128 700	962 500	952 400	172 200	61 800	252 100
1982–83	3 350 700	2 861 700	1 148 300	973 400	976 800	173 400	65 100	258 400
1983–84	3 382 900	2 884 600	1 161 200	984 300	995 600	175 500	68 900	265 200
1984–85	3 425 200	2 909 100	1 176 500	994 000	1 018 200	177 500	72 200	272 300
1985–86	3 471 567	2 966 901	1 217 348	1 003 548	1 050 120	182 071	75 360	257 852
1986–87	3 528 486	3 003 582	1 238 378	1 011 904	1 079 603	183 321	77 047	264 405
1987–88	3 590 980	3 042 608	1 264 491	1 021 117	1 110 469	184 186	75 888	271 044
1988–89	3 622 859	3 085 580	1 300 218	1 033 471	1 147 375	185 938	76 025	275 334
1989–90	3 643 660	3 125 919	1 330 879	1 044 602	1 175 362	189 039	76 542	281 099
1990–91 ⁹	3 672 855	3 155 576	1 357 993	1 056 561	1 188 762	190 739	86 415	288 195
1991–92	3 710 168	3 182 441	1 388 383	1 065 647	1 207 350	192 439	87 836	293 554
1992–93	3 734 809	3 197 927	1 422 783	1 068 616	1 225 552	193 627	89 908	298 222
1993–94	3 769 641	3 213 021	1 455 195	1 071 672	1 246 266	194 519	91 133	301 131
1994–95	3 821 233	3 243 707	1 486 730	1 074 679	1 271 738	195 026	93 238	304 463
1995–96 ¹⁰	3 881 136	3 283 278	1 500 803	1 078 437	1 295 092	195 718	95 829	307 917
1996–97	3 928 658	3 309 601	1 524 315	1 083 906	1 316 274	195 976	98 891	308 700
1997–98	3 969 649	3 342 230	1 548 584	1 090 526	1 334 992	195 913	101 165	309 539
1998–99	4 019 954	3 379 714	1 572 204	1 096 934	1 355 373	196 011	103 064	311 967
1999–00	4 069 093	3 422 722	1 598 585	1 102 445	1 372 947	196 468	105 113	314 848
2000–01	4 128 272	3 471 625	1 663 120	1 107 986	1 393 002	197 282	106 842	318 939
2001–02	4 162 999	3 523 946	1 701 606	1 114 990	1 413 867	197 931	107 443	322 316
2002–03	4 190 874	3 577 411	1 744 111	1 121 742	1 435 907	199 853	107 440	325 340
2003–04	4 214 248	3 626 003	1 784 931	1 127 198	1 460 329	202 089	108 606	327 156
2004–05	4 245 045	3 680 609	1 822 074	1 134 513	1 485 823	203 467	111 258	329 865
2005–06	4 281 988	3 743 015	1 857 830	1 145 812	1 518 748	205 481	114 362	333 839
2006–07	4 344 675	3 817 806	1 902 235	1 159 131	1 559 178	207 330	117 333	340 766
2007–08	4 419 075	3 902 059	1 952 158	1 172 559	1 606 827	209 451	121 027	345 999
2008–09	4 504 469	3 995 537	2 004 262	1 187 466	1 658 992	212 019	124 760	351 868

7, 8, 9, 10 See End Notes.

Note: Data are not readily available for missing years

Source: ABS (2010).

TI I.5b Australian population, by state/territory—rest of state¹¹

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT 7,8
1970–71	1 748 203	1 085 952	960 385	349 414	342 034	244 973	48 635	
1971–72	1 777 406	1 102 254	982 578	350 528	347 317	246 508	52 181	
1972–73	1 801 098	1 110 453	1 010 151	350 675	349 341	247 587	54 327	
1973–74	1 830 753	1 123 626	1 040 940	348 838	352 598	248 351	56 224	
1974–75	1 849 516	1 128 641	1 072 362	360 164	355 348	249 488	67 169	
1975–76	1 815 788	1 086 726	1 091 475	350 070	345 542	247 914	54 028	
1976–77	1 833 788	1 096 564	1 117 639	351 919	352 566	249 232		
1977–78	1 856 090	1 106 559	1 143 747	353 305	358 851	250 342		
1978–79	1 884 330	1 115 406	1 168 371	356 309	363 711	252 356		
1979–80	1 914 027	1 126 903	1 202 635	360 397	369 668	254 190		
1980–81	1 955 389	1 140 617	1 249 008	365 069	378 056	256 124	66 216	
1981–82	1 984 880	1 159 070	1 295 886	368 608	386 499	257 645	68 514	
1982–83	2 002 259	1 174 002	1 333 982	372 375	392 250	259 405	70 816	
1983–84	2 019 829	1 191 892	1 362 659	375 748	395 637	262 260	73 254	
1984–85	2 039 312	1 210 968	1 394 718	377 197	400 364	265 328	76 336	
1985–86	2 059 959	1 193 955	1 407 247	379 002	408 899	264 402	79 061	
1986–87	2 088 250	1 206 529	1 436 729	380 860	416 645	265 905	81 158	
1987–88	2 116 329	1 219 961	1 475 416	383 792	424 698	266 962	83 138	
1988–89	2 153 424	1 234 584	1 527 419	385 558	431 059	269 320	85 154	
1989–90	2 190 361	1 252 673	1 568 404	387 454	437 687	273 149	87 186	
1990–91 ⁹	2 225 876	1 264 797	1 602 958	389 738	447 305	276 063	79 078	1 125
1991–92	2 252 401	1 272 561	1 641 567	390 865	450 695	277 387	80 250	1 120
1992–93	2 270 071	1 274 460	1 687 005	392 058	452 117	278 032	80 826	1 080
1993–94	2 290 549	1 274 549	1 731 918	394 466	456 743	278 420	82 242	355
1994–95	2 305 748	1 273 680	1 778 379	394 750	462 049	278 647	84 314	342
1995–96 ¹⁰	2 323 592	1 276 877	1 837 887	395 816	470 164	278 725	86 014	334
1996–97	2 348 303	1 287 600	1 870 356	397 451	478 718	277 629	88 021	342
1997–98	2 369 422	1 295 590	1 899 141	399 026	487 676	276 054	88 715	349
1998–99	2 391 416	1 306 688	1 929 217	400 885	494 360	275 419	89 671	359
1999–00	2 417 120	1 318 617	1 962 952	402 593	501 512	274 941	90 448	367
2000–01	2 446 945	1 333 101	1 965 826	403 742	508 157	274 513	90 926	378
2001–02	2 465 952	1 339 138	2 013 192	406 137	512 244	274 835	91 968	359
2002–03	2 481 703	1 346 074	2 065 103	409 536	517 163	277 793	92 606	321
2003–04	2 492 941	1 355 464	2 115 979	413 236	522 308	280 681	93 457	319
2004–05	2 511 412	1 367 993	2 172 784	418 001	531 265	282 860	95 115	299
2005–06	2 534 099	1 383 525	2 233 078	422 076	540 633	284 470	96 265	280
2006–07	2 560 267	1 403 504	2 293 746	426 663	553 789	285 874	97 471	288
2007–08	2 595 812	1 424 919	2 356 412	431 426	570 153	288 471	99 476	295
2008–09	2 629 952	1 447 691	2 420 841	436 124	586 065	291 273	101 178	321

7, 8, 9, 10, 11 See End Notes.

Note: Data are not readily available for missing years

Source: ABS (2010).

TI 1.5c Australian population, by state/territory—total

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT 7,8
1970–71	4 725 503	3 601 352	1 851 485	1 200 114	1 053 834	398 073	85 735	151 169
1971–72	4 795 106	3 661 254	1 898 478	1 214 628	1 082 017	400 308	92 081	159 792
1972–73	4 841 898	3 707 653	1 951 951	1 228 475	1 101 041	403 087	97 127	173 306
1973–74	4 894 053	3 755 726	2 008 340	1 241 538	1 127 598	406 151	102 924	186 241
1974–75	4 932 016	3 787 441	2 051 362	1 265 264	1 154 948	410 088	92 869	199 007
1975–76	4 959 588	3 810 426	2 092 375	1 274 070	1 178 342	412 314	98 228	207 740
1976–77	5 001 888	3 837 364	2 129 839	1 286 119	1 204 366	415 032	103 938	213 688
1977–78	5 053 790	3 863 759	2 172 047	1 296 205	1 227 851	417 642	109 980	217 981
1978–79	5 111 130	3 886 406	2 214 771	1 301 109	1 246 611	420 756	114 149	220 797
1979–80	5 171 527	3 914 303	2 265 935	1 308 397	1 269 068	423 590	118 245	224 291
1980–81	5 234 889	3 946 917	2 345 208	1 318 769	1 300 056	427 224	122 616	227 581
1981–82	5 303 580	3 992 870	2 424 586	1 331 108	1 338 899	429 845	130 314	233 045
1982–83	5 352 959	4 035 702	2 482 282	1 345 775	1 369 050	432 805	135 916	238 983
1983–84	5 402 729	4 076 492	2 523 859	1 360 048	1 391 237	437 760	142 154	245 112
1984–85	5 464 512	4 120 068	2 571 218	1 371 197	1 418 564	442 828	148 536	251 389
1985–86	5 531 526	4 160 856	2 624 595	1 382 550	1 459 019	446 473	154 421	258 910
1986–87	5 616 736	4 210 111	2 675 107	1 392 764	1 496 248	449 226	158 205	265 477
1987–88	5 707 309	4 262 569	2 739 907	1 404 909	1 535 167	451 148	159 026	272 129
1988–89	5 776 283	4 320 164	2 827 637	1 419 029	1 578 434	455 258	161 179	276 432
1989–90	5 834 021	4 378 592	2 899 283	1 432 056	1 613 049	462 188	163 728	282 211
1990–91	5 898 731	4 420 373	2 960 951	1 446 299	1 636 067	466 802	165 493	289 320
1991–92	5 962 569	4 455 002	3 029 950	1 456 512	1 658 045	469 826	168 086	294 674
1992–93	6 004 880	4 472 387	3 109 788	1 460 674	1 677 669	471 659	170 734	299 302
1993–94	6 060 190	4 487 570	3 187 113	1 466 138	1 703 009	472 939	173 375	301 486
1994–95	6 126 981	4 517 387	3 265 109	1 469 429	1 733 787	473 673	177 552	304 805
1995–96	6 204 728	4 560 155	3 338 690	1 474 253	1 765 256	474 443	181 843	308 251
1996–97	6 276 961	4 597 201	3 394 671	1 481 357	1 794 992	473 605	186 912	309 042
1997–98	6 339 071	4 637 820	3 447 725	1 489 552	1 822 668	471 967	189 880	309 888
1998–99	6 411 370	4 686 402	3 501 421	1 497 819	1 849 733	471 430	192 735	312 326
1999–00	6 486 213	4 741 339	3 561 537	1 505 038	1 874 459	471 409	195 561	315 215
2000–01	6 575 217	4 804 726	3 628 946	1 511 728	1 901 159	471 795	197 768	319 317
2001–02	6 628 951	4 863 084	3 714 798	1 521 127	1 926 111	472 766	199 411	322 675
2002–03	6 672 577	4 923 485	3 809 214	1 531 278	1 953 070	477 646	200 046	325 661
2003–04	6 707 189	4 981 467	3 900 910	1 540 434	1 982 637	482 770	202 063	327 475
2004–05	6 756 457	5 048 602	3 994 858	1 552 514	2 017 088	486 327	206 373	330 164
2005–06	6 816 087	5 126 540	4 090 908	1 567 888	2 059 381	489 951	210 627	334 119
2006–07	6 904 942	5 221 310	4 195 981	1 585 794	2 112 967	493 204	214 804	341 054
2007–08	7 014 887	5 326 978	4 308 570	1 603 985	2 176 980	497 922	220 503	346 294
2008–09	7 134 421	5 443 228	4 425 103	1 623 590	2 245 057	503 292	225 938	352 189

7,8 See End Notes.
Source: ABS (2010).

TI 1.6 Key indicators influencing Australian infrastructure

Financial year	Goods exports	Goods imports	Consumer Price Index, annual percentage change	Rate at close of financial year	
				Exchange rate 12	Interest rate 13
	\$m	\$m	%	\$US	%
1971–72	4 766	–3 814	6.9	1.1910	5.75
1972–73	6 110	–3 831	6.1	1.4167	6.40
1973–74	6 861	–5 795	12.9	1.4875	18.80
1974–75	8 656	–7 728	16.8	1.3258	8.80
1975–76	9 628	–7 999	12.9	1.2356	10.27
1976–77	11 618	–10 428	13.9	1.1155	10.95
1977–78	12 208	–11 242	9.5	1.1475	10.63
1978–79	14 292	–13 506	8.1	1.1211	10.26
1979–80	18 946	–16 066	10.2	1.1576	13.83
1980–81	19 095	–19 486	9.3	1.1480	15.58
1981–82	19 742	–22 699	10.4	1.0223	18.57
1982–83	21 313	–22 047	11.5	0.8745	14.24
1983–84	24 049	–23 778	6.9	0.8613	12.81
1984–85	30 200	–30 383	4.3	0.6655	15.75
1985–86	32 603	–36 027	8.4	0.6772	14.68
1986–87	36 406	–37 351	9.3	0.7203	13.68
1987–88	41 915	–40 626	7.3	0.7940	13.10
1988–89	44 292	–47 196	7.3	0.7553	18.37
1989–90	49 027	–51 270	8.0	0.7890	15.02
1990–91	52 685	–49 654	5.3	0.7681	10.39
1991–92	55 537	–51 440	1.9	0.7488	6.42
1992–93	60 787	–59 928	1.0	0.6722	5.22
1993–94	64 514	–64 783	1.8	0.7291	5.12
1994–95	67 191	–75 229	3.2	0.7086	7.55
1995–96	76 309	–77 674	4.2	0.7890	7.57
1996–97	81 057	–79 346	1.3	0.7455	5.35
1997–98	88 583	–91 959	0.0	0.6135	5.32
1998–99	85 636	–98 187	1.3	0.6596	4.93
1999–00	97 685	–110 618	2.4	0.5986	6.23
2000–01	120 201	–120 306	6.0	0.5075	4.97
2001–02	121 067	–121 691	2.9	0.5648	5.07
2002–03	115 895	–134 014	3.1	0.6674	4.67
2003–04	109 418	–132 806	2.4	0.6889	5.49
2004–05	127 812	–150 689	2.4	0.7637	5.66
2005–06	154 035	–169 511	3.2	0.7433	5.96
2006–07	169 620	–183 576	2.9	0.8487	6.42
2007–08	182 956	–204 858	3.4	0.9626	7.81
2008–09	231 564	–220 649	3.1	0.8114	3.25
2009–10	201 463	–204 490	2.3	0.8523	4.89

12, 13 See End Notes.

Note: Data are not readily available for missing years.

Source: ABS (2011a), ABS (2010e) and RBA (2010).

CHAPTER 2

Infrastructure construction

TI 2.1a Value of major infrastructure engineering construction work done by the private sector for the private sector, adjusted by chain volume index

Financial year	Transport	Energy	Telecommunications	Water	Total major infrastructure engineering construction work done
\$ million					
1986–87	1 494.7	1 178.8	28.1	181.9	2 883.5
1987–88	1 686.5	1 612.2	14.1	238.8	3 551.7
1988–89	1 914.8	1 683.0	14.9	250.4	3 863.0
1989–90	2 234.6	933.0	11.9	243.3	3 422.7
1990–91	1 965.9	960.5	15.7	346.1	3 288.2
1991–92	1 921.7	1 265.3	11.8	201.0	3 399.8
1992–93	1 768.5	1 356.5	119.3	269.4	3 513.7
1993–94	2 171.6	1 601.4	142.3	436.7	4 352.0
1994–95	1 977.0	1 511.1	122.5	572.8	4 183.3
1995–96	2 029.2	2 176.0	321.5	663.6	5 190.3
1996–97	2 732.7	1 735.1	273.4	322.7	5 063.9
1997–98	3 647.9	2 201.4	108.9	391.2	6 349.4
1998–99	4 114.2	3 035.3	176.5	352.5	7 678.5
1999–00	3 133.1	3 497.7	535.3	491.5	7 657.7
2000–01	2 178.1	3 123.0	930.4	556.9	6 788.3
2001–02	2 852.1	5 138.9	529.9	434.0	8 954.9
2002–03	4 533.2	5 784.3	502.9	629.1	11 449.5
2003–04	6 244.0	6 538.9	1 057.8	1 062.8	14 903.5
2004–05	8 353.5	5 865.2	1 205.7	844.6	16 269.0
2005–06	8 584.4	8 512.5	1 498.3	949.2	19 544.4
2006–07	8 420.3	8 796.0	3 869.0	951.5	22 036.7
2007–08	8 169.8	11 347.5	4 608.3	1 722.7	25 848.3
2008–09	8 697.0	16 114.3	3 938.5	1 621.7	30 371.4
2009–10	7 415.1	16 437.8	3 743.5	2 308.0	29 904.4

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

TI 2.1b Value of major infrastructure engineering construction work done by the private sector for the public sector, adjusted by chain volume index

Financial year	Transport	Energy	Telecommunications	Water	Total major infrastructure engineering construction work done
\$ million					
1986–87	2 494.2	1 324.9	70.1	731.0	4 620.2
1987–88	1 795.6	849.0	53.1	697.2	3 394.9
1988–89	1 637.5	837.8	12.1	565.2	3 052.6
1989–90	1 894.0	781.3	18.7	580.3	3 274.2
1990–91	2 108.7	1 203.1	35.4	734.1	4 081.3
1991–92	2 082.6	1 216.6	51.2	755.2	4 105.6
1992–93	2 612.0	1 022.6	37.6	744.5	4 416.6
1993–94	3 227.9	932.4	50.6	957.0	5 167.9
1994–95	3 009.2	763.5	19.3	726.1	4 518.2
1995–96	2 875.0	835.6	40.9	661.8	4 413.4
1996–97	3 351.7	926.4	11.0	595.2	4 884.4
1997–98	4 053.4	660.1	49.2	635.3	5 398.0
1998–99	4 598.4	404.3	33.1	733.5	5 769.4
1999–00	4 266.7	441.6	194.6	1 263.6	6 166.6
2000–01	3 898.3	396.6	373.1	1 053.4	5 721.4
2001–02	3 292.3	519.5	451.0	775.9	5 038.6
2002–03	3 361.1	600.3	381.4	822.2	5 165.1
2003–04	3 491.1	372.2	58.6	1 197.2	5 119.1
2004–05	4 683.2	631.1	201.6	1 354.7	6 870.6
2005–06	5 268.3	857.0	69.1	1 189.5	7 384.0
2006–07	5 805.2	550.5	42.2	1 353.0	7 750.9
2007–08	6 362.5	450.4	25.2	4 202.3	11 040.5
2008–09	8 652.7	648.9	48.6	4 165.3	13 515.5
2009–10	8 744.2	914.6	171.5	4 148.5	13 978.8

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

TI 2.1c Value of major infrastructure engineering construction work done by the public sector, adjusted by chain volume index

Financial year	Transport	Energy	Telecommunications	Water	Total major engineering construction work done
\$ million					
1986–87	2 948.8	1 336.8	3 418.9	1 585.5	9 290.0
1987–88	2 774.4	1 329.1	3 162.9	1 300.7	8 567.0
1988–89	2 658.9	1 319.2	3 404.5	1 294.2	8 676.8
1989–90	3 087.3	1 824.4	3 735.4	1 284.7	9 931.9
1990–91	3 148.7	1 519.4	3 795.9	1 366.7	9 830.8
1991–92	2 851.0	1 367.1	2 901.9	1 280.5	8 400.5
1992–93	3 522.0	1 427.2	2 875.1	1 214.3	9 038.7
1993–94	3 721.0	1 456.0	2 596.1	889.1	8 662.2
1994–95	3 894.0	1 498.1	3 493.3	874.2	9 759.6
1995–96	4 140.0	1 119.3	4 047.4	673.9	9 980.7
1996–97	3 885.8	918.3	4 027.0	519.6	9 350.6
1997–98	3 536.6	1 006.9	4 130.9	662.5	9 336.9
1998–99	3 552.8	1 439.3	4 375.9	768.1	10 136.0
1999–00	3 486.9	1 624.6	5 073.3	918.6	11 103.3
2000–01	3 177.6	1 905.2	4 307.1	709.4	10 099.3
2001–02	3 391.5	2 049.5	3 934.0	668.8	10 043.9
2002–03	3 543.3	2 171.1	3 499.5	774.7	9 988.6
2003–04	3 590.3	2 481.2	2 936.5	747.9	9 756.0
2004–05	3 694.8	2 574.6	3 092.8	813.2	10 175.3
2005–06	3 712.3	3 628.5	4 136.4	944.5	12 421.8
2006–07	4 130.5	4 456.3	1 535.9	1 296.7	11 419.3
2007–08	4 610.9	4 707.3	7.1	1 740.2	11 065.5
2008–09	5 484.8	5 606.9	7.1	1 697.2	12 796.0
2009–10	6 109.0	5 972.2	9.9	2 371.6	14 462.8

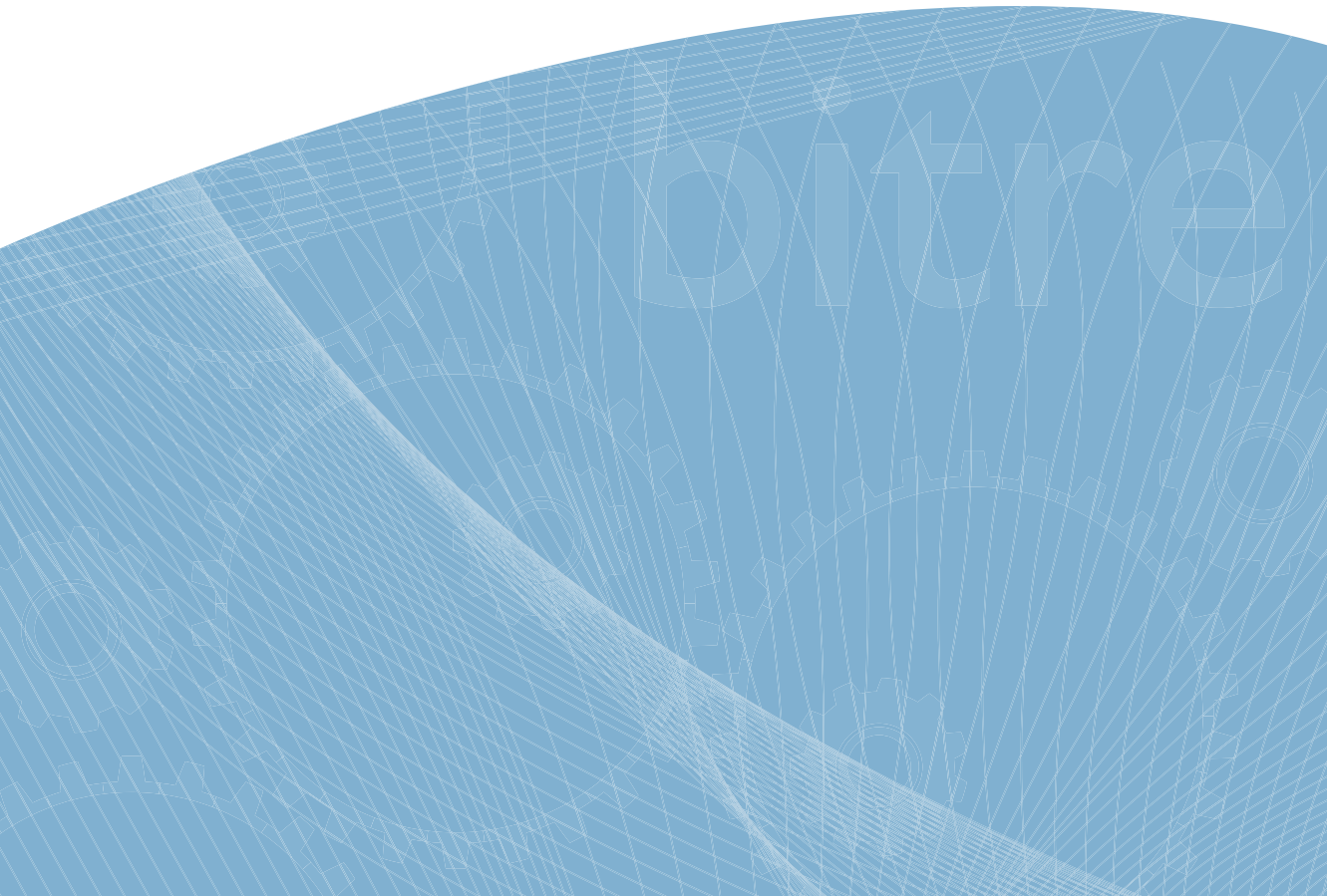
Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

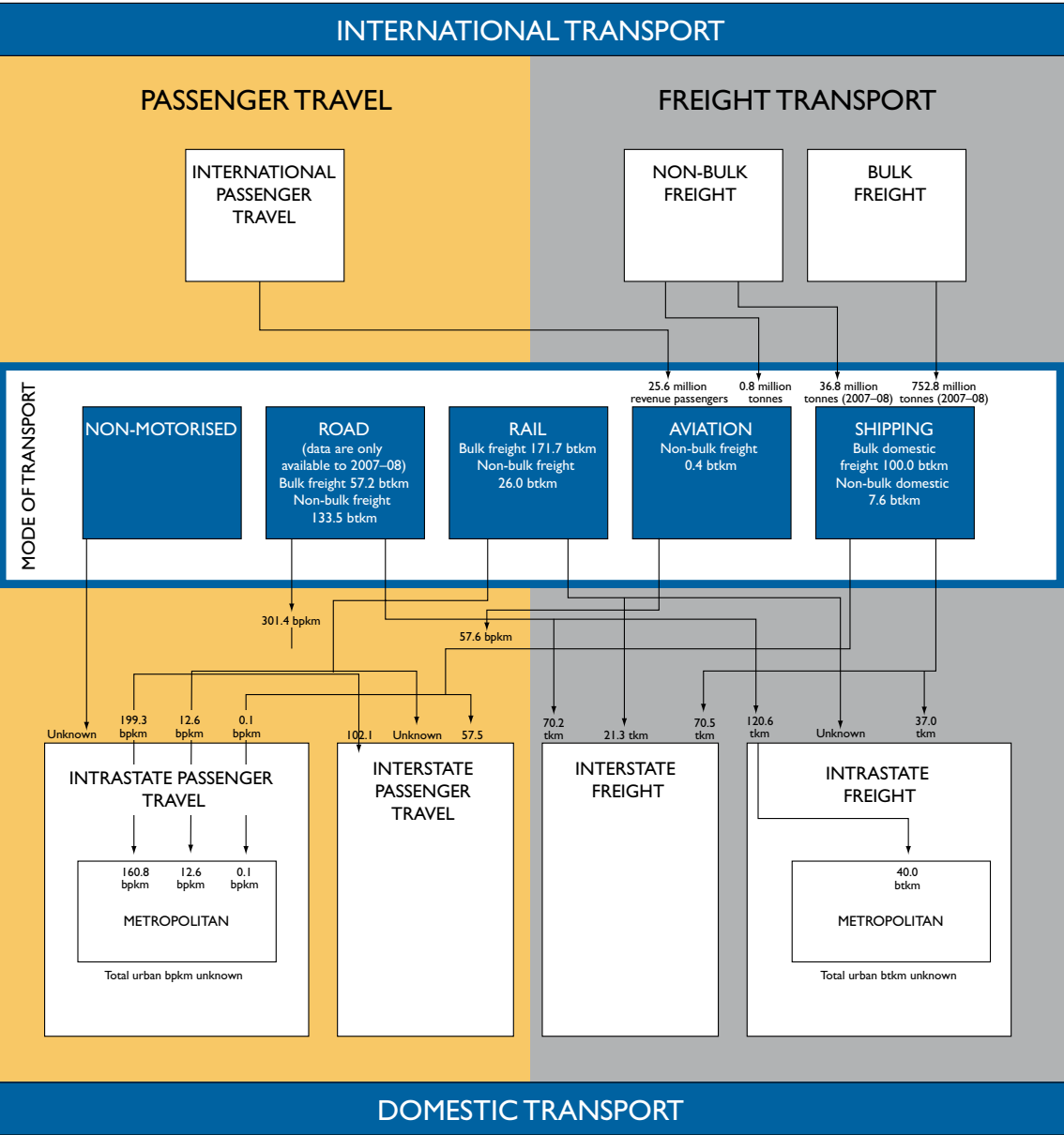
TI 2.1d Total value of major infrastructure engineering construction work done, adjusted by chain volume index

Financial year	Transport	Energy	Telecommunications	Water	Total major engineering construction work done
\$ million					
1986–87	6 937.7	3 840.5	3 517.1	2 498.5	16 793.7
1987–88	6 256.5	3 790.3	3 230.2	2 236.7	15 513.6
1988–89	6 211.2	3 839.9	3 431.5	2 109.8	15 592.4
1989–90	7 215.9	3 538.6	3 766.0	2 108.3	16 628.8
1990–91	7 223.3	3 683.0	3 847.0	2 446.9	17 200.3
1991–92	6 855.2	3 849.0	2 964.9	2 236.7	15 905.9
1992–93	7 902.5	3 806.3	3 032.0	2 228.2	16 969.0
1993–94	9 120.6	3 989.9	2 788.9	2 282.7	18 182.1
1994–95	8 880.1	3 772.7	3 635.2	2 173.1	18 461.2
1995–96	9 044.3	4 130.9	4 409.9	1 999.3	19 584.4
1996–97	9 970.2	3 579.8	4 311.4	1 437.6	19 298.9
1997–98	11 237.9	3 868.4	4 289.0	1 689.1	21 084.3
1998–99	12 265.4	4 878.9	4 585.6	1 854.0	23 583.9
1999–00	10 886.7	5 563.9	5 803.3	2 673.7	24 927.6
2000–01	9 253.9	5 424.7	5 610.6	2 319.7	22 608.9
2001–02	9 535.8	7 707.9	4 915.0	1 878.7	24 037.5
2002–03	11 437.6	8 555.7	4 383.8	2 226.1	26 603.2
2003–04	13 325.4	9 392.3	4 052.9	3 007.9	29 778.5
2004–05	16 731.5	9 070.9	4 500.1	3 012.5	33 315.0
2005–06	17 565.1	12 998.1	5 703.9	3 083.1	39 350.2
2006–07	18 355.9	13 802.9	5 447.1	3 601.1	41 207.0
2007–08	19 143.2	16 505.3	4 640.6	7 665.2	47 954.3
2008–09	22 834.5	22 370.1	3 994.1	7 484.2	56 682.9
2009–10	22 268.3	23 324.7	3 925.0	8 828.1	58 346.0

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

PART T: Transport





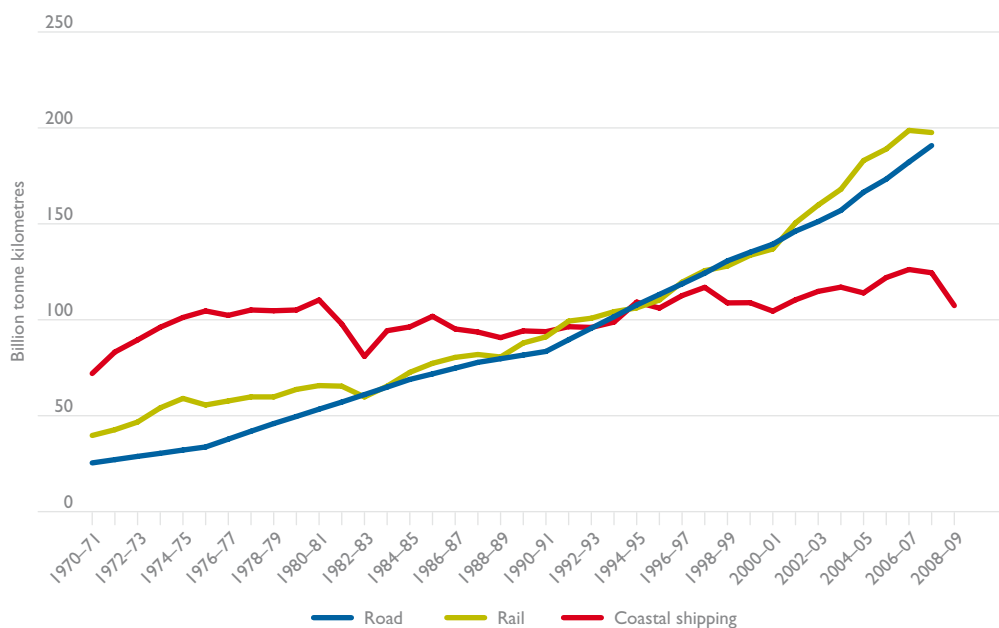
Note: Metropolitan refers to the eight capital cities, Sydney, Melbourne, Brisbane, Adelaide, Perth, Hobart, Darwin and Canberra.

PART T

Transport

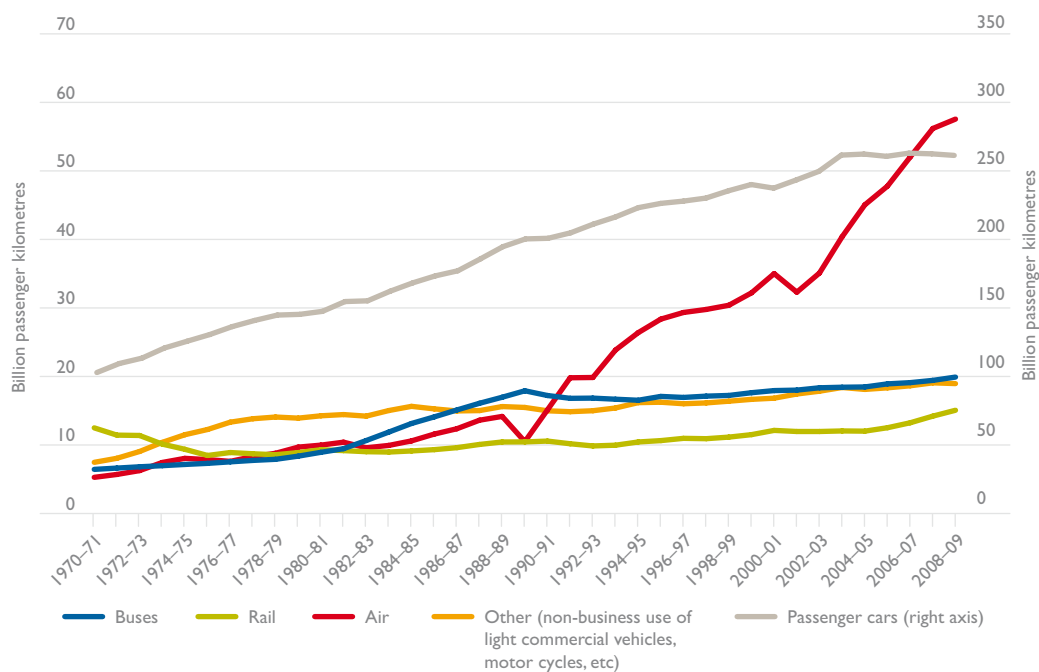
Statistics for Australian transport activity are provided from two perspectives: transportation activity measured in terms of what is being transported (freight or passengers), or transportation activity in terms of the mode of transport that is used (road, rail, aviation or shipping).

FT 2 Australian domestic freight task, by mode of transport



Freight transport activity is measured in terms of tonne kilometres (the movement of one tonne of freight, one kilometre). The Australian domestic freight task has been increasing strongly for the last 40 years, with road and rail freight now dominating domestic freight activity. Coastal freight has experienced a slower rate of growth over the last 40 years and fell sharply in 2008-09 (2008-09 data are not yet available for road or rail freight activity).

FT 3 Australian domestic passenger task, by mode of transport



Passenger transport activity is measured in terms of passenger kilometres (the movement of one passenger, one kilometre). The Australian domestic passenger task is dominated by road transport, mainly passenger cars (right axis), which remained relatively constant over the six years to 2008–09. Passenger travel using other motorised vehicles increased in recent years, with passenger travel by air increasing rapidly since 2001.

CHAPTER I

Transport infrastructure

TT 1.1a Value of transport infrastructure engineering construction work done by the private sector for the private sector, adjusted by chain volume index

Financial year	Roads and bridges	Railways	Ports and harbours	Total major infrastructure engineering construction work done	Transport as % of total
		\$ million			per cent
1986–87	951.7	188.4	354.5	2 883.5	51.84
1987–88	1 336.8	85.4	264.3	3 551.7	47.48
1988–89	1 821.6	41.6	51.6	3 863.0	49.57
1989–90	2 093.7	28.6	112.3	3 422.7	65.29
1990–91	1 846.9	31.4	87.5	3 288.2	59.78
1991–92	1 812.2	57.6	51.8	3 399.8	56.52
1992–93	1 690.4	21.7	56.4	3 513.7	50.33
1993–94	1 986.8	66.4	118.5	4 352.0	49.90
1994–95	1 885.9	48.0	43.0	4 183.3	47.26
1995–96	1 887.7	101.1	40.4	5 190.3	39.10
1996–97	2 470.7	131.0	131.1	5 063.9	53.96
1997–98	3 039.6	276.3	332.0	6 349.4	57.45
1998–99	3 555.9	251.2	307.1	7 678.5	53.58
1999–00	2 775.7	235.6	121.8	7 657.7	40.91
2000–01	1 911.3	134.8	131.9	6 788.3	32.09
2001–02	2 307.5	393.9	150.6	8 954.9	31.85
2002–03	3 592.6	744.7	195.8	11 449.5	39.59
2003–04	5 481.0	372.7	390.3	14 903.5	41.90
2004–05	6 731.2	632.5	989.9	16 269.0	51.35
2005–06	6 909.8	597.0	1 077.6	19 544.4	43.92
2006–07	6 154.8	1 123.1	1 142.4	22 036.7	38.21
2007–08	5 438.3	1 651.2	1 080.3	25 848.3	31.61
2008–09	6 239.6	1 216.8	1 240.6	30 371.4	28.64
2009–10	5 023.5	1 367.8	1 023.8	29 904.4	24.80

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

TT 1.1b Value of transport infrastructure engineering construction work done by the private sector for the public sector, adjusted by chain volume index

Financial year	Roads and bridges	Railways	Ports and harbours	Total major infrastructure engineering construction work done	Transport as % of total
	\$ million				per cent
1986–87	1 988.5	272.0	233.7	4 620.2	53.98
1987–88	1 458.9	247.3	89.4	3 394.9	52.89
1988–89	1 432.9	75.6	129.0	3 052.6	53.64
1989–90	1 737.3	88.7	67.9	3 274.2	57.84
1990–91	1 859.4	145.8	103.5	4 081.3	51.67
1991–92	1 859.1	157.9	65.6	4 105.6	50.73
1992–93	2 278.7	176.1	157.1	4 416.6	59.14
1993–94	2 700.8	356.8	170.3	5 167.9	62.46
1994–95	2 423.3	490.9	95.1	4 518.2	66.60
1995–96	2 473.6	301.7	99.7	4 413.4	65.14
1996–97	2 511.1	607.1	233.5	4 884.4	68.62
1997–98	3 267.9	656.4	129.1	5 398.0	75.09
1998–99	3 924.9	530.3	143.2	5 769.4	79.70
1999–00	3 917.7	242.8	106.2	6 166.6	69.19
2000–01	3 647.0	151.9	99.3	5 721.4	68.14
2001–02	2 988.5	89.3	214.5	5 038.6	65.34
2002–03	2 886.6	313.3	161.2	5 165.1	65.07
2003–04	2 471.0	858.7	161.4	5 119.1	68.20
2004–05	3 291.9	1 206.9	184.4	6 870.6	68.16
2005–06	3 894.6	1 221.0	152.7	7 384.0	71.35
2006–07	4 814.5	848.9	141.8	7 750.9	74.90
2007–08	5 531.5	620.8	210.2	11 040.5	57.63
2008–09	7 116.4	1 242.8	293.5	13 515.5	64.02
2009–10	6 817.4	1 408.2	518.6	13 978.8	62.55

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

TT 1.1c Value of transport infrastructure engineering construction work done by the public sector, adjusted by chain volume index

Financial year	Roads and bridges	Railways	Ports and harbours	Total major infrastructure engineering construction work done	Transport as % of total
	\$ million				per cent
1986–87	2 621.2	262.1	65.6	9 290.0	31.74
1987–88	2 448.0	285.7	40.6	8 567.0	32.38
1988–89	2 436.5	179.6	42.8	8 676.8	30.64
1989–90	2 548.4	485.4	53.6	9 931.9	31.09
1990–91	2 546.3	537.9	64.6	9 830.8	32.03
1991–92	2 253.4	569.7	27.9	8 400.5	33.94
1992–93	2 825.6	665.2	31.2	9 038.7	38.97
1993–94	2 902.5	773.2	45.3	8 662.2	42.96
1994–95	2 827.5	1 031.0	35.4	9 759.6	39.90
1995–96	2 863.4	1 247.8	28.8	9 980.7	41.48
1996–97	2 540.7	1 309.4	35.6	9 350.6	41.56
1997–98	2 668.0	825.3	43.2	9 336.9	37.88
1998–99	2 691.6	788.7	72.4	10 136.0	35.05
1999–00	2 788.2	674.8	23.9	11 103.3	31.40
2000–01	2 528.0	591.9	57.7	10 099.3	31.46
2001–02	2 546.0	754.2	91.3	10 043.9	33.77
2002–03	2 746.4	737.1	59.8	9 988.6	35.47
2003–04	2 738.7	788.5	63.0	9 756.0	36.80
2004–05	2 654.1	1 014.2	26.5	10 175.3	36.31
2005–06	2 812.0	884.6	15.7	12 421.8	29.89
2006–07	3 131.4	967.1	32.0	11 419.3	36.17
2007–08	3 412.2	901.2	297.5	11 065.5	41.67
2008–09	4 147.5	932.1	405.2	12 796.0	42.86
2009–10	3 946.9	1 960.2	201.9	14 462.8	42.24

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

TT 1.1d Total value of transport infrastructure engineering construction work done, adjusted by chain volume index

Financial year	Roads and bridges	Railways	Ports and harbours	Total major infrastructure engineering construction work done	Transport as % of total
	\$ million				per cent
1986–87	5 561.4	722.5	653.8	16 793.7	41.31
1987–88	5 243.8	618.3	394.4	15 513.6	40.33
1988–89	5 691.0	296.8	223.5	15 592.4	39.83
1989–90	6 379.4	602.7	233.8	16 628.8	43.39
1990–91	6 252.6	715.2	255.5	17 200.3	42.00
1991–92	5 924.7	785.3	145.2	15 905.9	43.10
1992–93	6 794.8	862.9	244.8	16 969.0	46.57
1993–94	7 590.1	1 196.4	334.1	18 182.1	50.16
1994–95	7 136.8	1 569.9	173.5	18 461.2	48.10
1995–96	7 224.7	1 650.5	169.0	19 584.4	46.18
1996–97	7 522.4	2 047.6	400.2	19 298.9	51.66
1997–98	8 975.5	1 758.1	504.3	21 084.3	53.30
1998–99	10 172.4	1 570.3	522.6	23 583.9	52.01
1999–00	9 481.5	1 153.1	252.0	24 927.6	43.67
2000–01	8 086.4	878.7	288.9	22 608.9	40.93
2001–02	7 842.0	1 237.4	456.5	24 037.5	39.67
2002–03	9 225.6	1 795.1	416.9	26 603.2	42.99
2003–04	10 690.7	2 020.0	614.7	29 778.5	44.75
2004–05	12 677.2	2 853.6	1 200.7	33 315.0	50.22
2005–06	13 616.4	2 702.6	1 246.0	39 350.2	44.64
2006–07	14 100.6	2 939.0	1 316.2	41 207.0	44.55
2007–08	14 382.1	3 173.2	1 588.0	47 954.3	39.92
2008–09	17 503.4	3 391.7	1 939.4	56 682.9	40.28
2009–10	15 787.8	4 736.2	1 744.3	58 346.0	38.17

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

TT 1.2a Total road expenditure by state/territory, by level of government, 2008–09 prices—Commonwealth

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
	\$ million								
1985–86	878.0	560.4	564.5	261.1	384.8	114.4	100.0	102.7	2 966.1
1986–87	954.6	531.2	555.9	236.3	343.7	105.0	87.7	106.5	2 920.9
1987–88	841.1	513.2	522.3	190.9	316.4	96.2	80.1	0.0	2 560.2
1988–89	759.1	477.7	476.7	174.6	311.1	92.8	76.0	0.0	2 368.0
1989–90	823.0	520.5	503.1	173.8	298.9	92.6	75.9	22.7	2 510.5
1990–91	926.6	570.6	540.8	189.0	299.6	96.3	99.2	22.5	2 744.7
1991–92	1 013.4	614.9	573.9	196.9	314.6	105.3	89.1	26.5	2 934.4
1992–93	1 226.7	778.5	791.5	259.8	380.2	135.9	120.7	32.5	3 725.8
1993–94	922.7	540.6	505.4	173.3	250.8	89.8	66.6	19.1	2 568.1
1994–95	902.6	521.0	482.2	164.1	245.4	91.7	64.4	22.9	2 494.3
1995–96	864.7	517.8	504.0	185.1	275.1	97.8	86.9	27.7	2 559.2
1996–97	857.5	465.3	551.0	185.8	282.6	108.0	84.2	30.2	2 564.5
1997–98	914.8	373.6	526.7	236.9	273.5	98.1	83.8	30.6	2 537.9
1998–99	866.4	440.3	538.0	253.6	289.1	104.6	83.3	48.3	2 623.7
1999–00	836.2	401.8	556.8	196.9	258.7	111.9	86.9	69.1	2 518.3
2000–01	700.0	324.2	548.2	118.2	225.3	83.1	63.3	25.6	2 087.9
2001–02	761.0	563.1	528.7	153.8	279.5	72.8	59.3	46.0	2 464.1
2002–03	760.1	467.4	496.1	131.4	243.2	72.5	56.0	26.7	2 253.4
2003–04	856.6	356.5	510.2	147.9	240.5	62.1	51.7	26.1	2 251.5
2004–05	938.0	491.3	488.9	166.7	265.0	77.3	60.2	27.5	2 514.8
2005–06	2 025.5	604.8	938.4	295.5	679.3	154.2	99.6	35.6	4 832.9
2006–07	1 014.4	579.1	729.4	194.6	321.9	73.8	49.7	31.7	2 994.7
2007–08	747.5	548.7	747.9	201.9	353.7	70.3	65.2	18.9	2 754.2
2008–09	1 495.7	628.4	1 824.4	337.8	448.2	94.1	80.2	25.5	4 934.3

Source: BITRE (2011).

TT 1.2b Total road expenditure by state/territory, by level of government, 2008–09 prices—state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
\$ million									
1985–86	1 228.78	751.85	681.20	172.44	271.31	192.98	40.18	na	3 338.74
1986–87	1 014.56	702.07	635.37	166.75	299.28	162.20	94.20	na	3 074.42
1987–88	1 120.51	717.40	509.31	193.66	283.01	111.13	78.95	na	3 013.97
1988–89	1 262.49	805.68	596.25	238.00	312.43	136.64	169.40	na	3 520.89
1989–90	1 750.98	687.30	434.97	248.01	345.89	131.25	109.51	194.61	3 902.52
1990–91	2 405.15	502.59	664.29	228.86	302.02	83.96	71.72	139.70	4 398.27
1991–92	2 070.48	449.49	571.12	208.23	331.86	80.99	51.83	176.43	3 940.44
1992–93	1 608.57	411.69	674.07	211.43	393.92	92.12	75.80	106.53	3 574.14
1993–94	1 679.49	521.41	866.76	195.14	408.71	108.41	140.58	116.54	4 037.05
1994–95	1 653.03	780.87	906.83	244.23	414.70	95.10	86.48	39.82	4 221.06
1995–96	1 774.93	671.67	1 081.74	311.87	848.95	99.20	77.92	29.86	4 896.15
1996–97	1 789.75	696.41	1 193.31	223.60	494.49	95.72	78.07	19.19	4 590.54
1997–98	1 833.08	747.66	1 442.72	332.17	672.10	107.83	82.54	23.58	5 241.68
1998–99	1 560.93	264.66	1 530.63	143.53	608.28	46.21	41.33	–28.34	4 167.22
1999–00	1 644.61	348.54	726.58	197.71	704.48	46.25	12.69	–46.50	3 634.37
2000–01	1 846.74	902.33	1 368.88	321.23	724.16	65.94	43.67	53.30	5 326.24
2001–02	1 800.87	652.71	848.83	275.45	723.43	96.37	50.87	50.27	4 498.80
2002–03	1 684.22	1 000.96	849.60	251.75	670.80	112.94	49.13	61.02	4 680.42
2003–04	1 533.48	555.51	1 183.70	240.56	639.45	47.17	50.95	50.77	4 301.59
2004–05	2 106.03	789.88	1 163.08	180.83	681.87	94.19	43.85	43.05	5 102.78
2005–06	634.41	538.59	877.78	234.85	313.57	67.04	166.80	50.94	2 883.98
2006–07	2 103.65	739.33	1 841.32	55.51	820.06	54.45	196.88	65.68	5 876.87
2007–08	2 452.30	840.81	2 582.26	236.33	1 046.12	90.17	183.89	100.67	7 532.56
2008–09	2 385.68	998.41	2 216.99	–134.84	897.64	42.28	220.22	10.23	6 636.61

na not applicable.

Source: BITRE (2011).

TT 1.2c Total road expenditure by state/territory, by level of government, 2008–09 prices—local government

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
	\$ million								
1985–86	2 144.7	1 256.8	1 106.4	387.8	384.6	143.6	17.6	na	5 441.5
1986–87	2 295.9	1 295.0	1 086.7	398.0	392.8	153.3	13.9	na	5 635.6
1987–88	2 317.4	1 259.5	1 302.7	372.4	341.0	146.2	19.2	na	5 758.4
1988–89	2 091.8	1 304.9	1 180.5	372.1	373.6	150.2	14.5	na	5 487.5
1989–90	2 203.5	1 452.5	1 328.2	407.0	441.7	170.3	16.6	na	6 019.9
1990–91	1 660.5	1 302.9	1 393.0	375.2	433.2	151.4	19.8	na	5 336.1
1991–92	1 752.1	1 328.2	1 320.1	378.2	428.2	123.5	24.7	na	5 355.1
1992–93	1 729.2	1 754.6	1 278.6	425.3	505.7	148.8	33.4	na	5 875.6
1993–94	1 776.6	1 461.6	1 240.4	406.8	459.2	135.7	34.5	na	5 514.8
1994–95	1 780.0	1 375.8	1 281.9	405.9	542.5	149.3	20.1	na	5 555.5
1995–96	1 791.4	1 433.2	1 263.7	412.6	349.6	157.8	34.2	na	5 442.5
1996–97	2 021.3	1 194.1	1 671.2	417.2	334.1	165.3	27.9	na	5 831.1
1997–98	2 039.9	1 417.4	1 723.4	432.2	410.2	142.7	38.5	na	6 204.4
1998–99	2 198.8	817.6	1 155.9	262.1	502.2	93.9	–30.5	na	5 000.0
1999–00	2 180.0	846.3	1 434.0	270.6	630.5	88.0	–6.2	na	5 443.1
2000–01	1 248.1	675.2	1 458.7	241.9	606.7	76.8	10.6	na	4 318.1
2001–02	1 122.8	688.4	1 383.2	234.3	593.5	84.9	–1.8	na	4 105.2
2002–03	1 194.1	709.0	1 273.0	252.8	657.1	33.3	–10.9	na	4 108.4
2003–04	1 119.1	652.5	1 339.9	209.7	577.5	32.4	–7.3	na	3 923.9
2004–05	1 111.3	676.3	1 004.4	224.5	720.0	35.2	–10.8	na	3 760.9
2005–06	952.0	653.1	1 122.0	203.3	382.4	41.2	–13.6	na	3 340.5
2006–07	1 123.4	652.1	1 066.1	223.8	466.9	48.8	2.4	na	3 583.4
2007–08	1 172.9	803.1	1 196.8	253.7	629.2	39.5	–18.0	na	4 077.2
2008–09	1 162.1	749.5	1 388.4	291.1	589.5	52.7	–17.7	na	4 215.7

na not applicable.

Source: BITRE (2011).

TT 1.2d Total road expenditure by state/territory, by level of government, 2008–09 prices—all levels of government

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
					\$ million				
1985–86	4 251.5	2 569.1	2 352.2	821.4	1 040.8	451.0	157.8	102.7	11 746.3
1986–87	4 265.0	2 528.3	2 277.9	801.0	1 035.8	420.5	195.8	106.5	11 630.9
1987–88	4 279.0	2 490.1	2 334.2	757.0	940.4	353.6	178.2	0.0	11 332.6
1988–89	4 113.4	2 588.3	2 253.4	784.7	997.1	379.6	259.9	0.0	11 376.4
1989–90	4 777.5	2 660.3	2 266.3	828.8	1 086.5	394.2	202.0	217.3	12 432.9
1990–91	4 992.3	2 376.2	2 598.2	793.1	1 034.8	331.7	190.8	162.2	12 479.1
1991–92	4 836.1	2 392.7	2 465.1	783.2	1 074.6	309.8	165.6	202.9	12 230.0
1992–93	4 564.5	2 944.7	2 744.2	896.5	1 279.8	376.9	229.9	139.0	13 175.6
1993–94	4 378.8	2 523.6	2 612.6	775.2	1 118.7	333.9	241.7	135.6	12 120.0
1994–95	4 335.6	2 677.7	2 670.9	814.2	1 202.6	336.1	170.9	62.7	12 270.8
1995–96	4 431.1	2 622.7	2 849.4	909.6	1 473.7	354.8	199.0	57.6	12 897.8
1996–97	4 668.5	2 355.8	3 415.5	826.6	1 111.3	369.0	190.1	49.4	12 986.1
1997–98	4 787.7	2 538.7	3 692.8	1 001.3	1 355.8	348.6	204.8	54.1	13 984.0
1998–99	4 626.1	1 522.6	3 224.6	659.2	1 399.6	244.7	94.1	20.0	11 790.9
1999–00	4 660.8	1 596.7	2 717.3	665.2	1 593.6	246.1	93.4	22.6	11 595.8
2000–01	3 794.9	1 901.8	3 375.8	681.3	1 556.2	225.8	117.6	78.9	11 732.2
2001–02	3 684.6	1 904.1	2 760.7	663.6	1 596.3	254.1	108.4	96.2	11 068.1
2002–03	3 638.3	2 177.4	2 618.7	635.9	1 571.0	218.7	94.3	87.7	11 042.2
2003–04	3 509.2	1 564.5	3 033.8	598.1	1 457.4	141.7	95.4	76.8	10 477.0
2004–05	4 155.3	1 957.5	2 656.4	572.0	1 666.8	206.7	93.3	70.6	11 378.5
2005–06	3 611.9	1 796.5	2 938.2	733.7	1 375.3	262.5	252.8	86.5	11 057.3
2006–07	4 241.5	1 970.6	3 636.8	473.9	1 608.8	177.0	248.9	97.4	12 455.0
2007–08	4 372.6	2 192.6	4 527.0	692.0	2 029.1	199.9	231.1	119.6	14 363.9
2008–09	5 043.4	2 376.4	5 429.8	494.1	1 935.3	189.1	282.7	35.7	15 786.6

Source: BITRE (2011).

TT 1.3 Total road length by state/territory

	NSW 1	VIC 2	QLD 3	SA	WA 4	TAS 5	NT 6	ACT	Total
	<i>kilometres</i>								
1971	208 804	163 506	193 243	121 533	156 666	20 675	18 247	1 477	884 150
1972	207 970	159 449	193 544	101 187	160 329	20 698	19 143	1 579	863 899
1973		159 568	192 568	100 076	161 369	20 579	20 160	1 710	
1974									
1975	188 985	159 148	191 815	100 255	161 654	20 993	20 285	1 854	844 989
1976	188 985	159 560	188 894	100 441	161 979	21 328	20 151	1 930	843 268
1977	188 985	159 685	185 548	100 529	163 313	21 835		2 082	
1978	189 173	156 701	162 345	100 529		22 227	20 362	2 182	
1979		156 489		100 418	158 721	21 676	21 347		
1980			160 745	100 533				2 234	
1981	192 140	158 075	160 981	102 122	139 806	22 489	21 347	2 170	799 129
1982		157 201	162 413	102 139	138 851	22 315	21 028		
1983	195 106	156 715	163 399	102 400	139 411	22 210	20 180	2 147	801 568
1984	195 521	157 311	164 181	102 886	140 330	22 198	20 080	2 219	804 726
1985									
1986	195 129	158 576	167 681	102 000	140 156	22 577	19 875	2 521	808 515
1987	195 005	159 376	168 434	96 127	141 065	22 715	20 060	2 615	805 397
1988	196 180		169 589	95 979	141 957	22 886	20 112	2 615	
1989	195 429	161 284	170 832	94 812	141 918	22 984	20 390	2 615	810 264
1990	195 429	161 284	170 832	94 907	142 929	23 388	20 390	2 615	811 774
1991									
1992			174 429		143 143	24 590	20 412		
1993	181 800	159 868		94 815			20 332	2 425	
1994									
1995			175 992						
1996	179 960	159 220	177 032	95 333	143 812	24 069	19 928	2 502	801 856
1997	180 949	158 068	177 017	95 768	145 260	23 143	20 264	2 591	803 060
1998	180 809	155 079		95 895	145 511	23 378	22 514	2 618	
1999	181 299	155 455		96 452	146 075	23 660	31 188	2 623	
2000	181 652	156 198	176 856	96 670	146 928	23 689	21 212	2 630	805 835
2001	181 837	155 600	178 295	96 762	147 789	23 956	21 385	2 670	808 294
2002	182 006	156 500	178 317	96 892	147 855	24 130	21 652	2 670	810 022
2003	182 074	156 000	178 290	96 584	148 305	24 253	22 046	2 684	810 236
2004	182 167	152 700	181 305	96 574	148 456	24 644	22 097	2 698	810 641
2005	182 945	151 400		96 969	151 261				
2006	183 120	148 900		97 090	151 603	19 473			
2007	184 094	151 000	180 818	97 027	152 262	19 618	22 187	3 023	810 028
2008	184 118	151 300	180 831	97 368	152 966	19 787	22 176	2 845	811 390
2009 7	184 761	152 900	183 036	97 433	153 997	19 845	22 224	2 894	817 089

1, 2, 3, 4, 5, 6, 7

See End Notes.

Note: Data are not readily available for missing years.

Source: BITRE survey and ABS (2005).

TT 1.4 Total road length by road type

	Bitumen or concrete	Gravel, crushed stone or other improved surface	Formed only	Cleared only	Total	Percentage of total surface with bitumen or concrete
	<i>kilometres</i>					<i>per cent</i>
1971	192 685	212 294	204 932	274 235	884 150	21.79
1972	208 197	209 934	205 162	240 603	863 899	24.10
1973						
1974						
1975	224 020	210 198	206 848	203 923	844 989	26.51
1976	227 864	209 872	207 672	197 860	843 268	27.02
1977						
1978						
1979						
1980						
1981	253 303	203 418	250 681	91 728	799 129	31.70
1982						
1983	262 897	203 556	245 078	90 037	801 568	32.80
1984	266 686	200 862	243 778	93 401	804 726	33.14
1985						
1986	275 045	205 471	238 007	89 992	808 515	34.02
1987	279 501	207 059	230 076	88 761	805 397	34.70
1988						
1989	286 702	217 932	223 509	82 121	810 264	35.38
1990	288 862	223 419	219 297	80 196	811 774	35.58
1991						
1992						
1993						
1994						
1995						
1996	310 010	265 601	190 306	35 939	801 856	38.66
1997	316 794	307 711	137 421	41 134	803 060	39.45
1998						
1999						
2000	324 723	312 516	130 197	38 400	805 835	40.30
2001	329 045	314 436	125 835	38 979	808 294	40.71
2002	331 199	313 509	126 076	39 238	810 022	40.89
2003	332 863	312 547	126 273	38 553	810 236	41.08
2004	336 962	312 837	118 680	42 145	810 641	41.57
2005						
2006						
2007	344 658	257 252	165 467	42 651	810 028	42.55
2008	346 486	256 638	165 740	42 527	811 390	42.70
2009	355 029	256 793	162 984	42 285	817 089	43.45

Note: Data are not readily available for missing years.

Source: BITRE survey and ABS (2005).

TT 1.5 Selected road construction and maintenance price and cost indexes, for Australia and for states and territories

Financial year	NSW	VIC	QLD	SA	WA	Australia (BITRE)	Australia (ABS)
<i>index</i>							
1984–85	69.8		65.6	65.4		63.4	
1985–86	74.3		69.2	68.9		68.2	
1986–87	77.7		73.4	74.2		71.1	
1987–88	81.1		78.0	79.3		75.3	
1988–89	86.8		83.9	84.1		80.1	
1989–90	92.4		89.6	90.1		83.3	
1990–91	99.7		93.9	93.5		89.5	
1991–92	102.2		96.8	96.3		90.2	
1992–93	100.2		98.6	98.0		89.9	
1993–94	100.0		100.0	100.0		93.0	
1994–95	101.9		101.8	102.9		94.8	
1995–96						96.3	
1996–97						97.4	
1997–98						99.2	98.7
1998–99	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1999–00	103.0	104.1	104.0	103.6	104.7	102.2	103.7
2000–01	106.0	109.5	107.7	109.8	109.5	107.3	107.9
2001–02	107.7	113.2	108.0	111.8	111.6	113.6	109.7
2002–03	114.7	119.9	114.6	116.7	115.5	117.6	116.0
2003–04	119.6	124.9	120.7	119.5	118.0	124.2	120.8
2004–05	124.9	126.8	127.8	124.8	123.6	128.8	125.8
2005–06	130.9	132.4	137.4	132.4	133.9	135.2	133.2
2006–07	137.0	138.3	146.0	138.1	141.6	142.2	139.9
2007–08	143.1	144.6	156.7	145.2	151.1	151.8	147.5
2008–09	148.8	154.3	171.2	158.9	159.4	153.9	157.0
2009–10	152.7	157.2	170.2	164.6	158.4		159.1

Note: Base of state BITRE indexes 1993–94 = 100; base of BITRE Australian index and ABS indexes 1998–99 = 100. Data are not readily available for missing years.

Source: For BITRE index and indexes up to and including 1994–95—BTE (2000); for indexes from 1997–98—ABS (2011d) and BITRE (2011, forthcoming)

CHAPTER 2

Freight

TT 2.1a Total, bulk and non-bulk domestic freight, by transport mode—bulk

Financial year	Goods moved (billion tkm)				Goods moved (million tonnes)			
	Road	Rail	Coastal shipping	Total freight task	Road	Rail	Coastal shipping	Total freight weight
1970–71	7.6	26.1						
1971–72	8.1	29.3						
1972–73	8.6	32.7						
1973–74	9.1	40.2						
1974–75	9.6	45.3						
1975–76	10.1	41.4						
1976–77	11.3	43.7						
1977–78	12.6	45.2						
1978–79	13.8	43.9						
1979–80	14.9	47.9						
1980–81	16.0	50.6						
1981–82	17.1	51.2						
1982–83	18.3	47.9						
1983–84	19.5	51.8						
1984–85	20.7	58.8			309.2			
1985–86	21.6	62.0			305.3			
1986–87	22.5	64.3			301.3			
1987–88	23.3	64.5			297.4			
1988–89	23.9	60.9			301.6			
1989–90	24.5	68.4			305.9			
1990–91	25.1	72.0			310.1			
1991–92	26.9	79.6			324.4			
1992–93	28.7	79.0			338.7			
1993–94	30.5	81.6			353.0			
1994–95	32.3	84.5			367.4			
1995–96	34.0	89.4	102.4	225.8	379.5		43.5	
1996–97	35.6	97.4	109.0	241.9	391.7		44.7	
1997–98	37.3	100.1	112.1	249.3	403.9		47.6	
1998–99	39.2	101.6	104.4	246.1	439.5		43.3	
1999–00	40.6	106.2	102.6	250.6	440.7		45.1	
2000–01	41.8	109.0	97.1	248.8	444.6		45.3	
2001–02	43.9	120.9	102.8	268.1	499.2		46.1	
2002–03	45.4	130.1	106.3	282.4	465.9		45.7	
2003–04	47.1		108.3		508.8		45.5	
2004–05	49.9		106.7		526.8		45.9	
2005–06	52.0		115.3		553.2		48.6	
2006–07	54.7		118.3		643.8		49.3	
2007–08	57.2	⁸ 171.7	115.0	344.0		⁸ 641.7	51.2	
2008–09			99.9				44.6	
2009–10								

⁸ See End Notes.

Note: Data are not readily available for missing years.

Source: ARA (2008), BTRE (2006a), BITRE (2010a), BITRE (2010i) and BITRE estimates..

TT 2.1b Total, bulk and non-bulk domestic freight, by transport mode—non-bulk

Financial year	Goods moved (billion tkm)					Goods moved (million tonnes)				
	Road	Rail	Coastal shipping	Air freight	Total freight task	Road	Rail	Coastal shipping	Air freight	Total freight weight
1970–71	17.8	13.6								
1971–72	19.0	13.4								
1972–73	20.1	14.0								
1973–74	21.3	13.9								
1974–75	22.4	13.7								
1975–76	23.6	14.2								
1976–77	26.4	14.0								
1977–78	29.3	14.6								
1978–79	32.1	15.9								
1979–80	34.7	15.8								
1980–81	37.4	15.1								
1981–82	40.0	14.1								
1982–83	42.7	12.0								
1983–84	45.5	13.6								
1984–85	48.2	13.9				721.5				
1985–86	50.3	15.4				712.3				
1986–87	52.4	16.1				703.1				
1987–88	54.5	17.4				693.9				
1988–89	55.8	19.7				703.8				
1989–90	57.1	19.5				713.7				
1990–91	58.5	19.2				723.5				
1991–92	62.7	19.7				756.9				
1992–93	66.9	21.8				790.3				
1993–94	71.1	22.7				823.7				
1994–95	75.4	21.7				857.2				
1995–96	79.2	20.9	3.7		104.0	885.6		4.3		
1996–97	83.1	22.3	3.6		108.9	914.0		4.4		
1997–98	87.0	25.5	4.8		116.8	942.4		4.9		
1998–99	91.5	26.3	4.4		124.2	1 025.5		5.1		
1999–00	94.6	27.4	6.3		131.4	1 028.3		6.2		
2000–01	97.6	28.0	7.4		135.1	1 037.4		6.7		
2001–02	102.3	29.6	7.6		140.9	1 164.8		6.3		
2002–03	105.9	31.0	8.5		146.8	1 087.1		7.1		
2003–04	109.9		8.7			1 187.2		7.7		
2004–05	116.5		7.4			1 229.2		7.7		
2005–06	121.3		6.7	0.4		1 290.8		6.7	0.3	
2006–07	127.6		8.0	0.4		1 502.2		7.1	0.3	
2007–08	133.5	⁸ 25.9	9.5	0.4	169.3		⁸ 15.9	8.3	0.3	
2008–09			7.6	0.3				7.0	0.2	
2009–10				0.3					0.2	

⁸ See End Notes.

Note: Data are not readily available for missing years.

Source: ARA (2008), BTRE (2006a), BITRE (2010a), BITRE (2010i) and BITRE estimates..

TT 2.1c Total, bulk and non-bulk domestic freight, by transport mode—total bulk and non-bulk

Financial year	Goods moved (billion tkm)					Goods moved (million tonnes)				
	Road	Rail	Coastal shipping	Air freight	Total freight task	Road	Rail	Coastal shipping	Air freight	Total freight weight
1970–71	25.4	39.7	72.0		137.1					
1971–72	27.1	42.7	83.2		153.0			44.6		
1972–73	28.8	46.7	89.5		165.0			43.3		
1973–74	30.4	54.1	96.1		180.6			46.3		
1974–75	32.1	59.0	101.2		192.3			46.4		
1975–76	33.7	55.6	104.6		194.0			47.5		
1976–77	37.8	57.7	102.3		197.8			47.2		
1977–78	41.9	59.8	105.1		206.8			48.0		
1978–79	45.9	59.8	104.7		210.4			47.4		
1979–80	49.6	63.7	105.1		218.4			48.1		
1980–81	53.4	65.7	110.3		229.4			47.3		
1981–82	57.1	65.4	97.8		220.3			43.1		
1982–83	61.0	59.8	80.9		201.8			38.3		
1983–84	64.9	65.4	94.3		224.7			42.7		
1984–85	68.9	72.6	96.3		237.8	1 030.6		42.7		
1985–86	71.8	77.3	101.8		251.0	1 017.5		44.7		
1986–87	74.8	80.4	95.2		250.4	1 004.4		44.4		
1987–88	77.8	81.9	93.6		253.3	991.3		43.2		
1988–89	79.7	80.6	90.7		251.0	1 005.4		43.0		
1989–90	81.6	87.9	94.2		263.7	1 019.5		44.5		
1990–91	83.5	91.1	93.8		268.5	1 033.6		44.2		
1991–92	89.6	99.3	96.4		285.3	1 081.3		43.6		
1992–93	95.6	100.8	96.0		292.4	1 129.1		44.2		
1993–94	101.6	104.2	98.8		304.6	1 176.8		45.3		
1994–95	107.7	106.2	109.2		323.1	1 224.5		49.2		
1995–96	113.2	110.3	106.1		329.5	1 265.1		47.8		
1996–97	118.7	119.6	112.6		351.0	1 305.7		49.1		
1997–98	124.3	125.6	116.9		366.8	1 346.3		52.5		
1998–99	130.7	128.0	108.8		367.4	1 465.0		48.4		
1999–00	135.2	133.6	108.9		377.6	1 469.0		51.3		
2000–01	139.4	136.9	104.5		380.8	1 482.0		52.0		
2001–02	146.2	150.5	110.4		407.1	1 664.0		52.4		
2002–03	151.2	159.8	114.8		425.9	1 553.0	575.7	52.8		2 181.5
2003–04	157.0	168.0	117.0		441.9	1 696.0	590.9	53.2		2 340.1
2004–05	166.5	183.0	114.0		463.5	1 756.0	634.3	53.7		2 443.9
2005–06	173.3	189.0	122.0	0.4	484.7	1 844.0	641.2	55.2	0.3	2 540.7
2006–07	182.2	198.7	126.2	0.4	507.5	2 146.0	665.6	56.4	0.3	2 868.3
2007–08	190.8	⁸ 197.6	124.5	0.4	513.3		⁸ 657.6	59.5	0.3	
2008–09			107.4	0.3				51.6	0.2	
2009–10				0.3					0.2	

8

See End Notes.

Note: Data are not readily available for missing years.

Source: ARA (2008), BTRE (2006a), BITRE (2010a), BITRE (2010i) and BITRE estimates..

TT 2.2a Total domestic freight by state/territory, by transport mode—road

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>billion tonne kilometres</i>									
1971–72	10.3	6.8	4.0	2.8	2.5	0.4	0.3	0.1	27.1
1972–73	11.0	7.2	4.2	2.9	2.7	0.4	0.3	0.1	28.8
1973–74	11.7	7.6	4.3	3.0	2.9	0.5	0.3	0.1	30.4
1974–75	12.2	8.0	4.6	3.1	3.2	0.5	0.4	0.1	32.1
1975–76	13.0	8.5	4.8	3.1	3.4	0.5	0.4	0.1	33.7
1976–77	14.3	9.4	5.5	3.4	4.0	0.6	0.4	0.2	37.8
1977–78	15.5	10.4	6.4	3.7	4.6	0.7	0.5	0.2	41.9
1978–79	16.8	11.4	7.1	3.9	5.3	0.8	0.5	0.2	45.9
1979–80	18.2	12.3	7.6	4.1	5.9	0.8	0.6	0.2	49.6
1980–81	19.4	13.2	8.2	4.2	6.5	0.9	0.7	0.2	53.4
1981–82	20.7	14.1	8.9	4.2	7.3	1.0	0.7	0.2	57.1
1982–83	21.6	15.0	9.9	4.1	8.3	1.1	0.8	0.2	61.0
1983–84	23.3	16.0	10.2	4.3	8.8	1.2	0.8	0.2	64.9
1984–85	24.6	17.0	10.9	4.4	9.6	1.3	0.9	0.2	68.9
1985–86	25.8	17.5	11.2	4.7	10.1	1.3	1.0	0.3	71.8
1986–87	26.7	18.1	11.7	4.8	10.8	1.4	1.0	0.3	74.8
1987–88	28.0	18.7	11.9	5.2	11.2	1.4	1.1	0.3	77.8
1988–89	28.8	19.0	12.0	5.6	11.5	1.4	1.2	0.3	79.7
1989–90	29.6	19.4	12.1	5.8	11.8	1.4	1.3	0.3	81.6
1990–91	30.1	19.7	12.4	5.8	12.4	1.5	1.3	0.3	83.5
1991–92	31.9	20.7	13.6	6.1	13.9	1.7	1.4	0.3	89.6
1992–93	34.0	21.7	14.4	6.7	15.2	1.8	1.6	0.3	95.6
1993–94	36.1	22.9	15.4	7.0	16.4	1.9	1.7	0.3	101.6
1994–95	38.1	24.0	16.2	7.5	17.7	2.0	1.8	0.3	107.7
1995–96	40.4	25.1	17.0	7.9	18.5	2.1	2.0	0.3	113.2
1996–97	42.7	26.1	17.8	8.2	19.4	2.1	2.1	0.3	118.7
1997–98	44.9	27.0	18.7	8.5	20.4	2.2	2.3	0.3	124.3
1998–99	46.9	28.6	21.6	8.8	19.7	2.4	2.5	0.3	130.7
1999–00	48.3	29.8	22.5	9.5	19.8	2.4	2.5	0.3	135.2
2000–01	49.3	30.7	23.7	9.8	20.6	2.5	2.4	0.3	139.4
2001–02	51.1	32.2	25.4	10.4	21.7	2.7	2.4	0.3	146.2
2002–03	52.8	33.4	26.6	10.8	22.5	2.7	2.0	0.3	151.2
2003–04	54.3	34.6	27.9	11.6	23.6	2.8	1.9	0.3	157.0
2004–05	56.6	36.2	30.2	12.6	25.6	3.1	1.9	0.3	166.5
2005–06	58.2	37.6	31.7	13.5	27.0	3.2	1.9	0.3	173.3
2006–07	60.5	39.3	33.5	14.3	28.9	3.4	2.0	0.3	182.2
2007–08	64.0	41.2	34.8	15.0	29.8	3.5	2.1	0.3	190.8
2008–09									

Source: BTRE (2006a) and BITRE estimates.

TT 2.2b Total domestic freight by state/territory, by transport mode—rail

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>billion tonne kilometres</i>									
1971–72	7.4	2.9	7.0	3.2	22.0	0.2	na	na	42.7
1972–73	8.1	3.2	7.6	3.5	24.1	0.2	na	na	46.7
1973–74	8.5	3.1	7.7	3.9	30.6	0.3	na	na	54.1
1974–75	8.6	3.0	9.0	3.8	34.2	0.3	na	na	59.0
1975–76	8.3	3.0	9.8	3.8	30.4	0.2	na	na	55.6
1976–77	9.1	3.0	10.0	4.0	31.4	0.2	na	na	57.7
1977–78	9.2	3.1	10.4	4.1	32.9	0.2	na	na	59.8
1978–79	9.1	3.3	11.3	4.5	31.4	0.3	na	na	59.8
1979–80	10.6	3.9	11.4	4.7	32.9	0.2	na	na	63.7
1980–81	10.6	3.7	12.0	4.9	34.2	0.2	na	na	65.7
1981–82	10.8	3.5	13.2	4.9	32.7	0.2	na	na	65.4
1982–83	9.2	2.5	13.3	4.6	30.1	0.2	na	na	59.8
1983–84	11.2	3.1	15.5	5.0	30.3	0.2	na	na	65.4
1984–85	12.5	3.6	16.9	5.3	34.0	0.2	na	na	72.6
1985–86	14.1	3.2	18.5	6.1	35.2	0.3	na	na	77.3
1986–87	14.4	3.3	19.8	5.9	36.7	0.3	na	na	80.4
1987–88	14.4	3.4	20.7	6.4	36.7	0.2	na	na	81.9
1988–89	13.6	3.3	21.9	6.7	34.9	0.2	na	na	80.6
1989–90	14.7	3.8	22.8	6.9	39.5	0.2	na	na	87.9
1990–91	14.7	3.8	23.4	6.6	42.4	0.3	na	na	91.1
1991–92	15.4	3.6	27.2	7.2	45.7	0.3	na	na	99.3
1992–93	16.2	4.0	26.7	7.6	46.0	0.3	na	na	100.8
1993–94	17.3	4.5	26.7	8.0	47.5	0.3	na	na	104.2
1994–95	16.9	4.6	28.7	7.9	47.7	0.3	na	na	106.2
1995–96	18.1	4.8	28.4	7.8	50.8	0.4	na	na	110.3
1996–97	20.0	5.5	30.9	10.2	52.7	0.4	na	na	119.6
1997–98	20.0	4.5	32.0	9.8	58.9	0.5	na	na	125.6
1998–99	19.5	4.6	33.2	9.9	60.2	0.5	na	na	128.0
1999–00	19.9	4.8	35.5	9.6	63.3	0.5	na	na	133.6
2000–01	21.0	5.0	39.4	10.0	60.8	0.7	na	na	136.9
2001–02	23.1	5.5	43.3	11.0	66.8	0.8	na	na	150.5
2002–03	24.3	5.7	45.5	11.5	70.2	0.8	na	na	158.1
2003–04	25.8	6.1	48.4	12.3	74.7	0.9	na	na	168.1
2004–05	28.1	6.6	52.7	13.4	81.3	0.9	na	na	183.0
2005–06	29.0	6.9	54.4	13.8	84.0	1.0	na	na	189.0
2006–07	30.5	7.2	57.2	14.5	88.2	1.0	na	na	198.7
2007–08 ⁸	23.0	7.7	47.0	8.1	110.0	0.5	1.30	na	197.6
2008–09									

na not applicable.

⁸ See End Notes.

Source: ARA (2008), BTRE (2006a), and BITRE (2010j).

TT 2.2c Total domestic freight by state/territory, by transport mode—shipping

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>billion tonne kilometres</i>									
1995–96	4.7	8.6	24.1	9.1	54.2	3.7	1.6	na	106.1
1996–97	5.5	8.8	25.6	9.7	57.6	3.2	2.2	na	112.6
1997–98	5.6	10.3	25.6	9.7	60.5	2.4	2.8	na	116.9
1998–99	4.9	7.9	24.8	9.7	55.1	3.5	2.9	na	108.8
1999–00	6.4	8.9	30.3	9.6	46.5	4.0	3.3	na	108.9
2000–01	7.4	9.4	30.7	9.2	41.8	2.9	3.1	na	104.5
2001–02	5.2	6.6	30.9	9.6	49.9	5.7	2.4	na	110.4
2002–03	5.7	7.6	31.7	10.1	51.8	5.8	2.3	na	114.8
2003–04	4.9	6.6	33.7	8.2	55.5	5.5	2.5	na	117.0
2004–05	5.3	6.6	37.1	8.5	48.4	4.6	3.5	na	114.0
2005–06	5.3	9.0	41.2	8.9	50.8	4.4	2.4	na	122.0
2006–07	6.2	9.1	42.0	9.3	55.4	4.3	0.0	na	126.2
2007–08	6.0	8.0	43.8	10.5	51.8	4.4	0.0	na	124.5
2008–09	3.0	6.2	42.0	9.3	40.3	3.9	2.8	na	107.4

na not applicable.
Source: BITRE (2010a).

TT 2.2d Total domestic freight by state/territory, by transport mode—total

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>billion tonne kilometres</i>									
1995–96	63.3	38.5	69.5	24.8	123.5	6.1	3.6	0.3	329.5
1996–97	68.1	40.4	74.4	28.0	129.7	5.7	4.3	0.3	351.0
1997–98	70.4	41.8	76.3	27.9	139.9	5.1	5.0	0.3	366.8
1998–99	71.3	41.1	79.6	28.4	135.0	6.4	5.4	0.3	367.4
1999–00	74.6	43.5	88.4	28.7	129.6	6.9	5.8	0.3	377.6
2000–01	77.7	45.1	93.9	29.0	123.2	6.1	5.6	0.3	380.8
2001–02	79.4	44.3	99.6	31.0	138.4	9.2	4.8	0.3	407.1
2002–03	82.8	46.7	103.8	32.5	144.6	9.3	4.2	0.3	424.2
2003–04	85.0	47.2	110.0	32.0	153.7	9.2	4.4	0.3	442.0
2004–05	89.9	49.5	120.0	34.5	155.2	8.6	5.5	0.3	463.5
2005–06	92.5	53.4	127.3	36.2	161.8	8.6	4.4	0.3	484.4
2006–07	97.2	55.6	132.7	38.1	172.6	8.7	2.0	0.3	507.1
2007–08	93.0	57.0	125.6	33.6	191.6	8.4	3.5	0.3	512.9
2008–09									

Source: ARA (2008), BTRE (2006a), BITRE (2010a), BITRE (2010i) and BITRE estimates..

TT 2.3a Intrastate freight by state/territory, by transport mode—road

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>billion tonne kilometres</i>									
1971–72	7.5	5.4	3.6	2.3	2.3	0.4	0.1	0.1	21.7
1972–73	7.6	5.5	3.6	2.3	2.5	0.4	0.1	0.1	22.1
1973–74	7.8	5.7	3.7	2.2	2.6	0.5	0.1	0.1	22.6
1974–75	8.1	5.9	3.9	2.3	2.8	0.5	0.1	0.1	23.7
1975–76	8.3	6.2	4.0	2.3	3.0	0.5	0.1	0.1	24.6
1976–77	9.3	7.0	4.8	2.5	3.6	0.6	0.2	0.1	28.1
1977–78	10.5	7.9	5.6	2.8	4.3	0.7	0.2	0.2	32.0
1978–79	11.3	8.7	6.2	2.9	4.8	0.8	0.2	0.2	35.1
1979–80	12.0	9.3	6.6	2.9	5.3	0.8	0.3	0.2	37.4
1980–81	12.8	9.9	7.2	2.9	5.9	0.9	0.3	0.2	40.1
1981–82	13.6	10.6	7.8	2.7	6.6	1.0	0.4	0.2	42.8
1982–83	15.2	11.9	8.9	2.8	7.7	1.1	0.4	0.2	48.2
1983–84	15.4	12.1	9.0	2.7	8.0	1.2	0.4	0.2	49.0
1984–85	16.4	13.0	9.6	2.6	8.7	1.3	0.5	0.2	52.4
1985–86	16.7	13.1	9.7	2.6	9.0	1.3	0.5	0.2	53.3
1986–87	17.5	13.6	10.3	2.7	9.7	1.4	0.6	0.2	56.0
1987–88	17.6	13.6	10.3	2.7	9.8	1.4	0.6	0.3	56.4
1988–89	17.5	13.5	10.2	2.7	9.8	1.4	0.7	0.3	56.0
1989–90	17.6	13.6	10.2	2.8	10.0	1.4	0.7	0.3	56.5
1990–91	18.0	13.8	10.5	2.8	10.5	1.5	0.8	0.3	58.1
1991–92	19.6	14.7	11.7	2.9	12.0	1.7	0.9	0.3	63.7
1992–93	20.6	15.3	12.3	3.0	12.8	1.8	1.0	0.3	67.0
1993–94	21.9	16.0	13.1	3.1	13.9	1.9	1.0	0.3	71.3
1994–95	23.0	16.8	13.9	3.2	14.9	2.0	1.1	0.2	75.1
1995–96	23.8	17.2	14.3	3.3	15.6	2.1	1.2	0.3	77.6
1996–97	24.7	17.6	15.0	3.4	16.4	2.1	1.3	0.2	80.8
1997–98	25.5	17.9	15.6	3.4	17.4	2.2	1.4	0.2	83.8
1998–99	26.0	18.7	18.2	3.7	16.9	2.4	1.6	0.2	87.6
1999–00	25.8	19.2	18.9	4.3	17.1	2.4	1.5	0.3	89.5
2000–01	26.0	19.7	20.0	4.7	18.0	2.5	1.4	0.2	92.5
2001–02	26.4	20.6	21.4	5.1	19.1	2.7	1.3	0.2	96.8
2002–03	26.4	21.0	22.5	5.5	19.9	2.8	1.2	0.3	99.6
2003–04	26.4	21.4	23.5	5.9	20.8	2.8	1.1	0.3	102.3
2004–05	27.2	22.4	25.6	6.6	22.6	3.1	1.1	0.3	108.8
2005–06	27.2	23.0	26.8	7.1	23.9	3.2	1.0	0.3	112.6
2006–07	27.5	23.8	28.3	7.6	25.7	3.4	1.0	0.3	117.6
2007–08	28.0	24.4	29.1	7.9	26.4	3.5	1.1	0.3	120.6
2008–09									

Source: BTRE (2006a) and BITRE estimates.

TT 2.3b Intrastate freight by state/territory, by transport mode—shipping

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>billion tonne kilometres</i>									
1995–96	0.1	0.0	19.3	0.1	3.6	0.2	0.0	na	23.4
1996–97	0.1	0.0	20.9	0.2	3.8	0.0	0.0	na	25.0
1997–98	0.2	0.0	20.8	0.1	4.0	0.1	0.0	na	25.3
1998–99	0.1	0.1	19.8	0.1	2.9	0.2	0.1	na	23.3
1999–00	0.1	0.0	23.7	0.2	3.4	0.2	0.1	na	27.7
2000–01	0.1	0.0	24.2	0.2	6.6	0.1	0.1	na	31.2
2001–02	0.1	0.0	24.1	0.2	5.7	0.6	0.1	na	30.7
2002–03	0.0	0.0	24.4	0.2	5.7	0.1	0.1	na	30.6
2003–04	0.0	0.0	24.7	0.2	5.3	0.1	0.0	na	30.3
2004–05	0.0	0.0	27.5	0.2	4.5	0.1	0.1	na	32.4
2005–06	0.0	0.0	31.3	0.2	3.6	0.1	0.0	na	35.3
2006–07	0.0	0.1	32.2	0.1	5.6	0.1	0.0	na	38.1
2007–08	0.0	0.1	32.1	0.2	5.6	0.1	0.0	na	38.1
2008–09	0.0	0.1	32.4	0.1	4.2	0.1	0.0	na	37.0

na not applicable.
Source: BITRE (2010a).

TT 2.4a Interstate freight by state/territory, by transport mode—road

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>billion tonne kilometres</i>									
1971–72	2.75	1.36	0.44	0.48	0.17	na	0.17	0.01	5.38
1972–73	3.35	1.66	0.53	0.62	0.25	na	0.20	0.01	6.62
1973–74	3.91	1.94	0.62	0.76	0.34	na	0.23	0.01	7.81
1974–75	4.17	2.06	0.66	0.83	0.38	na	0.24	0.01	8.35
1975–76	4.68	2.31	0.74	0.85	0.32	na	0.26	0.01	9.17
1976–77	4.92	2.43	0.78	0.91	0.36	na	0.27	0.01	9.68
1977–78	5.00	2.47	0.79	0.92	0.37	na	0.28	0.01	9.84
1978–79	5.49	2.71	0.86	1.04	0.43	na	0.30	0.01	10.84
1979–80	6.18	3.04	0.97	1.22	0.54	na	0.33	0.01	12.29
1980–81	6.64	3.27	1.04	1.34	0.62	na	0.35	0.01	13.27
1981–82	7.10	3.50	1.11	1.46	0.70	na	0.37	0.01	14.25
1982–83	6.43	3.16	1.01	1.28	0.58	na	0.34	0.01	12.81
1983–84	7.88	3.87	1.24	1.69	0.85	na	0.40	0.01	15.94
1984–85	8.14	4.00	1.28	1.76	0.90	na	0.41	0.01	16.50
1985–86	9.09	4.46	1.43	2.06	1.11	na	0.45	0.01	18.61
1986–87	9.22	4.51	1.45	2.10	1.14	na	0.45	0.01	18.88
1987–88	10.35	5.05	1.62	2.47	1.41	na	0.50	0.02	21.42
1988–89	11.38	5.54	1.78	2.84	1.68	na	0.54	0.02	23.78
1989–90	11.96	5.81	1.88	3.05	1.85	na	0.56	0.02	25.13
1990–91	12.10	5.87	1.90	3.09	1.87	na	0.57	0.02	25.42
1991–92	12.27	5.94	1.93	3.19	1.96	na	0.57	0.02	25.88
1992–93	13.34	6.44	2.09	3.70	2.39	na	0.61	0.02	28.59
1993–94	14.20	6.83	2.23	3.91	2.50	na	0.65	0.02	30.34
1994–95	15.11	7.24	2.38	4.29	2.80	na	0.68	0.02	32.52
1995–96	16.67	7.96	2.63	4.60	2.92	na	0.75	0.02	35.55
1996–97	17.97	8.55	2.84	4.80	2.96	na	0.80	0.03	37.95
1997–98	19.32	9.16	3.06	5.03	3.02	na	0.86	0.03	40.48
1998–99	20.91	9.91	3.33	5.12	2.88	na	0.92	0.03	43.10
1999–00	22.50	10.64	3.59	5.20	2.75	na	0.99	0.03	45.70
2000–01	23.28	11.00	3.72	5.17	2.61	na	1.02	0.03	46.83
2001–02	24.72	11.67	3.95	5.33	2.59	na	1.08	0.04	49.39
2002–03	26.38	12.44	4.11	5.32	2.60	na	0.78	0.04	51.66
2003–04	27.94	13.16	4.37	5.64	2.75	na	0.82	0.04	54.72
2004–05	29.39	13.82	4.60	6.00	2.97	na	0.86	0.04	57.68
2005–06	30.96	14.52	4.85	6.30	3.13	na	0.90	0.04	60.70
2006–07	33.04	15.48	5.19	6.66	3.27	na	0.95	0.05	64.65
2007–08	36.01	16.81	5.73	7.12	3.43	na	1.03	0.05	70.18
2008–09									

na not applicable.

Source: BTRE (2006a) and BITRE estimates.

TT 2.4b Interstate freight by state/territory, by transport mode—shipping

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>billion tonne kilometres</i>									
1995–96	4.62	8.53	4.79	8.97	50.67	3.52	1.60	na	82.69
1996–97	5.36	8.84	4.70	9.54	53.81	3.24	2.16	na	87.63
1997–98	5.44	10.26	4.82	9.61	56.50	2.29	2.75	na	91.67
1998–99	4.76	7.78	4.93	9.59	52.18	3.35	2.83	na	85.42
1999–00	6.22	8.83	6.62	9.35	43.08	3.86	3.22	na	81.18
2000–01	7.29	9.40	6.53	8.97	35.17	2.84	3.08	na	73.28
2001–02	5.13	6.63	6.84	9.36	44.24	5.13	2.36	na	79.69
2002–03	5.64	7.53	7.22	9.89	46.09	5.65	2.17	na	84.20
2003–04	4.91	6.54	9.05	8.01	50.26	5.41	2.47	na	86.63
2004–05	5.26	6.60	9.58	8.31	43.90	4.53	3.46	na	81.63
2005–06	5.29	8.96	9.88	8.73	47.18	4.31	2.41	na	86.76
2006–07	6.15	8.94	9.75	9.17	49.86	4.23	0.01	na	88.11
2007–08	5.95	7.95	11.66	10.29	46.27	4.33	0.04	na	86.48
2008–09	2.97	6.09	9.60	9.20	36.05	3.78	2.76	na	70.45

na not applicable.
Source: BITRE (2010a).

TT 2.5 Urban road freight by capital city

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Total
<i>billion tonne kilometres</i>									
1971–72	3.12	2.18	0.71	0.74	0.88	0.13	0.05	0.11	7.92
1972–73	3.20	2.26	0.76	0.76	0.91	0.14	0.05	0.12	8.20
1973–74	3.42	2.43	0.84	0.82	0.98	0.15	0.06	0.12	8.82
1974–75	3.51	2.52	0.90	0.84	1.02	0.17	0.06	0.13	9.15
1975–76	3.64	2.64	0.97	0.88	1.07	0.18	0.06	0.14	9.58
1976–77	3.84	2.82	1.12	0.93	1.14	0.19	0.06	0.14	10.24
1977–78	3.89	2.90	1.23	0.95	1.18	0.20	0.06	0.15	10.56
1978–79	4.09	3.10	1.41	1.01	1.26	0.22	0.06	0.16	11.31
1979–80	4.45	3.41	1.63	1.03	1.39	0.23	0.09	0.17	12.40
1980–81	4.73	3.66	1.84	1.02	1.49	0.24	0.13	0.18	13.29
1981–82	4.98	3.90	2.06	1.00	1.58	0.25	0.18	0.20	14.15
1982–83	4.96	3.93	2.07	1.00	1.57	0.27	0.18	0.20	14.18
1983–84	5.24	4.19	2.22	1.07	1.65	0.30	0.19	0.21	15.07
1984–85	5.59	4.53	2.39	1.15	1.76	0.33	0.21	0.22	16.18
1985–86	5.94	4.89	2.56	1.23	1.89	0.34	0.22	0.24	17.31
1986–87	6.00	5.03	2.61	1.25	1.92	0.34	0.21	0.24	17.60
1987–88	6.34	5.40	2.77	1.34	2.05	0.35	0.21	0.26	18.72
1988–89	6.61	5.71	2.91	1.40	2.17	0.36	0.23	0.27	19.66
1989–90	7.15	6.28	3.16	1.51	2.39	0.38	0.25	0.29	21.41
1990–91	6.97	6.22	3.10	1.48	2.36	0.36	0.25	0.29	21.03
1991–92	6.85	6.17	3.07	1.45	2.33	0.34	0.23	0.27	20.71
1992–93	7.10	6.47	3.22	1.51	2.44	0.33	0.23	0.26	21.56
1993–94	7.34	6.77	3.36	1.56	2.53	0.32	0.22	0.25	22.35
1994–95	7.83	7.30	3.62	1.67	2.72	0.32	0.23	0.24	23.93
1995–96	8.26	7.74	3.89	1.77	2.88	0.31	0.24	0.25	25.34
1996–97	8.52	8.03	4.09	1.84	2.99	0.29	0.24	0.24	26.24
1997–98	8.56	8.11	4.19	1.86	3.02	0.26	0.24	0.24	26.48
1998–99	8.99	8.65	4.66	1.94	3.18	0.27	0.23	0.24	28.16
1999–00	9.28	9.13	5.00	1.99	3.38	0.28	0.23	0.25	29.54
2000–01	9.47	9.30	5.26	2.01	3.46	0.28	0.21	0.23	30.22
2001–02	9.73	9.77	5.70	2.08	3.64	0.30	0.19	0.24	31.66
2002–03	10.04	10.02	6.13	2.19	3.78	0.31	0.18	0.25	32.91
2003–04	10.40	10.35	6.58	2.29	4.11	0.34	0.19	0.27	34.53
2004–05	10.65	10.56	6.98	2.42	4.23	0.35	0.21	0.28	35.69
2005–06	10.85	10.85	7.23	2.53	4.57	0.36	0.27	0.30	36.97
2006–07	11.19	11.19	7.46	2.61	5.08	0.36	0.26	0.26	38.41
2007–08	11.64	11.65	7.77	2.72	5.29	0.38	0.28	0.27	40.00

Source: BTRE (2006a) and BITRE estimates.

CHAPTER 3

Passengers

TT 3.1 Total passenger travel by transport mode

Financial year	Passenger cars	Buses	Rail	Air	Other ⁹	Total
<i>billion passenger kilometres</i>						
1970–71	102.75	6.44	12.50	5.68	7.52	134.88
1971–72	109.41	6.63	11.44	6.02	8.12	141.62
1972–73	113.35	6.82	11.39	6.44	9.11	147.11
1973–74	120.84	6.98	10.13	7.68	10.44	156.06
1974–75	125.78	7.16	9.37	8.28	11.56	162.16
1975–76	130.69	7.32	8.47	8.29	12.32	167.10
1976–77	136.55	7.54	8.90	7.99	13.38	174.36
1977–78	141.11	7.75	8.72	8.90	13.88	180.36
1978–79	145.04	7.91	8.58	9.40	14.13	185.06
1979–80	145.57	8.37	8.89	10.36	13.97	187.15
1980–81	147.78	8.93	9.31	10.70	14.31	191.05
1981–82	154.99	9.46	9.18	11.15	14.49	199.27
1982–83	155.52	10.65	9.02	10.27	14.26	199.72
1983–84	162.59	11.89	8.97	10.64	15.09	209.17
1984–85	168.72	13.14	9.13	11.34	15.70	218.03
1985–86	173.87	14.10	9.32	12.34	15.35	224.99
1986–87	177.63	15.11	9.61	13.16	15.05	230.57
1987–88	186.37	16.09	10.08	14.46	15.10	242.10
1988–89	195.38	16.97	10.44	15.07	15.71	253.57
1989–90	201.07	17.91	10.45	11.24	15.59	256.27
1990–91	201.53	17.22	10.57	15.95	15.09	260.36
1991–92	205.57	16.81	10.18	20.68	14.93	268.18
1992–93	211.93	16.84	9.86	20.94	15.08	274.66
1993–94	217.30	16.68	9.97	24.36	15.50	283.82
1994–95	224.07	16.53	10.44	26.89	16.30	294.23
1995–96	227.22	17.09	10.68	28.88	16.34	300.21
1996–97	228.90	16.94	10.96	29.86	16.13	302.79
1997–98	231.13	17.13	10.93	30.31	16.28	305.78
1998–99	236.52	17.23	11.15	30.91	16.54	312.36
1999–00	241.09	17.63	11.51	32.69	16.81	319.74
2000–01	238.43	17.94	12.13	35.50	16.98	320.96
2001–02	244.46	18.01	11.97	32.80	17.60	324.82
2002–03	250.78	18.35	11.97	35.58	18.08	334.75
2003–04	262.75	18.43	12.05	40.85	18.63	352.71
2004–05	263.51	18.47	12.02	45.53	18.34	357.87
2005–06	261.84	18.92	12.52	48.28	18.56	360.12
2006–07	264.19	19.10	13.25	52.53	18.83	367.90
2007–08	263.68	19.43	14.24	56.78	19.26	373.39
2008–09	262.53	19.84	15.09	58.16	19.15	374.77

⁹ See End Notes.
Source: BITRE (2009) and BITRE estimates.

TT 3.2 Inter-capital city passenger travel by city pair

Financial year	Syd–Mel	Syd–Canb	Syd–Bne	Mel–Adl	Mel–Bne	Syd–Adl
<i>thousand passenger movements</i>						
1998–99	5 971	3 426	3 628	1 851	1 847	1 337
1999–00	7 206	6 487	4 351	2 466	2 192	1 599
2000–01	8 237	5 997	5 443	2 573	2 625	1 730
2001–02	7 211	5 843	4 828	2 575	2 896	1 460
2002–03	7 128	6 232	4 559	2 537	2 727	1 405
2003–04	7 311	5 525	4 887	2 585	2 998	1 630
2004–05	7 660	5 127	4 764	2 652	2 935	1 604
2005–06	7 911	5 178	4 837	2 611	2 985	1 657
2006–07	8 129	5 578	4 906	2 706	3 033	1 722
2007–08	8 354	5 392	5 364	2 820	3 092	1 843
2008–09	8 276	5 495	5 204	2 795	3 045	1 721
2009–10	8 767	4 966	5 474	2 824	3 131	1 967

Source: BTRE (2006c), updated by TRA (2010) and BITRE estimates.

TT 3.3a Total passenger kilometres travelled by capital city—Sydney

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
1976–77	24.13	1.33	0.24	3.14		1.56	0.11	30.50
1977–78	24.80	1.37	0.24	3.06		1.58	0.11	31.17
1978–79	25.59	1.40	0.25	3.09		1.59	0.12	32.03
1979–80	25.79	1.37	0.27	3.52		1.60	0.13	32.68
1980–81	26.15	1.40	0.29	3.64		1.69	0.12	33.30
1981–82	27.17	1.44	0.32	3.76		1.67	0.14	34.50
1982–83	26.97	1.41	0.33	3.55		1.71	0.14	34.10
1983–84	28.34	1.50	0.34	3.47		1.71	0.13	35.48
1984–85	29.65	1.56	0.34	3.45		1.77	0.13	36.90
1985–86	30.51	1.55	0.31	3.72		1.80	0.12	38.02
1986–87	31.20	1.52	0.29	3.81		1.86	0.12	38.80
1987–88	32.59	1.53	0.27	4.13		1.92	0.11	40.55
1988–89	33.83	1.55	0.27	4.18	0.01	1.92	0.11	41.89
1989–90	34.70	1.52	0.24	4.29	0.01	1.92	0.11	42.80
1990–91	34.69	1.44	0.21	4.37	0.01	1.99	0.10	42.81
1991–92	35.29	1.42	0.20	4.27	0.01	2.00	0.10	43.30
1992–93	36.35	1.43	0.20	4.12	0.01	1.96	0.10	44.16
1993–94	37.20	1.48	0.20	4.22	0.01	1.99	0.11	45.20
1994–95	38.26	1.58	0.19	4.51	0.01	2.05	0.11	46.71
1995–96	38.48	1.63	0.18	4.62	0.01	2.11	0.12	47.14
1996–97	38.43	1.63	0.18	4.76	0.01	2.17	0.12	47.31
1997–98	38.99	1.66	0.17	4.80	0.01	2.21	0.11	47.95
1998–99	39.93	1.72	0.16	4.88	0.02	2.25	0.11	49.07
1999–00	40.94	1.76	0.16	5.05	0.02	2.28	0.11	50.32
2000–01	40.68	1.79	0.16	5.44	0.02	2.30	0.13	50.51
2001–02	41.52	1.82	0.17	5.06	0.02	2.20	0.12	50.92
2002–03	42.18	1.87	0.16	5.07	0.02	2.20	0.12	51.63
2003–04	44.28	1.91	0.17	5.12	0.02	2.20	0.12	53.82
2004–05	44.55	1.86	0.18	5.16	0.02	2.26	0.12	54.16
2005–06	44.34	1.85	0.20	5.28	0.02	2.27	0.12	54.08
2006–07	44.75	1.85	0.22	5.46	0.03	2.31	0.12	54.73
2007–08	44.48	1.87	0.23	5.75	0.03	2.36	0.12	54.84
2008–09	44.70	1.84	0.25	5.92	0.03	2.38	0.12	55.24

Note: Data are not readily available for missing years.

Source: BTRE (2007) and BITRE estimates.

TT 3.3b Total passenger kilometres travelled by capital city—Melbourne

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
1976–77	21.79	1.29	0.20	1.96	0.53	0.54	na	26.31
1977–78	22.76	1.36	0.20	1.88	0.52	0.55	na	27.26
1978–79	23.54	1.36	0.19	1.79	0.53	0.56	na	27.95
1979–80	23.76	1.28	0.19	1.66	0.52	0.57	na	27.99
1980–81	24.29	1.25	0.19	1.58	0.53	0.58	na	28.43
1981–82	25.83	1.23	0.20	1.52	0.54	0.59	na	29.92
1982–83	26.07	1.17	0.20	1.55	0.53	0.61	na	30.13
1983–84	27.08	1.24	0.21	1.57	0.54	0.62	na	31.26
1984–85	27.98	1.29	0.21	1.67	0.60	0.65	na	32.40
1985–86	29.07	1.35	0.20	1.75	0.62	0.68	na	33.68
1986–87	29.91	1.39	0.20	1.83	0.63	0.72	na	34.69
1987–88	31.46	1.47	0.20	1.83	0.65	0.75	na	36.36
1988–89	32.96	1.57	0.22	2.00	0.66	0.79	na	38.20
1989–90	33.74	1.59	0.20	1.95	0.55	0.80	na	38.84
1990–91	33.51	1.56	0.19	1.94	0.60	0.79	na	38.60
1991–92	33.97	1.56	0.19	1.90	0.56	0.78	na	38.97
1992–93	34.63	1.59	0.20	1.81	0.51	0.79	na	39.53
1993–94	35.30	1.64	0.20	1.81	0.51	0.83	na	40.28
1994–95	36.30	1.71	0.20	1.94	0.51	0.86	na	41.52
1995–96	37.03	1.65	0.20	1.98	0.52	0.89	na	42.27
1996–97	37.41	1.59	0.20	1.97	0.52	0.88	na	42.58
1997–98	38.15	1.59	0.20	1.90	0.51	0.89	na	43.25
1998–99	39.21	1.60	0.19	1.99	0.53	0.91	na	44.42
1999–00	40.12	1.60	0.19	2.11	0.56	0.92	na	45.50
2000–01	40.14	1.63	0.20	2.19	0.58	0.93	na	45.67
2001–02	40.88	1.67	0.21	2.30	0.59	0.93	na	46.59
2002–03	41.64	1.71	0.21	2.35	0.60	0.94	na	47.45
2003–04	43.04	1.75	0.22	2.42	0.60	0.94	na	48.97
2004–05	43.27	1.72	0.24	2.50	0.61	0.93	na	49.27
2005–06	42.93	1.73	0.26	2.78	0.62	0.95	na	49.28
2006–07	43.17	1.75	0.29	3.07	0.63	1.00	na	49.93
2007–08	43.03	1.79	0.32	3.48	0.65	1.07	na	50.33
2008–09	42.07	1.75	0.34	3.72	0.71	1.16	na	49.76

na not applicable.

Source: BTRE (2007) and BITRE estimates.

TT 3.3c Total passenger kilometres travelled by capital city—Brisbane

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
1976–77	7.82	0.56	0.14	0.38	na	0.41	0.00	9.32
1977–78	8.21	0.61	0.14	0.37	na	0.43	0.00	9.76
1978–79	8.60	0.66	0.14	0.35	na	0.43	0.00	10.19
1979–80	8.78	0.65	0.15	0.38	na	0.43	0.00	10.41
1980–81	9.16	0.66	0.16	0.42	na	0.40	0.00	10.80
1981–82	9.88	0.68	0.17	0.46	na	0.42	0.00	11.60
1982–83	10.07	0.68	0.17	0.47	na	0.45	0.00	11.84
1983–84	10.50	0.76	0.17	0.52	na	0.43	0.00	12.38
1984–85	10.82	0.81	0.18	0.55	na	0.45	0.00	12.81
1985–86	11.40	0.83	0.17	0.62	na	0.45	0.00	13.47
1986–87	11.68	0.85	0.17	0.68	na	0.47	0.00	13.85
1987–88	12.39	0.86	0.18	0.74	na	0.51	0.00	14.69
1988–89	13.23	0.89	0.21	0.85	na	0.56	0.00	15.74
1989–90	13.69	0.89	0.20	0.78	na	0.55	0.00	16.12
1990–91	13.94	0.87	0.20	0.79	na	0.57	0.00	16.37
1991–92	14.53	0.86	0.21	0.75	na	0.59	0.00	16.94
1992–93	15.28	0.87	0.21	0.74	na	0.59	0.00	17.69
1993–94	15.80	0.92	0.20	0.72	na	0.62	0.00	18.26
1994–95	16.46	1.01	0.19	0.70	na	0.68	0.01	19.04
1995–96	16.87	1.07	0.17	0.74	na	0.66	0.01	19.52
1996–97	17.01	1.09	0.17	0.79	na	0.67	0.01	19.74
1997–98	17.34	1.14	0.16	0.80	na	0.66	0.01	20.12
1998–99	17.70	1.17	0.15	0.81	na	0.62	0.01	20.46
1999–00	18.21	1.20	0.15	0.87	na	0.66	0.01	21.11
2000–01	18.24	1.22	0.16	0.94	na	0.67	0.01	21.23
2001–02	18.81	1.28	0.17	0.97	na	0.69	0.01	21.92
2002–03	19.36	1.33	0.16	0.97	na	0.72	0.01	22.55
2003–04	20.70	1.37	0.17	1.01	na	0.75	0.01	24.02
2004–05	20.89	1.35	0.18	1.00	na	0.80	0.01	24.24
2005–06	20.91	1.35	0.20	1.08	na	0.89	0.02	24.45
2006–07	21.29	1.37	0.22	1.18	na	0.94	0.02	25.01
2007–08	21.42	1.41	0.24	1.25	na	0.98	0.02	25.32
2008–09	20.97	1.38	0.26	1.33	na	1.04	0.02	25.00

na not applicable.

Source: BTRE (2007) and BITRE estimates.

TT 3.3d Total passenger kilometres travelled by capital city—Adelaide

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
1976–77	8.23	0.38	0.11	0.16	0.02	0.41	na	9.31
1977–78	8.46	0.38	0.11	0.16	0.02	0.42	na	9.55
1978–79	8.50	0.39	0.11	0.16	0.02	0.44	na	9.61
1979–80	8.30	0.37	0.11	0.18	0.02	0.45	na	9.43
1980–81	8.17	0.37	0.11	0.19	0.02	0.52	na	9.39
1981–82	8.48	0.36	0.12	0.20	0.02	0.54	na	9.73
1982–83	8.53	0.36	0.12	0.18	0.02	0.46	na	9.68
1983–84	8.94	0.40	0.12	0.18	0.02	0.48	na	10.14
1984–85	9.31	0.42	0.12	0.18	0.02	0.46	na	10.51
1985–86	9.62	0.41	0.11	0.18	0.02	0.48	na	10.82
1986–87	9.81	0.40	0.10	0.18	0.02	0.47	na	10.97
1987–88	10.20	0.39	0.10	0.13	0.02	0.50	na	11.34
1988–89	10.58	0.41	0.10	0.14	0.02	0.47	na	11.72
1989–90	10.75	0.41	0.09	0.14	0.02	0.50	na	11.91
1990–91	10.66	0.41	0.08	0.12	0.02	0.53	na	11.81
1991–92	10.75	0.40	0.08	0.12	0.01	0.53	na	11.89
1992–93	10.94	0.41	0.07	0.13	0.01	0.51	na	12.07
1993–94	10.94	0.42	0.07	0.15	0.01	0.52	na	12.12
1994–95	11.03	0.44	0.07	0.16	0.01	0.54	na	12.26
1995–96	11.00	0.45	0.07	0.15	0.01	0.54	na	12.22
1996–97	11.06	0.43	0.06	0.15	0.01	0.54	na	12.26
1997–98	11.22	0.43	0.06	0.14	0.01	0.54	na	12.42
1998–99	11.61	0.43	0.06	0.14	0.01	0.52	na	12.78
1999–00	12.00	0.43	0.06	0.13	0.01	0.52	na	13.16
2000–01	11.96	0.42	0.06	0.13	0.01	0.54	na	13.14
2001–02	12.13	0.43	0.06	0.15	0.02	0.56	na	13.34
2002–03	12.53	0.44	0.06	0.16	0.02	0.57	na	13.78
2003–04	12.66	0.44	0.07	0.18	0.02	0.57	na	13.94
2004–05	12.41	0.43	0.07	0.18	0.02	0.58	na	13.69
2005–06	12.27	0.43	0.08	0.19	0.02	0.61	na	13.59
2006–07	12.37	0.43	0.08	0.19	0.02	0.62	na	13.70
2007–08	12.26	0.44	0.09	0.19	0.02	0.63	na	13.62
2008–09	12.33	0.43	0.10	0.19	0.02	0.64	na	13.70

na not applicable.

Source: BTRE (2007) and BITRE estimates.

TT 3.3e Total passenger kilometres travelled by capital city—Perth

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
1976–77	8.19	0.60	0.10	0.09	na	0.46	0.00	9.45
1977–78	8.61	0.63	0.10	0.10	na	0.48	0.00	9.92
1978–79	8.86	0.64	0.10	0.10	na	0.48	0.00	10.18
1979–80	8.88	0.64	0.11	0.09	na	0.52	0.00	10.23
1980–81	8.95	0.65	0.11	0.08	na	0.53	0.00	10.33
1981–82	9.45	0.65	0.13	0.07	na	0.51	0.00	10.81
1982–83	9.53	0.62	0.13	0.08	na	0.52	0.00	10.89
1983–84	10.15	0.65	0.14	0.11	na	0.45	0.00	11.50
1984–85	10.52	0.67	0.14	0.11	na	0.45	0.00	11.88
1985–86	10.90	0.65	0.13	0.12	na	0.48	0.00	12.29
1986–87	11.19	0.63	0.13	0.12	na	0.50	0.00	12.58
1987–88	11.78	0.63	0.13	0.12	na	0.50	0.00	13.17
1988–89	12.36	0.67	0.14	0.11	na	0.54	0.00	13.83
1989–90	12.73	0.69	0.13	0.11	na	0.58	0.00	14.23
1990–91	12.65	0.67	0.11	0.10	na	0.56	0.00	14.10
1991–92	12.85	0.67	0.11	0.12	na	0.55	0.00	14.30
1992–93	13.31	0.69	0.10	0.17	na	0.55	0.00	14.82
1993–94	14.06	0.73	0.09	0.30	na	0.55	0.00	15.73
1994–95	14.96	0.80	0.09	0.30	na	0.57	0.00	16.72
1995–96	15.28	0.83	0.09	0.34	na	0.57	0.00	17.10
1996–97	15.44	0.81	0.09	0.37	na	0.58	0.00	17.29
1997–98	15.66	0.81	0.08	0.37	na	0.60	0.00	17.52
1998–99	16.08	0.81	0.08	0.36	na	0.59	0.00	17.93
1999–00	16.31	0.81	0.08	0.37	na	0.62	0.00	18.20
2000–01	16.11	0.81	0.09	0.38	na	0.66	0.00	18.05
2001–02	16.44	0.84	0.09	0.38	na	0.68	0.00	18.43
2002–03	16.89	0.87	0.09	0.37	na	0.69	0.00	18.91
2003–04	17.74	0.90	0.10	0.37	na	0.71	0.00	19.82
2004–05	18.02	0.88	0.11	0.38	na	0.74	0.00	20.13
2005–06	17.78	0.89	0.12	0.40	na	0.76	0.00	19.95
2006–07	18.14	0.91	0.14	0.42	na	0.76	0.00	20.36
2007–08	18.34	0.93	0.15	0.52	na	0.78	0.00	20.73
2008–09	18.88	0.91	0.16	0.68	na	0.81	0.00	21.44

na not applicable.

Source: BTRE (2007) and BITRE estimates.

TT 3.3f Total passenger kilometres travelled by capital city—Hobart

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
1976–77	1.24	0.09	0.01	na	na	0.11	na	1.45
1977–78	1.31	0.09	0.01	na	na	0.12	na	1.53
1978–79	1.37	0.10	0.01	na	na	0.11	na	1.58
1979–80	1.39	0.09	0.01	na	na	0.11	na	1.60
1980–81	1.42	0.10	0.01	na	na	0.11	na	1.63
1981–82	1.47	0.10	0.01	na	na	0.09	na	1.68
1982–83	1.47	0.10	0.01	na	na	0.09	na	1.67
1983–84	1.53	0.12	0.01	na	na	0.10	na	1.75
1984–85	1.59	0.12	0.01	na	na	0.10	na	1.83
1985–86	1.67	0.12	0.01	na	na	0.10	na	1.90
1986–87	1.68	0.11	0.01	na	na	0.10	na	1.91
1987–88	1.75	0.11	0.01	na	na	0.10	na	1.96
1988–89	1.82	0.11	0.01	na	na	0.09	na	2.03
1989–90	1.91	0.11	0.01	na	na	0.10	na	2.12
1990–91	1.92	0.10	0.01	na	na	0.09	na	2.12
1991–92	1.95	0.10	0.01	na	na	0.09	na	2.16
1992–93	2.02	0.11	0.01	na	na	0.09	na	2.24
1993–94	2.07	0.12	0.01	na	na	0.09	na	2.29
1994–95	2.10	0.12	0.01	na	na	0.09	na	2.33
1995–96	2.12	0.12	0.01	na	na	0.09	na	2.35
1996–97	2.12	0.12	0.01	na	na	0.09	na	2.34
1997–98	2.09	0.12	0.01	na	na	0.09	na	2.30
1998–99	2.08	0.12	0.01	na	na	0.09	na	2.29
1999–00	2.08	0.12	0.01	na	na	0.09	na	2.30
2000–01	2.02	0.12	0.01	na	na	0.09	na	2.24
2001–02	2.06	0.12	0.01	na	na	0.09	na	2.28
2002–03	2.14	0.12	0.01	na	na	0.09	na	2.36
2003–04	2.25	0.13	0.01	na	na	0.09	na	2.47
2004–05	2.20	0.12	0.01	na	na	0.09	na	2.43
2005–06	2.21	0.13	0.01	na	na	0.09	na	2.43
2006–07	2.24	0.13	0.01	na	na	0.09	na	2.46
2007–08	2.22	0.13	0.01	na	na	0.08	na	2.45
2008–09	2.18	0.13	0.02	na	na	0.09	na	2.41

na not applicable.

Source: BTRE (2007) and BITRE estimates.

TT 3.3g Total passenger kilometres travelled by capital city—Darwin

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
1976–77	0.33	0.06	0.01	na	na	0.02	na	0.42
1977–78	0.35	0.06	0.01	na	na	0.02	na	0.44
1978–79	0.37	0.07	0.01	na	na	0.02	na	0.46
1979–80	0.38	0.07	0.01	na	na	0.02	na	0.48
1980–81	0.41	0.07	0.01	na	na	0.02	na	0.51
1981–82	0.45	0.07	0.01	na	na	0.03	na	0.56
1982–83	0.47	0.07	0.02	na	na	0.03	na	0.57
1983–84	0.51	0.07	0.02	na	na	0.03	na	0.62
1984–85	0.55	0.07	0.02	na	na	0.03	na	0.67
1985–86	0.61	0.07	0.01	na	na	0.03	na	0.73
1986–87	0.63	0.07	0.01	na	na	0.04	na	0.75
1987–88	0.65	0.07	0.01	na	na	0.04	na	0.77
1988–89	0.66	0.07	0.01	na	na	0.04	na	0.79
1989–90	0.68	0.07	0.01	na	na	0.05	na	0.81
1990–91	0.69	0.07	0.01	na	na	0.05	na	0.81
1991–92	0.70	0.07	0.01	na	na	0.05	na	0.83
1992–93	0.72	0.07	0.01	na	na	0.05	na	0.85
1993–94	0.74	0.07	0.01	na	na	0.05	na	0.87
1994–95	0.79	0.08	0.01	na	na	0.05	na	0.93
1995–96	0.83	0.08	0.01	na	na	0.06	na	0.97
1996–97	0.84	0.08	0.01	na	na	0.06	na	0.99
1997–98	0.86	0.08	0.01	na	na	0.06	na	1.01
1998–99	0.87	0.08	0.01	na	na	0.06	na	1.02
1999–00	0.88	0.08	0.01	na	na	0.06	na	1.03
2000–01	0.85	0.08	0.01	na	na	0.06	na	1.00
2001–02	0.86	0.09	0.01	na	na	0.06	na	1.01
2002–03	0.87	0.09	0.01	na	na	0.06	na	1.02
2003–04	0.89	0.09	0.01	na	na	0.06	na	1.06
2004–05	0.88	0.09	0.01	na	na	0.06	na	1.04
2005–06	0.89	0.09	0.01	na	na	0.06	na	1.05
2006–07	0.92	0.09	0.01	na	na	0.06	na	1.08
2007–08	0.94	0.10	0.01	na	na	0.06	na	1.11
2008–09	0.96	0.09	0.01	na	na	0.06	na	1.13

na not applicable.

Source: BTRE (2007) and BITRE estimates.

TT 3.3h Total passenger kilometres travelled by capital city—Canberra

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
1976–77	1.99	0.11	0.02	na	na	0.09	na	2.21
1977–78	2.08	0.11	0.02	na	na	0.10	na	2.31
1978–79	2.15	0.12	0.02	na	na	0.11	na	2.40
1979–80	2.17	0.11	0.03	na	na	0.12	na	2.44
1980–81	2.20	0.12	0.03	na	na	0.11	na	2.46
1981–82	2.34	0.12	0.03	na	na	0.11	na	2.60
1982–83	2.37	0.12	0.03	na	na	0.14	na	2.66
1983–84	2.49	0.13	0.04	na	na	0.16	na	2.81
1984–85	2.62	0.13	0.04	na	na	0.17	na	2.96
1985–86	2.74	0.13	0.04	na	na	0.16	na	3.08
1986–87	2.82	0.14	0.03	na	na	0.17	na	3.16
1987–88	2.99	0.14	0.03	na	na	0.18	na	3.34
1988–89	3.16	0.14	0.04	na	na	0.18	na	3.52
1989–90	3.29	0.14	0.03	na	na	0.18	na	3.66
1990–91	3.34	0.14	0.03	na	na	0.19	na	3.70
1991–92	3.45	0.14	0.03	na	na	0.18	na	3.80
1992–93	3.59	0.15	0.03	na	na	0.18	na	3.95
1993–94	3.70	0.15	0.03	na	na	0.18	na	4.05
1994–95	3.79	0.16	0.03	na	na	0.19	na	4.17
1995–96	3.82	0.16	0.03	na	na	0.22	na	4.23
1996–97	3.83	0.16	0.02	na	na	0.23	na	4.24
1997–98	3.84	0.16	0.02	na	na	0.23	na	4.25
1998–99	3.93	0.16	0.02	na	na	0.22	na	4.34
1999–00	4.02	0.16	0.02	na	na	0.22	na	4.42
2000–01	3.95	0.16	0.02	na	na	0.22	na	4.35
2001–02	4.02	0.16	0.03	na	na	0.22	na	4.44
2002–03	4.16	0.17	0.03	na	na	0.23	na	4.58
2003–04	4.34	0.17	0.03	na	na	0.24	na	4.78
2004–05	4.34	0.17	0.03	na	na	0.25	na	4.78
2005–06	4.32	0.17	0.03	na	na	0.25	na	4.77
2006–07	4.35	0.17	0.03	na	na	0.25	na	4.80
2007–08	4.32	0.17	0.04	na	na	0.25	na	4.78
2008–09	4.37	0.17	0.04	na	na	0.25	na	4.83

na not applicable.

Source: BTRE (2007) and BITRE estimates.

TT 3.3i Total passenger kilometres travelled by capital city—total metropolitan

Financial year	Passenger cars	Commercial vehicles	Motor cycles	Rail	Light rail	Bus	Ferry	Total
<i>billion passenger kilometres</i>								
1976–77	73.74	4.42	0.82	5.72	0.55	3.61	0.11	88.98
1977–78	76.58	4.62	0.83	5.57	0.54	3.70	0.12	91.95
1978–79	78.97	4.72	0.83	5.49	0.55	3.73	0.12	94.41
1979–80	79.45	4.59	0.88	5.84	0.54	3.81	0.13	95.25
1980–81	80.77	4.61	0.92	5.91	0.55	3.95	0.13	96.84
1981–82	85.07	4.65	1.00	6.01	0.56	3.96	0.14	101.40
1982–83	85.48	4.53	1.01	5.83	0.55	4.00	0.14	101.55
1983–84	89.53	4.86	1.04	5.84	0.56	3.99	0.13	105.95
1984–85	93.03	5.07	1.06	5.95	0.62	4.08	0.13	109.95
1985–86	96.53	5.10	0.99	6.39	0.64	4.20	0.13	113.98
1986–87	98.93	5.10	0.96	6.62	0.65	4.33	0.12	116.72
1987–88	103.80	5.21	0.94	6.95	0.67	4.50	0.12	122.19
1988–89	108.61	5.41	1.00	7.28	0.70	4.60	0.11	127.72
1989–90	111.50	5.42	0.92	7.27	0.58	4.68	0.11	130.48
1990–91	111.40	5.26	0.84	7.32	0.63	4.77	0.11	130.34
1991–92	113.50	5.21	0.84	7.17	0.58	4.79	0.10	132.19
1992–93	116.86	5.30	0.83	6.96	0.54	4.72	0.10	135.31
1993–94	119.80	5.53	0.81	7.20	0.54	4.81	0.11	138.80
1994–95	123.70	5.90	0.79	7.60	0.54	5.02	0.12	143.67
1995–96	125.43	5.98	0.75	7.83	0.55	5.13	0.12	145.80
1996–97	126.16	5.91	0.74	8.04	0.54	5.21	0.13	146.74
1997–98	128.15	6.00	0.71	8.01	0.54	5.28	0.12	148.82
1998–99	131.42	6.08	0.68	8.19	0.56	5.26	0.12	152.31
1999–00	134.57	6.16	0.69	8.52	0.60	5.37	0.12	156.02
2000–01	133.95	6.23	0.71	9.08	0.62	5.46	0.14	156.18
2001–02	136.72	6.43	0.75	8.85	0.62	5.43	0.13	158.93
2002–03	139.75	6.59	0.74	8.94	0.63	5.50	0.13	162.28
2003–04	145.90	6.77	0.78	9.10	0.63	5.56	0.13	168.87
2004–05	146.57	6.62	0.84	9.22	0.64	5.70	0.14	169.73
2005–06	145.64	6.65	0.91	9.73	0.66	5.88	0.14	169.60
2006–07	147.22	6.71	1.02	10.31	0.68	6.02	0.14	172.08
2007–08	147.01	6.84	1.11	11.19	0.69	6.21	0.14	173.18
2008–09	146.45	6.70	1.18	11.85	0.76	6.43	0.14	173.52

Source: BTRE (2007) and BITRE estimates.

TT 3.4a Method of travel to work by state/territory—New South Wales

Census year	Public transport	Taxi	Car, as driver	One method only					Public transport and other method 10
				Car, as passenger	Truck	Motor-bike/motor scooter	Bicycle	Walked only	
				Number of employed persons					
1981	256 812	11 767	1 105 606	188 679	na	32 294	15 682	122 544	na
1986	225 068	10 632	1 164 920	171 024	na	26 294	18 851	118 626	na
1991	211 372	8 407	1 197 033	168 743	na	17 269	16 970	123 248	86 035
1996	225 515	9 496	1 396 204	176 686	na	16 423	17 305	114 538	97 989
2001	249 096	8 223	1 487 981	168 862	54 094	14 157	17 730	114 927	112 728
2006	265 113	8 219	1 639 528	166 871	45 953	16 495	19 274	127 446	93 564
na 10	not available. See End Notes.								
Source:	ABS (2007a).								

TT 3.4b Method of travel to work by state/territory—Victoria

Census year	Public transport	Taxi	Car, as driver	One method only					Public transport and other method 10
				Car, as passenger	Truck	Motor-bike/motor scooter	Bicycle	Walked only	
				Number of employed persons					
1981	157 446	6 894	890 359	151 666	na	13 757	23 737	83 208	na
1986	134 654	5 873	986 891	132 471	na	12 132	24 022	79 580	na
1991	106 427	4 022	1 008 838	114 370	na	8 704	18 334	74 133	41 684
1996	103 778	4 989	1 157 773	114 478	na	8 414	17 190	63 668	46 918
2001	119 408	4 520	1 276 600	109 752	25 682	8 376	18 910	64 732	57 770
2006	143 412	4 555	1 394 017	111 030	22 806	10 838	25 180	80 539	63 067
na 10	not available. See End Notes.								
Source:	ABS (2007a).								

TT 3.4c Method of travel to work by state/territory—Queensland

Census year	Public transport	Taxi	Car, as driver	One method only				Bicycle	Walked only	Public transport and other method 10
				Car, as passenger	Truck	Motor-bike/motor scooter				
Number of employed persons										
1981	53 762	5 213	462 167	93 082	na	23 462	15 586	56 752	na	
1986	59 836	5 131	553 352	90 210	na	20 495	19 469	62 369	na	
1991	55 908	3 787	624 144	93 935	na	16 819	22 964	62 908	16 016	
1996	62 621	5 255	809 145	111 524	na	16 608	20 454	62 025	18 470	
2001	68 732	4 020	906 073	112 409	30 538	15 601	20 252	60 529	24 510	
2006	91 302	4 531	1 090 011	123 254	29 283	20 071	20 580	72 981	27 915	
na 10	not available. See End Notes.									
Source:	ABS (2007a).									

TT 3.4d Method of travel to work by state/territory—South Australia

Census year	One method only								Public transport and other method 10
	Public transport	Taxi	Car, as driver	Car, as passenger	Truck	Motor-bike/motor scooter	Bicycle	Walked only	
	Number of employed persons								
1981	49 234	1 740	289 771	48 814	na	10 922	10 700	25 988	na
1986	41 952	1 954	322 855	44 187	na	9 376	10 415	28 744	na
1991	33 062	1 453	322 141	41 368	na	5 600	8 662	26 514	7 033
1996	27 567	1 840	363 074	39 302	na	3 740	5 962	21 015	6 539
2001	28 282	1 475	392 511	37 455	7 298	2 904	5 889	21 553	7 837
2006	36 140	1 458	429 822	38 720	6 609	4 324	7 942	24 862	8 298
na 10	not available. See End Notes.								
Source:	ABS (2007a).								

TT 3.4e Method of travel to work by state/territory—Western Australia

Census year	One method only								Public transport and other method 10
	Public transport	Taxi	Car, as driver	Car, as passenger	Truck	Motor-bike/motor scooter	Bicycle	Walked only	
	Number of employed persons								
1981	37 945	2 060	312 381	51 664	na	7 083	6 560	26 188	na
1986	36 629	2 191	324 791	48 071	na	6 925	7 830	27 995	na
1991	33 026	1 206	361 689	46 036	na	6 022	9 102	26 828	7 113
1996	33 163	1 865	453 690	55 553	na	4 817	7 152	28 440	13 566
2001	34 294	1 521	498 685	51 929	11 019	4 247	8 279	28 307	17 701
2006	47 087	1 972	570 271	58 748	10 910	5 176	9 294	31 757	19 833
na 10	not available. See End Notes.								
Source:	ABS (2007a).								

TT 3.4f Method of travel to work by state/territory—Tasmania

Census year	One method only								Public transport and other method 10
	Public transport	Taxi	Car, as driver	Car, as passenger	Truck	Motor-bike/motor scooter	Bicycle	Walked only	
	Number of employed persons								
1981	11 166	645	94 613	18 579	na	1 207	1 043	11 541	na
1986	8 622	693	101 797	17 505	na	1 108	1 244	12 265	na
1991	5 924	546	97 245	14 746	na	779	1 012	10 712	858
1996	5 342	551	109 633	14 441	na	838	964	9 466	811
2001	4 290	416	110 241	12 645	2 740	825	1 145	10 070	779
2006	5 156	495	125 485	14 506	2 572	1 089	1 478	11 693	805
na 10	not available. See End Notes.								
Source:	ABS (2007a).								

TT 3.4g Method of travel to work by state/territory—Northern Territory

Census year	One method only							Public transport and other method 10
	Public transport	Taxi	Car, as driver	Car, as passenger	Truck	Motor-bike/motor scooter	Bicycle	Walked only
<i>Number of employed persons</i>								
1981	2 907	396	24 170	5 847	na	1 387	1 641	6 738
1986	2 429	537	32 209	7 021	na	1 391	2 185	6 934
1991	2 389	317	31 781	6 118	na	1 146	2 908	6 938
1996	2 887	477	40 865	7 445	na	1 040	2 636	9 369
2001	2 711	411	44 343	7 261	1 050	918	2 846	10 561
2006	3 082	328	46 702	7 114	795	978	2 579	10 347
na 10	not available. See End Notes.							
Source:	ABS (2007a).							

TT 3.4h Method of travel to work by state/territory—Australian Capital Territory

Census year	One method only							Public transport and other method 10
	Public transport	Taxi	Car, as driver	Car, as passenger	Truck	Motor-bike/motor scooter	Bicycle	Walked only
<i>Number of employed persons</i>								
1981	8 642	405	61 213	10 194	na	1 417	1 902	3 802
1986	9 614	540	77 313	11 524	na	1 310	2 185	4 084
1991	9 680	325	78 981	12 363	na	906	2 043	4 726
1996	8 638	540	89 613	12 713	na	986	2 760	5 373
2001	7 506	561	99 585	12 845	1 695	1 069	3 115	5 741
2006	10 374	411	107 608	13 011	1 471	1 766	3 757	7 399
na 10	not available. See End Notes.							
Source:	ABS (2007a).							

TT 3.4i Method of travel to work by state/territory—total Australia

Census year	One method only							Public transport and other method 10
	Public transport	Taxi	Car, as driver	Car, as passenger	Truck	Motor-bike/motor scooter	Bicycle	Walked only
<i>Number of employed persons</i>								
1981	577 914	29 120	3 240 280	568 525	na	91 529	76 851	336 761
1986	518 804	27 551	3 564 128	522 013	na	79 031	86 201	340 597
1991	457 788	20 063	3 721 852	497 679	na	57 245	81 995	336 007
1996	469 511	25 013	4 419 997	532 142	na	52 866	74 423	313 894
2001	514 319	21 147	4 816 019	513 158	134 116	48 097	78 166	316 420
2006	601 666	21 969	5 403 444	533 254	120 399	60 737	90 084	367 024
na 10	not available. See End Notes.							
Source:	ABS (2007a).							

TT 3.4j Method of travel to work by state/territory—total employed persons by state/territory

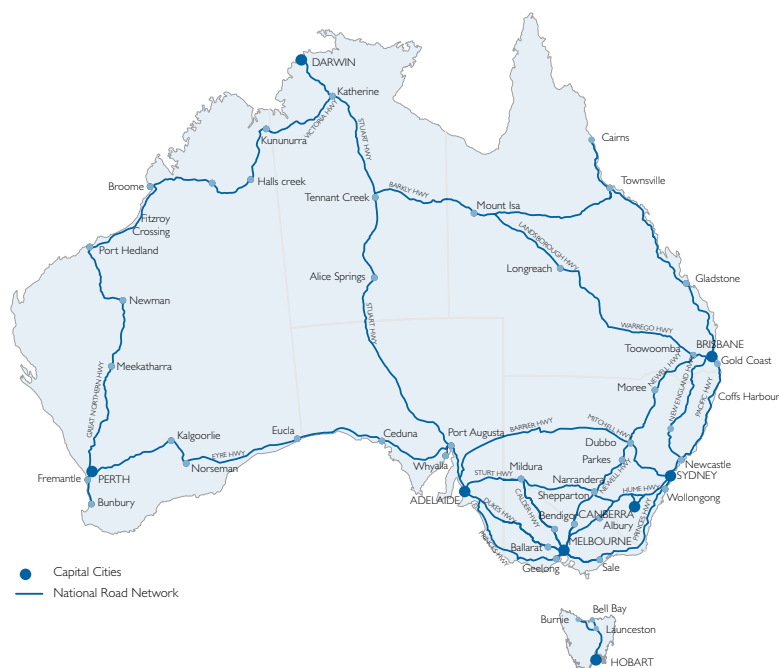
Census year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total Australia
<i>Number of employed persons</i>									
June 1981	2 258 262	1 724 384	962 389	560 940	574 751	174 612	56 726	101 881	6 413 945
June 1986	2 383 389	1 860 183	1 120 508	607 199	662 301	183 495	74 384	129 935	7 021 396
August 1991	2 594 738	1 971 260	1 302 781	629 009	734 296	194 902	78 987	144 317	7 650 290
August 1996	2 789 160	2 085 548	1 520 503	652 744	847 989	199 604	85 743	151 517	8 332 808
August 2001	3 028 168	2 259 769	1 695 780	675 754	924 545	192 451	97 020	170 374	9 043 859
August 2006	3 270 894	2 539 481	2 079 410	759 905	1 073 168	221 540	103 448	194 735	10 242 582

Source: ABS (2010j).

CHAPTER 4

Road

FT 4 Map of national road network



TT 4.1 Intercapital road distances

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Darwin	Canberra
	kilometres						
Sydney		863	934	1 401	4 034	4 000	282
Melbourne			1 665	723	3 420	3 757	652
Brisbane				2 049	4 681	3 432	1 194
Adelaide					2 698	3 035	1 189
Perth						3 989	3 822
Darwin							4 159

Source: Whereis.com.

TT 4.2 Total vehicle kilometres travelled, by vehicle type

Financial year	Passenger cars	Motor cycles	Buses	Light commercial vehicles	Rigid trucks	Articulated trucks	Total
<i>billion vehicle kilometres travelled</i>							
1970–71	60.73	1.01	0.60	9.84	4.70	1.66	78.54
1971–72	64.80	1.10	0.61	10.42	4.69	1.76	83.39
1972–73	67.33	1.20	0.63	11.01	4.71	1.80	86.68
1973–74	71.99	1.30	0.65	12.02	4.87	1.90	92.73
1974–75	75.21	1.40	0.66	12.96	5.03	1.91	97.17
1975–76	78.41	1.64	0.67	13.12	5.25	2.03	101.12
1976–77	82.09	1.68	0.70	14.83	5.15	2.20	106.65
1977–78	85.03	1.73	0.72	16.11	5.10	2.22	110.91
1978–79	87.57	1.77	0.73	16.67	5.13	2.60	114.48
1979–80	88.06	1.90	0.77	16.79	5.65	2.80	115.98
1980–81	89.57	2.00	0.82	17.34	6.13	2.88	118.75
1981–82	94.14	2.18	0.86	17.86	6.97	3.06	125.08
1982–83	94.64	2.20	0.95	17.89	6.22	3.03	124.94
1983–84	99.14	2.25	1.04	19.32	6.17	3.41	131.32
1984–85	103.07	2.28	1.14	20.52	6.34	3.59	136.95
1985–86	106.48	2.10	1.22	21.23	6.22	3.67	140.91
1986–87	109.01	2.00	1.30	21.72	6.28	3.69	144.00
1987–88	114.57	1.92	1.38	22.77	6.69	3.95	151.29
1988–89	120.31	2.00	1.46	23.73	6.73	4.05	158.27
1989–90	124.01	1.80	1.55	23.90	6.84	4.13	162.23
1990–91	124.47	1.62	1.50	23.30	6.12	4.07	161.09
1991–92	127.19	1.61	1.48	24.17	5.91	4.10	164.46
1992–93	131.34	1.62	1.49	24.95	5.82	4.39	169.61
1993–94	134.91	1.59	1.54	25.76	6.02	4.53	174.35
1994–95	139.38	1.57	1.59	27.27	6.32	4.82	180.95
1995–96	141.59	1.52	1.64	28.28	6.65	5.02	184.71
1996–97	142.87	1.52	1.65	28.65	7.15	5.21	187.06
1997–98	144.51	1.46	1.69	29.94	7.24	5.40	190.24
1998–99	148.08	1.40	1.71	30.69	7.17	5.55	194.61
1999–00	151.17	1.42	1.76	31.33	7.29	5.70	198.67
2000–01	149.75	1.46	1.80	31.70	7.17	5.62	197.51
2001–02	153.63	1.55	1.81	32.94	7.44	5.81	203.18
2002–03	157.71	1.52	1.86	34.02	7.70	5.97	208.78
2003–04	165.35	1.60	1.88	35.15	7.85	6.16	217.99
2004–05	166.02	1.72	1.90	35.38	8.10	6.32	219.44
2005–06	164.85	1.88	1.95	36.28	8.39	6.46	219.81
2006–07	166.37	2.09	1.98	37.64	8.58	6.72	223.38
2007–08	165.89	2.28	2.03	38.85	8.70	6.90	224.66
2008–09	165.24	2.44	2.08	38.82	8.64	6.85	224.06

Source: BTRE (2007) and BITRE estimates.

TT 4.3 Total vehicle kilometres travelled, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>billion vehicle kilometres travelled</i>									
1970–71	27.72	21.45	10.75	7.42	7.49	2.30	0.51	0.92	78.54
1971–72	29.28	22.78	11.51	7.76	8.03	2.42	0.57	1.03	83.39
1972–73	30.21	23.65	12.15	8.00	8.42	2.50	0.61	1.13	86.68
1973–74	31.97	25.24	13.22	8.60	9.09	2.65	0.68	1.26	92.73
1974–75	33.16	26.38	14.10	9.08	9.65	2.75	0.67	1.37	97.17
1975–76	33.99	27.48	14.94	9.49	10.17	2.83	0.75	1.47	101.12
1976–77	35.60	28.97	15.83	9.98	10.91	2.96	0.84	1.57	106.66
1977–78	36.78	30.05	16.70	10.29	11.49	3.07	0.89	1.64	110.91
1978–79	38.12	30.76	17.55	10.40	11.84	3.15	0.94	1.70	114.48
1979–80	38.83	30.84	18.18	10.28	11.97	3.16	0.99	1.72	115.98
1980–81	39.90	31.30	19.12	10.27	12.16	3.19	1.04	1.76	118.75
1981–82	41.73	32.99	20.60	10.68	12.79	3.32	1.12	1.86	125.08
1982–83	41.18	33.15	20.85	10.69	12.73	3.33	1.12	1.89	124.94
1983–84	43.23	34.73	21.91	11.28	13.45	3.52	1.21	2.00	131.32
1984–85	45.11	36.22	22.79	11.80	13.94	3.69	1.28	2.11	136.95
1985–86	46.03	37.46	23.59	12.15	14.35	3.79	1.34	2.21	140.91
1986–87	46.71	38.62	24.20	12.36	14.65	3.82	1.37	2.28	144.00
1987–88	48.65	40.91	25.65	12.87	15.43	3.97	1.40	2.41	151.29
1988–89	50.41	42.99	27.29	13.32	16.16	4.12	1.42	2.55	158.27
1989–90	51.48	44.01	28.22	13.51	16.63	4.27	1.45	2.65	162.23
1990–91	50.93	43.52	28.49	13.30	16.48	4.26	1.43	2.67	161.09
1991–92	51.80	44.20	29.73	13.43	16.74	4.34	1.46	2.76	164.46
1992–93	53.38	45.13	31.30	13.69	17.25	4.49	1.50	2.87	169.61
1993–94	54.82	46.05	32.55	13.77	18.07	4.60	1.54	2.95	174.35
1994–95	56.71	47.38	34.31	13.99	19.17	4.73	1.63	3.04	180.95
1995–96	57.43	48.45	35.51	14.06	19.69	4.79	1.70	3.08	184.71
1996–97	57.76	49.39	36.09	14.19	20.00	4.81	1.73	3.09	187.06
1997–98	58.85	49.88	37.02	14.43	20.41	4.77	1.76	3.11	190.24
1998–99	60.25	51.06	37.86	14.84	20.89	4.76	1.78	3.17	194.61
1999–00	61.72	51.70	38.99	15.26	21.19	4.77	1.80	3.23	198.67
2000–01	61.50	51.06	39.14	15.20	21.00	4.67	1.76	3.18	197.51
2001–02	62.85	52.86	40.64	15.50	21.52	4.79	1.79	3.26	203.18
2002–03	64.01	54.53	41.97	16.01	22.10	4.97	1.82	3.36	208.78
2003–04	66.72	56.67	44.61	16.26	23.14	5.20	1.87	3.51	217.99
2004–05	67.15	56.83	45.31	16.07	23.54	5.16	1.87	3.52	219.44
2005–06	67.13	56.64	45.94	16.01	23.50	5.20	1.88	3.52	219.81
2006–07	67.94	57.14	47.17	16.22	24.11	5.29	1.94	3.56	223.38
2007–08	67.87	57.30	47.91	16.19	24.55	5.30	1.98	3.56	224.66
2008–09	68.19	56.39	47.27	16.28	25.09	5.24	2.01	3.59	224.06

Source: BTRE (2007) and BITRE estimates.

TT 4.4 Total vehicle kilometres travelled, by capital city

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Total
<i>billion vehicle kilometres travelled</i>									
1970–71	14.75	12.31	4.32	4.57	4.51	0.72	0.21	0.90	42.29
1971–72	15.62	13.08	4.67	4.81	4.87	0.76	0.23	1.01	45.05
1972–73	16.12	13.60	4.96	5.00	5.13	0.79	0.26	1.11	46.97
1973–74	17.07	14.52	5.42	5.43	5.58	0.84	0.29	1.25	50.39
1974–75	17.74	15.37	5.75	5.76	5.95	0.90	0.25	1.36	53.07
1975–76	18.23	16.20	6.13	6.04	6.28	0.95	0.31	1.46	55.60
1976–77	19.07	17.24	6.50	6.35	6.72	1.01	0.34	1.55	58.78
1977–78	19.69	18.07	6.87	6.54	7.07	1.08	0.36	1.63	61.29
1978–79	20.37	18.63	7.23	6.57	7.28	1.12	0.38	1.69	63.25
1979–80	20.70	18.79	7.41	6.45	7.37	1.14	0.40	1.71	63.95
1980–81	21.15	19.18	7.71	6.39	7.50	1.17	0.43	1.74	65.28
1981–82	22.14	20.34	8.29	6.63	7.91	1.22	0.47	1.85	68.85
1982–83	21.95	20.41	8.44	6.66	7.94	1.23	0.47	1.88	68.97
1983–84	23.09	21.28	8.91	7.03	8.42	1.30	0.51	1.98	72.54
1984–85	24.19	22.12	9.31	7.37	8.74	1.37	0.55	2.09	75.75
1985–86	24.85	23.09	9.82	7.59	9.03	1.43	0.59	2.19	78.60
1986–87	25.39	23.94	10.12	7.74	9.24	1.44	0.61	2.26	80.75
1987–88	26.54	25.40	10.75	8.07	9.75	1.49	0.63	2.40	85.04
1988–89	27.49	26.72	11.43	8.38	10.27	1.54	0.64	2.53	89.02
1989–90	28.05	27.37	11.78	8.52	10.57	1.60	0.65	2.64	91.17
1990–91	27.76	27.10	11.88	8.41	10.44	1.59	0.65	2.66	90.51
1991–92	28.25	27.59	12.37	8.51	10.63	1.63	0.67	2.75	92.39
1992–93	29.11	28.23	12.99	8.67	11.03	1.70	0.69	2.86	95.26
1993–94	29.89	28.88	13.50	8.71	11.66	1.75	0.71	2.94	98.05
1994–95	30.96	29.81	14.23	8.84	12.45	1.79	0.76	3.03	101.87
1995–96	31.45	30.34	14.77	8.87	12.83	1.82	0.80	3.08	103.94
1996–97	31.69	30.69	15.05	8.94	13.03	1.82	0.82	3.09	105.11
1997–98	32.30	31.31	15.51	9.08	13.25	1.79	0.84	3.11	107.19
1998–99	33.13	32.03	15.83	9.34	13.55	1.78	0.85	3.17	109.69
1999–00	33.98	32.70	16.30	9.61	13.75	1.79	0.86	3.23	112.21
2000–01	33.89	32.80	16.37	9.57	13.62	1.75	0.84	3.18	112.03
2001–02	34.65	33.53	16.98	9.73	13.97	1.79	0.85	3.25	114.77
2002–03	35.31	34.21	17.53	10.05	14.37	1.85	0.87	3.36	117.54
2003–04	36.88	35.35	18.65	10.18	15.08	1.94	0.90	3.50	122.48
2004–05	37.12	35.65	18.88	10.03	15.34	1.92	0.89	3.51	123.36
2005–06	37.07	35.60	19.05	9.97	15.29	1.93	0.91	3.51	123.33
2006–07	37.55	36.02	19.52	10.09	15.68	1.97	0.94	3.56	125.32
2007–08	37.51	36.12	19.81	10.05	15.94	1.97	0.97	3.56	125.92
2008–09	37.67	35.51	19.53	10.10	16.32	1.94	0.99	3.59	125.64

Source: BTRE (2007) and BITRE estimates.

TT 4.5 Total road freight, by vehicle type

Financial year	Light commercial vehicles	Rigid trucks	Articulated trucks	Total
<i>billion tonne kilometres</i>				
1970–71	0.9	10.3	14.2	25.4
1971–72	1.0	10.5	15.6	27.1
1972–73	1.1	10.7	17.0	28.8
1973–74	1.2	10.8	18.3	30.4
1974–75	1.3	11.0	19.7	32.1
1975–76	1.4	11.2	21.1	33.7
1976–77	1.6	12.2	23.9	37.8
1977–78	1.8	13.3	26.8	41.8
1978–79	1.9	14.3	29.6	45.9
1979–80	2.1	15.1	32.5	49.6
1980–81	2.2	15.8	35.4	53.4
1981–82	2.3	16.5	38.3	57.1
1982–83	2.4	16.7	41.9	61.0
1983–84	2.6	17.0	45.4	64.9
1984–85	2.7	17.2	48.9	68.9
1985–86	2.9	17.7	51.3	71.8
1986–87	3.1	18.1	53.6	74.8
1987–88	3.4	18.5	56.0	77.8
1988–89	3.6	19.3	56.9	79.7
1989–90	3.8	20.0	57.8	81.6
1990–91	4.0	20.8	58.7	83.5
1991–92	4.2	21.1	64.3	89.6
1992–93	4.3	21.4	69.9	95.6
1993–94	4.4	21.7	75.5	101.6
1994–95	4.5	22.0	81.2	107.7
1995–96	4.6	22.4	86.2	113.2
1996–97	4.7	22.9	91.2	118.7
1997–98	4.7	23.4	96.2	124.3
1998–99	5.0	24.3	101.3	130.7
1999–00	5.3	25.6	104.3	135.2
2000–01	5.6	26.4	107.4	139.4
2001–02	5.9	27.3	112.9	146.2
2002–03	6.3	28.5	116.5	151.2
2003–04	6.6	29.6	120.8	157.0
2004–05	6.8	31.0	128.7	166.5
2005–06	7.1	32.5	133.8	173.3
2006–07	7.4	34.0	140.9	182.2
2007–08	7.6	35.9	147.3	190.8

Source: BTRE (2006a) and BITRE estimates.

TT 4.6 Private vehicle ownership and operating cost indices^a

June reference month	Australia motor vehicle producer price	Private motoring	Motor vehicle retail price	Automotive fuel	Motor vehicle repair and servicing	Motor vehicle parts and accessories	Other motoring charges	Urban transport fares
<i>index</i>								
1973		19.7	20.7	16.8				21.3
1974		22.1	22.5	19.7				22.1
1975		27.1	26.4	23.5				25.1
1976		31.3	32.3	25.4				29.1
1977		34.3	35.8	26.5				28.4
1978		36.9	39.0	29.2				30.8
1979		41.3	40.3	39.9				32.4
1980		46.7	42.7	53.4				37.7
1981		51.0	45.3	61.9	50.6	62.1	54.0	43.8
1982		55.2	49.8	61.3	57.9	63.4	65.1	50.3
1983	52.8	60.8	54.8	68.3	63.0	67.8	68.9	55.9
1984	55.0	66.2	57.3	79.3	66.9	74.0	74.3	63.3
1985	57.7	71.9	62.4	88.7	70.7	77.9	79.9	66.8
1986	66.2	75.0	70.7	79.7	78.1	81.1	83.8	71.6
1987	75.9	85.7	83.4	89.6	86.5	86.4	92.4	78.6
1988	82.4	90.3	91.7	87.6	91.7	94.3	95.3	85.0
1989	86.6	94.9	97.2	92.1	96.0	98.3	98.6	92.9
1990	101.3	102.4	100.8	104.3	103.5	102.0	101.2	101.3
1991	104.6	105.0	101.8	106.0	108.5	102.2	108.2	116.0
1992	108.1	108.1	104.6	110.6	109.8	101.8	116.8	122.6
1993	113.9	111.1	111.2	112.0	111.0	101.6	127.5	129.7
1994	118.1	114.2	114.3	113.5	112.7	103.9	130.7	133.8
1995	121.7	117.7	119.9	115.7	114.0	106.3	134.1	137.8
1996	120.7	122.8	121.7	121.3	118.4	105.2	139.5	143.1
1997	119.1	122.2	112.9	121.9	119.3	106.6	145.4	152.0
1998	120.9	120.9	109.1	118.0	119.4	106.0	150.2	154.3
1999	118.6	120.7	105.1	116.5	123.0	107.2	158.0	157.4
2000	122.9	130.0	104.6	141.9	119.7	106.2	164.7	164.9
2001	125.6	136.8	105.6	157.9	128.2	107.9	171.0	183.0
2002	130.7	136.4	106.6	149.9	131.9	111.2	177.3	188.7
2003	132.5	136.4	105.1	148.0	136.2	113.1	183.6	192.4
2004	129.5	140.8	102.0	165.3	139.9	113.4	194.8	202.1
2005	127.4	145.6	99.2	182.6	145.7	115.8	200.8	205.4
2006	127.9	157.1	98.3	227.6	148.8	120.0	205.1	212.1
2007	128.5	157.1	99.7	218.1	152.8	124.2	214.9	220.0
2008	130.2	168.1	98.4	258.2	158.0	130.4	226.3	230.7
2009	128.8	157.0	97.5	205.1	164.6	141.9	235.1	242.5
2010	127.4	162.1	96.8	220.7	168.2	142.5	253.2	248.7

^a Base of each index: 1989–90 = 100.0

Note: Data are not readily available for missing years.

Source: ABS (2011a) and ABS (2011d).

TT 4.7 Stock of registered motor vehicles, by vehicle type

	Passenger cars	Motor cycles	LCVs	Rigid trucks	Articulated trucks	Other trucks	Buses	All vehicles
	<i>thousands</i>							
1971	3 990.9	152.6	532.7	365.8	32.0	10.0	22.8	5 106.8
1972								
1973								
1974								
1975								
1976	5 102.2	293.4	758.2	372.2	39.0	25.1	31.4	6 621.5
1977								
1978								
1979	5 669.6	288.3	879.2	419.9	43.7	36.3	37.8	7 374.7
1980								
1981								
1982	6 233.4	366.9	1 003.0	479.0	47.2	42.0	46.2	8 217.7
1983								
1984								
1985	6 734.2	361.6	1 140.5	543.7	50.2	49.4	80.1	8 959.7
1986								
1987								
1988	7 158.8	304.0	1 183.5	576.3	48.9	53.4	93.2	9 418.0
1989								
1990								
1991	7 860.7	284.1	1 479.2	333.2	51.7	47.0	42.3	10 098.2
1992								
1993	8 279.4	288.8	1 453.8	336.5	52.5	46.6	46.6	10 504.2
1994								
1995	8 628.8	296.6	1 527.2	337.4	58.3	47.0	52.2	10 947.5
1996	8 989.1	303.9	1 601.6	341.0	58.4	48.3	58.8	11 401.1
1997	9 206.2	313.1	1 632.2	342.4	59.3	50.0	61.1	11 664.4
1998	9 526.7	328.8	1 686.4	347.2	62.3	51.3	64.1	12 066.9
1999	9 686.2	333.8	1 721.2	346.8	63.3	51.3	65.9	12 268.5
2000								
2001	9 835.9	350.9	1 769.6	338.4	62.6	51.8	67.6	12 476.8
2002	10 101.4	371.0	1 820.0	341.5	63.9	54.0	70.2	12 822.0
2003	10 365.9	377.3	1 879.8	348.7	64.3	56.9	70.1	13 163.0
2004	10 629.4	396.3	1 952.5	357.6	66.3	59.6	71.3	13 533.1
2005	10 896.4	421.9	2 030.3	368.5	69.7	60.7	72.6	13 920.1
2006	11 188.9	463.1	2 114.3	383.5	71.7	61.8	75.4	14 358.7
2007	11 466.6	512.4	2 190.1	394.5	74.5	64.5	77.6	14 780.2
2008	11 803.5	567.6	2 288.2	410.9	79.1	66.6	80.6	15 296.5
2009	12 023.1	624.1	2 371.1	421.7	81.2	68.8	84.4	15 674.4
2010	12 269.3	660.1	2 460.6	431.3	82.4	71.0	86.4	16 061.1

Note: Data are not readily available for missing years.

Source: ABS (2011c).

TT 4.8 Stock of registered motor vehicles, by state/territory

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
	<i>thousands</i>								
1982	2 708.1	2 127.2	1 440.0	744.0	783.4	244.3	60.9	109.7	8 217.7
1983									
1984									
1985	2 900.5	2 376.3	1 479.4	848.7	887.6	268.7	71.1	127.6	8 959.7
1986									
1987									
1988	2 993.6	2 556.0	1 567.2	869.1	947.0	284.3	60.7	140.2	9 418.0
1989									
1990									
1991	3 106.9	2 756.4	1 694.1	922.7	1 072.0	300.4	84.3	161.5	10 098.2
1992									
1993	3 172.4	2 864.7	1 847.2	932.8	1 114.5	311.9	84.2	176.5	10 504.2
1994									
1995	3 332.5	2 869.9	2 012.9	962.8	1 175.5	319.9	90.4	183.8	10 947.5
1996	3 448.9	3 050.2	2 082.0	984.5	1 225.0	325.5	96.2	188.8	11 401.1
1997	3 530.1	3 119.0	2 132.2	992.2	1 269.6	325.0	99.1	197.2	11 664.4
1998	3 682.6	3 177.4	2 228.8	1 031.1	1 327.2	322.7	102.2	194.8	12 066.9
1999	3 679.3	3 266.5	2 315.6	1 032.5	1 344.8	329.6	103.2	197.0	12 268.5
2000									
2001	3 745.5	3 317.7	2 354.4	1 050.6	1 371.3	331.1	102.8	203.4	12 476.8
2002	3 847.1	3 413.7	2 445.5	1 063.1	1 405.7	335.1	103.8	208.0	12 822.0
2003	3 944.9	3 494.3	2 552.1	1 077.2	1 438.4	338.5	104.3	213.4	13 163.0
2004	4 063.6	3 565.2	2 656.0	1 095.9	1 480.2	350.4	106.0	215.7	13 533.1
2005	4 170.4	3 649.6	2 767.3	1 111.7	1 529.6	362.1	109.8	219.6	13 920.1
2006	4 268.6	3 740.7	2 897.9	1 138.0	1 600.6	374.8	114.0	224.1	14 358.7
2007	4 361.2	3 818.1	3 033.4	1 157.0	1 676.5	381.2	118.2	234.6	14 780.2
2008	4 520.0	3 921.6	3 173.4	1 178.9	1 746.6	391.3	123.0	241.8	15 296.5
2009	4 567.4	4 010.3	3 283.2	1 208.9	1 828.3	400.5	128.8	247.0	15 674.4
2010	4 681.5	4 112.9	3 358.2	1 239.7	1 870.1	410.2	134.7	253.8	16 061.1

Source: ABS (2011c).

TT 4.9 New motor vehicles sales, excluding motor cycles, by vehicle type

Financial year	Passenger cars	Sports utility vehicles	Other vehicles	Total vehicles excluding motor cycles
<i>thousands</i>				
1994–95	487.3	45.6	112.1	645.0
1995–96	487.7	46.1	105.5	639.4
1996–97	503.3	58.7	108.2	670.2
1997–98	570.1	87.7	119.1	776.9
1998–99	575.7	101.8	128.3	805.8
1999–00	509.4	97.6	135.6	742.6
2000–01	571.0	114.8	122.9	808.7
2001–02	537.6	129.1	137.9	804.6
2002–03	560.2	144.0	156.4	860.5
2003–04	594.4	160.9	184.8	940.1
2004–05	604.0	182.0	195.8	981.8
2005–06	599.4	173.3	198.7	971.4
2006–07	624.1	180.4	199.4	1 003.9
2007–08	631.8	210.9	225.5	1 068.3
2008–09	542.8	176.1	205.9	924.7
2009–10	582.1	216.2	215.0	1 013.3

Source: ABS (2010m).

TT 4.10 New motor vehicles sales excluding motor cycles, by state/territory

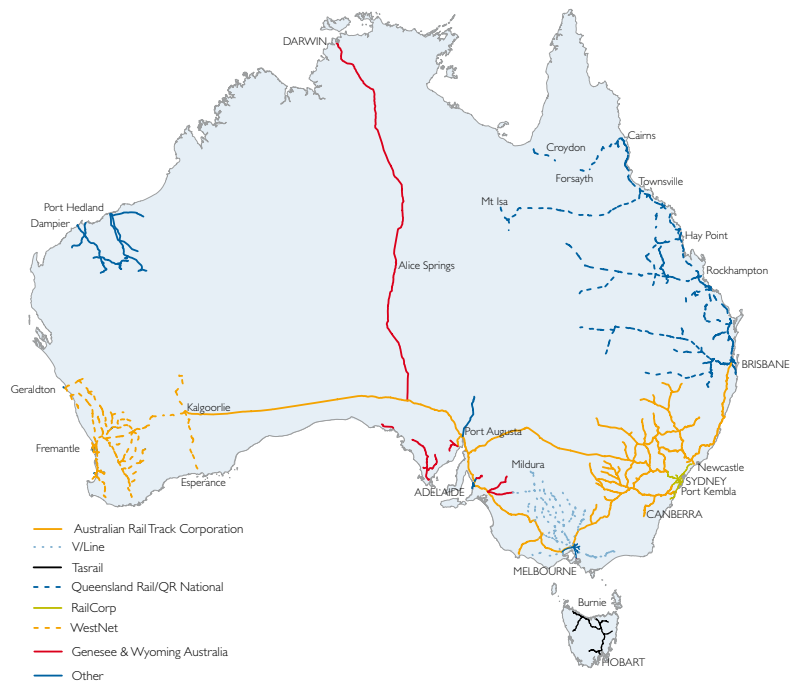
Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>thousands</i>									
1994–95	237.6	150.8	116.9	41.7	64.1	13.8	7.3	12.7	645.0
1995–96	230.1	152.7	117.1	42.7	64.4	12.8	7.5	12.0	639.4
1996–97	239.7	164.3	121.2	43.0	68.6	13.9	7.6	12.0	670.2
1997–98	273.3	193.1	141.0	51.0	79.1	15.5	8.9	15.0	776.9
1998–99	287.3	207.7	145.9	50.7	76.9	14.5	8.6	14.2	805.8
1999–00	268.2	195.5	133.3	44.3	64.7	13.9	7.9	14.8	742.6
2000–01	284.8	224.4	140.3	49.6	72.8	14.6	7.5	14.6	808.7
2001–02	280.3	221.2	144.4	50.8	71.9	14.8	7.5	13.7	804.6
2002–03	290.2	234.8	164.7	56.6	76.7	15.4	7.7	14.5	860.5
2003–04	308.3	246.7	193.2	63.1	86.7	18.8	8.4	14.9	940.1
2004–05	308.8	256.3	212.7	64.1	95.2	20.6	9.3	14.7	981.8
2005–06	297.0	250.2	212.8	62.4	105.4	19.6	9.3	14.7	971.4
2006–07	305.9	252.5	223.4	60.8	117.2	18.8	9.7	15.6	1 003.9
2007–08	323.7	276.9	233.7	64.6	122.5	20.0	10.5	16.5	1 068.3
2008–09	280.6	243.4	194.1	59.4	105.3	17.7	9.4	14.9	924.7
2009–10	309.2	272.3	211.0	66.1	110.3	18.8	9.9	15.7	1 013.3

Source: ABS (2010m).

CHAPTER 5

Rail

FT 5 Map of major rail links, by network manager



TT 5.1a Intercapital rail distances—freight terminals

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Darwin	Canberra
	kilometres						
Sydney		929	965	1 868	4 137	4 459	316
Melbourne			1 901	832	3 468	3 790	811
Brisbane				2 725	5 101	5 424	1 281
Adelaide					2 637	2 959	1 643
Perth						4 174	4 019
Darwin							4 341

Source: BITRE estimates.

TT 5.1b Intercapital rail distances—passenger terminals

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Darwin	Canberra
	kilometres						
Sydney		953	987	1 711	4 156	4 285	329
Melbourne			1 914	828	3 485	3 798	822
Brisbane				2 672	4 933	5 247	1 291
Adelaide					2 657	2 971	1 629
Perth						4 178	4 025
Darwin							4 339

Source: BITRE estimates.

TT 5.2 Interstate non-bulk rail freight, by state/territory of origin

Financial year	NSW	VIC	QLD	SA	WA	NT	ACT	Total
<i>million tonne kilometres</i>								
1971–72	1 208	1 550	414	1 212	288	63	na	4 735
1972–73	1 318	1 688	413	1 281	472	67	na	5 238
1973–74	1 429	1 822	412	1 344	657	70	na	5 733
1974–75	1 542	1 952	411	1 404	841	74	na	6 223
1975–76	1 656	2 079	410	1 458	1 026	77	na	6 706
1976–77	1 706	2 066	429	1 537	961	82	na	6 780
1977–78	1 756	2 052	448	1 614	897	87	na	6 853
1978–79	1 806	2 040	467	1 689	832	91	na	6 927
1979–80	1 857	2 020	487	1 763	768	96	na	6 991
1980–81	1 877	2 125	443	1 692	931	93	na	7 161
1981–82	1 670	2 045	464	1 520	1 111	85	na	6 895
1982–83	1 464	1 964	485	1 352	1 292	76	na	6 632
1983–84	1 671	2 134	495	1 575	1 164	94	na	7 134
1984–85	1 646	2 177	555	1 488	1 155	87	na	7 108
1985–86	1 846	2 106	681	1 321	1 345	79	na	7 379
1986–87	2 007	2 171	737	1 628	1 402	93	na	8 038
1987–88	2 545	2 468	760	1 865	1 404	107	na	9 149
1988–89	2 864	2 970	865	2 059	1 580	113	na	10 451
1989–90	2 623	2 846	952	2 242	1 467	112	na	10 241
1990–91	2 381	2 844	978	1 970	1 540	117	na	9 829
1991–92	2 416	2 968	1 100	2 013	1 728	122	na	10 346
1992–93	2 576	2 967	1 162	2 235	1 952	132	na	11 023
1993–94	2 698	3 167	1 225	2 344	2 167	139	na	11 740
1994–95	2 851	3 396	1 288	2 454	2 382	147	na	12 518
1995–96	2 873	3 329	1 352	2 448	2 107	154	na	12 264
1996–97	2 884	3 679	1 443	2 347	2 300	120	na	12 772
1997–98	2 916	3 997	1 641	2 338	2 583	150	na	13 624
1998–99	2 926	4 469	1 444	2 262	3 130	138	na	14 369
1999–00	2 918	4 620	1 580	2 348	3 422	154	na	15 042
2000–01	2 910	4 775	1 703	2 432	3 708	170	na	15 697
2001–02	2 917	4 934	1 803	2 513	4 285	185	na	16 636
2002–03	2 922	5 091	1 903	2 592	4 859	200	na	17 567
2003–04	2 930	5 251	2 002	2 672	5 437	214	na	18 506
2004–05	2 939	5 410	2 102	2 751	6 008	214	na	19 426
2005–06	2 948	5 570	2 202	2 832	6 586	214	na	20 353
2006–07 8	4 074	8 409	2 365	4 985	6 570	454	na	26 857
2007–08	3 558	6 253	2 049	3 609	4 917	558	na	20 944

na not applicable.
8 See End Notes.
 Source: BITRE (2010i).

CHAPTER 6

Aviation

FT 6 Map of top 40 Australian airports



TT 6.1 Intercapital air distances (great circle distances)

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
	<i>kilometres</i>							
Sydney		706	753	1 167	3 284	1 039	3 155	236
Melbourne			1 381	643	2 706	618	3 131	470
Brisbane				1 622	3 615	1 791	2 852	956
Adelaide					2 120	1 172	2 619	972
Perth						3 022	2 651	3 091
Hobart							3 742	850
Darwin								3 141

Source: BITRE (2010e).

TT 6.2 International airline activity

Financial year	Flights	Revenue passengers 11 <i>number</i>	Available seats	Load factor 12 <i>per cent</i>	Freight <i>'000 tonnes</i>
1970–71	17 067	1 199 148			33.4
1971–72	18 573	1 433 739			36.3
1972–73	19 735	1 769 816			44.7
1973–74	20 474	2 160 876			58.1
1974–75	27 013	2 392 102			65.8
1975–76	23 267	2 801 883			71.1
1976–77	21 938	2 894 965			78.5
1977–78	24 082	3 036 960			89.2
1978–79	20 764	3 506 753			111.8
1979–80	20 478	4 019 316			122.0
1980–81	20 487	4 108 265			127.8
1981–82	22 346	4 186 171			157.7
1982–83	21 486	4 249 249			166.7
1983–84	21 082	4 451 708			193.9
1984–85	22 385	4 988 998			222.9
1985–86	25 308	5 424 377			235.8
1986–87	29 698	6 194 981			268.4
1987–88	33 848	7 211 743			296.1
1988–89	38 854	7 930 588	11 435 873	69.3	324.6
1989–90	42 353	8 252 769	12 257 200	67.3	353.9
1990–91	45 300	8 424 511	12 991 767	64.8	357.5
1991–92	48 419	9 042 889	13 773 493	65.7	379.8
1992–93	52 295	9 759 065	15 023 875	65.0	432.8
1993–94	54 781	10 621 976	15 709 444	67.6	476.3
1994–95	60 658	11 565 753	17 443 065	66.9	543.5
1995–96	68 387	12 679 451	19 610 366	66.0	564.9
1996–97	74 347	13 718 480	20 792 015	67.4	614.9
1997–98	77 811	14 080 113	21 604 059	66.7	645.6
1998–99	80 476	14 564 061	21 621 816	68.9	645.6
1999–00	86 751	15 583 694	22 895 592	69.3	687.2
2000–01	93 828	17 126 504	24 565 665	71.1	665.7
2001–02	87 557	16 486 343	22 892 570	73.8	634.3
2002–03	89 374	16 108 417	23 062 891	71.8	635.1
2003–04	100 336	18 131 286	25 885 687	71.5	627.0
2004–05	116 087	20 309 733	29 691 278	69.7	702.4
2005–06	117 790	21 096 951	30 041 002	71.3	726.0
2006–07	119 330	22 137 767	29 768 595	75.6	754.5
2007–08	124 176	23 264 573	30 625 242	77.1	781.0
2008–09	131 560	23 486 506	32 174 834	74.2	709.4
2009–10	141 185	25 620 484	34 309 535	75.6	759.7

11, 12 See End Notes.

Note: Data are not readily available for missing years.

Source: BITRE (2010f).

TT 6.3 Domestic airline activity

Financial year	Flights <i>number</i>	Revenue passengers 11 <i>number</i>	Revenue passenger kilometres 13 <i>'000</i>	Available seats <i>'000</i>	Available seat kilometres <i>'000</i>	Domestic load factor 14 <i>per cent</i>	Freight <i>'000 tonnes</i>
1977–78	374 866	11 958 560	8 313 930		12 465 976	66.7	
1978–79	397 242	12 587 854	8 787 099		12 795 744	68.7	
1979–80	415 879	13 540 872	9 692 782		13 526 185	71.7	
1980–81	416 282	13 563 340	9 979 054		13 627 596	73.2	
1981–82	416 291	13 695 462	10 406 883		14 933 230	69.7	
1982–83	411 027	12 644 727	9 586 535		14 247 860	67.3	
1983–84	406 679	13 037 551	9 940 350		13 966 231	71.2	
1984–85	411 621	13 768 268	10 604 648	21 123	14 733 094	72.0	
1985–86	426 450	14 798 619	11 588 920	22 642	16 109 845	71.9	
1986–87	427 149	15 267 094	12 372 645	23 352	17 316 196	71.5	
1987–88	435 622	16 471 140	13 623 398	24 130	18 321 841	74.4	
1988–89	452 433	16 844 631	14 168 630	24 430	18 821 360	75.3	
1989–90	364 595	12 272 726	10 490 243	18 836	14 846 965	70.7	
1990–91	444 183	16 935 005	15 139 951	26 123	21 748 111	69.6	
1991–92	490 740	20 997 030	19 806 981	29 384	25 703 400	77.1	
1992–93	522 879	21 475 685	19 849 262	30 943	26 293 801	75.5	
1993–94	543 428	24 788 627	23 862 333	35 549	32 153 754	74.2	
1994–95	572 035	26 997 493	26 394 411	39 610	36 685 149	71.9	
1995–96	589 501	28 611 325	28 372 962	41 964	39 670 986	71.5	
1996–97	592 477	29 040 584	29 344 131	43 024	41 423 354	70.8	
1997–98	589 262	29 358 221	29 780 624	42 291	41 077 354	72.5	
1998–99	596 302	29 733 510	30 390 004	42 322	41 276 389	73.6	
1999–00	595 629	31 365 384	32 203 645	43 442	42 669 709	75.5	
2000–01	625 903	34 105 561	35 014 922	47 541	46 709 057	75.0	
2001–02	493 750	30 510 909	32 300 227	41 596	42 265 977	76.4	
2002–03	484 895	32 104 317	35 103 726	43 207	45 534 719	77.1	
2003–04	501 771	36 410 853	40 402 092	47 683	51 741 384	78.1	
2004–05	544 317	40 435 504	45 047 723	53 859	58 303 803	77.3	
2005–06	535 388	42 531 425	47 782 489	56 532	61 808 822	77.3	284
2006–07	528 863	45 827 236	52 022 148	59 121	65 670 698	79.2	272
2007–08	549 511	49 278 702	56 191 023	63 873	71 066 014	79.1	295
2008–09	552 277	50 248 390	57 558 509	65 511	73 196 082	78.6	243
2009–10	564 400	51 761 201	59 032 600	66 602	74 218 950	79.5	233

11, 13, 14 See End Notes.

Note: Data are not readily available for missing years.

Source: BITRE (2010b).

TT 6.4a Activity at major airports—revenue passenger movements

Financial year	Sydney	Melbourne	Brisbane	Perth	Adelaide	Cairns	Gold Coast	Canberra	Hobart	Darwin	Townsville
<i>thousands</i>											
1985–86	9 498	6 476	3 457	1 939	2 082	778	578	1 008	506	407	1 030
1986–87	10 187	6 776	3 728	2 098	2 083	930	742	1 043	494	420	1 010
1987–88	11 510	7 448	4 325	2 226	2 239	1 120	934	1 117	539	469	1 007
1988–89	12 100	7 743	4 834	2 338	2 290	1 259	1 054	1 089	544	496	908
1989–90	10 108	6 511	3 933	1 999	1 825	659	840	721	455	398	455
1990–91	12 361	8 346	5 246	2 508	2 461	1 090	1 288	1 124	590	496	512
1991–92	15 070	10 196	6 644	3 026	3 006	1 495	1 776	1 361	684	563	482
1992–93	15 486	10 255	6 900	2 997	3 033	1 564	1 948	1 382	706	610	555
1993–94	16 650	10 884	7 493	3 429	3 251	1 711	2 223	1 514	743	707	514
1994–95	18 335	11 992	8 509	3 833	3 500	1 879	2 419	1 679	815	824	577
1995–96	19 878	12 972	9 236	4 145	3 743	1 993	2 595	1 750	850	932	598
1996–97	20 637	13 419	9 683	4 484	3 768	1 937	2 657	1 735	841	984	607
1997–98	21 013	13 791	9 737	4 624	3 949	1 868	2 598	1 825	854	1 011	628
1998–99	21 585	14 131	9 834	4 677	4 046	1 864	2 656	1 821	860	1 028	653
1999–00	23 098	15 146	10 534	4 891	4 186	1 959	2 718	1 969	909	1 057	682
2000–01	25 814	16 881	12 467	5 162	4 443	1 888	2 891	2 107	974	1 078	732
2001–02	23 150	15 967	11 774	4 766	4 175	1 736	2 642	1 841	958	963	696
2002–03	23 447	16 382	11 841	5 189	4 351	2 178	2 900	1 916	1 010	985	778
2003–04	26 090	18 631	13 780	5 889	4 893	2 504	3 222	2 303	1 226	1 073	923
2004–05	27 954	20 274	15 358	6 525	5 363	3 142	3 551	2 479	1 523	1 211	1 055
2005–06	28 996	21 041	16 016	7 005	5 767	3 515	3 731	2 550	1 606	1 219	1 161
2006–07	31 016	22 157	17 380	7 977	6 181	3 778	3 782	2 687	1 629	1 404	1 279
2007–08	32 701	23 943	18 298	8 952	6 619	4 323	3 777	2 853	1 758	1 562	1 366
2008–09	32 346	24 448	18 721	9 359	6 784	4 619	3 654	3 062	1 869	1 539	1 436
2009–10	34 458	25 918	18 897	9 992	7 016	5 186	3 550	3 258	1 856	1 568	1 518

Source: BITRE (2010g).

TT 6.4b Activity at major airports—aircraft movements¹⁵

Financial year	Sydney	Melbourne	Brisbane	Perth	Adelaide	Cairns	Gold Coast	Canberra	Hobart	Darwin	Townsville
1985–86	137 898	86 391	51 460	45 124	52 360	12 926	11 358	20 615	12 200	10 781	17 471
1986–87	144 160	88 271	55 946	36 222	50 587	16 715	14 568	21 568	11 728	12 294	17 644
1987–88	152 972	92 487	65 359	32 184	47 688	19 653	17 551	21 642	11 556	12 125	16 482
1988–89	163 946	95 555	70 241	31 799	49 656	22 224	19 694	20 726	10 095	10 794	17 425
1989–90	139 038	79 854	57 931	28 193	41 827	16 540	14 805	15 092	8 445	5 284	10 732
1990–91	165 921	102 204	77 181	35 522	50 315	22 609	25 480	22 432	10 140	7 199	13 732
1991–92	182 968	110 530	94 527	39 472	55 797	26 299	32 547	25 988	10 681	13 162	14 299
1992–93	202 555	119 862	99 854	39 590	58 533	26 358	35 854	29 054	10 929	15 323	14 386
1993–94	206 660	118 507	105 662	44 900	59 633	27 228	38 776	31 275	11 325	17 954	15 137
1994–95	221 208	127 155	116 880	50 002	63 253	26 828	41 903	35 625	12 381	20 663	15 928
1995–96	235 398	132 411	125 827	54 088	66 866	26 446	43 119	37 057	11 230	23 781	17 103
1996–97	243 592	136 339	125 108	57 286	68 970	24 203	44 009	38 173	9 468	24 303	18 035
1997–98	248 791	138 252	125 581	55 893	72 544	22 581	42 152	38 446	8 965	23 729	17 373
1998–99	249 175	141 560	129 230	53 609	73 258	22 260	41 594	38 077	9 697	25 138	17 943
1999–00	255 600	150 657	133 352	55 806	71 543	21 320	41 415	41 025	10 776	22 374	17 994
2000–01	283 408	174 663	151 552	56 176	73 666	20 417	41 859	51 867	15 205	22 126	19 013
2001–02	227 644	147 150	125 469	45 051	66 533	16 153	35 161	39 716	12 266	17 253	12 687
2002–03	225 872	146 751	116 552	47 854	66 231	21 225	38 594	35 986	11 444	17 243	15 208
2003–04	241 787	157 524	123 901	51 283	67 051	20 837	41 965	39 418	12 729	16 508	17 402
2004–05	257 630	176 038	139 984	56 445	70 761	27 728	45 474	38 512	15 889	16 501	20 101
2005–06	255 401	170 619	138 844	57 288	69 706	27 471	46 110	36 999	13 764	15 856	21 432
2006–07	260 334	169 831	140 878	60 741	71 277	27 256	44 448	36 851	12 762	17 113	20 247
2007–08	271 035	180 516	146 974	68 201	73 715	31 125	42 985	39 629	13 778	18 380	19 205
2008–09	267 422	183 986	154 081	77 841	73 747	31 978	39 077	44 125	14 285	22 209	20 299
2009–10	275 126	187 890	154 299	80 845	72 378	35 297	38 018	43 324	14 380	25 466	24 565

¹⁵ See End Notes.
Source: BITRE (2010g).

TT 6.5 Domestic on time performance^{16, 17}

Financial year	Sectors scheduled	Cancellations <i>per cent</i>	Sectors flown	On-time departures <i>per cent</i>	On-time arrivals <i>per cent</i>
2004–05	430 714	0.9	426 662	87.0	86.4
2005–06	457 817	1.0	453 406	87.0	85.7
2006–07	467 907	0.8	463 981	86.9	85.6
2007–08	496 564	1.7	488 112	80.6	78.8
2008–09	502 291	1.7	493 710	81.1	79.7
2009–10	502 106	1.0	497 268	85.6	84.4

^{16, 17} See End Notes.

Source: BITRE (2010d)—preliminary estimates.

TT 6.6 BITRE airfare index

Financial year	Business	Economy <i>index</i>	Restricted economy	Best discount
1993–94	59.2	67.5		96.4
1994–95	62.8	69.1		95.4
1995–96	65.7	71.6		94.4
1996–97	71.7	76.1		103.7
1997–98	76.3	78.7		114.0
1998–99	79.3	80.9		113.7
1999–00	80.0	81.8		113.5
2000–01	89.0	91.5		100.4
2001–02	92.5	96.0		109.2
2002–03	96.8	97.1	102.8	105.3
2003–04	102.7	100.1	100.1	102.0
2004–05	109.2	106.7	106.7	87.9
2005–06	106.2	112.8	99.8	95.2
2006–07	111.6	120.0	103.6	100.8
2007–08	117.1	112.9	111.3	100.3
2008–09	124.6	104.4	115.9	87.2
2009–10	116.2	108.3	113.1	75.5

Note: Data are not readily available for missing years.

Base of index: July 2003 = 100.00.

Source: BITRE (2010d)—preliminary estimates.

TT 6.7a Real airport charges (per return passenger)—international^{18, 19}

	Sydney	Melbourne	Brisbane	Perth	Adelaide
			\$		
Jul-03	58.58	40.22	43.28	46.32	56.91
Jul-04	57.70	39.76	46.52	44.07	61.94
Jul-05	58.96	40.85	46.78	53.68	60.57
Jul-06	62.16	43.01	48.67	55.65	82.42
Jul-07	65.95	47.75	59.81	54.33	81.09
Jul-08	59.73	46.75	71.72	51.75	76.23
Jul-09	66.08	46.63	74.34	53.54	77.27
Jul-10	67.43	46.18	72.20	50.78	76.79

^{18, 19} See End Notes.

Source: Airservices Australia (2010), ABS (2011a) and BITRE estimates.

TT 6.7b Real airport charges (per return passenger)—domestic^{18, 20}

	Sydney	Melbourne	Brisbane	Perth	Adelaide
			\$		
Jul-03	32.77	22.91	23.11	21.47	26.33
Jul-04	32.20	23.10	24.61	21.26	26.05
Jul-05	31.74	23.96	23.02	22.52	27.32
Jul-06	31.92	24.20	23.69	31.41	36.78
Jul-07	32.78	26.56	24.17	29.65	36.66
Jul-08	33.76	25.88	21.90	28.24	35.63
Jul-09	34.57	25.85	28.62	28.92	35.96
Jul-10	34.04	26.34	29.49	29.18	34.76

^{18, 20} See End Notes.

Source: Airservices Australia (2010), ABS (2011a) and BITRE estimates.

TT 6.7c Real airport charges (per return passenger)—regional^{18, 21}

	Sydney	Melbourne	Brisbane	Perth	Adelaide
			\$		
Jul-03	25.39	22.86	21.83		19.72
Jul-04	24.81	23.05	23.32		19.48
Jul-05	24.59	23.67	21.51		20.39
Jul-06	24.40	24.08	22.34	31.14	20.62
Jul-07	23.99	26.42	22.79	29.37	20.38
Jul-08	22.87	25.77	20.61	28.00	19.89
Jul-09	22.58	25.73	27.34	28.69	21.17
Jul-10	21.97	26.23	28.25	28.96	20.13

^{18, 21} See End Notes.

Source: Airservices Australia (2010), ABS (2011a) and BITRE estimates.

TT 6.8 Number of Australian registered aircraft, by aircraft type

Date	Aeroplane				Helicopter	Balloon	Glider
	Piston	Turbofan	Turbojet	Turboprop			
14 December 1998	8 244	257	31	519	779	296	1 056
20 December 1999	8 347	268	34	534	870	308	1 063
17 December 2000	8 394	293	34	549	942	323	1 060
17 December 2001	8 440	310	37	553	980	332	1 060
16 December 2002	8 440	303	42	549	1 034	337	1 082
13 December 2003	8 684	308	51	576	1 195	351	1 106
20 December 2004	8 688	308	51	576	1 196	350	1 106
4 December 2005	8 798	323	52	611	1 284	350	1 115
7 November 2006	8 691	337	52	628	1 303	318	1 047
14 December 2007	8 928	370	52	693	1 479	335	1 085
31 December 2008	9 123	426	52	737	1 635	336	1 122
31 December 2009	9 202	458	54	746	1 696	339	1 143
13 December 2010	9 413	516	55	778	1 797	350	1 172

Source: CASA (2010).

CHAPTER 7

Shipping

FT 7 Map of selected Australian sea ports



TT 7.1 Intercapital sea distances

	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin
	<i>kilometres</i>						
Sydney		1 114	977	1 833	3 991	1 195	4 595
Melbourne			2 042	988	3 111	878	5 661
Brisbane				2 761	4 920	2 120	3 845
Adelaide					2 509	1 436	na
Perth						3 367	3 426
Hobart							5 739

na not applicable.
Source: BITRE estimates, Australian Chamber of Shipping (1993).

TT 7.2a Number of ships involved in coastal or international voyages that made port calls, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	Total
1992–93	1 104	676	1 251	416	1 219	233	221	2 591
1993–94	1 069	719	1 185	418	1 181	232	190	2 584
1994–95	1 085	688	1 296	361	1 216	213	228	2 618
1995–96	1 003	697	1 178	373	1 203	195	193	2 558
1996–97	1 236	803	1 354	422	1 404	237	248	2 936
1997–98	1 457	886	1 622	486	1 620	308	318	3 276
1998–99	1 426	919	1 641	507	1 613	305	339	3 235
1999–00	1 345	905	1 766	481	1 664	309	317	3 265
2000–01	1 321	859	1 743	527	1 595	319	315	3 250
2001–02	1 297	878	1 684	586	1 445	317	298	3 240
2002–03	1 343	853	1 782	538	1 577	349	318	3 248
2003–04	1 425	877	1 976	538	1 654	324	310	3 507
2004–05	1 416	909	2 041	524	1 807	313	357	3 661
2005–06	1 446	885	2 055	540	1 802	273	350	3 668
2006–07	1 559	921	2 233	482	1 796	303	348	3 858
2007–08	1 590	939	2 235	481	1 807	316	375	3 947
2008–09	1 606	911	2 339	552	2 050	288	409	4 199

Source: LMIU (2010).

TT 7.2b Number of port calls made by ships involved in coastal or international voyages, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	Total
1992–93	3 696	3 371	4 214	839	3 360	1 800	564	17 856
1993–94	3 489	3 074	3 473	817	3 102	1 566	527	16 057
1994–95	3 324	2 987	3 934	810	3 187	1 493	617	16 369
1995–96	2 924	2 817	3 485	751	2 892	1 294	562	14 763
1996–97	3 725	3 327	4 418	901	3 583	1 441	834	18 324
1997–98	4 566	3 708	5 018	996	4 372	1 504	997	21 241
1998–99	4 577	3 565	5 132	1 135	4 480	1 340	943	21 269
1999–00	4 338	3 876	5 565	1 074	4 454	1 642	984	22 058
2000–01	4 327	3 814	5 436	1 207	4 438	1 670	890	21 879
2001–02	4 433	3 737	5 542	1 292	3 685	1 843	865	21 488
2002–03	4 253	4 140	6 179	1 268	3 958	2 167	868	22 910
2003–04	4 545	4 229	5 815	1 306	4 765	1 998	929	23 634
2004–05	4 757	4 426	5 930	1 253	5 940	2 185	1 022	25 544
2005–06	4 733	4 329	6 451	1 456	5 593	2 085	929	25 632
2006–07	4 787	4 353	7 338	1 273	5 524	2 033	999	26 333
2007–08	5 456	4 572	7 788	1 302	5 163	2 052	1 088	27 442
2008–09	4 987	4 101	7 025	1 262	6 146	1 867	1 293	26 709

Source: LMIU (2010).

TT 7.3a Number of ships involved in coastal or international voyages that made port calls, by major ports

Financial year	Melbourne	Brisbane	Sydney	Fremantle	Newcastle	Gladstone	Dampier	Port Headland
1992–93	444	479	464	555	496	331	357	278
1993–94	461	481	493	541	488	235	326	253
1994–95	508	551	527	544	515	250	365	272
1995–96	499	498	495	555	426	284	339	268
1996–97	542	605	545	617	583	302	392	297
1997–98	597	675	636	717	709	384	521	307
1998–99	650	744	654	749	645	399	469	298
1999–00	587	760	638	755	598	421	516	327
2000–01	582	732	607	704	588	461	496	362
2001–02	594	683	578	688	616	469	244	344
2002–03	589	698	610	724	660	533	292	367
2003–04	614	707	627	739	680	640	443	332
2004–05	664	748	615	764	686	652	537	459
2005–06	627	804	649	739	668	685	528	524
2006–07	701	813	700	762	708	731	543	458
2007–08	666	809	685	752	726	794	536	411
2008–09	669	846	564	886	763	853	683	550

Source: LMIU (2010).

TT 7.3b Number of port calls made by ships involved in coastal or international voyages, by major ports

Financial year	Melbourne	Brisbane	Sydney	Fremantle	Newcastle	Gladstone	Dampier	Port Headland
1992–93	2 573	1 528	2 059	1 224	943	702	716	503
1993–94	2 312	1 276	2 008	1 213	862	498	631	460
1994–95	2 337	1 373	1 945	1 219	865	511	668	471
1995–96	2 223	1 261	1 781	1 149	696	534	595	438
1996–97	2 563	1 687	2 105	1 364	1 041	640	740	523
1997–98	2 774	1 844	2 449	1 668	1 418	737	957	613
1998–99	2 648	2 081	2 508	1 790	1 353	651	899	614
1999–00	2 909	2 241	2 468	1 690	1 231	702	977	593
2000–01	2 864	2 120	2 362	1 661	1 244	855	1 002	685
2001–02	2 944	2 057	2 282	1 639	1 453	1 014	356	628
2002–03	3 185	2 166	2 269	1 596	1 362	1 151	462	677
2003–04	3 234	2 084	2 496	1 613	1 405	1 279	1 267	548
2004–05	3 436	2 240	2 480	1 582	1 577	1 311	1 830	983
2005–06	3 429	2 508	2 613	1 622	1 453	1 432	1 424	1 215
2006–07	3 478	2 664	2 633	1 616	1 476	1 466	1 194	1 455
2007–08	3 531	2 645	2 726	1 729	1 921	1 668	1 008	904
2008–09	3 233	2 418	2 247	1 821	1 779	1 613	1 588	1 438

Source: LMIU (2010).

TT 7.4 International sea freight to and from Australia

Financial year	Bulk	Non-bulk	Total
	<i>million tonnes</i>		
1995–96	398.5	21.4	420.0
1996–97	429.6	24.2	453.8
1997–98	451.4	27.6	479.0
1998–99	458.5	29.6	488.1
1999–00	487.2	31.5	518.7
2000–01	520.0	29.9	550.0
2001–02	526.6	32.2	558.7
2002–03	557.3	34.3	591.6
2003–04	585.4	37.1	622.5
2004–05	631.1	49.4	680.6
2005–06	649.4	46.5	696.0
2006–07	702.2	31.6	733.7
2007–08	752.8	36.8	789.6
2008–09	22	22	834.8

22 See End Notes.
Source: ABS (2010g).

TT 7.5a Cargo loaded (including exports) at Australian ports, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	Total
<i>million tonnes</i>								
1995–96	76.58	18.52	106.09	13.08	190.12	9.03	6.08	419.50
1996–97	85.71	20.48	111.07	14.92	205.26	7.85	6.47	451.76
1997–98	96.32	20.62	118.98	13.82	213.71	8.64	6.35	479.64
1998–99	93.03	20.23	126.07	14.91	207.59	10.32	6.42	480.16
1999–00	90.63	22.46	141.16	14.18	225.54	11.50	6.24	513.32
2000–01	95.71	25.28	156.02	15.37	235.71	11.17	5.99	546.96
2001–02	94.62	23.70	159.48	17.05	238.15	13.48	5.41	553.39
2002–03	93.24	20.73	166.66	14.66	265.82	13.79	5.76	582.18
2003–04	98.08	21.64	172.79	15.22	282.24	13.78	6.29	611.49
2004–05	101.86	20.98	186.20	15.01	318.17	13.32	7.21	664.31
2005–06	106.12	22.65	185.84	15.55	328.34	12.02	7.64	679.73
2006–07	106.35	21.73	196.94	12.48	351.24	11.92	10.15	712.56
2007–08 ²³	114.31	20.50	199.29	16.82	388.44	13.10	10.65	765.38
2005–06	106.66	23.12	186.03	15.64	328.75	12.01	7.64	681.65
2006–07	106.55	21.98	197.00	12.50	351.63	11.94	10.18	713.53
2007–08	114.73	20.58	199.51	16.84	388.64	13.11	10.70	766.40
2008–09	116.04	19.11	205.27	18.34	419.50	11.68	12.72	804.76

²³ See End Notes.

Source: ABS (2010g) and BITRE (2010h).

TT 7.5b Cargo discharged (including imports) at Australian ports, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	Total
<i>million tonnes</i>								
1995–96	31.81	15.17	24.88	6.78	11.20	3.75	1.52	95.09
1996–97	31.06	17.26	26.55	7.63	12.46	3.08	1.67	99.71
1997–98	34.19	17.97	26.95	8.39	11.96	4.33	1.79	105.57
1998–99	30.74	21.15	27.74	7.18	11.72	3.98	1.91	104.43
1999–00	31.02	20.43	29.67	7.80	11.97	4.53	2.06	107.46
2000–01	30.95	21.22	28.81	7.47	12.01	3.93	2.11	106.49
2001–02	30.69	21.19	29.34	8.36	12.97	6.18	1.90	110.62
2002–03	31.22	22.84	31.79	8.00	14.60	5.55	1.71	115.71
2003–04	32.11	25.86	31.63	6.93	14.97	5.97	1.79	119.27
2004–05	32.45	25.77	34.27	7.33	15.20	6.05	2.24	123.32
2005–06	31.97	25.44	37.33	8.83	14.66	5.19	3.13	126.55
2006–07	34.36	26.97	39.25	9.73	16.66	4.27	6.42	137.67
2007–08 ²³	34.40	28.37	39.62	10.64	18.46	5.61	6.50	143.60
2005–06	32.34	26.17	37.37	8.83	14.72	5.19	3.14	127.76
2006–07	34.37	26.94	39.23	9.80	16.83	4.29	6.45	137.92
2007–08	34.39	28.41	39.80	10.64	18.98	5.62	6.63	144.47
2008–09	30.06	26.16	38.53	6.88	18.55	5.36	7.66	133.20

²³ See End Notes.

Source: ABS (2010g) and BITRE (2010h).

TT 7.6a Cargo loaded (including exports), by major Australian ports

Financial year	Port Hedland	Dampier	Newcastle	Hay Point	Gladstone	Port Walcott	Weipa	Port Kembla
<i>million tonnes</i>								
1995–96	63.9	70.2	53.0	45.8	27.3	25.1	9.9	17.0
1996–97	68.3	78.0	60.4	46.3	28.3	25.0	10.7	18.7
1997–98	69.5	87.5	70.0	52.0	30.2	22.2	10.9	17.7
1998–99	66.9	87.2	71.3	53.9	32.5	17.9	10.6	15.4
1999–00	65.0	92.7	68.6	64.1	35.0	26.4	13.3	14.9
2000–01	72.5	90.4	70.6	70.3	41.3	28.7	13.1	17.6
2001–02	72.5	96.4	72.0	70.3	43.2	27.0	12.9	15.3
2002–03	81.6	101.2	74.0	76.3	44.1	39.6	13.2	13.8
2003–04	89.4	101.6	79.6	78.0	48.0	43.9	13.4	12.7
2004–05	107.9	104.0	81.1	84.8	49.7	56.4	15.4	14.6
2005–06	110.2	111.9	83.1	80.3	52.0	55.2	17.8	16.2
2006–07	111.4	128.1	82.8	86.4	58.4	53.9	19.3	16.2
2007–08 23	129.9	138.0	90.3	80.3	60.4	56.4	22.1	16.6
2005–06	110.2	112.1	83.1	80.3	52.0	55.2	17.8	16.2
2006–07	111.4	128.2	82.8	86.4	58.4	53.9	19.3	16.2
2007–08	129.9	137.9	90.3	80.3	60.4	56.4	22.1	16.6
2008–09	158.0	141.9	92.5	82.0	62.6	56.9	20.5	16.9

23 See End Notes.

Source: ABS (2010g) and BITRE (2010h).

TT 7.6b Cargo discharged (including imports), by major Australian ports

Financial year	Gladstone	Port Kembla	Geelong	Townsville	Newcastle	Bunbury	Devonport	Dampier
<i>million tonnes</i>								
1995–96	9.3	9.5	3.8	4.3	6.4	0.8	0.7	0.3
1996–97	9.9	9.1	4.7	4.8	6.2	0.6	0.9	0.3
1997–98	9.4	11.5	5.1	4.4	6.6	0.9	0.9	0.2
1998–99	10.1	8.7	5.9	4.9	6.4	0.8	1.1	0.3
1999–00	10.9	9.4	5.8	4.9	4.3	0.9	1.1	0.4
2000–01	11.0	9.6	6.0	4.7	3.4	1.2	1.2	0.2
2001–02	11.0	9.5	6.3	4.8	3.5	1.1	1.1	0.2
2002–03	10.9	9.7	6.1	5.6	3.1	1.1	1.3	0.7
2003–04	11.5	9.7	6.9	5.3	2.7	1.0	1.3	0.6
2004–05	13.3	9.9	7.3	5.3	2.9	1.2	1.3	0.5
2005–06	15.3	9.1	7.0	5.6	2.7	1.1	1.3	0.5
2006–07	16.1	9.3	6.9	5.2	3.2	1.2	1.0	0.7
2007–08 23	15.9	9.8	7.1	5.3	3.2	1.5	1.4	0.9
2005–06	15.4	9.1	7.6	5.6	2.7	1.1	1.3	0.6
2006–07	16.1	9.4	6.8	5.2	3.2	1.2	1.0	0.8
2007–08	16.0	9.8	7.1	5.3	3.2	1.5	1.4	1.3
2008–09	16.5	7.1	6.5	4.8	3.1	1.6	1.4	1.3

23 See End Notes for further details.

Source: ABS (2010g) and BITRE (2010h).

TT 7.7a Cargo loaded (including exports), by capital city ports

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin
<i>million tonnes</i>							
1995–96	4.4	7.7	9.4	3.4	10.9	0.7	0.9
1996–97	4.7	8.8	10.3	4.4	11.9	0.3	1.3
1997–98	5.1	9.8	9.7	4.0	13.3	0.6	0.9
1998–99	4.3	9.5	9.7	4.2	12.9	0.7	0.7
1999–00	5.1	10.5	10.7	4.6	12.9	0.9	0.6
2000–01	5.8	11.1	11.4	5.3	12.5	0.6	0.4
2001–02	5.7	11.9	11.6	6.0	12.1	1.6	0.3
2002–03	4.7	10.8	11.0	5.3	12.9	1.3	0.4
2003–04	5.0	11.4	10.8	4.7	14.0	1.3	0.4
2004–05	5.1	11.8	11.5	4.5	14.2	1.0	0.7
2005–06	5.7	12.4	11.9	5.0	14.1	0.7	1.2
2006–07	6.0	11.1	11.5	4.4	12.3	0.8	3.9
2007–08 ²³	6.3	11.4	13.2	4.4	15.0	0.8	4.5
2005–06	6.2	12.8	12.1	5.1	14.3	0.7	1.2
2006–07	6.2	11.3	11.6	4.4	12.6	0.8	3.9
2007–08	6.7	11.5	13.4	4.4	15.2	0.8	4.6
2008–09	5.4	12.2	15.3	4.2	15.6	0.9	6.1

²³ See End Notes.

Source: ABS (2010g) and BITRE (2010h).

TT 7.7b Cargo discharged (including imports), by capital city ports

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin
<i>million tonnes</i>							
1995–96	12.2	10.4	9.4	5.2	8.4	1.1	0.8
1996–97	15.7	10.6	9.6	5.8	9.9	0.2	0.8
1997–98	16.0	10.8	11.4	6.3	9.2	1.1	0.8
1998–99	15.6	12.6	11.1	5.4	9.2	0.8	0.9
1999–00	17.3	12.4	12.3	5.9	9.1	0.9	1.0
2000–01	17.9	11.6	11.4	5.8	9.0	0.5	1.0
2001–02	17.6	12.4	11.7	6.2	10.1	1.1	0.8
2002–03	18.4	14.2	13.4	5.9	11.4	1.0	0.7
2003–04	19.7	15.4	13.1	4.9	11.6	1.0	0.9
2004–05	19.6	16.2	13.9	5.1	12.0	1.1	1.3
2005–06	20.1	16.2	14.5	6.4	11.1	1.1	2.0
2006–07	21.8	17.8	16.3	7.5	12.4	1.1	5.3
2007–08 ²³	21.4	18.7	16.3	8.4	13.5	1.2	5.3
2005–06	20.5	16.2	14.4	6.4	11.1	1.1	2.0
2006–07	21.8	17.7	16.2	7.5	12.4	1.1	5.3
2007–08	21.4	18.8	16.4	8.4	13.6	1.2	5.4
2008–09	19.9	17.3	16.0	5.0	12.5	1.1	6.2

²³ See End Notes.

Source: ABS (2010g) and BITRE (2010h).

TT 7.8 Container cargo exchanged, selected Australian ports

Financial year	Melbourne	Sydney	Brisbane	Fremantle	Adelaide	Five ports
<i>twenty foot equivalent units (TEU) exchanged</i>						
1993–94	801 344	587 670	228 055	169 174	64 619	1 850 862
1994–95	880 151	666 586	232 693	189 272	66 525	2 035 227
1995–96	923 142	684 714	249 439	202 680	69 355	2 129 330
1996–97	984 394	730 446	272 632	209 564	88 497	2 285 533
1997–98	1 040 810	798 209	317 568	250 802	107 912	2 515 301
1998–99	1 121 161	878 580	357 703	275 697	120 586	2 753 727
1999–00	1 287 795	1 010 509	414 449	297 363	115 506	3 125 622
2000–01	1 316 665	988 967	453 257	354 144	133 236	3 246 269
2001–02	1 420 781	1 009 453	481 623	381 809	145 226	3 438 892
2002–03	1 593 798	1 160 513	570 204	431 342	148 333	3 904 190
2003–04	1 717 718	1 270 256	639 272	457 305	169 108	4 253 659
2004–05	1 910 441	1 375 610	726 147	467 313	170 585	4 650 096
2005–06	1 929 925	1 445 465	766 278	455 428	189 391	4 786 487
2006–07	2 093 611	1 620 121	875 045	505 082	219 117	5 312 976
2007–08	2 256 644	1 778 425	940 760	573 527	280 121	5 829 477
2008–09	2 157 352	1 783 920	896 167	565 491	276 545	5 679 475
2009–10	2 236 635	1 927 520	772 400	557 039	274 501	5 768 095

Source: BITRE (2010k).

TT 7.9a Summary of the Australian trading fleet

Financial year	Vessel capacity		Total Australian trading fleet	Flag		Total Australian trading fleet
	Major trading fleet (greater than 2000 dwt)	Other (minor) trading ships (greater than 150 gross registered tonnage and less than or equal to 2000 dwt)		Total Australian registered	Total overseas registered	
	number of vessels					
2001–02	94	23	117	62	55	117
2002–03	93	25	118	58	60	118
2003–04	89	26	115	60	55	115
2004–05	86	21	107	58	49	107
2005–06	82	23	105	59	46	105
2006–07	74	22	96	58	38	96
2007–08	73	21	94	54	40	94
2008–09	60	20	80	47	33	80

Source: BITRE (2010a).

TT 7.9b Summary of the Australian trading fleet—deadweight

Financial year	Vessel capacity		Total Australian trading fleet	Flag		Total Australian trading fleet
	Major trading fleet (greater than 2000 dwt)	Other (minor) trading ships (greater than 150 gross registered tonnage and less than or equal to 2000 dwt)		Total Australian registered	Total overseas registered	
tonnes						
2001–02	3 473 723	12 811	3 486 534	1 734 477	1 752 057	3 486 534
2002–03	3 457 486	14 622	3 472 108	1 580 392	1 891 716	3 472 108
2003–04	3 731 527	15 212	3 746 739	1 607 609	2 139 130	3 746 739
2004–05	3 302 358	12 917	3 315 275	1 464 396	1 850 879	3 315 275
2005–06	3 026 081	14 576	3 040 657	1 370 386	1 670 271	3 040 657
2006–07	3 018 718	13 329	3 032 047	1 364 477	1 667 570	3 032 047
2007–08	2 666 668	13 893	2 680 561	1 198 583	1 481 978	2 680 561
2008–09	2 081 892	12 207	2 094 099	909 749	1 184 350	2 094 099

Source: BITRE (2010a).

TT 7.9c Summary of the Australian trading fleet—gross tonnage

Financial year	Vessel capacity		Total Australian trading fleet	Flag		Total Australian trading fleet
	Major trading fleet (greater than 2000 dwt)	Other (minor) trading ships (greater than 150 gross registered tonnage and less than or equal to 2000 dwt)		Total Australian registered	Total overseas registered	
tonnes						
2001–02	2 515 439	19 186	2 534 625	1 421 136	1 113 489	2 534 625
2002–03	2 447 286	20 013	2 467 299	1 275 626	1 191 673	2 467 299
2003–04	2 721 189	19 356	2 740 545	1 379 775	1 360 770	2 740 545
2004–05	2 451 883	19 775	2 471 658	1 307 557	1 164 101	2 471 658
2005–06	2 348 830	20 227	2 369 057	1 253 895	1 115 162	2 369 057
2006–07	2 290 422	20 227	2 310 649	1 230 232	1 080 417	2 310 649
2007–08	2 120 059	21 786	2 141 845	1 122 506	1 019 339	2 141 845
2008–09	1 502 931	20 159	1 523 090	804 061	719 029	1 523 090

Source: BITRE (2010a).

TT 7.9d Summary of the Australian trading fleet—age distribution

Financial year	0–4 years	5–9 years	10–14 years	15–19 years	20+ years	Average age (years)
<i>percentage of total deadweight tonnes</i>						
2001–02	7.8	24.2	26.9	31.9	9.2	16
2002–03	7.6	22.6	26.5	27.1	16.1	16
2003–04	9.3	21.8	24.7	25.8	18.4	15
2004–05	3.1	31.6	22.7	15.3	27.2	16
2005–06	3.4	16.9	37.3	15.5	26.9	17
2006–07	0.0	10.5	26.4	36.2	26.9	18.9
2007–08	7.2	8.5	27.5	34.3	27.2	19.1
2008–09	5.6	9.1	33.2	27.1	27.3	19.9

Source: BITRE (2010h).

TT 7.10a Ships in the major trading fleet—overseas trades, 2008–09—tankers

Name	Products	Ports called at	
		Australian	Overseas
Boral Gas	LPG	Brisbane, Cairns, Darwin	Guam, Papua New Guinea, Philippines
Bougainville	LPG	Botany Bay, Hastings	New Zealand
Botany Tribute	Unspecified bulk liquids	Adelaide, Brisbane, Fremantle, Melbourne, Sydney	Argentina, Brazil, Indonesia, Madagascar, New Zealand, Nigeria, Pakistan, Republic of Singapore, South Africa
Pacific Gas	LPG	Botany Bay, Brisbane, Hastings	Fiji, Norfolk Island, Vanuatu, Western Samoa
Samar Spirit	Petroleum products	Brisbane, Fremantle, Melbourne, Nganhurra Terminal	Indonesia, Malaysia, People's Republic of China, Republic of Singapore, Saudi Arabia, Thailand, United Arab Emirates, Vietnam
Northwest Sandpiper	LNG	Dampier	Japan, People's Republic of China, Republic of Korea
Northwest Stormpetrel	LNG	Dampier	Japan, People's Republic of China, Republic of Singapore

Source: BITRE (2010a).

TT 7.10b Ships in the major trading fleet—overseas trades, 2008–09—bulk carriers

Name	Products	Ports called at	
		Australian	Overseas
Goonyella Trader	Coal	Hay Point, Newcastle	Arab Republic of Egypt, Brazil, France, Germany, Gibraltar, Japan, Netherlands, Philippines, Republic of Singapore, United Kingdom
Iron Yandi	Coal, iron ore	Gladstone, Hay Point, Newcastle, Port Hedland, Port Kembla	People's Republic of China, Republic of Korea
Orana	Timber products	Burnie, Launceston	Japan, Republic of Korea, Republic of Singapore
Pacific Dolphin	Coal, iron ore	Gladstone, Hay Point, Whyalla	Canary Islands, India, People's Republic of China, Republic of Korea, Republic of Singapore, United States of America
Pacific Triangle	Coal, iron ore	Hay Point, Newcastle, Port Hedland, Port Kembla	Japan
Saraji Trader	Coal	Hay Point	Arab Republic of Egypt, Gibraltar, Japan, Turkey

Source: BITRE (2010a).

TT 7.10c Ships in the major trading fleet—overseas trades, 2008–09—container carriers

Name	Products	Ports called at	
		Australian	Overseas
ANL Wangaratta	General cargo	Botany Bay, Brisbane, Melbourne	Japan, People's Republic of China, Republic of Korea, Taiwan
ANL Wyong	General cargo	Botany Bay, Brisbane, Melbourne	Japan, People's Republic of China, Republic of Korea, Taiwan

Source: BITRE (2010a).

TT 7.10d Ships in the major trading fleet—overseas trades, 2008–09—livestock carriers

Name	Products	Ports called at	
		Australian	Overseas
Hereford Express	Livestock	Broome, Darwin, Fremantle, Port Hedland	Indonesia, New Zealand, Republic of Singapore
Kerry Express	Livestock	Australia, Darwin, Geraldton, Port Hedland	Indonesia, Malaysia, Republic of Singapore
Maysora	Livestock	Darwin, Fremantle, Portland	Indonesia, Israel, Jordan, Kuwait, Republic of Singapore, Saudi Arabia, State of Bahrain, United Arab Emirates
Norvantes	Livestock	Cairns, Darwin, Karumba, Mourilyan	Indonesia
Torrens	Livestock	Darwin, Fremantle, Portland	Arab Republic of Egypt, Indonesia, Republic of Singapore, Russian Federation, Saudi Arabia, Turkey, United Arab Emirates

Source: BITRE (2010a).

TT 7.10e Ships in the major trading fleet—overseas trades, 2008–09—general cargo ships

Name	Products	Ports called at	
		Australian	Overseas
Achilles	General cargo	Dampier, Darwin, Fremantle, Newcastle, Port Alma, Port Hedland	Indonesia, Malaysia, People's Republic of China, Philippines, Republic of Korea, Republic of Singapore
Aurora Australis	General cargo	Fremantle, Hobart	Antarctica
Capitaine Cook	General cargo	Adelaide, Botany Bay, Brisbane, Fremantle, Mackay, Newcastle, Port Giles, Sydney, Thevenard	Fiji, New Zealand
Hector	General cargo	Dampier, Darwin, Port Hedland	Indonesia, People's Republic of China, Republic of Singapore
Kathryn Bay	General cargo	Darwin	Republic of Singapore
Norfolk Guardian	General cargo	Yamba	New Zealand, Norfolk Island
Roslyn Bay	General cargo	Cairns, Newcastle, Port Alma	Indonesia, Malaysia, Philippines, Republic of Singapore, Solomon Islands
Scarlett Lucy	General cargo	Botany Bay, Brisbane, Gladstone, Mackay	Fiji, Nauru, New Caledonia, Solomon Islands, Vanuatu

Source: BITRE (2010a).

TT 7.1 Ia Ships in the major trading fleet—coastal trades, 2008–09—tankers

Name	Products	Ports called at	
		Australian	Overseas
Helix	Petroleum products	Adelaide, Botany Bay, Brisbane, Burnie, Devonport, Geelong, Hobart, Launceston, Melbourne, Port Lincoln, Sydney, Townsville	
Palmerston	Unspecified bulk liquids	Botany Bay, Brisbane, Fremantle, Geelong, Gladstone, Mackay, Melbourne, Townsville	New Zealand, Philippines, Republic of Korea, Republic of Singapore, Taiwan

Source: BITRE (2010a).

TT 7.1 Ib Ships in the major trading fleet—coastal trades, 2008–09—bulk carriers

Name	Products	Ports called at	
		Australian	Overseas
Aburri	Metal concentrates	Bing Bong	
Accolade II	Limestone	Adelaide, Brisbane, Klein Point	
CSL Thevenard	Cement	Adelaide, Brisbane, Devonport, Geelong, Gladstone, Melbourne, Sydney, Thevenard, Townsville, Whyalla	People's Republic of China
Endeavour River	Bauxite	Gladstone, Weipa	
Goliath	Cement	Adelaide, Dampier; Devonport, Gladstone, Melbourne, Newcastle, Sydney	Republic of Singapore
Ikuna	Coal	Adelaide, Ardrossan, Brisbane, Devonport, Geelong, Hobart, Launceston, Melbourne, Newcastle, Port Kembla, Port Lincoln, Port Pirie, Portland, Whyalla	New Zealand
Iron Chieftain	Iron ore, coal	Gladstone, Port Kembla, Whyalla	People's Republic of China, Republic of Singapore, Taiwan
Lindesay Clark	Alumina	Brisbane, Bunbury, Fremantle, Geelong, Portland	
Pioneer	Sugar	Gladstone, Mackay, Sydney	Republic of Singapore
Portland	Alumina	Adelaide, Bunbury, Fremantle, Geelong, Melbourne, Portland, Thevenard	
River Boyne	Bauxite	Gladstone, Weipa	Republic of Singapore
River Embley	Bauxite	Gladstone, Weipa	
Vigsnes	Metal concentrates	Adelaide, Burnie, Geelong, Hobart, Melbourne, Newcastle, Port Kembla, Port Pirie, Portland	
Wunma	Metal concentrates	Karumba	

Source: BITRE (2010a).

TT 7.1 Ic Ships in the major trading fleet—coastal trades, 2008–09—container carriers

Name	Products	Ports called at	
		Australian	Overseas
ANL Bass Trader	General cargo	Burnie, Launceston, Melbourne	

Source: BITRE (2010a).

TT 7.11d Ships in the major trading fleet—coastal trades, 2008–09—general cargo

Name	Products	Ports called at	
		Australian	Overseas
Claudia I	General cargo	Sydney	
Hakula	General cargo	Adelaide, Ardrossan, Brisbane, Devonport, Fremantle, Geelong, Gladstone, Hobart, Launceston, Melbourne, Newcastle, Port Kembla, Port Pirie, Portland, Whyalla	New Zealand
Halifax Bay	General cargo	Darwin	
Iron Monarch	General cargo	Brisbane, Hastings, Newcastle, Port Kembla	
Newcastle Bay	General cargo	Cairns, Weipa	
Searoad Mersey	General cargo	Devonport, Grassy, Melbourne	
Searoad Tamar	General cargo	Burnie, Devonport, Melbourne	
Spirit of Tasmania I	General cargo, passengers	Devonport, Melbourne	
Spirit of Tasmania II	General cargo, passengers	Devonport, Melbourne, Sydney	
Tasmanian Achiever	General cargo	Burnie, Melbourne, Sydney	
Trinity Bay	General cargo, passengers	Cairns	
Victorian Reliance	General cargo	Brisbane, Burnie, Melbourne, Sydney	

Source: BITRE (2010a).

CHAPTER 8

Safety

TT 8.1a Number of fatalities and fatality accidents, by transport mode—accidents

Calendar year	Road	Rail	Marine	Aviation
1971				14
1972				23
1973				15
1974				17
1975				22
1976				28
1977				31
1978				34
1979				31
1980				33
1981				27
1982				35
1983				31
1984				32
1985				29
1986				29
1987				25
1988				35
1989	2 406			46
1990	2 050			44
1991	1 874			28
1992	1 736			38
1993	1 737			32
1994	1 702			35
1995	1 822			33
1996	1 768			29
1997	1 601			25
1998	1 573			31
1999	1 553			25
2000	1 628			24
2001	1 584		32	28
2002	1 525		40	19
2003	1 445		39	22
2004	1 444		44	23
2005	1 472		37	25
2006	1 452		40	26
2007	1 453		41	30
2008	1 315		37	27
2009	1 346		43	23
2010	1 249			

Note: Data are not readily available for missing years.

Source: ATSB (2004), ATSB (2010a), ATSB (2010b), BITRE (2010j), Infrastructure (2010) and NMSC (2010).

TT 8.1b Number of fatalities and fatality accidents, by transport mode—fatalities

Calendar year	Road	Rail	Marine	Aviation
1971	3 590			35
1972	3 422			52
1973	3 679			26
1974	3 572			39
1975	3 694			49
1976	3 583			62
1977	3 578			55
1978	3 705			65
1979	3 508	49		45
1980	3 272	56		68
1981	3 321	72		58
1982	3 252	72		60
1983	2 755	66		60
1984	2 822	76		48
1985	2 941	66		54
1986	2 888	66		54
1987	2 772	54		39
1988	2 887	64		67
1989	2 801	67		82
1990	2 331	76		80
1991	2 113	42		52
1992	1 974	61		63
1993	1 953	52		63
1994	1 928	43		62
1995	2 017	46		51
1996	1 970	30		51
1997	1 767	43		38
1998	1 755	43		56
1999	1 764	43		46
2000	1 817	38		44
2001	1 737	53	47	47
2002	1 715	56	50	34
2003	1 621	42	43	50
2004	1 583	42	50	42
2005	1 627	35	41	49
2006	1 599	39	49	46
2007	1 603	42	53	46
2008	1 437	33	41	43
2009	1 490	24	53	25
2010	1 368			

Note: Data are not readily available for missing years.

Source: ATSB (2004), ATSB (2010a), ATSB (2010b), BITRE (2010j), Infrastructure (2010) and NMSC (2010).

TT 8.2a Fatality rate and injury rate, by transport mode—fatality rate

Calendar year	Road	Rail	Marine	Aviation
		<i>deaths per 100 000 population</i>		
1971	27.47			0.27
1972	25.72			0.39
1973	27.24			0.19
1974	26.03			0.28
1975	26.59			0.35
1976	25.53			0.44
1977	25.21			0.39
1978	25.80			0.45
1979	24.17	0.34		0.31
1980	22.27	0.38		0.46
1981	22.25	0.48		0.39
1982	21.42	0.47		0.40
1983	17.90	0.43		0.39
1984	18.11	0.49		0.31
1985	18.63	0.42		0.34
1986	18.03	0.41		0.34
1987	17.04	0.33		0.24
1988	17.46	0.39		0.41
1989	16.66	0.40		0.49
1990	13.66	0.45		0.47
1991	12.23	0.24		0.30
1992	11.28	0.35		0.36
1993	11.05	0.29		0.36
1994	10.80	0.24		0.35
1995	11.16	0.25		0.28
1996	10.76	0.16		0.28
1997	9.54	0.23		0.21
1998	9.38	0.23		0.30
1999	9.32	0.23		0.24
2000	9.49	0.20		0.23
2001	8.95	0.27	0.24	0.24
2002	8.73	0.29	0.25	0.17
2003	8.15	0.21	0.22	0.25
2004	7.87	0.21	0.25	0.21
2005	7.98	0.17	0.20	0.24
2006	7.74	0.19	0.24	0.22
2007	7.61	0.20	0.25	0.22
2008	6.70	0.15	0.19	0.20
2009	6.84	0.11	0.24	0.11

Note: Data are not readily available for missing years.

Source: ABS (2010i), ATSB (2010a), ATSB (2010b), BITRE (2010j) and NMSC (2010).

TT 8.2b Fatality rate and injury rate, by transport mode—injury rate

Calendar year	Road ²⁴	Rail	Marine	Aviation
<i>serious injuries per 100 000 population</i>				
1971				0.18
1972				0.15
1973				0.17
1974				0.17
1975				0.19
1976				0.35
1977				0.36
1978				0.34
1979				0.34
1980				0.28
1981				0.34
1982				0.28
1983				0.29
1984				0.24
1985				0.23
1986				0.22
1987				0.36
1988				0.27
1989	254.97			0.45
1990	215.48			0.36
1991	188.51			0.30
1992	176.76			0.22
1993	176.43			0.33
1994	186.85			0.17
1995	190.13			0.27
1996	184.09			0.20
1997	175.98			0.16
1998				0.12
1999				0.11
2000				0.23
2001	²⁵ 137.52	0.43	0.45	0.16
2002	144.74	0.49	0.59	0.13
2003	138.37	0.29	0.40	0.14
2004	143.02	0.36	0.62	0.12
2005	146.38	0.36	0.67	0.04
2006	150.78	0.65	0.78	0.07
2007	155.56	0.88	0.61	0.09
2008		0.53	0.72	0.20
2009		0.41	0.45	0.09

24, 25 See End Notes.

Note: Data are not readily available for missing years.

Source: AIHW (2009), ATSB (2010a), ATSB (2010b), BITRE (2010j), BTRE (2007) and BITRE estimates.

TT 8.3a Fatality rate and injury rate, by transport mode—fatality rate

Calendar year	Road	Rail	Aviation
	<i>deaths per billion passenger kilometres travelled</i>		
1971	30.77		6.63
1972	27.57		9.12
1973	28.47		4.15
1974	25.85		5.24
1975	25.57		6.09
1976	23.84		7.88
1977	22.73		7.23
1978	22.77		7.82
1979	21.00	5.71	5.12
1980	19.49	6.30	7.02
1981	19.42	7.73	5.81
1982	18.18	7.85	5.77
1983	15.27	7.32	6.26
1984	14.89	8.48	4.83
1985	14.89	7.23	5.09
1986	14.21	7.08	4.66
1987	13.35	5.62	3.15
1988	13.27	6.35	4.92
1989	12.29	6.42	5.79
1990	9.94	7.27	7.63
1991	9.04	3.97	3.43
1992	8.32	5.99	3.18
1993	8.01	5.27	3.17
1994	7.73	4.31	2.60
1995	7.85	4.41	1.93
1996	7.56	2.82	1.80
1997	6.75	3.92	1.29
1998	6.64	3.94	1.88
1999	6.53	3.86	1.51
2000	6.60	3.30	1.37
2001	6.36	4.37	1.34
2002	6.13	4.68	1.05
2003	5.65	3.51	1.42
2004	5.28	3.49	1.04
2005	5.42	2.91	1.09
2006	5.36	3.11	0.96
2007	5.31	3.17	0.88
2008	4.77	2.32	0.77
2009	4.98	1.59	0.43

Note: Data are not readily available for missing years.

Source: ATSB (2010a), ATSB (2010b), BITRE (2010), BTRE (2007) and BITRE estimates.

TT 8.3b Fatality rate and injury rate, by transport mode—injury rate

Calendar year	Road ²⁴	Rail	Aviation
	<i>serious injuries per billion passenger kilometres travelled</i>		
1971			4.55
1972			4.21
1973			3.83
1974			3.22
1975			2.98
1976			3.05
1977			3.15
1978			2.89
1979			2.73
1980			2.48
1981			2.41
1982			2.31
1983			2.50
1984			2.41
1985			2.26
1986			2.07
1987			1.94
1988			1.76
1989	188.07		1.69
1990	156.84		2.29
1991	139.40		1.59
1992	130.35		1.21
1993	127.86		1.21
1994	133.75		1.01
1995	133.79		0.91
1996	129.35		0.85
1997	124.43		0.82
1998			0.81
1999			0.79
2000			0.75
2001	²⁵ 97.71	6.84	0.69
2002	101.61	8.11	0.74
2003	95.92	4.85	0.68
2004	96.07	6.06	0.59
2005	99.47	6.16	0.53
2006	104.33	10.78	0.50
2007	108.56	13.98	0.46
2008		7.95	0.43
2009		6.04	0.42

24, 25 See End Notes.

Note: Data are not readily available for missing years.

Source: AIHW (2009), ATSB (2010a), ATSB (2010b), BITRE (2010j), BTRE (2007) and BITRE estimates.

TT 8.4a Number of road accidents and casualties, by accident severity—accidents

Calendar year	Fatal	Serious injuries 24
1989	2 406	22 158
1990	2 050	20 014
1991	1 874	17 844
1992	1 736	17 108
1993	1 737	17 164
1994	1 702	17 560
1995	1 822	17 803
1996	1 768	17 505
1997	1 601	17 150
1998	1 573	
1999	1 553	
2000	1 628	
2001	1 584	
2002	1 525	
2003	1 445	
2004	1 444	
2005	1 472	
2006	1 452	
2007	1 453	
2008	1 315	
2009	1 346	
2010	1 249	

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See End Notes.

Note: Data are not readily available for missing years.

Source: BITRE (2010j), Infrastructure (2010).

TT 8.4b Number of road accidents and casualties, by accident severity—casualties

Calendar year	Fatal	Serious injuries ²⁴
1971	3 590	
1972	3 422	
1973	3 679	
1974	3 572	
1975	3 694	
1976	3 583	
1977	3 578	
1978	3 705	
1979	3 508	
1980	3 272	
1981	3 321	
1982	3 252	
1983	2 755	
1984	2 822	
1985	2 941	
1986	2 888	
1987	2 772	
1988	2 887	
1989	2 801	42 872
1990	2 331	36 772
1991	2 113	32 583
1992	1 974	30 924
1993	1 953	31 170
1994	1 928	33 356
1995	2 017	34 354
1996	1 970	33 703
1997	1 767	32 583
1998	1 755	
1999	1 764	
2000	1 817	
2001	1 737	²⁵ 26 694
2002	1 715	28 440
2003	1 621	27 526
2004	1 583	28 782
2005	1 627	29 850
2006	1 599	31 204
2007	1 603	32 777
2008	1 437	
2009	1 490	
2010	1 368	

24, 25 See End Notes.

Note: Data are not readily available for missing years.

Source: AIHW (2010), BITRE (2010j), Infrastructure (2010)

TT 8.5a Road accident rate and casualty rate, by accident severity—accident rate

Calendar year	Fatal	Serious injuries ²⁴
	<i>accidents per 100 000 population</i>	
1989	14.31	131.78
1990	12.01	117.28
1991	10.84	103.24
1992	9.92	97.79
1993	9.83	97.15
1994	9.53	98.37
1995	10.08	98.53
1996	9.66	95.62
1997	8.65	92.63
1998	8.41	
1999	8.21	
2000	8.50	
2001	8.16	
2002	7.76	
2003	7.26	
2004	7.18	
2005	7.22	
2006	7.03	
2007	6.90	
2008	6.14	
2009	6.18	

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See End Notes.

Note: Data are not readily available for missing years.

Source: ABS (2010), BITRE (2010), Infrastructure (2010).

TT 8.5b Road accident rate and casualty rate, by accident severity—casualty rate

Calendar year	Fatal	Serious injuries ²⁴
	<i>casualties per 100 000 population</i>	
1971	27.47	
1972	25.72	
1973	27.24	
1974	26.03	
1975	26.59	
1976	25.53	
1977	25.21	
1978	25.80	
1979	24.17	
1980	22.27	
1981	22.25	
1982	21.42	
1983	17.90	
1984	18.11	
1985	18.63	
1986	18.03	
1987	17.04	
1988	17.46	
1989	16.66	254.97
1990	13.66	215.48
1991	12.23	188.51
1992	11.28	176.76
1993	11.05	176.43
1994	10.80	186.85
1995	11.16	190.13
1996	10.76	184.09
1997	9.54	175.98
1998	9.38	
1999	9.32	
2000	9.49	
2001	8.95	²⁵ 137.52
2002	8.73	144.74
2003	8.15	138.37
2004	7.87	143.02
2005	7.98	146.38
2006	7.74	150.78
2007	7.61	155.56
2008	6.70	
2009	6.84	

^{24, 25} See End Notes.

Note: Data are not readily available for missing years.

Source: ABS (2010i), AIHW (2010), BITRE (2010j), Infrastructure (2010).

TT 8.6a Number of fatal road accidents and fatalities, by state/territory—accidents

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
1989	783	681	376	201	214	68	57	26	2 406
1990	702	492	347	187	181	63	54	24	2 050
1991	585	435	359	166	187	66	60	16	1 874
1992	576	365	363	142	171	59	42	18	1 736
1993	518	381	357	191	191	47	41	11	1 737
1994	552	345	364	143	195	52	36	15	1 702
1995	563	371	408	163	194	53	56	14	1 822
1996	538	382	338	162	220	53	58	17	1 768
1997	525	346	321	123	184	29	56	17	1 601
1998	491	348	257	152	199	47	59	20	1 573
1999	506	345	273	132	189	47	44	17	1 553
2000	543	373	275	151	184	38	48	16	1 628
2001	486	404	296	137	151	52	43	15	1 584
2002	501	361	283	138	159	35	40	8	1 525
2003	483	294	284	136	155	39	44	10	1 445
2004	458	312	289	128	162	52	34	9	1 444
2005	459	314	296	127	151	49	51	25	1 472
2006	449	309	313	104	181	43	41	12	1 452
2007	405	289	338	107	214	39	47	14	1 453
2008	353	278	294	87	185	37	67	14	1 315
2009	408	268	296	104	176	52	31	11	1 346
2010	381	263	234	105	176	29	46	15	1 249

Source: BITRE (2010j).

TT 8.6b Number of fatal road accidents and fatalities, by state/territory—fatalities

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
1971	1 249	923	594	292	332	130	50	20	3 590
1972	1 092	915	572	312	340	106	53	32	3 422
1973	1 230	935	638	329	358	105	55	29	3 679
1974	1 275	806	589	382	334	111	44	31	3 572
1975	1 288	910	635	339	304	122	64	32	3 694
1976	1 264	938	569	307	308	108	51	38	3 583
1977	1 268	954	572	306	290	112	47	29	3 578
1978	1 384	869	612	291	345	106	68	30	3 705
1979	1 288	846	616	309	279	93	53	24	3 508
1980	1 303	657	557	269	293	100	63	30	3 272
1981	1 291	766	594	222	238	111	70	29	3 321
1982	1 253	709	602	270	236	96	60	26	3 252
1983	966	664	510	266	203	70	48	28	2 755
1984	1 037	657	505	232	221	83	50	37	2 822
1985	1 067	683	502	268	243	78	67	33	2 941
1986	1 029	668	481	288	228	91	71	32	2 888
1987	959	705	442	256	213	77	84	36	2 772
1988	1 037	701	539	223	230	75	51	31	2 887
1989	960	776	428	222	242	80	61	32	2 801
1990	797	548	399	226	196	71	68	26	2 331
1991	663	503	395	184	207	77	67	17	2 113
1992	649	396	416	165	200	74	54	20	1 974
1993	581	435	396	218	209	58	44	12	1 953
1994	646	377	418	159	211	59	41	17	1 928
1995	620	418	456	181	209	57	61	15	2 017
1996	581	417	385	181	247	64	72	23	1 970
1997	576	377	360	148	197	32	60	17	1 767
1998	556	390	279	168	223	48	69	22	1 755
1999	577	383	314	151	218	53	49	19	1 764
2000	603	407	317	166	212	43	51	18	1 817
2001	524	444	324	153	165	61	50	16	1 737
2002	561	397	322	154	179	37	55	10	1 715
2003	539	330	310	157	180	41	53	11	1 621
2004	510	343	311	139	178	58	35	9	1 583
2005	508	346	330	148	163	51	55	26	1 627
2006	496	337	335	117	200	55	46	13	1 599
2007	435	332	360	124	235	45	58	14	1 603
2008	374	303	328	99	205	39	75	14	1 437
2009	453	290	331	119	190	64	31	12	1 490
2010	421	291	247	118	193	31	49	18	1 368

Source: BITRE (2010j).

TT 8.7a Fatal road accident rate and fatality rate, by state/territory—accident rate

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>fatal accidents per 100 000 population</i>									
1989	13.56	15.76	13.30	14.16	13.56	14.94	35.36	9.41	14.31
1990	12.03	11.24	11.97	13.06	11.22	13.63	32.98	8.50	12.01
1991	9.92	9.84	12.12	11.48	11.43	14.14	36.26	5.53	10.84
1992	9.66	8.19	11.98	9.75	10.31	12.56	24.99	6.11	9.92
1993	8.63	8.52	11.48	13.08	11.38	9.96	24.01	3.68	9.83
1994	9.11	7.69	11.42	9.75	11.45	11.00	20.76	4.98	9.53
1995	9.19	8.21	12.50	11.09	11.19	11.19	31.54	4.59	10.08
1996	8.67	8.38	10.12	10.99	12.46	11.17	31.90	5.51	9.66
1997	8.36	7.53	9.46	8.30	10.25	6.12	29.96	5.50	8.65
1998	7.75	7.50	7.45	10.20	10.92	9.96	31.07	6.45	8.41
1999	7.89	7.36	7.80	8.81	10.22	9.97	22.83	5.44	8.21
2000	8.37	7.87	7.72	10.03	9.82	8.06	24.54	5.08	8.50
2001	7.39	8.41	8.16	9.06	7.94	11.02	21.74	4.70	8.16
2002	7.56	7.42	7.62	9.07	8.25	7.40	20.06	2.48	7.76
2003	7.24	5.97	7.46	8.88	7.94	8.17	21.99	3.07	7.26
2004	6.83	6.26	7.41	8.31	8.17	10.77	16.83	2.75	7.18
2005	6.79	6.22	7.41	8.18	7.49	10.08	24.71	7.57	7.22
2006	6.59	6.03	7.65	6.63	8.79	8.78	19.47	3.59	7.02
2007	5.87	5.54	8.06	6.75	10.13	7.91	21.88	4.10	6.90
2008	5.03	5.22	6.82	5.42	8.50	7.43	30.39	4.04	6.12
2009	5.72	4.92	6.69	6.41	7.84	10.33	13.72	3.12	6.13

Source: ABS (2010), BITRE (2010).

TT 8.7b Fatal road accident rate and fatality rate, by state/territory—fatality rate

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>fatalities per 100 000 population</i>									
1971	26.43	25.63	32.08	24.33	31.50	32.66	58.32	13.23	27.47
1972	22.77	24.99	30.13	25.69	31.42	26.48	57.56	20.03	25.72
1973	25.40	25.22	32.69	26.78	32.51	26.05	56.63	16.73	27.24
1974	26.05	21.46	29.33	30.77	29.62	27.33	42.75	16.65	26.03
1975	26.12	24.03	30.96	26.79	26.32	29.75	68.91	16.08	26.59
1976	25.49	24.62	27.19	24.10	26.14	26.19	51.92	18.29	25.53
1977	25.35	24.86	26.86	23.79	24.08	26.99	45.22	13.57	25.21
1978	27.39	22.49	28.18	22.45	28.10	25.38	61.83	13.76	25.80
1979	25.20	21.77	27.81	23.75	22.38	22.10	46.43	10.87	24.17
1980	25.20	16.78	24.58	20.56	23.09	23.61	53.28	13.38	22.27
1981	24.66	19.41	25.33	16.83	18.31	25.98	57.09	12.74	22.25
1982	23.63	17.76	24.83	20.28	17.63	22.33	46.04	11.16	21.42
1983	18.05	16.45	20.55	19.77	14.83	16.17	35.32	11.72	17.90
1984	19.19	16.12	20.01	17.06	15.89	18.96	35.17	15.10	18.11
1985	19.53	16.58	19.52	19.54	17.13	17.61	45.11	13.13	18.63
1986	18.60	16.05	18.33	20.83	15.63	20.38	45.98	12.36	18.03
1987	17.07	16.75	16.52	18.38	14.24	17.14	53.10	13.56	17.04
1988	18.17	16.45	19.67	15.87	14.98	16.62	32.07	11.39	17.46
1989	16.62	17.96	15.14	15.64	15.33	17.57	37.85	11.58	16.66
1990	13.66	12.52	13.76	15.78	12.15	15.36	41.53	9.21	13.66
1991	11.24	11.38	13.34	12.72	12.65	16.50	40.49	5.88	12.23
1992	10.88	8.89	13.73	11.33	12.06	15.75	32.13	6.79	11.28
1993	9.68	9.73	12.73	14.92	12.46	12.30	25.77	4.01	11.05
1994	10.66	8.40	13.12	10.84	12.39	12.48	23.65	5.64	10.80
1995	10.12	9.25	13.97	12.32	12.05	12.03	34.36	4.92	11.16
1996	9.36	9.14	11.53	12.28	13.99	13.49	39.59	7.46	10.76
1997	9.18	8.20	10.60	9.99	10.97	6.76	32.10	5.50	9.54
1998	8.77	8.41	8.09	11.28	12.23	10.17	36.34	7.10	9.38
1999	9.00	8.17	8.97	10.08	11.79	11.24	25.42	6.08	9.32
2000	9.30	8.58	8.90	11.03	11.31	9.12	26.08	5.71	9.49
2001	7.97	9.24	8.93	10.12	8.68	12.93	25.28	5.01	8.95
2002	8.46	8.16	8.67	10.12	9.29	7.83	27.58	3.10	8.73
2003	8.08	6.70	8.14	10.25	9.22	8.58	26.49	3.38	8.15
2004	7.60	6.89	7.97	9.02	8.98	12.01	17.32	2.75	7.87
2005	7.52	6.85	8.26	9.53	8.08	10.49	26.65	7.87	7.98
2006	7.28	6.57	8.19	7.46	9.71	11.23	21.84	3.89	7.73
2007	6.30	6.36	8.58	7.82	11.12	9.12	27.00	4.10	7.61
2008	5.33	5.69	7.61	6.17	9.42	7.83	34.01	4.04	6.68
2009	6.35	5.33	7.48	7.33	8.46	12.72	13.72	3.41	6.79

Source: ABS (2010), BITRE (2010j).

TT 8.8a Number of road accidents involving serious injuries, by state/territory—
accidents involving serious injuries but no fatalities

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
1989	6 493	7 270	3 079	1 930	2 312	542	350	182	22 158
1990	6 092	5 759	3 123	1 926	2 073	477	387	177	20 014
1991	5 473	4 967	2 926	1 567	2 002	424	306	179	17 844
1992	5 135	4 768	3 199	1 227	1 952	377	295	155	17 108
1993	5 132	4 830	3 186	1 189	1 984	385	315	143	17 164
1994	5 024	4 858	3 598	1 184	2 027	404	304	161	17 560
1995	4 927	4 934	3 630	1 186	2 259	408	313	146	17 803
1996	4 887	4 834	3 551	1 309	2 041	348	334	201	17 505
1997	4 954	4 671	3 327	1 168	2 219	328	310	173	17 150
1998		5 093	3 517	1 223	2 266	359	324	162	
1999		4 957	3 565	1 239	1 881	363	325	133	
2000		5 187	3 810	1 215	1 665	399	316	130	

Note: Data are not readily available for missing years.

Source: Infrastructure (2010).

TT 8.8b Number of road accidents involving serious injuries, by state/territory—
serious injuries^{b, 24}

Year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
1989	10 384	19 416	4 519	2 884	3 434	1 133	835	267	42 872
1990	9 435	14 902	4 534	2 829	2 948	1 236	633	255	36 772
1991	8 385	12 942	4 245	2 375	2 860	1 037	496	243	32 583
1992	7 801	12 318	4 583	1 802	2 797	975	443	205	30 924
1993	7 893	12 225	4 661	1 767	2 905	1 015	503	201	31 170
1994	7 520	12 570	5 313	1 754	4 484	1 022	463	230	33 356
1995	7 690	12 879	5 373	1 771	4 917	1 052	463	209	34 354
1996	7 448	12 820	5 319	2 070	4 476	791	548	231	33 703
1997	7 264	12 149	4 872	1 788	4 981	776	501	252	32 583
1998		13 287	5 139	1 840	5 018	831	535	247	
1999		12 741	5 231	2 567	4 155	865	539	159	
2000		13 203	5 501	2 497	3 633	923	506	147	
2000–01 ²⁵									26 694
2001–02									28 440
2002–03									27 526
2003–04	9 243	7 834	5 376	2 293	2 271	602	431	328	28 782
2004–05	9 393	8 196	5 874	2 221	2 348	640	392	361	29 850
2005–06	10 108	8 235	5 986	2 347	2 454	736	406	492	31 204
2006–07	10 296	8 551	6 542	2 411	2 723	739	498	539	32 777

^b Includes non-fatal serious injuries that were sustained in an accident that involved a fatality.

^{24, 25} See End Notes.

Note: Data are not readily available for missing years.

Source: AIHW (2009), Infrastructure (2010).

TT 8.9a Road accident rate and serious injury rate, by state/territory—accident rate

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>serious injury accidents per 100 000 population</i>									
1989	112.41	168.28	108.89	136.01	146.47	119.05	217.15	65.84	131.78
1990	104.42	131.53	107.72	134.49	128.51	103.20	236.37	62.72	117.28
1991	92.78	112.37	98.82	108.35	122.37	90.83	184.90	61.87	103.24
1992	86.12	107.03	105.58	84.24	117.73	80.24	175.51	52.60	97.79
1993	85.46	108.00	102.45	81.40	118.26	81.63	184.50	47.78	97.15
1994	82.90	108.25	112.89	80.76	119.02	85.42	175.34	53.40	98.37
1995	80.41	109.22	111.18	80.71	130.29	86.14	176.29	47.90	98.53
1996	78.76	106.01	106.36	88.79	115.62	73.35	183.67	65.21	95.62
1997	78.92	101.61	98.01	78.85	123.62	69.26	165.85	55.98	92.63
1998		109.81	102.01	82.11	124.32	76.06	170.63	52.28	
1999		105.77	101.82	82.72	101.69	77.00	168.63	42.58	
2000		109.40	106.98	80.73	88.83	84.64	161.59	41.24	

Note: Data are not readily available for missing years.

Source: ABS (2010), Infrastructure (2010).

TT 8.9b Road accident rate and serious injury rate, by state/territory—injury rate²⁴

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Total
<i>serious injuries per 100 000 population</i>									
1989	179.77	449.43	159.82	203.24	217.56	248.87	518.06	96.59	254.97
1990	161.72	340.34	156.38	197.55	182.76	267.42	386.62	90.36	215.48
1991	142.15	292.78	143.37	164.21	174.81	222.15	299.71	83.99	188.51
1992	130.83	276.50	151.26	123.72	168.69	207.52	263.56	69.57	176.76
1993	131.44	273.34	149.88	120.97	173.16	215.20	294.61	67.16	176.43
1994	124.09	280.11	166.70	119.63	263.30	216.10	267.05	76.29	186.85
1995	125.51	285.10	164.56	120.52	283.60	222.09	260.77	68.57	190.13
1996	120.04	281.13	159.31	140.41	253.56	166.72	301.36	74.94	184.09
1997	115.72	264.27	143.52	120.70	277.49	163.85	268.04	81.54	175.98
1998		286.49	149.05	123.53	275.31	176.07	281.76	79.71	
1999		271.87	149.40	171.38	224.63	183.48	279.66	50.91	
2000		278.47	154.46	165.91	193.82	195.80	258.74	46.63	
2000–01 ²⁵									137.52
2001–02									144.74
2002–03									138.37
2003–04	137.81	157.26	137.81	148.85	114.54	124.70	213.30	100.16	143.02
2004–05	139.02	162.34	147.04	143.06	116.41	131.60	189.95	109.34	146.38
2005–06	148.30	160.63	146.32	149.69	119.16	150.22	192.76	147.25	150.78
2006–07	149.11	163.77	155.91	152.04	128.87	149.84	231.84	158.04	155.56

24, 25 See End Notes.

Note: Data are not readily available for missing years.

Source: ABS (2010), Infrastructure (2010).

TT 8.10 Number of rail casualties, by severity

Calendar year	Fatal	Serious injuries
1979	49	
1980	56	
1981	72	
1982	72	
1983	66	
1984	76	
1985	66	
1986	66	
1987	54	
1988	64	
1989	67	
1990	76	
1991	42	
1992	61	
1993	52	
1994	43	
1995	46	
1996	30	
1997	43	
1998	43	
1999	43	
2000	38	
2001	53	83
2002	56	97
2003	42	58
2004	42	73
2005	35	74
2006	39	135
2007	42	185
2008	33	113
2009	24	91

Note: Data are not readily available for missing years. Serious injury data from NSW are not included.

Source: ATSB (2004), ATSB (2010b).

TT 8.11 Number of rail fatalities, by state/territory

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT 26	Total
2001	34	10	5	2	2	0	0		53
2002	32	14	3	4	2	0	1		56
2003	27	10	3	0	2	0	0		42
2004	24	12	2	2	1	0	1		42
2005	11	14	6	4	0	0	0		35
2006	9	14	9	2	4	1	0		39
2007	8	23	3	5	3	0	0		42
2008	9	17	6	1	0	0	0		33
2009	6	10	3	2	2	0	1		24

26 See End Notes.

Source: ATSB (2004), ATSB (2010b).

TT 8.12 Rail fatality rate, by state/territory

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT 26	Total
<i>fatalities per 100 000 population</i>									
2001	0.49	0.21	0.14	0.13	0.11	0.00	0.00		0.27
2002	0.46	0.29	0.08	0.26	0.10	0.00	0.50		0.29
2003	0.39	0.20	0.08	0.00	0.10	0.00	0.00		0.21
2004	0.34	0.24	0.05	0.13	0.05	0.00	0.49		0.21
2005	0.16	0.28	0.15	0.26	0.00	0.00	0.00		0.17
2006	0.13	0.27	0.22	0.13	0.19	0.20	0.00		0.19
2007	0.11	0.44	0.07	0.32	0.14	0.00	0.00		0.20
2008	0.12	0.32	0.14	0.06	0.00	0.00	0.00		0.15
2009	0.08	0.18	0.07	0.12	0.09	0.00	0.44		0.11

26 See End Notes.
Source: ABS (2010m), ATSB (2004), ATSB (2010b).

TT 8.13a Number of aviation accidents and casualties, by accident severity—accidents

Calendar year	Fatal accidents	Non-fatal accidents
1971	14	225
1972	23	177
1973	15	227
1974	17	241
1975	22	206
1976	27	285
1977	31	259
1978	34	274
1979	31	284
1980	32	269
1981	27	254
1982	35	223
1983	30	275
1984	32	234
1985	29	212
1986	29	218
1987	25	264
1988	35	289
1989	46	300
1990	44	299
1991	28	291
1992	38	267
1993	30	283
1994	35	228
1995	33	235
1996	29	214
1997	25	231
1998	31	197
1999	25	167
2000	24	193
2001	27	169
2002	19	145
2003	20	134
2004	21	142
2005	24	109
2006	24	82
2007	29	133
2008	27	161
2009	23	143

Note: Includes civilian aviation accidents (VH and non-VH registered aircraft) inside Australia only.
Source: ATSB (2010a).

TT 8.13b Number of aviation accidents and casualties by accident severity—casualties

Calendar year	Fatalities	Serious injuries
1971	35	24
1972	52	20
1973	26	23
1974	39	23
1975	49	27
1976	58	49
1977	55	51
1978	65	49
1979	45	50
1980	64	41
1981	58	49
1982	60	43
1983	54	45
1984	48	37
1985	54	36
1986	54	35
1987	39	58
1988	67	44
1989	82	75
1990	80	61
1991	52	39
1992	63	38
1993	56	58
1994	62	31
1995	51	48
1996	51	34
1997	38	29
1998	56	22
1999	46	20
2000	44	42
2001	46	31
2002	34	26
2003	43	27
2004	34	22
2005	45	7
2006	40	15
2007	44	17
2008	43	42
2009	25	19

Note: Includes civilian aviation accidents (VH and non-VH registered aircraft) inside Australia only.

Source: ATSB (2010a).

TT 8.14a Aviation accident rate and casualty rate, by accident severity—accident rate

Calendar year	Fatal	Non-fatal
	<i>aviation accident rate per 100 000 population</i>	
1971	0.11	1.72
1972	0.17	1.33
1973	0.11	1.68
1974	0.12	1.76
1975	0.16	1.48
1976	0.19	2.03
1977	0.22	1.82
1978	0.24	1.91
1979	0.21	1.96
1980	0.22	1.83
1981	0.18	1.70
1982	0.23	1.47
1983	0.19	1.79
1984	0.21	1.50
1985	0.18	1.34
1986	0.18	1.36
1987	0.15	1.62
1988	0.21	1.75
1989	0.27	1.78
1990	0.26	1.75
1991	0.16	1.68
1992	0.22	1.53
1993	0.17	1.60
1994	0.20	1.28
1995	0.18	1.30
1996	0.16	1.17
1997	0.14	1.25
1998	0.17	1.05
1999	0.13	0.88
2000	0.13	1.01
2001	0.14	0.87
2002	0.10	0.74
2003	0.10	0.67
2004	0.10	0.71
2005	0.12	0.53
2006	0.12	0.40
2007	0.14	0.63
2008	0.13	0.75
2009	0.10	0.65

Note: Includes civilian aviation accidents (VH and non-VH registered aircraft) inside Australia only.
Source: ABS (2010f), ATSB (2010a).

TT 8.14b Aviation accident rate and casualty rate, by accident severity—casualty rate

Calendar year	Fatalities	Non-fatal injuries
	<i>aviation casualty rate per 100 000 population</i>	
1971	0.27	0.18
1972	0.39	0.15
1973	0.19	0.17
1974	0.28	0.17
1975	0.35	0.19
1976	0.41	0.35
1977	0.39	0.36
1978	0.45	0.34
1979	0.31	0.34
1980	0.44	0.28
1981	0.39	0.33
1982	0.40	0.28
1983	0.35	0.29
1984	0.31	0.24
1985	0.34	0.23
1986	0.34	0.22
1987	0.24	0.36
1988	0.41	0.27
1989	0.49	0.45
1990	0.47	0.36
1991	0.30	0.23
1992	0.36	0.22
1993	0.32	0.33
1994	0.35	0.17
1995	0.28	0.27
1996	0.28	0.19
1997	0.21	0.16
1998	0.30	0.12
1999	0.24	0.11
2000	0.23	0.22
2001	0.24	0.16
2002	0.17	0.13
2003	0.22	0.14
2004	0.17	0.11
2005	0.22	0.03
2006	0.19	0.07
2007	0.21	0.08
2008	0.20	0.20
2009	0.11	0.09

Note: Includes civilian aviation accidents (VH and non-VH registered aircraft) inside Australia only.

Source: ABS (2010), ATSB (2010a).

TT 8.15a Number of aviation accidents and casualties, by state/territory—accidents

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Other ^c	Total
1971	79	27	39	24	47	6	15	2	0	239
1972	45	46	39	20	25	9	15	1	0	200
1973	76	54	37	22	27	10	13	3	0	242
1974	58	52	46	33	40	10	16	1	2	258
1975	68	48	45	24	27	5	9	2	0	228
1976	95	70	47	42	38	8	12	0	0	312
1977	78	67	45	33	41	7	16	3	0	290
1978	78	57	69	29	51	2	20	2	0	308
1979	102	52	62	31	42	4	20	2	0	315
1980	88	43	68	27	48	5	19	2	1	301
1981	68	33	83	35	44	4	14	0	0	281
1982	74	37	73	21	37	3	10	2	1	258
1983	97	36	92	22	33	10	11	4	0	305
1984	83	38	68	20	36	8	13	0	0	266
1985	82	27	64	14	35	8	10	1	0	241
1986	76	47	52	20	29	5	17	1	0	247
1987	91	43	81	23	22	7	22	0	0	289
1988	89	36	103	27	36	6	23	4	0	324
1989	98	45	117	22	28	6	25	5	0	346
1990	122	39	90	16	47	6	23	0	0	343
1991	88	43	90	16	50	6	23	2	1	319
1992	93	47	66	24	47	9	18	1	0	305
1993	92	40	88	23	40	10	19	1	0	313
1994	79	35	71	20	32	3	23	0	0	263
1995	67	31	96	16	40	4	11	2	0	268
1996	66	25	77	15	42	9	9	0	0	243
1997	71	30	74	18	32	5	24	2	0	256
1998	64	25	68	13	33	8	14	3	0	228
1999	47	32	50	18	26	4	11	3	1	192
2000	59	31	63	10	34	2	17	1	0	217
2001	41	24	57	15	35	4	18	2	0	196
2002	51	21	42	9	25	6	10	0	0	164
2003	45	22	37	8	21	5	12	4	0	154
2004	38	26	55	11	17	5	11	0	0	163
2005	45	17	37	10	17	0	7	0	0	133
2006	30	15	27	3	15	5	10	1	0	106
2007	42	28	40	10	22	5	14	0	1	162
2008	54	27	47	12	32	4	12	0	0	188
2009	47	26	45	6	24	6	10	1	1	166

^c Other refers to accidents that occur in Australian waters beyond 200 nm off the Australian coastline up to mid-2006. From 2006, 'other' refers to accidents that occur in Australian waters beyond 12 nm off the coastline.

Source: ATSB (2010a).

TT 8.15b Number of aviation accidents and casualties, by state/territory—casualties

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Other ^c	Total
1971	11	5	0	2	17	0	0	0	0	35
1972	10	3	9	14	1	2	13	0	0	52
1973	14	0	1	5	5	1	0	0	0	26
1974	10	6	9	7	3	2	2	0	0	39
1975	11	6	13	5	7	0	6	1	0	49
1976	33	4	9	11	0	1	0	0	0	58
1977	20	6	9	8	4	2	6	0	0	55
1978	12	23	17	4	7	0	2	0	0	65
1979	13	15	6	4	5	0	2	0	0	45
1980	30	16	6	4	8	0	0	0	0	64
1981	14	14	18	2	5	0	5	0	0	58
1982	21	12	23	0	4	0	0	0	0	60
1983	10	8	25	2	6	3	0	0	0	54
1984	15	7	11	4	8	3	0	0	0	48
1985	17	7	12	7	7	0	4	0	0	54
1986	15	12	13	8	5	0	1	0	0	54
1987	13	5	18	1	1	1	0	0	0	39
1988	24	7	21	2	12	0	1	0	0	67
1989	26	6	23	5	2	0	20	0	0	82
1990	29	7	33	3	5	0	3	0	0	80
1991	15	6	15	3	3	4	2	4	0	52
1992	26	10	9	3	8	5	1	1	0	63
1993	21	5	18	2	1	6	1	2	0	56
1994	29	5	20	6	2	0	0	0	0	62
1995	19	8	17	0	0	3	4	0	0	51
1996	15	3	19	1	10	3	0	0	0	51
1997	16	2	10	2	1	1	6	0	0	38
1998	24	4	13	1	8	5	1	0	0	56
1999	11	8	17	6	2	0	1	1	0	46
2000	2	6	21	9	4	0	2	0	0	44
2001	6	5	18	2	8	2	1	4	0	46
2002	11	7	11	0	0	0	5	0	0	34
2003	15	0	13	2	9	4	0	0	0	43
2004	7	13	10	0	2	1	1	0	0	34
2005	12	6	23	2	1	0	1	0	0	45
2006	16	5	14	0	2	0	3	0	0	40
2007	8	12	9	0	8	3	4	0	0	44
2008	16	3	11	1	8	0	4	0	0	43
2009	6	7	5	1	6	0	0	0	0	25

^c Other refers to accidents that occur in Australian waters beyond 200 nm off the Australian coastline up to mid-2006. From 2006, 'other' refers to accidents that occur in Australian waters beyond 12 nm off the coastline.

Source: ATSB (2010a).

TT 8.16a Aviation accident rate and fatality rate, by state/territory—accident rate

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Other ^c	Total
<i>accidents per 100 000 population</i>										
1971	1.67	0.75	2.11	2.00	4.46	1.51	17.50	1.32	0.00	1.83
1972	0.94	1.26	2.05	1.65	2.31	2.25	16.29	0.63	0.00	1.50
1973	1.57	1.46	1.90	1.79	2.45	2.48	13.38	1.73	0.00	1.79
1974	1.19	1.38	2.29	2.66	3.55	2.46	15.55	0.54	0.01	1.88
1975	1.38	1.27	2.19	1.90	2.34	1.22	9.69	1.00	0.01	1.65
1976	1.92	1.84	2.25	3.30	3.22	1.94	12.22	0.00	0.01	2.23
1977	1.56	1.75	2.11	2.57	3.40	1.69	15.39	1.40	0.00	2.04
1978	1.54	1.48	3.18	2.24	4.15	0.48	18.19	0.92	0.00	2.14
1979	2.00	1.34	2.80	2.38	3.37	0.95	17.52	0.91	0.00	2.17
1980	1.70	1.10	3.00	2.06	3.78	1.18	16.07	0.89	0.01	2.06
1981	1.30	0.84	3.54	2.65	3.38	0.94	11.42	0.00	0.00	1.88
1982	1.40	0.93	3.01	1.58	2.76	0.70	7.67	0.86	0.01	1.70
1983	1.81	0.89	3.71	1.63	2.41	2.31	8.09	1.67	0.01	1.99
1984	1.54	0.93	2.69	1.47	2.59	1.83	9.15	0.00	0.00	1.71
1985	1.50	0.66	2.49	1.02	2.47	1.81	6.73	0.40	0.01	1.53
1986	1.37	1.13	1.98	1.45	1.99	1.12	11.01	0.39	0.01	1.55
1987	1.62	1.02	3.03	1.65	1.47	1.56	13.91	0.00	0.01	1.78
1988	1.56	0.84	3.76	1.92	2.35	1.33	14.46	1.47	0.01	1.97
1989	1.70	1.04	4.14	1.55	1.77	1.32	15.51	1.81	0.00	2.06
1990	2.09	0.89	3.10	1.12	2.91	1.30	14.05	0.00	0.01	2.02
1991	1.49	0.97	3.04	1.11	3.06	1.29	13.90	0.69	0.01	1.85
1992	1.56	1.05	2.18	1.65	2.83	1.92	10.71	0.34	0.01	1.75
1993	1.53	0.89	2.83	1.57	2.38	2.12	11.13	0.33	0.01	1.78
1994	1.30	0.78	2.23	1.36	1.88	0.63	13.27	0.00	0.02	1.49
1995	1.09	0.69	2.94	1.09	2.31	0.84	6.20	0.66	0.02	1.49
1996	1.06	0.55	2.31	1.02	2.38	1.90	4.95	0.00	0.02	1.34
1997	1.13	0.65	2.18	1.22	1.78	1.06	12.84	0.65	0.01	1.39
1998	1.01	0.54	1.97	0.87	1.81	1.70	7.37	0.97	0.01	1.23
1999	0.73	0.68	1.43	1.20	1.41	0.85	5.71	0.96	0.01	1.02
2000	0.91	0.65	1.77	0.66	1.81	0.42	8.69	0.32	0.03	1.16
2001	0.62	0.50	1.57	0.99	1.84	0.85	9.10	0.63	0.02	1.03
2002	0.77	0.43	1.13	0.59	1.30	1.27	5.01	0.00	0.00	0.83
2003	0.67	0.45	0.97	0.52	1.08	1.05	6.00	1.23	0.01	0.78
2004	0.57	0.52	1.41	0.71	0.86	1.04	5.44	0.00	0.03	0.84
2005	0.67	0.34	0.93	0.64	0.84	0.00	3.39	0.00	0.02	0.67
2006	0.44	0.29	0.66	0.19	0.73	1.02	4.75	0.30	0.01	0.53
2007	0.61	0.54	0.95	0.63	1.04	1.01	6.52	0.00	0.02	0.79
2008	0.77	0.51	1.09	0.75	1.47	0.80	5.44	0.00	0.01	0.88
2009	0.66	0.48	1.02	0.37	1.07	1.19	4.43	0.28	0.01	0.76

^c Other refers to accidents that occur in Australian waters beyond 200 nm off the Australian coastline up to mid-2006. From 2006, 'other' refers to accidents that occur in Australian waters beyond 12 nm off the coastline.

Source: ABS (2010I), ATSB (2010a).

TT 8.16b Aviation accident rate and fatality rate, by state/territory—fatality rate

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Other ^c	Total
<i>fatalities per 100 000 population</i>										
1971	0.23	0.14	0.00	0.17	1.61	0.00	0.00	0.00	0.00	0.27
1972	0.21	0.08	0.47	1.15	0.09	0.50	14.12	0.00	0.00	0.39
1973	0.29	0.00	0.05	0.41	0.45	0.25	0.00	0.00	0.00	0.19
1974	0.20	0.16	0.45	0.56	0.27	0.49	1.94	0.00	0.00	0.28
1975	0.22	0.16	0.63	0.40	0.61	0.00	6.46	0.50	0.00	0.35
1976	0.67	0.10	0.43	0.86	0.00	0.24	0.00	0.00	0.03	0.44
1977	0.40	0.16	0.42	0.62	0.33	0.48	5.77	0.00	0.00	0.39
1978	0.24	0.60	0.78	0.31	0.57	0.00	1.82	0.00	0.00	0.45
1979	0.25	0.39	0.27	0.31	0.40	0.00	1.75	0.00	0.00	0.31
1980	0.58	0.41	0.26	0.31	0.63	0.00	0.00	0.00	0.03	0.46
1981	0.27	0.35	0.77	0.15	0.38	0.00	4.08	0.00	0.00	0.39
1982	0.40	0.30	0.95	0.00	0.30	0.00	0.00	0.00	0.00	0.40
1983	0.19	0.20	1.01	0.15	0.44	0.69	0.00	0.00	0.04	0.39
1984	0.28	0.17	0.44	0.29	0.58	0.69	0.00	0.00	0.00	0.31
1985	0.31	0.17	0.47	0.51	0.49	0.00	2.69	0.00	0.00	0.34
1986	0.27	0.29	0.50	0.58	0.34	0.00	0.65	0.00	0.00	0.34
1987	0.23	0.12	0.67	0.07	0.07	0.22	0.00	0.00	0.00	0.24
1988	0.42	0.16	0.77	0.14	0.78	0.00	0.63	0.00	0.00	0.41
1989	0.45	0.14	0.81	0.35	0.13	0.00	12.41	0.00	0.00	0.49
1990	0.50	0.16	1.14	0.21	0.31	0.00	1.83	0.00	0.00	0.47
1991	0.25	0.14	0.51	0.21	0.18	0.86	1.21	1.38	0.00	0.30
1992	0.44	0.22	0.30	0.21	0.48	1.06	0.59	0.34	0.00	0.36
1993	0.35	0.11	0.58	0.14	0.06	1.27	0.59	0.67	0.04	0.36
1994	0.48	0.11	0.63	0.41	0.12	0.00	0.00	0.00	0.00	0.35
1995	0.31	0.18	0.52	0.00	0.00	0.63	2.25	0.00	0.00	0.28
1996	0.24	0.07	0.57	0.07	0.57	0.63	0.00	0.00	0.00	0.28
1997	0.25	0.04	0.29	0.14	0.06	0.21	3.21	0.00	0.00	0.21
1998	0.38	0.09	0.38	0.07	0.44	1.06	0.53	0.00	0.00	0.30
1999	0.17	0.17	0.49	0.40	0.11	0.00	0.52	0.32	0.00	0.24
2000	0.03	0.13	0.59	0.60	0.21	0.00	1.02	0.00	0.00	0.23
2001	0.09	0.10	0.50	0.13	0.42	0.42	0.51	1.25	0.01	0.24
2002	0.17	0.14	0.30	0.00	0.00	0.00	2.51	0.00	0.00	0.17
2003	0.22	0.00	0.34	0.13	0.46	0.84	0.00	0.00	0.04	0.25
2004	0.10	0.26	0.26	0.00	0.10	0.21	0.49	0.00	0.04	0.21
2005	0.18	0.12	0.58	0.13	0.05	0.00	0.48	0.00	0.02	0.24
2006	0.23	0.10	0.34	0.00	0.10	0.00	1.42	0.00	0.03	0.22
2007	0.12	0.23	0.21	0.00	0.38	0.61	1.86	0.00	0.01	0.22
2008	0.23	0.06	0.26	0.06	0.37	0.00	1.81	0.00	0.00	0.20
2009	0.08	0.13	0.11	0.06	0.27	0.00	0.00	0.00	0.00	0.11

^c Other refers to accidents that occur in Australian waters beyond 200 nm off the Australian coastline up to mid-2006. From 2006, 'other' refers to accidents that occur in Australian waters beyond 12 nm off the coastline.

Source: ABS (2010), ATSB (2010a).

CHAPTER 9

Energy and the environment

TT 9.1 Total transport petroleum sales, by fuel type

Financial year	Automotive gasoline	Automotive LPG	Automotive diesel	Industrial & marine diesel	Aviation gasoline	Aviation turbine fuel
<i>megalitres</i>						
1977–78	14 411.3					
1978–79	14 843.9					
1979–80	14 735.7					
1980–81	14 801.9					
1981–82	15 224.8		7 841.4			
1982–83	14 983.4		7 456.5			
1983–84	15 336.5		7 933.8			
1984–85	15 577.6		8 152.4			
1985–86	15 870.0		8 297.2			
1986–87	16 006.0		8 695.8			
1987–88	16 567.0		9 093.8			2 788.2
1988–89	17 079.0		9 756.1			2 981.1
1989–90	17 348.0		10 087.0			2 843.0
1990–91	16 874.0		9 795.0			3 229.0
1991–92	16 963.0		9 984.4			3 459.1
1992–93	17 293.0		10 321.4			3 684.6
1993–94	17 506.7		10 721.3		76.5	3 823.1
1994–95	17 751.5		11 174.7		104.5	4 301.8
1995–96	17 885.8		11 923.2		101.6	4 664.9
1996–97	17 889.0		12 315.8		102.3	4 847.8
1997–98	17 912.7		12 557.4		104.1	4 863.0
1998–99	18 202.1		12 823.2		105.9	4 793.8
1999–00	18 476.6	1 902.9	13 245.1	17.7	103.3	5 022.8
2000–01	18 167.6	2 221.4	12 952.4	22.1	101.4	5 318.5
2001–02	18 668.8	2 422.2	13 441.2	45.8	96.5	4 602.6
2002–03	18 872.5	2 416.3	13 888.0	18.1	90.2	4 249.7
2003–04	19 962.0	2 546.8	14 461.5	17.0	89.9	4 328.8
2004–05	19 875.7	2 338.8	15 185.0	14.7	90.7	4 729.9
2005–06	19 047.9	2 563.7	15 803.6	19.4	86.4	5 359.4
2006–07	19 250.7	2 335.3	17 027.6	15.2	89.5	5 837.0
2007–08	19 234.2	2 240.5	18 244.9	11.5	87.8	6 069.5
2008–09	18 734.2	2 253.1	18 587.0	16.2	96.1	6 316.7
2009–10	18 643.6	2 083.4	19 043.9	25.8	79.7	6 675.2

Note: Data are not readily available for missing years.

Source: RET (2010).

TT 9.2a Australian petroleum production, imports and exports—production

Financial year	Automotive gasoline	LPG 27	Automotive diesel	Industrial & marine diesel	Aviation gasoline	Aviation turbine fuel
<i>megalitres</i>						
1999–00	18 652.4	1 674.4	12 736.8	59.6	158.1	5 538.7
2000–01	17 886.9	1 794.7	13 212.1	98.1	137.5	5 836.3
2001–02	17 999.6	1 718.2	13 064.1	105.4	146.8	5 389.7
2002–03	17 984.1	1 657.2	13 334.8	116.7	134.1	5 148.9
2003–04	17 375.3	1 061.8	12 544.1	84.1	113.8	4 964.3
2004–05	17 668.4	974.4	12 661.1	22.0	139.7	5 275.0
2005–06	16 527.6	1 124.7	10 153.7	30.8	119.5	5 215.5
2006–07	17 732.1	1 386.7	11 055.3	20.7	119.3	5 332.1
2007–08	17 079.5	1 514.9	12 176.6	3.4	119.0	5 181.8
2008–09	17 159.5	1 476.9	12 230.9	13.0	104.6	5 494.3
2009–10	16 771.1	1 203.6	11 719.6	3.0	103.6	5 340.7

27 See End Notes.

Source: RET (2010).

TT 9.2b Australian petroleum production, imports and exports—imports²⁸

Financial year	Automotive gasoline	LPG 27	Automotive diesel	Industrial & marine diesel	Aviation gasoline	Aviation turbine fuel
<i>megalitres</i>						
1999–00	1 065.1	518.9	1 399.7		0.0	170.6
2000–01	1 188.7	633.4	1 129.0		0.0	387.4
2001–02	1 436.2	588.0	1 280.3		0.0	224.7
2002–03	1 686.1	299.0	1 645.6		55.8	440.8
2003–04	3 213.2	789.4	3 383.0		203.8	725.9
2004–05	3 166.0	540.0	3 965.1		47.0	986.9
2005–06	3 696.0	631.5	6 127.1		10.5	827.5
2006–07	2 815.5	749.3	5 931.5		0.8	1,089.4
2007–08	3 533.1	964.8	7 476.2		0.1	1,845.5
2008–09	4 087.5	1 003.8	8 245.9		0.0	2,026.5
2009–10	4 372.1	1 135.9	8 025.0		0.0	2 131.0

27, 28 See End Notes.

Note: Data are not separately available for missing years.

Source: RET (2010).

TT 9.2c Australian petroleum production, imports and exports—exports

Financial year	Automotive gasoline	LPG 27	Automotive diesel	Industrial & marine diesel	Aviation gasoline	Aviation turbine fuel
<i>megalitres</i>						
1999–00	1 372.6	2 858.9	1 018.1	51.3	78.9	578.3
2000–01	1 286.0	2 784.6	1 150.1	119.5	28.5	755.5
2001–02	1 184.8	3 211.2	886.2	60.0	73.8	549.0
2002–03	1 052.6	3 195.2	1 044.1	0.0	52.5	651.7
2003–04	755.5	2 936.9	840.7	0.0	29.6	518.7
2004–05	770.6	2 846.6	293.9	0.0	35.7	227.0
2005–06	629.5	2 799.9	418.8	0.0	174.4	126.5
2006–07	763.5	2 850.9	283.6	0.0	97.0	121.7
2007–08	628.3	2 589.0	461.7	0.0	96.4	149.5
2008–09	243.8	2 499.7	357.2	0.0	56.2	112.7
2009–10	208.3	2 729.6	364.6	0.0	54.6	106.4

27 See End Notes.

Source: RET (2010).

TT 9.3 Average retail petrol prices in Australia, by capital city

Financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
<i>cents per litre</i>								
1994–95	67.4	68.3	60.3	69.3	70.3	73.1	72.9	71.3
1995–96	71.0	71.2	62.5	72.4	74.0	75.4	76.0	74.5
1996–97	73.2	72.0	64.4	73.3	74.4	76.5	79.1	76.3
1997–98	72.0	70.5	63.3	71.2	72.7	77.6	79.9	73.9
1998–99	68.9	66.5	59.4	67.6	68.9	74.1	75.7	71.6
1999–00	80.3	77.4	70.9	79.0	79.8	85.8	87.1	83.2
2000–01	93.5	92.0	83.1	92.9	93.0	96.6	101.6	96.2
2001–02	85.0	83.8	77.2	84.7	85.1	88.7	92.7	87.4
2002–03	90.5	88.8	81.4	89.7	91.7	95.4	97.1	93.0
2003–04	92.8	91.0	84.1	92.7	92.3	98.2	99.6	95.0
2004–05	104.2	101.0	94.5	103.3	101.0	109.6	109.9	104.4
2005–06	123.1	122.5	115.2	123.7	121.3	129.8	129.9	126.3
2006–07	123.2	123.6	116.5	122.2	122.4	126.7	133.2	126.8
2007–08	136.5	136.5	128.5	135.3	135.3	140.5	146.3	138.5
2008–09	128.5	129.8	122.0	128.3	125.8	134.5	140.5	130.8
2009–10	123.5	125.0	126.0	123.0	123.0	130.5	133.3	127.5

Source: ABS (2010d).

TT 9.4 Transport direct greenhouse gas (carbon dioxide equivalent) emissions, by transport mode

Financial year	Motor vehicles	Rail (excl electric)	Maritime	Aviation	Total
<i>gigagrams of CO₂ equivalent</i>					
1974–75	33 033	1 910	3 437	2 791	41 200
1975–76	34 571	1 911	3 284	2 615	42 412
1976–77	36 608	1 950	3 584	2 484	44 658
1977–78	38 161	1 977	3 940	2 742	46 853
1978–79	39 955	2 023	3 574	2 648	48 234
1979–80	40 687	2 023	3 750	2 765	49 258
1980–81	41 559	2 003	3 789	2 748	50 134
1981–82	43 542	1 959	3 258	3 124	51 919
1982–83	43 063	1 799	2 970	3 010	50 877
1983–84	45 108	1 956	3 028	2 936	53 063
1984–85	46 871	2 040	2 880	3 017	54 844
1985–86	48 018	1 985	2 953	3 244	56 241
1986–87	48 913	2 016	2 923	3 331	57 228
1987–88	51 434	1 985	2 894	3 600	59 963
1988–89	53 446	1 820	2 655	3 536	61 513
1989–90	54 735	1 753	2 383	2 833	61 764
1990–91	53 705	1 745	2 080	3 517	61 106
1991–92	54 413	1 696	2 140	3 817	62 128
1992–93	56 132	1 699	1 950	4 012	63 856
1993–94	57 669	1 800	1 815	4 245	65 595
1994–95	59 929	1 755	2 319	5 003	69 074
1995–96	61 357	1 707	2 442	5 491	71 068
1996–97	62 356	1 739	2 434	5 863	72 464
1997–98	63 399	1 779	2 134	5 318	72 702
1998–99	64 553	1 829	1 983	5 120	73 562
1999–00	65 779	1 884	2 101	5 352	75 194
2000–01	65 268	1 854	2 085	5 963	75 248
2001–02	67 115	1 939	2 184	5 347	76 667
2002–03	68 934	1 991	2 281	5 103	78 394
2003–04	71 831	2 096	2 433	5 337	81 787
2004–05	72 281	2 267	2 579	5 678	82 897
2005–06	72 386	2 274	2 530	6 364	83 649
2006–07	73 635	2 452	2 747	7 015	85 945
2007–08	74 160	2 523	2 806	7 427	87 013
2008–09	73 384	2 585	2 773	7 585	86 426
2009–10	73 724	2 629	2 829	7 792	87 075

Source: BITRE (2009) and BITRE estimates.

TT 9.5 Road transport direct greenhouse gas (carbon dioxide equivalent) emissions, by vehicle type

Financial year	Cars	Light commercial vehicles	Articulated trucks	Rigid and other trucks	Buses	Motor cycles	Total road
<i>gigagrams of CO₂ equivalent</i>							
1989–90	34 880	7 619	5 629	5 099	1 257	251	54 735
1990–91	34 797	7 365	5 544	4 560	1 211	226	53 705
1991–92	35 435	7 590	5 592	4 393	1 177	226	54 413
1992–93	36 580	7 817	6 008	4 332	1 169	226	56 132
1993–94	37 526	8 049	6 187	4 483	1 200	223	57 669
1994–95	38 585	8 518	6 658	4 723	1 224	221	59 929
1995–96	39 075	8 816	7 003	4 999	1 250	214	61 357
1996–97	39 309	8 898	7 312	5 381	1 243	213	62 356
1997–98	39 536	9 310	7 626	5 461	1 261	205	63 399
1998–99	40 233	9 540	7 891	5 428	1 263	197	64 553
1999–00	40 900	9 730	8 148	5 517	1 285	200	65 779
2000–01	40 483	9 811	8 079	5 393	1 295	206	65 268
2001–02	41 435	10 229	8 358	5 587	1 289	218	67 115
2002–03	42 375	10 536	8 668	5 810	1 331	214	68 934
2003–04	44 452	10 880	8 993	5 937	1 343	226	71 831
2004–05	44 311	10 933	9 285	6 157	1 351	243	72 281
2005–06	43 660	11 172	9 513	6 407	1 371	265	72 386
2006–07	43 872	11 588	9 931	6 583	1 366	295	73 635
2007–08	43 604	11 981	10 192	6 667	1 394	322	74 160
2008–09	42 906	11 977	10 127	6 611	1 417	345	73 384
2009–10	42 999	12 065	10 211	6 659	1 424	365	73 724

Source: BITRE (2009) and BITRE estimates.

TT 9.6 Transport direct emissions, by transport mode—carbon dioxide

Financial year	Road vehicles	Rail (excl electric)	Maritime (including small craft)	Domestic aviation	Total (including off-road vehicles)
<i>gigagrams of CO₂</i>					
1989–90	53 587	1 714	2 315	2 803	60 479
1990–91	52 490	1 706	2 013	3 481	59 751
1991–92	53 107	1 659	2 070	3 779	60 676
1992–93	54 716	1 661	1 878	3 972	62 291
1993–94	56 147	1 760	1 742	4 203	63 918
1994–95	58 285	1 716	2 237	4 954	67 260
1995–96	59 616	1 669	2 357	5 438	69 149
1996–97	60 545	1 700	2 346	5 806	70 469
1997–98	61 517	1 740	2 046	5 266	70 642
1998–99	62 591	1 789	1 893	5 070	71 419
1999–00	63 744	1 843	2 006	5 300	72 972
2000–01	63 211	1 813	1 989	5 905	72 997
2001–02	64 980	1 897	2 084	5 295	74 337
2002–03	66 744	1 948	2 175	5 053	76 005
2003–04	69 556	2 050	2 319	5 286	79 301
2004–05	70 030	2 218	2 463	5 623	80 425
2005–06	70 202	2 225	2 416	6 303	81 239
2006–07	71 452	2 399	2 629	6 949	83 524
2007–08	72 003	2 468	2 685	7 359	84 612
2008–09	71 290	2 529	2 651	7 515	84 083
2009–10	71 645	2 572	2 704	7 720	84 742

Source: BITRE (2009) and BITRE estimates.

TT 9.7 Transport direct emissions, by transport mode—methane

Financial year	Road vehicles	Rail (excl electric)	Maritime (including small craft)	Domestic aviation	Total (including off-road vehicles)
<i>gigagrams of methane</i>					
1989–90	23.27	1.24	2.33	0.29	27.13
1990–91	22.90	1.23	2.37	0.25	26.76
1991–92	23.28	1.20	2.50	0.24	27.23
1992–93	23.88	1.20	2.65	0.26	27.99
1993–94	24.23	1.27	2.79	0.26	28.54
1994–95	24.77	1.24	2.97	0.27	29.26
1995–96	24.79	1.21	3.12	0.27	29.39
1996–97	24.64	1.23	3.24	0.28	29.39
1997–98	24.45	1.26	3.34	0.28	29.32
1998–99	24.12	1.29	3.50	0.28	29.19
1999–00	23.66	1.33	3.67	0.28	28.95
2000–01	22.65	1.31	3.75	0.28	28.00
2001–02	22.30	1.37	3.94	0.26	27.88
2002–03	21.84	1.41	4.17	0.25	27.67
2003–04	21.72	1.48	4.47	0.25	27.92
2004–05	20.58	1.60	4.56	0.26	27.00
2005–06	19.07	1.61	4.46	0.26	25.39
2006–07	18.11	1.73	4.54	0.27	24.65
2007–08	16.88	1.78	4.67	0.28	23.62
2008–09	15.53	1.83	4.74	0.29	22.40
2009–10	14.51	1.86	4.84	0.29	21.50

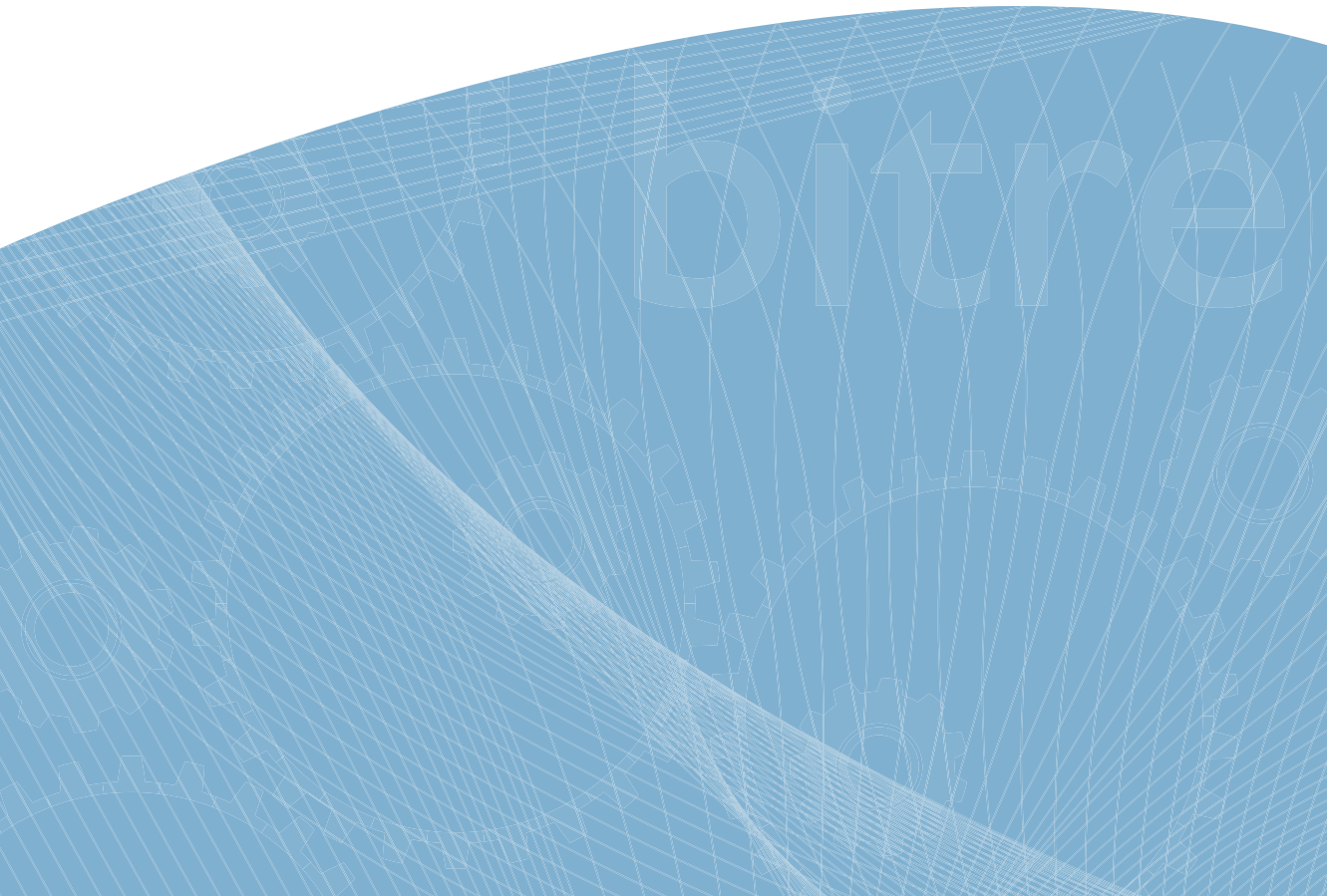
Source: BITRE (2009) and BITRE estimates.

TT 9.8 Transport direct emissions, by transport mode—nitrous oxide

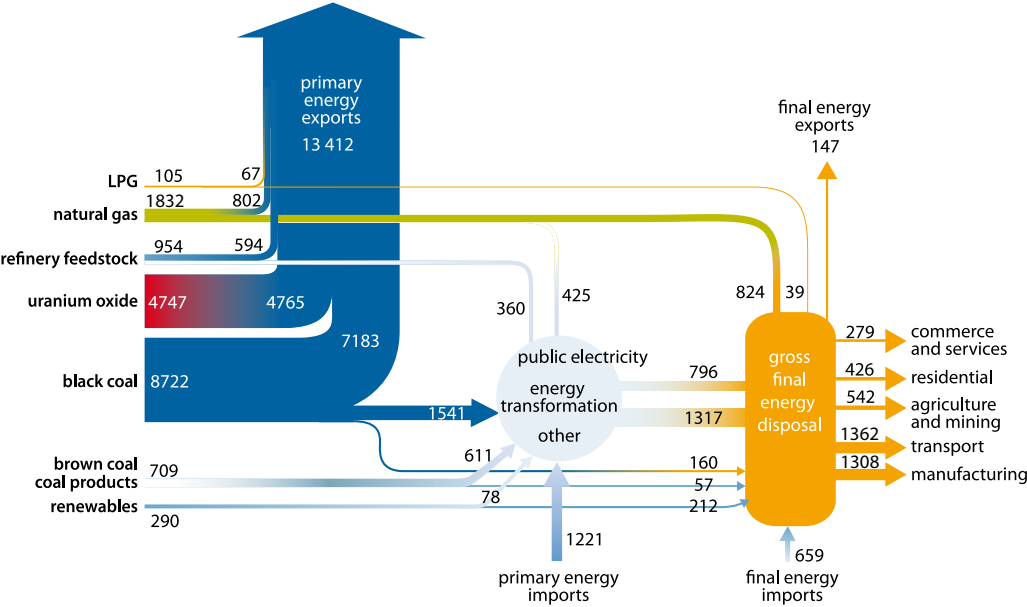
Financial year	Road vehicles	Rail (excl electric)	Maritime (including small craft)	Domestic aviation	Total (including off-road vehicles)
<i>gigagrams of methane</i>					
1989–90	2.13	0.04	0.06	0.08	2.31
1990–91	2.37	0.04	0.05	0.10	2.56
1991–92	2.64	0.04	0.06	0.11	2.84
1992–93	2.95	0.04	0.05	0.11	3.15
1993–94	3.27	0.04	0.05	0.12	3.48
1994–95	3.63	0.04	0.06	0.14	3.87
1995–96	3.94	0.04	0.06	0.15	4.20
1996–97	4.17	0.04	0.06	0.17	4.44
1997–98	4.41	0.04	0.06	0.15	4.66
1998–99	4.70	0.04	0.05	0.14	4.93
1999–00	4.96	0.04	0.06	0.15	5.21
2000–01	5.10	0.04	0.05	0.17	5.37
2001–02	5.38	0.04	0.06	0.15	5.63
2002–03	5.58	0.05	0.06	0.14	5.83
2003–04	5.87	0.05	0.06	0.15	6.13
2004–05	5.87	0.05	0.07	0.16	6.15
2005–06	5.76	0.05	0.07	0.18	6.05
2006–07	5.82	0.06	0.07	0.19	6.14
2007–08	5.82	0.06	0.07	0.20	6.15
2008–09	5.70	0.06	0.07	0.21	6.04
2009–10	5.72	0.06	0.07	0.21	6.07

Source: BITRE (2009) and BITRE estimates.

PART E: Energy



FE I Australian energy flows in petajoules, 2007–08



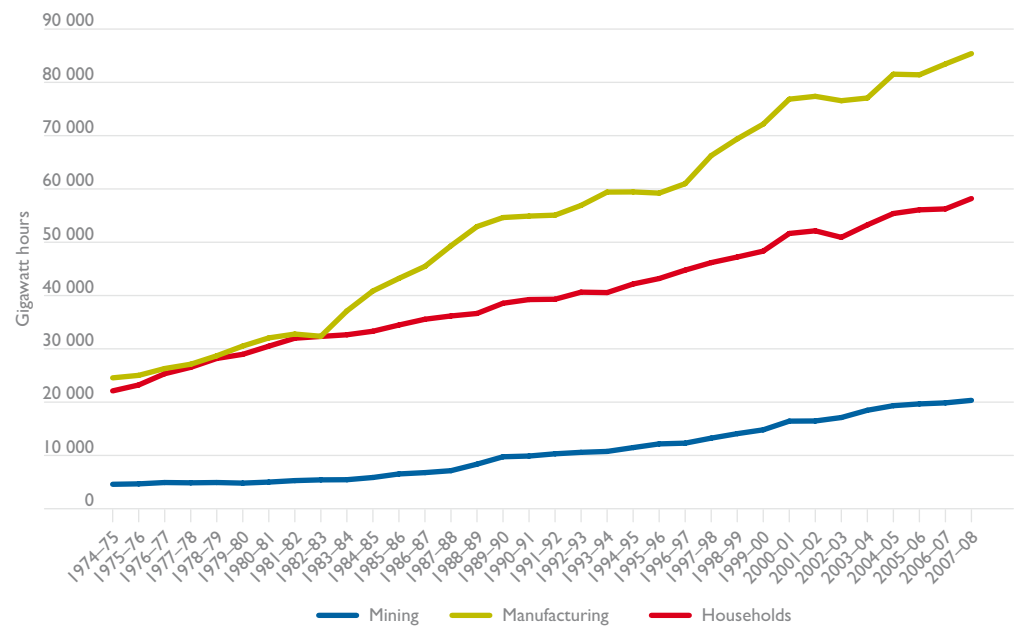
Source: Reproduced with permission from ABARES (2010b).

PART E

Energy

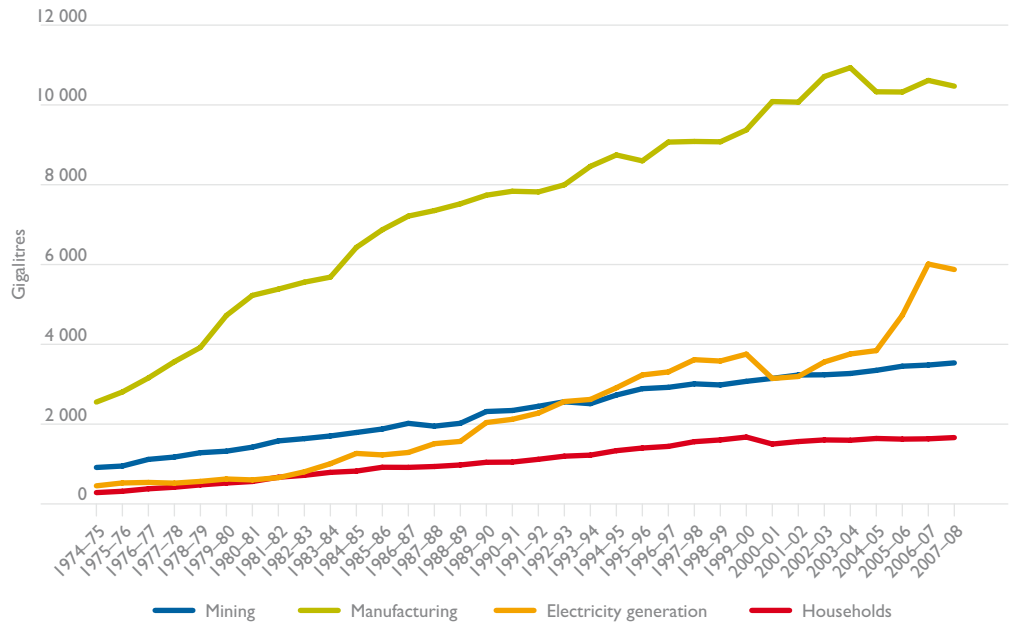
Statistics are provided for the production of energy, the conversion of primary forms of energy into electricity and the distribution of energy through electricity and gas networks.

FE 2 Australian electricity consumption, by broad industry



The three largest groups of electricity consumers are the manufacturing industry, households and the mining industry. The acceleration of electricity consumption by the manufacturing industry is influenced by a rapid increase in consumption by businesses manufacturing basic non-ferrous metals.

FE 3 Australian gas consumption, by broad industry



The consumption of gas by the electricity generation industry increased sharply in 2006–07 and again in 2007–08. The 2006–07 increase reflected a moderate increase in the generation of electricity using gas in several states, particularly Queensland, while the 2007–08 increase reflected a sharp increase in gas consumption by the electricity generation industry in Western Australia.

CHAPTER I

Energy infrastructure

TE I.1a Flow of new infrastructure—value of energy infrastructure engineering construction work done by the private sector for the private sector, adjusted by chain volume index

Financial year	Electricity generation, transmission and distribution	Pipelines	Gas and other hydrocarbons	Total major infrastructure engineering construction	Energy percentage of total
		\$ million			per cent
1986–87	194.7	221.5	762.5	2 883.5	40.88
1987–88	248.6	155.8	1 207.8	3 551.7	45.39
1988–89	201.7	175.0	1 306.3	3 863.0	43.57
1989–90	136.3	154.0	642.7	3 422.7	27.26
1990–91	168.8	121.8	669.9	3 288.2	29.21
1991–92	172.4	171.2	921.7	3 399.8	37.22
1992–93	136.3	323.2	897.0	3 513.7	38.61
1993–94	261.1	240.6	1 099.7	4 352.0	36.80
1994–95	275.6	288.4	947.1	4 183.3	36.12
1995–96	733.7	449.0	993.3	5 190.3	41.92
1996–97	676.3	391.0	667.8	5 063.9	34.26
1997–98	977.3	481.7	742.3	6 349.4	34.67
1998–99	1 192.9	639.3	1 203.1	7 678.5	39.53
1999–00	2 071.4	631.7	794.6	7 657.7	45.68
2000–01	2 160.0	350.5	612.5	6 788.3	46.01
2001–02	1 975.0	729.6	2 434.3	8 954.9	57.39
2002–03	1 870.6	1 288.6	2 625.2	11 449.5	50.52
2003–04	2 023.5	1 908.1	2 607.4	14 903.5	43.87
2004–05	2 767.5	899.0	2 198.7	16 269.0	36.05
2005–06	2 453.4	1 110.7	4 948.4	19 544.4	43.55
2006–07	3 408.9	1 023.5	4 363.6	22 036.7	39.92
2007–08	3 891.3	658.8	6 797.4	25 848.3	43.90
2008–09	5 207.4	885.6	10 021.3	30 371.4	53.06
2009–10	4 370.1	964.1	11 103.6	29 904.4	54.97

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

TE 1.1b Flow of new infrastructure—value of energy infrastructure engineering construction work done by the private sector for the public sector, adjusted by chain volume index

Financial year	Electricity generation, transmission and distribution	Pipelines	Gas and other hydrocarbons	Total major infrastructure engineering construction	Energy percentage of total
		<i>\$ million</i>			<i>per cent</i>
1986–87	1 254.0	43.8	27.1	4 620.2	28.68
1987–88	811.1	31.0	6.9	3 394.9	25.01
1988–89	757.4	71.4	8.9	3 052.6	27.44
1989–90	624.4	147.5	9.4	3 274.2	23.86
1990–91	1 052.1	72.1	78.9	4 081.3	29.48
1991–92	1 172.4	14.0	30.3	4 105.6	29.63
1992–93	978.8	38.4	5.4	4 416.6	23.15
1993–94	906.5	22.9	3.0	5 167.9	18.04
1994–95	693.5	66.8	3.2	4 518.2	16.90
1995–96	466.3	361.4	7.9	4 413.4	18.93
1996–97	800.4	124.5	1.5	4 884.4	18.97
1997–98	608.7	49.4	2.0	5 398.0	12.23
1998–99	381.1	19.1	4.1	5 769.4	7.01
1999–00	407.2	32.0	2.4	6 166.6	7.16
2000–01	357.1	38.7	0.7	5 721.4	6.93
2001–02	496.4	23.0	0.1	5 038.6	10.31
2002–03	588.9	11.4	0.0	5 165.1	11.62
2003–04	360.6	11.5	0.1	5 119.1	7.27
2004–05	618.5	12.3	0.2	6 870.6	9.19
2005–06	847.8	5.1	4.1	7 384.0	11.61
2006–07	546.9	3.7	0.0	7 750.9	7.10
2007–08	440.8	9.6	0.0	11 040.5	4.08
2008–09	645.6	3.3	0.0	13 515.5	4.80
2009–10	905.9	8.7	0.0	13 978.8	6.54

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

TE 1.1c Flow of new infrastructure—value of energy infrastructure engineering construction work done by the public sector, adjusted by chain volume index

Financial year	Electricity generation, transmission and distribution	Pipelines	Gas and other hydrocarbons	Total major infrastructure engineering construction	Energy percentage of total
		<i>\$ million</i>			<i>per cent</i>
1986–87	1 310.2	26.6	0.0	9 290.0	14.39
1987–88	1 219.9	108.4	0.7	8 567.0	15.51
1988–89	1 208.0	110.1	1.0	8 676.8	15.20
1989–90	1 722.8	98.1	3.4	9 931.9	18.37
1990–91	1 414.5	104.5	0.4	9 830.8	15.46
1991–92	1 294.0	72.5	0.5	8 400.5	16.27
1992–93	1 375.2	51.6	0.3	9 038.7	15.79
1993–94	1 282.5	172.6	0.9	8 662.2	16.81
1994–95	1 358.0	139.8	0.3	9 759.6	15.35
1995–96	974.3	145.0	0.0	9 980.7	11.21
1996–97	886.4	31.9	0.0	9 350.6	9.82
1997–98	938.5	53.9	14.0	9 336.9	10.78
1998–99	1 182.0	143.3	110.1	10 136.0	14.20
1999–00	1 581.9	42.7	0.0	11 103.3	14.63
2000–01	1 869.9	35.2	0.0	10 099.3	18.86
2001–02	2 005.2	44.3	0.0	10 043.9	20.41
2002–03	2 139.2	31.9	0.0	9 988.6	21.74
2003–04	2 453.3	27.9	0.0	9 756.0	25.43
2004–05	2 567.8	6.8	0.0	10 175.3	25.30
2005–06	3 495.9	132.6	0.0	12 421.8	29.21
2006–07	4 238.8	217.5	0.0	11 419.3	39.02
2007–08	4 675.5	31.8	0.0	11 065.5	42.54
2008–09	5 599.6	7.3	0.0	12 796.0	43.82
2009–10	5 966.0	6.2	0.0	14 462.8	41.29

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

TE 1.1d Flow of new infrastructure—total value of energy infrastructure engineering construction work done, adjusted by chain volume index

Financial year	Electricity generation, transmission and distribution	Pipelines	Gas and other hydrocarbons	Total major infrastructure engineering construction	Energy percentage of total
		<i>\$ million</i>			<i>per cent</i>
1986–87	2 758.9	291.9	789.6	16 793.7	22.87
1987–88	2 279.6	295.2	1 215.4	15 513.6	24.43
1988–89	2 167.2	356.5	1 316.3	15 592.4	24.63
1989–90	2 483.5	399.5	655.6	16 628.8	21.28
1990–91	2 635.4	298.4	749.2	17 200.3	21.41
1991–92	2 638.8	257.7	952.5	15 905.9	24.20
1992–93	2 490.3	413.2	902.8	16 969.0	22.43
1993–94	2 450.1	436.1	1 103.7	18 182.1	21.94
1994–95	2 327.1	495.0	950.6	18 461.2	20.44
1995–96	2 174.4	955.4	1 001.2	19 584.4	21.09
1996–97	2 363.1	547.5	669.2	19 298.9	18.55
1997–98	2 524.5	585.0	758.9	21 084.3	18.35
1998–99	2 756.0	801.7	1 321.2	23 583.9	20.69
1999–00	4 060.5	706.4	797.0	24 927.6	22.32
2000–01	4 387.0	424.5	613.2	22 608.9	23.99
2001–02	4 476.5	796.9	2 434.5	24 037.5	32.07
2002–03	4 598.7	1 331.9	2 625.2	26 603.2	32.16
2003–04	4 837.3	1 947.5	2 607.4	29 778.5	31.54
2004–05	5 953.8	918.2	2 198.9	33 315.0	27.23
2005–06	6 797.1	1 248.4	4 952.5	39 350.2	33.03
2006–07	8 194.5	1 244.7	4 363.6	41 207.0	33.50
2007–08	9 007.6	700.3	6 797.4	47 954.3	34.42
2008–09	11 452.6	896.2	10 021.3	56 682.9	39.47
2009–10	11 242.1	979.0	11 103.6	58 346.0	39.98

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

TE 1.2a Length of energy transmission networks—electricity transmission networks—overhead lines

End of financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Snowy Mountains Hydro Electric Authority
<i>circuit kilometres</i>									
1978–79	198 652	115 947	105 033	64 606	52 029	20 925	1 574	2 276	518
1979–80	203 846	117 103	110 057	65 573	57 787	21 276	1 663	2 316	518
1980–81	202 814	119 125	109 362	66 235	60 120	21 863	1 716	2 349	518
1981–82	211 235	120 305	113 637	66 882	62 379	22 175	2 092	2 452	518
1982–83	210 619	120 493	121 374	67 568	64 773	22 175	2 135	2 491	518
1983–84	213 987	121 805	126 237	68 245	66 501	23 016	2 484	2 540	518
1984–85	214 657	122 784	131 949	69 271	68 528	22 761	2 992	2 405	510
1985–86	235 346	124 089	137 527	69 646	70 706	23 277	2 992	2 543	510
1986–87	237 065	127 455	143 012	69 829	71 199	23 764	3 301	2 548	510
1987–88	239 878	128 709	149 643	70 094	71 642	24 153	3 349	2 605	510
1988–89	243 437	130 728	155 246	70 815	71 801	24 619	2 341	2 639	529
1989–90	241 851	147 892	160 962	71 416	88 615	25 400	3 408	2 627	529
1990–91	243 561	129 609	159 807	71 786	89 965	25 577	3 715	2 703	522
1991–92	246 283	121 509	162 503	71 873	91 849	25 464	3 925	2 708	522
1992–93	247 086	123 543	163 945	72 357	92 172	25 736	4 157	2 710	527
1993–94	254 487	124 224	166 113	81 557	74 896	25 947	4 861	2 717	425
1994–95									
1995–96									
1996–97									
1997–98	256 859	135 001	176 468	^a 69 560	80 075	26 239	5 435		
1998–99	257 032	135 348	174 997	71 334	81 898	27 787	5 714		
1999–00	268 816	138 050	182 002	71 294	^b 99 302	27 095	5 255		
2000–01	268 821	139 125	182 780	72 382	79 743	27 027	5 331		
2001–02	268 117	138 268	182 818	73 962	80 866	27 014	5 614		
2002–03	261 285	126 929	184 358	74 104	81 269	28 519	5 413		
2003–04	261 184	142 417	192 318	74 482	81 454	26 054	5 236		
2004–05	261 031	129 257	186 838	75 092	80 823	26 139	5 427		
2005–06	268 187	129 445	187 126	75 548	78 349	26 966	5 422		
2006–07	270 727	129 022	189 776	76 720	83 552	26 065	5 521		
2007–08	268 147	129 582	190 688	76 558	83 485	25 834	5 622		
2008–09	268 186	130 033	192 018	76 725	82 183	25 596	5 994		

a Measures of circuit kilometres for South Australia were recalculated in 1997–98 due to a field audit. Measures from 1997–98 onwards should not be compared with earlier estimates.

b Prior to 1999–2000, Western Australian estimates for circuit kilometres were compiled using a different methodology and should not be compared with later results.

Note: Data are not readily available for missing years.

Source: ESAA (2005) and ESAA updates.

TE 1.2b Length of energy transmission networks—electricity transmission networks—underground cables

End of financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Snowy Mountains Hydro Electric Authority
<i>circuit kilometres</i>									
1978–79	8 934	4 907	3 071	2 580	481	979	194	660	0
1979–80	9 729	4 918	3 318	2 858	579	1 039	245	744	0
1980–81	10 182	5 109	3 393	2 984	685	1 072	270	805	0
1981–82	12 850	5 271	3 702	3 199	843	1 111	333	908	0
1982–83	11 720	5 418	3 986	3 336	966	1 199	568	984	0
1983–84	12 299	5 613	4 244	3 640	1 081	1 058	702	1 029	0
1984–85	12 889	5 729	4 531	4 167	1 252	1 188	1 205	1 146	0
1985–86	15 977	6 162	4 837	4 822	1 478	1 246	1 205	1 232	0
1986–87	16 896	6 507	5 116	5 372	1 684	1 304	983	1 336	0
1987–88	17 504	7 010	5 305	5 795	1 872	1 360	993	1 382	0
1988–89	18 867	7 904	5 552	6 360	1 872	1 419	427	1 443	0
1989–90	19 572	8 749	5 877	6 824	2 552	1 470	1 059	1 528	0
1990–91	20 497	6 399	6 175	7 339	2 702	1 508	692	1 595	0
1991–92	21 324	5 792	6 436	7 700	2 772	1 534	724	1 721	3
1992–93	21 257	5 669	6 829	7 963	2 830	1 596	776	1 829	3
1993–94	23 210	5 764	7 238	7 954	4 541	1 627	825	1 920	4
1994–95									
1995–96									
1996–97									
1997–98	23 989	8 282	10 874	^a 6 443	6 798	1 655	1 079		
1998–99	25 587	14 387	8 572	6 858	7 264	1 741	2 000		
1999–00	26 649	15 622	9 615	7 382	^b 11 855	1 548	2 251		
2000–01	28 770	16 659	12 390	8 243	9 596	1 578	2 315		
2001–02	29 486	16 625	14 668	9 206	10 865	1 583	2 315		
2002–03	29 068	15 388	16 763	10 178	10 923	1 622	2 332		
2003–04	29 545	18 712	16 370	10 891	11 952	1 636	2 284		
2004–05	29 101	15 758	15 282	11 193	12 724	1 651	2 295		
2005–06	30 567	16 824	16 211	12 217	14 233	1 819	2 290		
2006–07	32 194	16 960	18 475	14 311	16 420	1 980	2 385		
2007–08	35 546	16 883	19 666	14 850	17 425	2 043	2 405		
2008–09	36 439	17 471	21 395	15 500	18 174	2 129	2 597		

a Measures of circuit kilometres for South Australia were recalculated in 1997–98 due to a field audit. Measures from 1997–98 onwards should not be compared with earlier estimates.

b Prior to 1999–2000, Western Australian estimates for circuit kilometres were compiled using a different methodology and should not be compared with later results.

Note: Data are not readily available for missing years.

Source: ESAA (2005) and ESAA updates.

TE I.3a Infrastructure capacity—generation capacity, by type of plant— New South Wales

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photo-voltaic	Total
<i>megawatts</i>									
1975–76	140		6 074	45	24	0	0		6 283
1976–77	290		6 089	50	24	0	0		6 453
1977–78	370		6 899	49	24	0	0		7 343
1978–79	370		7 359	52	24	0	0		7 805
1979–80	370		7 345	48	24	0	0		7 788
1980–81	370		7 846	50	24	0	0		8 290
1981–82	370		8 506	50	319	0	0		9 245
1982–83	370		9 150	44	319	0	0		9 883
1983–84	370		10 470	44	319	0	0		11 204
1984–85	370		10 905	44	319	0	0		11 639
1985–86	370		10 826	43	319	0	0		11 558
1986–87	370		11 459	41	269	0	0		12 138
1987–88	345		11 496	37	295	0	0		12 172
1988–89	345		11 336	38	295	0	0		12 014
1989–90	345		10 775	28	295	0	0		11 443
1990–91	345		10 175	1	295	0	0		10 816
1991–92	345		10 215	1	295	0	0		10 856
1992–93	345		10 875	1	295	0	0		11 516
1993–94	345		11 535	1	295	0	0		12 176
1994–95									12 177
1995–96									12 177
1996–97									12 201
1997–98	120	240	11 520	0	295	0	0		12 175
1998–99 ^c	25	240	11 520	0	250	162			12 197
1999–00	25	240	11 520	0	146	162			12 093
2000–01	25	240	11 670	0	100	162			12 197
2001–02	25	240	11 670	0	50	162			12 147
2002–03	29	240	11 750	0	50	162	0		12 231
2003–04	^d 109	240	11 670	0	50	160	0		12 229
2004–05	109	240	11 670	0	50	160	0		12 229
2005–06	109	240	11 670	0	50	160	0		12 229
2006–07	109	240	11 730	0	50	160	0	0	12 289
2007–08	109	240	11 730	0	50	160	0	0	12 289

^c From 1998–99, non-schedule small hydro plants are excluded from estimates.

^d From 2003–04, generation capacity of Blowering is included in NSW hydro figures, where previously they were shown in Snowy Mountains Hydro Electric Authority.

Note: Data are not readily available for missing years.

Source: ESAA (2005) and ESAA updates.

TE 1.3b Infrastructure capacity—generation capacity, by type of plant—Victoria

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photo-voltaic	Total
<i>megawatts</i>									
1975–76	319		3 342	0	0	0	0		3 661
1976–77	319		3 342	0	0	0	0		3 661
1977–78	319		3 342	0	0	0	0		3 661
1978–79	319		3 317	0	225	0	0		3 861
1979–80	319		3 317	0	465	0	0		4 101
1980–81	469		3 749	0	465	0	0		4 683
1981–82	469		4 301	0	465	0	0		5 235
1982–83	469		4 301	0	465	0	0		5 235
1983–84	469		4 801	0	465	0	0		5 735
1984–85	469		4 560	0	465	0	0		5 494
1985–86	469		4 960	0	465	0	0		5 894
1986–87	469		5 460	0	465	0	0		6 394
1987–88	469		5 460	0	465	0	0		6 394
1988–89	469		5 720	0	465	0	0		6 654
1989–90	469		5 720	0	465	0	0		6 654
1990–91	469		5 720	0	465	0	0		6 654
1991–92	469		5 720	0	465	0	0		6 654
1992–93	469		5 720	0	465	0	0		6 654
1993–94	469		6 050	0	466	0	0		6 985
1994–95									7 155
1995–96									7 155
1996–97									7 673
1997–98	479	0	6 881	0	295	0	0		7 826
1998–99 ^c	453	0	6 891	0	466	0			7 810
1999–00	453	0	6 905	0	466	0			7 824
2000–01	453	0	6 905	0	506	0			7 864
2001–02	453	0	6 905	0	979	0			8 337
2002–03	490	0	6 950	0	1 001	0	0		8 441
2003–04	511	0	7 015	0	1 001	0	0		8 527
2004–05	511	0	7 065	0	1 001	0	0		8 577
2005–06	526	0	7 065	0	1 001	0	0		8 592
2006–07	526	0	7 065	0	1 321	0	0	0	8 912
2007–08	526	0	7 065	0	1 321	0	0	0	8 912

^c From 1998–99, non-schedule small hydro plants are excluded from estimates.

Note: Data are not readily available for missing years.

Source: ESAA (2005) and ESAA updates.

TE 1.3c Infrastructure capacity—generation capacity, by type of plant—Queensland^e

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photo-voltaic	Total
<i>megawatts</i>									
1975–76	132		1 789	38	132	0	0		2 091
1976–77	132		1 999	52	163	0	0		2 345
1977–78	132		2 511	48	163	0	0		2 854
1978–79	132		2 734	48	163	0	0		3 076
1979–80	132		2 696	49	163	0	0		3 040
1980–81	132		2 971	48	163	0	0		3 314
1981–82	132		3 246	50	163	0	0		3 591
1982–83	132		3 246	58	178	0	0		3 614
1983–84	382		3 596	60	178	0	0		4 216
1984–85	632		3 946	60	178	0	0		4 816
1985–86	632		3 906	60	178	0	0		4 776
1986–87	632		3 752	59	178	0	0		4 621
1987–88	632		4 042	46	178	0	0		4 898
1988–89	632		4 242	41	178	0	0		5 093
1989–90	632		4 242	46	178	0	0		5 098
1990–91	632		4 242	41	178	0	0		5 093
1991–92	632		4 428	47	178	0	0		5 285
1992–93	632		4 910	29	178	0	0		5 749
1993–94	632		5 435	28	188	0	0		6 283
1994–95									6 896
1995–96									7 040
1996–97									7 041
1997–98	132	500	6 353	29	250	0	0		7 264
1998–99 ^c	132	500	6 517	0	736	216			8 101
1999–00	139	500	6 517	0	1 025	214			8 395
2000–01	139	500	6 937	0	1 026	214			8 816
2001–02	132	500	8 105	0	1 478	476			10 691
2002–03	132	500	8 394	0	1 201	419	0		10 646
2003–04	132	500	8 464	0	1 223	158	0		10 477
2004–05	144	500	8 187	0	741	840	0		10 412
2005–06	144	500	8 187	0	741	840	0		10 412
2006–07	144	500	8 187	0	1 245	840	0	0	10 916
2007–08	144	500	8 937	0	1 245	840	0	0	11 666

^c From 1998–99, non-schedule small hydro plants are excluded from estimates.

^e Prior to 2003–04, Queensland generation capacity did not include generating capacity at Mt Isa.

Note: Data are not readily available for missing years.

Source: ESAA (2005) and ESAA updates.

TE 1.3d Infrastructure capacity—generation capacity, by type of plant—South Australia

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photo-voltaic	Total
<i>megawatts</i>									
1975–76	0		1 077	15	156	0	0		1 248
1976–77	0		1 455	16	156	0	0		1 627
1977–78	0		1 455	13	156	0	0		1 624
1978–79	0		1 455	12	231	0	0		1 698
1979–80	0		1 655	13	231	0	0		1 899
1980–81	0		1 855	14	231	0	0		2 100
1981–82	0		1 855	16	231	0	0		2 102
1982–83	0		1 855	17	231	0	0		2 103
1983–84	0		1 855	17	321	0	0		2 193
1984–85	0		2 105	17	321	0	0		2 443
1985–86	0		2 355	17	321	0	0		2 693
1986–87	0		2 355	18	321	0	0		2 694
1987–88	0		2 355	19	321	0	0		2 695
1988–89	0		2 265	19	321	0	0		2 605
1989–90	0		2 025	22	321	0	0		2 368
1990–91	0		2 025	21	321	0	0		2 367
1991–92	0		2 025	21	321	0	0		2 367
1992–93	0		2 025	15	321	0	0		2 361
1993–94	0		1 905	21	321	0	0		2 247
1994–95									2 248
1995–96									2 248
1996–97									2 322
1997–98	0	0	2 080	0	246	0	0		2 326
1999–00	0	0	2 010	0	429	180			2 619
2000–01	0	0	2 040	0	439	658			3 137
2001–02	0	0	2 040	0	759	680			3 479
2002–03	0	0	2 040	0	759	660	0		3 459
2003–04	0	0	2 040	0	718	663	0		3 421
2004–05	0	0	2 050	40	718	663	0		3 471
2005–06	0	0	2 050	40	718	663	0		3 471
2006–07	0	0	2 060	50	718	663	0	0	3 491
2007–08	0	0	2 060	50	718	663	95	0	3 586

Note: Data are not readily available for missing years.

Source: ESAA (2005) and ESAA updates.

TE 1.3e Infrastructure capacity—generation capacity, by type of plant— Western Australia

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photo-voltaic	Total
<i>megawatts</i>									
1975–76	2		1 195	85	40	0	0		1 322
1976–77	2		1 195	111	40	0	0		1 348
1977–78	2		1 195	126	40	0	0		1 363
1978–79	2		1 395	113	40	0	0		1 550
1979–80	2		1 395	128	40	0	0		1 565
1980–81	2		1 595	156	40	0	0		1 793
1981–82	2		1 795	162	40	0	0		1 999
1982–83	2		1 740	169	40	0	0		1 951
1983–84	2		1 740	172	40	0	0		1 954
1984–85	2		1 915	155	60	0	0		2 132
1985–86	2		2 040	162	60	0	0		2 264
1986–87	2		2 040	170	60	0	0		2 272
1987–88	0		2 040	172	60	0	0		2 272
1988–89	0		2 040	180	60	0	0		2 280
1989–90	0		2 040	184	240	0	0		2 464
1990–91	0		2 040	192	312	0	0		2 544
1991–92	2		2 040	181	596	0	0		2 819
1992–93	2		2 040	175	596	0	0		2 813
1993–94	2		2 042	198	712	0	2		2 956
1994–95									2 958
1995–96									2 958
1996–97									3 086
1997–98	2	0	2 040	116	932	0	2		3 092
1998–99 ^c	2	0	2 370	131	806	0			3 308
1999–00	2	0	2 310	130	838	0			3 280
2000–01	2	0	2 406	105	802	0			3 315
2001–02	2	0	2 406	106	802	0			3 316
2002–03	2	0	2 250	98	802	0	25		3 273
2003–04	2	0	2 348	0	958	240	22		3 570
2004–05	2	0	2 250		958	240	23		3 473
2005–06	2	0	2 250	0	960	240	23		3 475
2006–07 ^f	0	0	2 477	0	2 110	360	191		4 887
2007–08	0	0	2 477	0	2 110	360	191	0	5 138

^c From 1998–99, non-schedule small hydro plants are excluded from estimates.

^f The Wholesale Electricity Market commenced in WVA in September 2006. From 2006–07, generation capacity includes all market generators in the SVVIS with a capacity greater than 10 MW.

Note: Data are not readily available for missing years.

Source: ESAA (2005) and ESAA updates.

TE 1.3f Infrastructure capacity—generation capacity, by type of plant—Tasmania

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photo-voltaic	Total
<i>megawatts</i>									
1975–76	1 202		240	6	20	0	0		1 469
1976–77	1 202		240	4	0	0	0		1 447
1977–78	1 396		240	1	0	0	0		1 638
1978–79	1 540		240	2	0	0	0		1 782
1979–80	1 540		240	2	0	0	0		1 782
1980–81	1 540		240	2	0	0	0		1 782
1981–82	1 620		240	2	0	0	0		1 862
1982–83	1 620		240	2	0	0	0		1 863
1983–84	1 700		240	2	0	0	0		1 943
1984–85	1 700		240	3	0	0	0		1 943
1985–86	1 816		240	5	0	0	0		2 061
1986–87	1 931		240	5	0	0	0		2 176
1987–88	2 075		240	5	0	0	0		2 320
1988–89	2 075		240	5	0	0	0		2 320
1989–90	2 075		240	5	0	0	0		2 320
1990–91	2 076		240	5	0	0	0		2 321
1991–92	2 219		240	5	0	0	0		2 464
1992–93	2 195		240	6	0	0	0		2 441
1993–94	2 254		240	6	0	0	0		2 500
1994–95									2 509
1995–96									2 509
1996–97									2 502
1997–98	2 262	0	240	6	0	0	1		2 509
1998–99 ^c	2 262	0	240	6	0	0			2 508
1999–00	2 262	0	240	6	0	0			2 508
2000–01	2 262	0	240	6	0	0			2 508
2001–02	2 276	0	240	26	0	0			2 542
2002–03	2 276	0	240	26	0	0	0		2 542
2003–04	2 266	0	240	0	0	0	65		2 571
2004–05	2 265	0	240	0	0	0	65		2 570
2005–06	2 278	0	240	0	0	0	65		2 583
2006–07	2 274	0	240	0	105	0	140		2 759
2007–08	2 274	0	240	0	105	0	140	0	2 759

^c From 1998–99, non-schedule small hydro plants are excluded from estimates.

Note: Data are not readily available for missing years.

Source: ESAA (2005) and ESAA updates.

TE I.3g Infrastructure capacity—generation capacity, by type of plant— Northern Territory^g

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photo-voltaic	Total
<i>megawatts</i>									
1975–76	0		94	40	10	0	0		144
1976–77	0		94	40	10	0	0		144
1977–78	0		118	40	10	0	0		168
1978–79	0		141	47	10	0	0		198
1979–80	0		141	47	40	0	0		228
1980–81	0		141	56	40	0	0		237
1981–82	0		141	62	40	0	0		243
1982–83	0		141	66	40	0	0		247
1983–84	0		141	66	40	0	0		247
1984–85	0		141	72	30	0	0		243
1985–86	0		141	72	30	0	0		243
1986–87	0		141	81	190	0	0		412
1987–88	0		0	72	162	95	0		330
1988–89	0		0	69	175	95	0		340
1989–90	0		0	92	175	95	0		362
1990–91	0		0	94	180	95	0		369
1991–92	0		0	99	184	95	0		378
1992–93	0		0	99	186	95	0		381
1993–94	0		0	85	188	95	0		368
1994–95									417
1995–96									427
1996–97									436
1997–98	0	0	0	101	209	124	0		434
1999–00	0	0	0	149	229	123			500
2000–01	0	0	0	136	236	123			495
2001–02	0	0	0	136	245	123			504
2002–03	0	0	0	136	245	123	0		504
2003–04	0	0	0	36	316	96	0		449
2004–05	0	0	0	74	277	131	0		482
2005–06	0	0	0	72	272	131	0		475
2006–07	0	0	0	74	266	131	0	0	472
2007–08	0	0	0	76	309	131	0	0	516

^g The basis for reporting generating plant in Northern Territory changed in 2004–04 and should not be compared to previous years.

Note: Data are not readily available for missing years.

Source: ESAA (2005) and ESAA updates.

TE 1.3h Infrastructure capacity—generation capacity, by type of plant— Snowy Mountains Hydro Electric Authority

End of financial year	Hydro	Pump storage	Steam	Internal combustion	Gas turbine	Combined cycle	Wind	Photo-voltaic	Total
<i>megawatts</i>									
1975–76	3 740		0	0	0	0	0		3 740
1976–77	3 740		0	0	0	0	0		3 740
1977–78	3 740		0	0	0	0	0		3 740
1978–79	3 740		0	0	0	0	0		3 740
1979–80	3 740		0	0	0	0	0		3 740
1980–81	3 740		0	0	0	0	0		3 740
1981–82	3 740		0	0	0	0	0		3 740
1982–83	3 740		0	0	0	0	0		3 740
1983–84	3 740		0	0	0	0	0		3 740
1984–85	3 740		0	0	0	0	0		3 740
1985–86	3 740		0	0	0	0	0		3 740
1986–87	3 740		0	0	0	0	0		3 740
1987–88	3 740		0	0	0	0	0		3 740
1988–89	3 740		0	0	0	0	0		3 740
1989–90	3 740		0	0	0	0	0		3 740
1990–91	3 740		0	0	0	0	0		3 740
1991–92	3 740		0	0	0	0	0		3 740
1992–93	3 740		0	0	0	0	0		3 740
1993–94	3 740		0	0	0	0	0		3 740
1994–95									3 756
1995–96									3 756
1996–97									3 756
1997–98	3 006	750	0	0	0	0	0		3 756
1998–99 ^c	3 006	750	0	0	0	0			3 756
1999–00	3 006	750	0	0	0	0			3 756
2000–01	3 006	750	0	0	0	0			3 756
2001–02	3 006	750	0	0	0	0			3 756
2002–03	3 006	750	0	0	0	0	0		3 756
2003–04	^d 3 000	676	0	0	0	0	0		3 676
2004–05	3 676	0	0	0	0	0	0		3 676
2005–06	3 676	0	0	0	0	0	0		3 676
2006–07	3 676	0	0	0	0	0	0	0	3 676
2007–08	3 676	0	0	0	0	0	0	0	3 676

^c From 1998–99, non-schedule small hydro plants are excluded from estimates .

^d From 2003–04, generation capacity of Blowering is included in NSW hydro figures, where previously they were shown in Snowy Mountains Hydro Electric Authority.

Note: Data are not readily available for missing years.

Source: ESAA (2005) and ESAA updates.

TE I.4a Infrastructure quality—Electricity distribution supply reliability measures, National Electricity Market, by state—System Average Interruption Duration Index (SAIDI)

Financial year	NSW	VIC	QLD	SA	TAS	National Electricity Market weighted average	WA
<i>minutes</i>							
1999–2000		156					
2000–01	175	152	314	164	265	198	
2001–02	324	151	275	147	198	245	
2002–03	193	161	265	184	214	199	
2003–04	279	132	434	164	324	258	
2004–05	218	165	283	169	314	211	
2005–06	191	165	351	199	292	221	
2006–07	211	197	233	184	256	211	325
2007–08	180	228	264	150	304	213	317
2008–09	211	255	365	161	252	254	

Note: Data are not readily available for missing years.

Source: AER (2010).

TE I.4b Infrastructure quality—Electricity distribution supply reliability measures, National Electricity Market, by state—System Average Interruption Frequency Index (SAIFI)

Financial year	NSW	VIC	QLD	SA	TAS	National Electricity Market weighted average	WA
<i>average number of times a customer's supply is interrupted per year</i>							
1999–2000	1.7	2.1			2.3		
2000–01	2.5	2.0	3.0	1.7	2.8	2.4	
2001–02	2.6	2.0	2.8	1.6	2.3	2.4	
2002–03	1.4	2.2	2.7	1.8	2.4	2.0	
2003–04	1.6	1.9	3.4	1.7	3.1	2.2	
2004–05	1.6	1.8	2.7	1.7	3.1	1.9	
2005–06	1.8	1.9	3.1	1.9	2.9	2.1	
2006–07	1.9	2.1	2.1	1.8	2.6	2.0	3.3
2007–08	1.7	1.7	2.4	1.5	2.6	1.9	3.3
2008–09	1.8	2.5	2.9	1.5	1.9	2.2	

Note: Data are not readily available for missing years.

Source: AER (2010).

CHAPTER 2

Inputs to energy supply

TE 2.1 Energy inputs—Australia's economic demonstrated mineral energy reserves

End of calendar year	Black coal	Brown coal (lignite)	Uranium	Crude oil	Condensate	LPG	Natural gas
	<i>gigatonnes</i>	<i>gigatonnes</i>	<i>kilotonnes</i>	<i>gigalitres</i>	<i>gigalitres</i>	<i>gigalitres</i>	<i>billion metres³</i>
1982				260	83	123	641
1983				235	74	87	629
1984				240	81	86	689
1985				217	86	88	709
1986				242	116	99	902
1987				246	119	97	1 069
1988				255	122	130	1 033
1989				260	119	114	955
1990				270	118	114	927
1991				258	124	131	950
1992				244	133	135	1 006
1993				249	136	133	992
1994				297	156	154	1 292
1995				277	183	144	1 264
1996				240	193	174	1 360
1997				266	192	184	1 494
1998	51.1	41.1	607	243	273	243	1 989
1999	44.4	37.7	571	215	277	262	1 989
2000	42.6	37.7	654	194	300	292	2 203
2001	40.8	37.7	648	206	289	293	2 667
2002	39.7	37.6	689	176	277	274	2 528
2003	38.3	37.5	675	186	247	210	2 462
2004	40.4	37.5	701	157	301	214	2 587
2005	39.2	37.4	716	169	257	214	2 428
2006	39.6	37.3	714	160	236	203	2 421
2007	38.9	37.3	983	162	228	191	2 362
2008	39.2	37.2	1 163	188	340	174	3 145
2009	43.8	37.1	1 223				

Note: Data are not readily available for missing years.

Source: GA (2010a), GA (2010b).

TE 2.2a Energy input—Australian electricity generation, input fuel—energy units

Financial year	Black coal	Brown coal (including briquettes)	Petroleum products	Natural gas	Electricity
<i>petajoules</i>					
1974–75	375.1	243.6	49.5	34.3	37.3
1975–76	373.4	263.6	51.4	40.3	38.9
1976–77	438.7	282.2	53.0	53.0	43.5
1977–78	471.4	276.2	58.7	57.0	45.1
1978–79	481.8	291.6	59.8	66.6	49.9
1979–80	544.8	300.6	51.2	76.3	52.6
1980–81	570.6	293.3	49.9	106.5	55.9
1981–82	578.4	338.7	54.0	130.9	57.2
1982–83	619.1	313.4	47.6	117.7	55.7
1983–84	659.1	302.3	46.5	124.1	58.7
1984–85	695.1	352.2	41.5	111.0	66.6
1985–86	708.9	332.1	36.1	134.4	67.0
1986–87	730.9	389.2	27.7	129.1	69.4
1987–88	753.3	407.6	22.2	139.8	67.9
1988–89	799.0	460.8	29.5	143.6	73.7
1989–90	836.0	437.6	40.0	161.2	74.5
1990–91	848.7	470.0	40.8	121.3	71.6
1991–92	872.4	481.4	28.8	132.0	75.9
1992–93	905.6	456.9	29.0	136.4	75.2
1993–94	917.4	462.5	29.1	146.3	75.6
1994–95	946.6	480.5	32.8	167.4	79.4
1995–96	1 001.4	503.8	34.2	151.5	80.9
1996–97	1 018.5	546.5	27.2	148.1	81.3
1997–98	1 061.4	627.3	25.1	166.9	91.3
1998–99	1 081.2	662.7	23.7	196.5	97.8
1999–00	1 100.2	665.4	22.2	206.8	99.8
2000–01	1 176.1	665.8	19.2	241.7	102.7
2001–02	1 213.7	670.0	19.2	247.2	104.2
2002–03	1 223.4	671.1	20.5	258.0	110.3
2003–04	1 298.5	682.5	21.3	274.9	125.9
2004–05	1 328.0	686.7	25.5	283.4	123.0
2005–06	1 351.8	705.0	26.4	269.8	123.8
2006–07	1 394.7	610.6	28.8	321.4	121.4
2007–08	1 359.7	628.9	37.2	378.1	123.1
2008–09	1 360.9	649.0	34.8	383.1	130.3

Source: ABARES (2010b).

TE 2.2b Australian electricity generation, input fuel—physical units

Financial year	Black coal	Brown coal (including briquettes)	Petroleum products	Natural gas	Electricity
	<i>million tonnes</i>	<i>million tonnes</i>	<i>megalitres</i>	<i>megalitres</i>	<i>gigawatt hours</i>
1974–75	16.3	23.6	1 249	894 415	10 361
1975–76	16.3	25.8	1 299	1 050 736	10 806
1976–77	19.1	27.5	1 340	1 381 476	12 083
1977–78	20.5	27.0	1 483	1 485 713	12 528
1978–79	20.9	28.4	1 506	1 733 977	13 861
1979–80	23.7	29.0	1 293	1 986 992	14 611
1980–81	24.9	28.6	1 262	2 766 385	15 528
1981–82	25.2	34.3	1 365	3 395 265	15 889
1982–83	27.0	32.1	1 205	3 057 939	15 472
1983–84	28.7	30.7	1 177	3 221 155	16 306
1984–85	30.2	35.6	1 049	2 871 011	18 500
1985–86	30.7	33.3	914	3 425 612	18 611
1986–87	31.6	39.1	705	3 263 725	19 278
1987–88	32.6	40.7	570	3 519 747	18 861
1988–89	34.7	46.0	756	3 631 841	20 472
1989–90	36.3	43.8	1 021	4 084 127	20 694
1990–91	37.0	47.2	1 041	3 068 689	19 889
1991–92	38.0	48.4	741	3 343 122	21 083
1992–93	39.4	46.0	745	3 456 754	20 889
1993–94	39.9	47.0	749	3 692 945	21 000
1994–95	41.1	49.0	844	4 210 136	22 056
1995–96	43.6	52.1	884	3 808 313	22 472
1996–97	44.2	56.3	702	3 693 824	22 583
1997–98	46.1	64.7	652	4 156 928	25 361
1998–99	46.9	68.3	615	4 919 374	27 167
1999–00	47.7	68.5	584	5 180 520	27 722
2000–01	51.0	66.8	508	6 046 078	28 528
2001–02	52.6	67.3	508	6 189 666	28 944
2002–03	53.1	67.4	538	6 458 360	30 639
2003–04	56.3	68.9	557	6 886 051	34 972
2004–05	57.5	69.2	661	7 100 805	34 167
2005–06	58.5	71.1	685	6 757 844	34 389
2006–07	60.3	61.6	755	8 063 028	33 722
2007–08	58.8	63.6	976	9 488 855	34 194
2008–09	58.8	65.8	915	9 596 194	36 194

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 2.3a Energy inputs—Australian gas production and distribution, input fuel—energy units

Financial year	Black coal	LPG and other petroleum products	Natural gas	Town gas	Electricity
<i>petajoules</i>					
1974–75	1.8	18.4	8.1	1.9	0.1
1975–76	1.5	17.1	8.1	1.9	0.1
1976–77	1.6	10.8	16.6	2.1	0.1
1977–78	1.1	4.3	19.3	2.1	0.1
1978–79	0.8	4.2	18.9	1.9	0.1
1979–80	0.6	4.2	20.3	1.9	0.1
1980–81	0.7	4.1	19.3	2.0	0.1
1981–82	0.3	4.0	21.0	1.9	0.1
1982–83	0.2	3.3	22.0	1.7	0.1
1983–84	0.1	3.2	22.3	1.5	0.1
1984–85	0.0	2.0	23.0	1.3	0.1
1985–86	0.0	1.8	21.8	1.0	0.1
1986–87	0.0	1.6	21.8	0.8	0.1
1987–88	0.0	1.4	19.4	0.7	0.1
1988–89	0.0	1.4	18.4	0.4	0.1
1989–90	0.0	1.5	17.9	0.4	0.1
1990–91	0.0	1.3	15.8	0.2	0.1
1991–92	0.0	1.3	15.7	0.2	0.0
1992–93	0.0	1.3	14.7	0.2	0.0
1993–94	0.0	0.9	14.0	0.2	0.0
1994–95	0.0	1.0	13.7	0.2	0.0
1995–96	0.0	1.0	12.9	0.2	0.0
1996–97	0.0	1.0	13.0	0.1	0.0
1997–98	0.0	1.0	13.6	0.0	0.0
1998–99	0.0	1.0	14.2	0.0	0.0
1999–00	0.0	1.1	14.7	0.0	0.1
2000–01	0.0	1.0	15.3	0.0	0.1
2001–02	0.0	1.0	16.8	0.0	0.1
2002–03	0.0	0.9	17.9	0.0	0.1
2003–04	0.0	1.1	20.0	0.0	0.1
2004–05	0.0	1.4	15.3	0.0	0.1
2005–06	0.0	1.4	15.2	0.0	0.1
2006–07	0.0	0.9	12.3	0.0	0.1
2007–08	0.0	0.7	12.6	0.0	0.0
2008–09	0.0	0.5	12.3	0.0	0.0

Source: ABARES (2010b).

TE 2.3b Australian natural gas production and distribution, input fuel—physical units

Financial year	Black coal	LPG and other petroleum products	Natural gas	Town gas	Electricity
	<i>million tonnes</i>	<i>megalitres</i>	<i>megalitres</i>	<i>gigalitres</i>	<i>gigawatt hours</i>
1974–75	0.1	543	208 662	48 945	28
1975–76	0.1	517	210 777	49 442	28
1976–77	0.1	333	432 462	54 709	28
1977–78	0.0	144	507 531	55 224	28
1978–79	0.0	141	495 046	49 767	28
1979–80	0.0	143	528 722	49 486	28
1980–81	0.0	138	502 674	52 091	28
1981–82	0.0	135	551 587	49 906	28
1982–83	0.0	111	572 671	44 252	28
1983–84	0.0	110	578 399	38 906	28
1984–85	0.0	75	600 592	33 946	28
1985–86	0.0	68	568 897	26 096	28
1986–87	0.0	60	571 758	20 982	28
1987–88	0.0	53	510 754	18 429	28
1988–89	0.0	53	484 892	10 541	28
1989–90	0.0	57	470 364	10 511	28
1990–91	0.0	49	415 894	5 264	28
1991–92	0.0	49	415 584	5 294	0
1992–93	0.0	49	386 785	5 262	0
1993–94	0.0	34	373 068	5 330	0
1994–95	0.0	38	362 704	5 295	0
1995–96	0.0	38	342 058	5 303	0
1996–97	0.0	38	339 809	2 614	0
1997–98	0.0	38	339 711	0	0
1998–99	0.0	38	319 037	0	0
1999–00	0.0	42	337 070	0	28
2000–01	0.0	38	411 530	0	28
2001–02	0.0	38	449 630	0	28
2002–03	0.0	34	479 373	0	28
2003–04	0.0	42	535 285	0	28
2004–05	0.0	53	419 022	0	28
2005–06	0.0	53	423 808	0	28
2006–07	0.0	34	350 539	0	28
2007–08	0.0	26	358 460	0	0
2008–09	0.0	19	348 163	0	0

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

CHAPTER 3

Energy production and usage

TE 3.1a Energy production and trade—Australian energy production (primary fuels), by fuel type—New South Wales

Financial year	Black coal	Brown coal	Bagasse and wood	Crude oil, NGL ^e and naturally occurring LPG	Natural gas ^e	Ethane	Hydro-electricity	Solar hotwater	Uranium ^f
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	gigawatt hours	petajoules	tonnes
1974–75	34 828	0	1 706	0	0	0	7 489	0	0
1975–76	33 312	0	1 626	0	0	0	7 986	0	0
1976–77	38 262	0	1 638	0	0	0	5 529	0	0
1977–78	40 592	0	1 606	0	0	0	6 231	0	0
1978–79	40 995	0	1 666	0	0	0	7 169	0	0
1979–80	39 970	0	1 708	0	0	0	4 786	0	0
1980–81	47 923	0	1 771	0	0	0	5 586	0	0
1981–82	50 077	0	1 760	0	0	0	5 455	0	0
1982–83	56 669	0	1 868	0	0	0	4 029	0	0
1983–84	55 014	0	1 938	0	0	0	4 161	0	0
1984–85	57 496	0	1 983	0	0	0	5 288	0	0
1985–86	63 159	0	2 047	0	0	0	5 310	0	0
1986–87	72 343	0	2 051	0	0	0	4 487	0	0
1987–88	62 403	0	2 063	0	0	0	4 463	0	0
1988–89	66 605	0	2 103	0	0	0	4 568	0	0
1989–90	76 479	0	2 168	0	0	0	4 741	0	0
1990–91	78 491	0	2 245	0	0	0	6 237	0	0
1991–92	82 339	0	2 268	0	0	0	5 298	0	0
1992–93	82 745	0	2 415	0	0	0	6 642	0	0
1993–94	82 779	0	2 413	0	0	0	5 770	0	0
1994–95	87 410	0	2 432	0	0	0	5 728	0	0
1995–96	90 856	0	2 492	0	0	0	5 058	0	0
1996–97	98 287	0	2 543	0	50	0	5 279	0	0
1997–98	107 708	0	2 586	0	112	0	4 056	0	0
1998–99	103 421	0	3 001	0	190	0	4 805	0	0
1999–00	105 193	0	2 918	0	216	0	5 030	0	0
2000–01	110 240	0	2 733	0	222	0	5 157	0	0
2001–02	114 329	0	1 842	0	230	0	4 274	0	0
2002–03	111 533	0	2 159	0	217	0	4 868	0	0
2003–04	114 465	0	1 759	0	219	0	4 811	0	0
2004–05	119 601	0	1 763	0	238	0	4 434	0	0
2005–06	124 611	0	1 952	0	283	0	5 621	0	0
2006–07	130 885	0	2 175	0	295	0	4 639	0	0
2007–08	134 978	0	2 520	0	136	0	2 642	0	0
2008–09	135 942	0	2 499	0	120	0	2 467	0	0

^e NGL represents natural gas liquid hydrocarbons other than methane, while LNG represents liquid natural gas (principally methane).

^f Australian energy production of uranium is measured in terms of tonnes of uranium metal equivalent, rather than ore extracted.

Note: Data are not readily available for missing years.

Source: ABARES (2010b).

TE 3.1b Energy production and trade—Australian energy production (primary fuels), by fuel type—Victoria

Financial year	Black coal	Brown coal	Bagasse and wood	Crude oil, NGL ^e and naturally occurring LPG	Natural gas ^e	Ethane	Hydro-electricity	Solar hotwater	Uranium ^f
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	gigawatt hours	petajoules	tonnes
1974–75	0	27 542	1 874	23 103	2 414	64	991	0	0
1975–76	0	29 212	1 827	24 027	2 793	73	810	0	0
1976–77	0	30 994	1 739	25 177	3 171	103	538	0	0
1977–78	0	30 473	1 764	26 377	3 366	129	515	0	0
1978–79	0	32 101	1 786	26 239	3 810	144	557	0	0
1979–80	0	32 895	1 793	25 192	4 347	147	584	0	0
1980–81	0	32 103	1 853	24 405	5 264	139	670	0	0
1981–82	0	37 567	1 921	24 024	5 919	150	737	0	0
1982–83	0	34 708	1 979	23 093	5 631	168	929	0	0
1983–84	0	33 257	1 885	27 181	5 957	175	532	0	0
1984–85	0	38 380	1 822	29 541	5 444	172	525	0	0
1985–86	0	36 075	1 856	28 716	5 643	159	697	0	0
1986–87	0	41 804	1 871	27 325	5 422	154	706	0	0
1987–88	0	43 399	1 834	25 800	5 376	153	945	0	0
1988–89	0	48 289	1 870	21 387	5 645	153	688	0	0
1989–90	0	45 989	1 953	21 362	6 393	158	803	0	0
1990–91	0	49 386	1 960	19 983	5 679	146	765	0	0
1991–92	0	50 723	1 981	19 431	5 899	149	734	0	0
1992–93	0	47 648	2 031	20 580	6 053	162	713	0	0
1993–94	0	48 752	2 106	19 267	5 793	162	1 117	0	0
1994–95	0	50 751	2 110	16 948	6 415	181	1 042	0	0
1995–96	0	53 712	2 141	14 499	6 520	165	642	0	0
1996–97	0	58 156	2 154	14 052	5 924	156	1 024	0	0
1997–98	0	65 274	2 088	15 856	5 975	176	1 152	0	0
1998–99	0	66 648	2 067	11 366	5 655	121	748	0	0
1999–00	0	67 363	2 049	13 528	5 860	140	512	0	0
2000–01	0	64 958	2 003	11 134	6 359	148	625	0	0
2001–02	0	66 661	1 995	10 884	6 539	138	761	0	0
2002–03	0	66 809	2 197	9 699	7 027	163	1 064	0	0
2003–04	0	66 343	2 093	8 845	7 508	172	854	0	0
2004–05	0	67 152	1 940	7 444	7 821	182	817	0	0
2005–06	0	67 737	1 727	6 395	7 382	212	465	0	0
2006–07	0	65 613	1 542	6 504	8 852	225	590	0	0
2007–08	0	66 033	1 864	6 114	9 524	229	1 583	0	0
2008–09	0	68 252	1 843	6 524	9 374	165	1 441	0	0

^e NGL represents natural gas liquid hydrocarbons other than methane, while LNG represents liquid natural gas (principally methane).

^f Australian energy production of uranium is measured in terms of tonnes of uranium metal equivalent, rather than ore extracted.

Note: Data are not readily available for missing years.

Source: ABARES (2010b).

TE 3.1c Energy production and trade—Australian energy production (primary fuels), by fuel type—Queensland

Financial year	Black coal	Brown coal	Bagasse and wood	Crude oil, NGL ^e and naturally occurring LPG	Natural gas ^e	Ethane	Hydro-electricity	Solar hotwater	Uranium ^f
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	gigawatt hours	petajoules	tonnes
1974–75	23 902	0	6 525	73	258	0	694	0	0
1975–76	23 921	0	6 888	73	238	0	804	0	102
1976–77	25 671	0	7 361	65	237	0	814	0	412
1977–78	24 954	0	7 352	62	277	0	598	0	418
1978–79	26 939	0	6 455	71	280	0	710	0	577
1979–80	27 510	0	6 517	80	313	0	569	0	689
1980–81	32 849	0	7 275	81	338	0	727	0	709
1981–82	34 276	0	7 836	86	356	0	720	0	769
1982–83	35 812	0	7 471	103	434	0	428	0	300
1983–84	44 036	0	7 186	284	434	0	480	0	0
1984–85	54 288	0	7 592	1 263	479	0	1 118	0	0
1985–86	63 997	0	7 415	1 809	517	0	1 123	0	0
1986–87	68 820	0	7 636	1 937	524	0	979	0	0
1987–88	65 819	0	7 710	1 663	601	0	770	0	0
1988–89	74 118	0	8 436	1 661	541	0	874	0	0
1989–90	74 931	0	8 548	1 565	579	0	978	0	0
1990–91	78 363	0	8 185	1 407	977	0	1 027	0	0
1991–92	84 085	0	6 749	1 328	1 031	0	758	0	0
1992–93	85 301	0	8 192	1 220	1 038	0	685	0	0
1993–94	85 648	0	8 862	1 192	1 169	0	834	0	0
1994–95	94 381	0	9 625	1 206	1 180	0	756	0	0
1995–96	93 763	0	10 593	1 144	1 250	0	883	0	0
1996–97	99 437	0	11 248	1 029	1 247	0	897	0	0
1997–98	105 752	0	11 556	901	1 333	0	600	0	0
1998–99	112 634	0	10 827	873	1 555	0	896	0	0
1999–00	124 348	0	10 483	781	1 940	0	926	0	0
2000–01	138 286	0	9 864	735	2 143	0	868	0	0
2001–02	148 587	0	9 334	719	2 247	0	594	0	0
2002–03	153 602	0	9 732	750	2 884	0	354	0	0
2003–04	160 242	0	10 402	693	3 573	0	562	0	0
2004–05	171 541	0	11 156	870	3 932	0	528	0	0
2005–06	171 901	0	11 253	704	4 852	0	552	0	0
2006–07	182 770	0	11 288	1 024	3 299	0	880	0	0
2007–08	180 923	0	11 718	1 123	4 169	0	924	0	0
2008–09	186 429	0	10 717	1 080	4 313	0	859	0	0

^e NGL represents natural gas liquid hydrocarbons other than methane, while LNG represents liquid natural gas (principally methane).

^f Australian energy production of uranium is measured in terms of tonnes of uranium metal equivalent, rather than ore extracted.

Note: Data are not readily available for missing years.

Source: ABARES (2010b).

TE 3.1d Energy production and trade—Australian energy production (primary fuels), by fuel type—Western Australia

Financial year	Black coal	Brown coal	Bagasse and wood	Crude oil, NGL ^e and naturally occurring LPG	Natural gas ^e	Ethane	Hydro-electricity	Solar hotwater	Uranium ^f
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	gigawatt hours	petajoules	tonnes
1974–75	1 877	0	701	2 095	831	0	13	0	0
1975–76	2 143	0	685	1 962	843	0	10	0	0
1976–77	2 376	0	628	1 843	858	0	1	0	0
1977–78	2 424	0	603	1 802	819	0	1	0	0
1978–79	2 407	0	610	1 708	842	0	0	0	0
1979–80	3 029	0	621	1 507	867	0	0	0	0
1980–81	3 118	0	586	1 530	880	0	0	0	0
1981–82	3 415	0	530	1 241	836	0	1	0	0
1982–83	3 962	0	526	1 325	1 003	0	2	0	0
1983–84	3 925	0	522	1 260	1 012	0	0	0	0
1984–85	3 654	0	537	1 415	1 911	0	2	0	0
1985–86	3 750	0	503	1 812	2 928	0	3	0	0
1986–87	3 782	0	503	2 174	3 377	0	0	0	0
1987–88	3 686	0	541	3 100	3 887	0	0	0	0
1988–89	3 891	0	597	3 205	4 071	0	0	0	0
1989–90	4 125	0	633	5 809	7 446	0	1	0	0
1990–91	5 206	0	656	6 897	9 389	0	0	0	0
1991–92	5 477	0	622	7 350	10 439	0	1	0	0
1992–93	5 395	0	638	6 693	11 866	0	6	0	0
1993–94	5 153	0	682	7 639	13 579	0	4	0	0
1994–95	5 824	0	695	12 680	15 774	0	4	0	0
1995–96	5 971	0	707	14 322	16 407	0	2	0	0
1996–97	5 593	0	853	15 974	16 734	0	6	0	0
1997–98	5 798	0	862	17 561	18 140	0	200	0	0
1998–99	5 741	0	853	16 848	18 545	0	206	0	0
1999–00	6 628	0	862	19 489	18 885	0	207	0	0
2000–01	6 193	0	863	20 623	19 178	0	202	0	0
2001–02	6 595	0	909	23 135	19 444	0	212	0	0
2002–03	6 136	0	921	22 846	20 215	0	207	0	0
2003–04	6 760	0	889	21 149	20 092	0	206	0	0
2004–05	5 981	0	744	20 032	23 829	0	212	0	0
2005–06	6 300	0	756	18 795	25 174	0	163	0	0
2006–07	6 100	0	839	22 006	27 198	0	150	0	0
2007–08	6 440	0	905	19 511	27 499	0	51	0	0
2008–09	6 800	0	854	20 486	29 712	0	197	0	0

^e NGL represents natural gas liquid hydrocarbons other than methane, while LNG represents liquid natural gas (principally methane).

^f Australian energy production of uranium is measured in terms of tonnes of uranium metal equivalent, rather than ore extracted.

Note: Data are not readily available for missing years.

Source: ABARES (2010b).

TE 3.1e Energy production and trade—Australian energy production (primary fuels), by fuel type—South Australia

Financial year	Black coal	Brown coal	Bagasse and wood	Crude oil, NGL ^e and naturally occurring LPG	Natural gas ^e	Ethane	Hydro-electricity	Solar hotwater	Uranium ^f
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	gigawatt hours	petajoules	tonnes
1974–75	1 793	0	666	35	1 314	0	0	0	0
1975–76	1 819	0	655	42	1 502	0	0	0	0
1976–77	1 945	0	550	43	2 132	0	0	0	0
1977–78	1 780	0	533	46	2 591	0	0	0	0
1978–79	1 471	0	532	49	2 932	0	0	0	0
1979–80	1 717	0	562	44	3 567	0	0	0	0
1980–81	1 732	0	581	61	4 037	0	0	0	0
1981–82	1 436	0	568	65	4 537	0	0	0	0
1982–83	1 451	0	606	453	4 686	0	0	0	0
1983–84	1 328	0	555	1 233	4 907	0	0	0	0
1984–85	1 745	0	563	2 525	5 307	28	0	0	0
1985–86	2 167	0	606	3 225	5 373	37	0	0	0
1986–87	2 426	0	612	3 034	5 444	26	0	0	0
1987–88	2 519	0	620	3 043	5 348	36	0	0	0
1988–89	2 758	0	632	3 222	5 452	32	0	0	772
1989–90	2 943	0	656	3 137	5 512	26	0	0	852
1990–91	2 527	0	686	3 053	5 037	26	0	0	1 255
1991–92	2 887	0	711	2 895	5 166	27	0	0	1 161
1992–93	2 785	0	753	2 596	5 242	23	0	0	1 161
1993–94	2 692	0	875	2 428	5 512	17	0	0	1 093
1994–95	3 039	0	865	2 213	5 568	21	0	0	918
1995–96	2 447	0	863	2 014	5 272	38	0	0	1 401
1996–97	2 594	0	868	1 862	5 444	279	0	0	1 491
1997–98	2 697	0	838	1 851	5 627	390	0	0	1 379
1998–99	2 799	0	840	1 946	5 958	441	0	0	1 706
1999–00	2 874	0	830	1 767	6 105	472	0	0	3 454
2000–01	3 160	0	824	1 722	6 059	344	0	0	4 209
2001–02	3 365	0	551	1 636	6 045	269	0	0	3 406
2002–03	3 240	0	588	1 545	5 515	243	0	0	3 273
2003–04	3 832	0	577	1 447	4 710	207	0	0	4 157
2004–05	3 208	0	524	1 285	4 438	225	0	0	4 596
2005–06	3 800	0	500	1 294	3 530	244	0	0	4 062
2006–07	3 600	0	525	1 906	3 586	249	0	0	3 674
2007–08	3 840	0	539	2 104	2 871	259	0	0	4 105
2008–09	3 840	0	581	2 760	2 759	256	0	0	3 929

^e NGL represents natural gas liquid hydrocarbons other than methane, while LNG represents liquid natural gas (principally methane).

^f Australian energy production of uranium is measured in terms of tonnes of uranium metal equivalent, rather than ore extracted.

Note: Data are not readily available for missing years.

Source: ABARES (2010b).

TE 3.If Energy production and trade—Australian energy production (primary fuels), by fuel type—Tasmania

Financial year	Black coal	Brown coal	Bagasse and wood	Crude oil, NGL ^e and naturally occurring LPG	Natural gas ^e	Ethane	Hydro-electricity	Solar hotwater	Uranium ^f
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	gigawatt hours	petajoules	tonnes
1974–75	101	0	395	0	0	0	5 918	0	0
1975–76	133	0	385	0	0	0	5 899	0	0
1976–77	163	0	378	0	0	0	6 789	0	0
1977–78	156	0	378	0	0	0	7 113	0	0
1978–79	195	0	381	0	0	0	7 599	0	0
1979–80	163	0	385	0	0	0	7 843	0	0
1980–81	208	0	405	0	0	0	7 844	0	0
1981–82	249	0	448	0	0	0	7 659	0	0
1982–83	329	0	451	0	0	0	7 526	0	0
1983–84	280	0	524	0	0	0	7 715	0	0
1984–85	321	0	554	0	0	0	8 033	0	0
1985–86	310	0	587	0	0	0	8 381	0	0
1986–87	394	0	621	0	0	0	8 378	0	0
1987–88	380	0	689	0	0	0	8 786	0	0
1988–89	407	0	750	0	0	0	8 900	0	0
1989–90	356	0	763	0	0	0	8 357	0	0
1990–91	350	0	783	0	0	0	8 076	0	0
1991–92	342	0	733	0	0	0	8 977	0	0
1992–93	301	0	758	0	0	0	8 907	0	0
1993–94	378	0	723	0	0	0	8 924	0	0
1994–95	401	0	736	0	0	0	8 709	0	0
1995–96	400	0	751	0	0	0	9 146	0	0
1996–97	392	0	761	0	0	0	9 646	0	0
1997–98	414	0	764	0	0	0	9 725	0	0
1998–99	419	0	732	0	0	0	9 908	0	0
1999–00	387	0	724	0	0	0	10 045	0	0
2000–01	339	0	717	0	0	0	10 081	0	0
2001–02	360	0	784	0	0	0	10 213	0	0
2002–03	344	0	804	0	0	0	9 997	0	0
2003–04	556	0	810	0	0	0	9 898	0	0
2004–05	350	0	798	0	0	0	9 620	0	0
2005–06	580	0	741	0	0	0	9 236	0	0
2006–07	562	0	903	0	0	0	8 258	0	0
2007–08	616	0	875	0	0	0	6 854	0	0
2008–09	616	0	751	0	0	0	7 326	0	0

^e NGL represents natural gas liquid hydrocarbons other than methane, while LNG represents liquid natural gas (principally methane).

^f Australian energy production of uranium is measured in terms of tonnes of uranium metal equivalent, rather than ore extracted.

Note: Data are not readily available for missing years.

Source: ABARES (2010b).

TE 3.1g Energy production and trade—Australian energy production (primary fuels), by fuel type—Northern Territory

Financial year	Black coal	Brown coal	Bagasse and wood	Crude oil, NGL ^e and naturally occurring LPG	Natural gas ^e	Ethane	Hydro-electricity	Solar hotwater	Uranium ^f
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	gigawatt hours	petajoules	tonnes
1974–75	0	0	19	0	0	0	0	0	0
1975–76	0	0	19	0	0	0	0	0	0
1976–77	0	0	19	0	0	0	0	0	0
1977–78	0	0	19	0	0	0	0	0	0
1978–79	0	0	19	0	0	0	0	0	0
1979–80	0	0	19	0	0	0	0	0	0
1980–81	0	0	19	0	0	0	0	0	1 194
1981–82	0	0	19	0	0	0	0	0	3 450
1982–83	0	0	19	0	0	0	0	0	3 588
1983–84	0	0	19	0	3	0	0	0	3 717
1984–85	0	0	20	75	26	0	0	0	3 669
1985–86	0	0	21	187	31	0	0	0	3 774
1986–87	0	0	21	935	127	0	0	0	3 820
1987–88	0	0	21	1 478	276	0	0	0	3 556
1988–89	0	0	21	2 542	259	0	0	0	3 050
1989–90	0	0	22	3 907	324	0	0	0	2 615
1990–91	0	0	23	4 164	341	0	0	0	2 467
1991–92	0	0	24	3 893	353	0	0	0	2 527
1992–93	0	0	25	3 425	354	0	0	0	1 132
1993–94	0	0	26	2 120	351	0	0	0	1 240
1994–95	0	0	27	1 734	378	0	0	0	1 313
1995–96	0	0	27	1 545	441	0	0	0	2 928
1996–97	0	0	25	1 140	462	0	0	0	3 593
1997–98	0	0	25	936	479	0	0	0	3 529
1998–99	0	0	25	770	494	0	0	0	3 710
1999–00	0	0	25	6 268	535	0	0	0	3 514
2000–01	0	0	10	9 682	529	0	0	0	3 889
2001–02	0	0	6	6 059	540	0	0	0	3 227
2002–03	0	0	6	4 865	548	0	0	0	4 505
2003–04	0	0	6	3 220	548	0	0	0	3 958
2004–05	0	0	3	2 307	608	0	0	0	4 701
2005–06	0	0	2	1 850	500	0	0	0	4 396
2006–07	0	0	3	1 918	532	0	0	0	4 461
2007–08	0	0	3	909	541	0	0	0	4 472
2008–09	0	0	0	866	537	0	0	0	4 815

^e NGL represents natural gas liquid hydrocarbons other than methane, while LNG represents liquid natural gas (principally methane).

^f Australian energy production of uranium is measured in terms of tonnes of uranium metal equivalent, rather than ore extracted.

Note: Data are not readily available for missing years.

Source: ABARES (2010b).

TE 3.1h Energy production and trade—Australian energy production (primary fuels), by fuel type—Australia

Financial year	Black coal	Brown coal	Bagasse and wood	Crude oil, NGL ^e and naturally occurring LPG	Natural gas ^e	Ethane	Hydro-electricity	Solar hotwater	Uranium ^f
	kilotonnes	kilotonnes	kilotonnes	megalitres	gigalitres	gigalitres	gigawatt hours	petajoules	tonnes
1974–75	62 501	27 542	11 887	25 306	4 817	64	15 105	0	0
1975–76	61 328	29 212	12 085	26 059	5 376	73	15 509	0	102
1976–77	68 417	30 994	12 314	27 128	6 398	103	13 670	0	412
1977–78	69 906	30 473	12 255	28 287	7 053	129	14 458	0	418
1978–79	72 007	32 101	11 448	28 067	7 864	144	16 035	1	577
1979–80	72 389	32 895	11 604	26 823	9 094	147	13 782	1	689
1980–81	85 830	32 103	12 492	26 077	10 519	139	14 827	1	1 903
1981–82	89 453	37 567	13 083	25 419	11 648	150	14 572	1	4 219
1982–83	98 223	34 708	12 921	24 978	11 754	168	12 914	2	3 888
1983–84	104 583	33 257	12 629	29 960	12 312	175	12 888	2	3 717
1984–85	117 504	38 380	13 070	34 820	13 167	200	14 966	2	3 669
1985–86	133 383	36 075	13 036	35 750	14 495	195	15 514	2	3 774
1986–87	147 765	41 804	13 316	35 431	14 895	180	14 550	2	3 820
1987–88	134 807	43 399	13 480	35 187	15 483	196	14 964	2	3 556
1988–89	147 778	48 289	14 409	32 018	15 964	189	15 030	2	3 821
1989–90	158 834	45 989	14 744	35 779	20 077	191	14 880	2	3 467
1990–91	164 937	49 386	14 539	35 502	21 049	180	16 103	2	3 722
1991–92	175 130	50 723	13 088	34 898	23 297	182	15 768	2	3 688
1992–93	176 527	47 648	14 811	34 483	24 417	194	16 953	2	2 293
1993–94	176 650	48 752	15 687	32 646	26 567	188	16 649	2	2 333
1994–95	191 055	50 751	16 488	34 799	29 264	203	16 239	3	2 231
1995–96	193 437	53 712	17 572	33 900	29 890	203	15 731	3	4 329
1996–97	206 303	58 156	18 452	34 838	29 861	435	16 852	3	5 084
1997–98	222 369	65 274	18 718	38 398	31 666	566	15 733	3	4 908
1998–99	225 014	66 648	18 346	31 802	32 397	562	16 563	3	5 417
1999–00	239 430	67 363	17 891	41 833	33 541	612	16 720	3	6 968
2000–01	258 218	64 958	17 013	43 895	34 490	479	16 933	3	8 098
2001–02	273 236	66 661	15 420	42 432	35 045	406	16 054	3	6 634
2002–03	274 854	66 809	16 407	39 705	36 406	406	16 490	3	7 778
2003–04	285 855	66 343	16 537	35 352	36 650	380	16 331	3	8 114
2004–05	300 681	67 152	16 930	31 939	40 866	407	15 612	3	9 297
2005–06	307 192	67 737	16 931	29 038	41 721	456	16 029	2	8 458
2006–07	323 917	65 613	17 275	33 359	43 762	474	14 517	6	8 135
2007–08	326 797	66 033	18 316	29 760	44 740	488	12 057	7	8 577
2008–09	333 627	68 252	17 769	31 716	46 815	421	12 296	8	8 744

^e NGL represents natural gas liquid hydrocarbons other than methane, while LNG represents liquid natural gas (principally methane).

^f Australian energy production of uranium is measured in terms of tonnes of uranium metal equivalent, rather than ore extracted.

Note: Data are not readily available for missing years.

Source: ABARES (2010b).

TE 3.2 Energy production and trade—Australian energy imports, by fuel type

Financial year	Natural gas	Petroleum products							
		Crude oil and other refinery fuel	LPG	Auto-motive gasoline	Aviation turbine fuel	Auto-motive diesel oil	Fuel oil	Bitumen, lubricants and greases	Other petroleum products
	gigalitres	megalitres	megalitres	megalitres	megalitres	megalitres	megalitres	megalitres	megalitres
1974–75	0	10 171	0	407	96	479	2 574	69	458
1975–76	0	9 702	0	876	101	377	2 123	59	473
1976–77	0	10 116	0	922	129	492	2 234	28	388
1977–78	0	11 214	0	758	100	529	2 001	57	659
1978–79	0	10 407	0	708	193	411	2 482	61	360
1979–80	0	11 263	0	488	178	620	2 649	77	528
1980–81	0	11 450	1	419	150	637	2 070	71	400
1981–82	0	12 460	2	399	106	523	1 529	61	319
1982–83	0	11 780	2	553	107	468	1 180	50	305
1983–84	0	8 553	6	338	63	322	1 419	30	347
1984–85	0	7 294	4	590	95	679	1 102	54	299
1985–86	0	6 186	1	505	165	715	1 093	53	230
1986–87	0	7 724	38	1 276	219	1 016	1 180	57	292
1987–88	0	9 577	42	908	171	708	976	54	459
1988–89	0	12 058	39	1 397	197	808	1 070	52	546
1989–90	0	11 603	85	1 594	234	948	1 116	122	650
1990–91	0	13 389	36	584	104	443	1 000	30	626
1991–92	0	15 332	49	204	103	382	905	38	557
1992–93	0	19 421	115	387	36	671	97	31	551
1993–94	0	20 296	164	405	189	737	944	56	564
1994–95	0	20 639	266	604	231	735	948	64	636
1995–96	0	23 703	415	421	302	1 027	720	34	614
1996–97	0	24 768	588	1 074	306	927	809	36	546
1997–98	0	25 017	511	483	111	755	795	53	554
1998–99	0	29 730	496	890	140	1 436	596	71	500
1999–00	0	26 936	519	1 065	171	1 400	799	137	541
2000–01	0	26 343	633	1 189	387	1 129	814	67	527
2001–02	0	27 308	588	1 436	225	1 280	557	93	476
2002–03	0	27 958	299	1 673	429	1 627	611	313	545
2003–04	0	23 498	785	3 243	682	3 374	1 285	461	712
2004–05	0	26 054	540	3 131	983	3 944	1 281	716	592
2005–06	953	24 416	599	3 687	817	6 122	1 418	740	788
2006–07	5 688	25 345	748	2 912	1 045	5 439	1 363	714	1 797
2007–08	5 374	26 223	965	3 533	1 846	7 470	1 625	812	1 732
2008–09	6 334	24 302	1 002	4 087	2 026	8 246	1 682	752	1 901

Source: ABARES (2010b).

TE 3.3a Energy production and trade—Australian energy exports, by fuel type— petroleum exports

Financial year	Crude oil and other refinery feedstock	LPG	Auto-motive gasoline	Aviation gasoline	Aviation turbine fuel	Auto-motive diesel oil	Fuel oil	Bitumen, lubricants and greases	Other petroleum products
<i>megalitres</i>									
1974–75	0	2 000	249	24	356	336	540	0	448
1975–76	0	1 950	155	14	278	387	823	0	536
1976–77	0	2 253	211	21	271	263	713	0	636
1977–78	221	2 864	286	23	326	522	396	278	145
1978–79	371	3 031	339	20	314	735	253	259	424
1979–80	127	2 764	312	8	210	638	352	251	220
1980–81	86	2 569	268	18	277	705	323	173	227
1981–82	44	2 622	340	43	268	669	307	227	100
1982–83	61	2 334	513	57	267	793	466	222	109
1983–84	1 056	2 851	592	72	382	1 035	505	247	93
1984–85	5 819	2 620	342	83	375	576	517	245	68
1985–86	5 051	2 977	397	70	329	578	723	181	106
1986–87	5 702	2 675	251	68	303	444	765	230	209
1987–88	6 453	2 402	360	81	398	682	754	224	240
1988–89	4 789	2 178	288	63	514	888	639	236	261
1989–90	7 202	1 983	212	83	541	701	443	253	340
1990–91	8 821	1 508	314	63	321	817	878	299	287
1991–92	8 972	1 568	694	158	248	774	1 045	414	527
1992–93	10 099	1 483	679	69	390	585	1 053	402	552
1993–94	9 538	1 290	892	59	400	752	713	400	391
1994–95	11 445	1 189	648	42	283	594	853	448	483
1995–96	10 900	1 469	1 127	69	552	1 109	629	351	454
1996–97	12 401	2 421	1 274	70	699	1 306	928	363	677
1997–98	14 785	2 824	1 521	56	658	1 266	633	402	407
1998–99	14 291	2 486	1 533	74	547	1 218	253	320	293
1999–00	20 877	2 857	1 371	79	579	1 070	585	259	175
2000–01	24 044	2 785	1 288	28	755	1 276	724	281	213
2001–02	23 936	3 211	1 186	71	549	948	293	165	199
2002–03	20 950	3 194	1 058	52	645	1 052	95	163	75
2003–04	17 526	2 916	774	36	528	872	81	122	61
2004–05	15 731	2 844	774	38	240	367	201	157	70
2005–06	13 026	2 800	714	85	127	419	490	180	69
2006–07	15 965	2 824	771	81	120	288	209	231	62
2007–08	15 975	2 589	628	96	149	462	257	178	35
2008–09	16 588	2 500	244	56	106	357	188	181	29

Source: ABARES (2010b).

TE 3.3b Energy production and trade—Australian energy exports, by fuel type— non-petroleum exports

Financial year	Black coal		Uranium tonnes	Briquettes kilotonnes	Coke kilotonnes	LNG kilotonnes
	Coking kilotonnes	Steaming kilotonnes				
1974–75	28 666	3 756	0	1	421	0
1975–76	27 431	2 994	0	2	182	0
1976–77	32 219	3 153	749	44	189	0
1977–78	33 634	4 277	1 033	42	149	0
1978–79	33 257	5 021	893	25	147	0
1979–80	36 144	7 017	1 051	25	122	0
1980–81	36 854	10 585	1 053	39	21	0
1981–82	37 389	9 763	2 432	46	9	0
1982–83	38 771	16 773	3 783	47	5	0
1983–84	44 082	22 440	2 904	54	14	0
1984–85	50 480	33 319	2 919	47	11	0
1985–86	48 807	41 077	2 734	62	217	0
1986–87	49 792	45 922	3 700	53	108	0
1987–88	55 794	46 406	3 860	75	816	0
1988–89	56 558	42 744	4 291	24	986	0
1989–90	58 390	45 625	3 157	31	574	2 010
1990–91	60 130	53 052	5 197	44	897	3 400
1991–92	65 461	57 739	4 010	82	724	4 660
1992–93	72 419	55 986	1 941	61	599	4 984
1993–94	69 889	59 166	3 385	100	529	6 032
1994–95	73 335	62 901	3 451	105	295	7 018
1995–96	77 412	61 138	4 483	98	421	7 482
1996–97	78 688	67 064	4 834	95	329	7 486
1997–98	84 073	78 538	5 440	28	178	7 650
1998–99	85 260	84 153	5 079	0	67	7 819
1999–00	96 808	78 970	6 805	0	24	7 923
2000–01	105 527	87 975	8 244	1	19	7 530
2001–02	105 436	92 172	6 247	0	81	7 600
2002–03	107 790	99 950	8 135	0	262	7 830
2003–04	111 732	106 694	7 716	0	1	7 914
2004–05	124 915	106 396	9 539	0	0	10 589
2005–06	120 479	110 821	8 695	0	0	12 029
2006–07	131 965	111 624	8 072	0	0	14 332
2007–08	136 921	115 069	8 598	0	0	13 678
2008–09	125 250	136 354	8 577	0	0	15 410

Source: ABARES (2010b).

TE 3.4 Electricity usage—Australian electricity generation, by state/territory

Financial year	NSW	VIC	QLD	WA	SA	TAS	NT	Australia
<i>gigawatt hours</i>								
1974–75	27 250	18 922	9 430	5 989	5 665	6 100	646	74 002
1975–76	27 879	19 962	9 779	6 508	5 966	6 034	701	76 828
1976–77	30 309	21 023	10 615	6 986	6 520	6 873	729	83 055
1977–78	31 787	21 395	11 300	7 229	6 797	7 201	775	86 484
1978–79	34 201	22 820	11 884	7 492	6 934	7 787	831	91 950
1979–80	36 708	23 595	12 558	7 733	7 074	7 950	1 100	96 717
1980–81	38 845	25 396	13 501	7 885	7 458	8 096	1 175	102 356
1981–82	39 666	26 587	14 640	8 199	7 618	8 173	1 183	106 065
1982–83	38 475	26 457	16 125	8 365	7 879	8 006	1 235	106 542
1983–84	41 253	27 152	18 551	8 647	7 681	8 173	1 296	112 752
1984–85	44 712	28 080	20 626	9 711	8 144	8 320	1 368	120 960
1985–86	46 895	29 176	22 267	10 321	8 370	8 451	1 456	126 936
1986–87	48 900	31 123	23 344	10 881	8 426	8 463	1 494	132 631
1987–88	50 011	33 909	24 313	11 455	8 824	9 011	1 564	139 088
1988–89	51 741	37 435	25 677	12 848	9 254	9 135	1 705	147 796
1989–90	54 216	38 226	27 473	14 261	9 791	9 223	1 828	155 019
1990–91	54 140	38 476	28 423	14 809	9 851	9 219	1 899	156 818
1991–92	54 542	38 907	29 823	15 208	9 979	9 131	1 966	159 556
1992–93	56 167	39 642	30 992	15 624	10 210	9 054	1 961	163 652
1993–94	58 229	39 229	32 214	16 295	10 433	9 099	1 967	167 466
1994–95	59 725	40 229	33 999	17 362	10 876	8 877	2 095	173 162
1995–96	61 371	40 062	35 555	18 106	10 879	9 277	2 351	177 602
1996–97	63 101	41 145	36 967	18 291	11 193	9 783	2 463	182 944
1997–98	65 653	44 258	41 909	19 542	11 571	9 882	2 559	195 375
1998–99	67 487	46 782	43 318	21 407	12 386	10 027	2 585	203 991
1999–00	69 215	47 576	44 911	22 869	12 816	10 137	2 706	210 230
2000–01	71 690	52 153	50 692	23 135	13 676	10 412	2 883	224 641
2001–02	72 547	53 091	51 363	23 378	13 492	10 724	2 969	227 563
2002–03	71 612	52 242	50 993	24 457	13 546	10 610	2 993	226 452
2003–04	74 705	53 215	55 528	25 319	13 701	11 059	3 055	236 581
2004–05	77 198	56 005	55 798	26 791	14 112	12 547	3 191	245 642
2005–06	78 238	57 563	55 449	26 605	14 560	12 026	3 125	247 567
2006–07	79 269	58 227	55 588	27 112	14 732	12 368	3 933	251 227
2007–08	80 602	59 321	56 823	29 793	14 889	12 620	3 982	258 029
2008–09	81 210	58 752	57 983	31 154	15 310	12 210	4 347	260 965

Source: ABARES (2010b)

TE 3.5a Electricity usage—Australian electricity consumption, by industry— New South Wales

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
	Iron and steel	Basic non-ferrous metals	Total manufacturing	Electricity generation	Other electricity, gas and water			
gigawatt hours								
1974–75	889	np	np	8 833	3 917	222	4 278	9 111
1975–76	889	np	np	8 830	3 860	250	4 471	9 580
1976–77	945	np	np	9 029	4 778	250	4 834	10 473
1977–78	973	np	np	9 392	5 085	250	5 140	10 948
1978–79	1 000	np	np	9 724	5 834	278	5 557	11 808
1979–80	1 055	np	np	10 551	6 525	333	6 164	12 079
1980–81	1 167	np	np	11 281	6 502	417	6 641	12 837
1981–82	1 194	np	np	11 166	6 555	472	6 805	13 472
1982–83	1 222	np	np	10 306	6 306	472	6 806	13 362
1983–84	1 222	np	np	12 501	6 612	472	6 945	13 501
1984–85	1 305	np	np	14 636	7 276	444	7 387	13 664
1985–86	1 528	np	np	15 974	6 529	528	7 945	14 391
1986–87	1 584	np	np	16 782	6 835	500	8 363	14 837
1987–88	1 528	np	np	17 420	6 446	528	9 002	15 087
1988–89	1 639	np	np	17 997	7 054	528	9 498	15 025
1989–90	1 889	np	np	18 637	7 083	528	10 054	16 026
1990–91	1 889	np	np	18 639	6 278	528	10 584	16 223
1991–92	1 916	np	np	18 995	6 304	555	10 636	16 135
1992–93	1 944	np	np	19 806	6 361	556	10 722	16 778
1993–94	1 972	np	np	21 641	6 501	556	10 862	16 696
1994–95	2 083	np	np	21 668	6 889	556	11 417	17 112
1995–96	2 223	np	np	21 476	6 973	556	12 641	17 503
1996–97	2 194	np	np	22 274	6 888	583	12 970	18 192
1997–98	2 333	np	np	23 190	7 415	611	13 803	18 302
1998–99	2 417	np	np	23 866	7 418	611	14 614	18 560
1999–00	2 417	np	np	24 341	7 613	639	14 921	19 284
2000–01	3 212	np	np	24 304	8 101	1 052	14 781	20 239
2001–02	3 287	np	np	24 297	7 861	1 115	15 293	20 695
2002–03	3 306	np	np	23 861	7 806	1 056	15 556	20 028
2003–04	3 973	np	np	24 253	8 557	1 111	15 974	20 836
2004–05	3 917	np	np	24 834	8 973	1 167	16 723	21 584
2005–06	3 917	np	np	25 005	9 419	1 250	17 031	21 615
2006–07	4 084	np	np	25 978	9 141	1 250	17 449	21 366
2007–08	4 223	np	np	26 339	9 085	1 250	17 671	22 033
2008–09	4 140	np	np	26 505	9 168	945	17 809	22 643

np Not available for publication but included in the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.5b Electricity usage—Australian electricity consumption, by industry—Victoria

Financial year	Mining	Manufacturing		Electricity, gas and water			Other industries	Household consumption
	Iron and steel	Basic non-ferrous metals	Total manufacturing	Electricity generation	Other electricity, gas and water			
gigawatt hours								
1974–75	361	np	np	6 613	2 890	222	3 001	5 835
1975–76	416	np	np	6 885	3 137	222	3 221	6 080
1976–77	472	np	np	6 887	3 333	222	3 416	6 693
1977–78	500	np	np	6 974	3 223	250	3 501	6 946
1978–79	527	np	np	7 496	3 498	250	3 831	7 218
1979–80	500	np	np	7 865	3 502	278	4 030	7 420
1980–81	528	np	np	8 780	3 862	278	4 335	7 613
1981–82	583	np	np	9 223	4 167	306	4 445	7 862
1982–83	584	np	np	8 921	4 057	306	4 724	7 865
1983–84	639	np	np	9 301	4 109	305	4 886	7 912
1984–85	667	np	np	9 499	4 527	333	5 111	7 944
1985–86	750	np	np	9 920	4 585	306	5 446	8 169
1986–87	750	np	np	11 060	4 863	333	5 780	8 337
1987–88	778	np	np	13 136	5 027	333	6 276	8 359
1988–89	778	np	np	15 690	5 582	333	6 582	8 470
1989–90	778	np	np	15 807	5 445	361	7 084	8 751
1990–91	695	np	np	15 752	5 473	361	7 334	8 862
1991–92	722	np	np	15 802	5 832	361	7 387	8 803
1992–93	750	np	np	16 223	5 639	361	7 723	8 945
1993–94	750	np	np	16 058	5 445	361	7 946	8 668
1994–95	750	np	np	15 808	5 695	361	8 501	9 113
1995–96	666	np	np	15 297	5 442	389	8 829	9 439
1996–97	722	np	np	15 492	5 442	389	9 328	9 773
1997–98	750	np	np	16 392	6 779	417	9 641	10 280
1998–99	750	np	np	16 640	8 362	417	9 973	10 640
1999–00	805	np	np	17 081	8 526	417	10 332	10 415
2000–01	796	np	np	20 435	8 640	455	11 084	10 743
2001–02	796	np	np	21 185	8 787	455	11 403	10 465
2002–03	889	np	np	20 469	8 415	417	11 582	10 471
2003–04	889	np	np	20 636	8 554	444	11 971	10 721
2004–05	1 056	np	np	22 335	8 667	444	12 529	10 973
2005–06	1 195	np	np	22 753	8 946	528	12 835	11 307
2006–07	1 250	np	np	23 363	8 001	528	13 640	11 445
2007–08	1 334	np	np	24 062	7 835	528	13 865	11 697
2008–09	1 333	np	np	23 417	7 806	556	14 167	11 473

np not available for publication but included in the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c)

TE 3.5c Electricity usage—Australian electricity consumption, by industry— Queensland

Financial year	Mining	Manufacturing		Electricity, gas and water		Other industries	Household consumption
		Iron and steel	Basic non-ferrous metals	Total manufacturing	Electricity generation	Other electricity, gas and water	
<i>gigawatt hours</i>							
1974–75	1 248	np	np	2 247	1 331	55	1 609
1975–76	1 250	np	np	2 389	1 472	56	1 584
1976–77	1 334	np	np	2 529	1 584	56	1 834
1977–78	1 333	np	np	2 582	1 721	56	2 055
1978–79	1 361	np	np	2 610	1 944	56	2 166
1979–80	1 334	np	np	2 834	1 945	56	2 528
1980–81	1 417	np	np	2 889	2 195	56	2 834
1981–82	1 528	np	np	3 167	2 306	56	3 111
1982–83	1 637	np	np	4 080	2 359	83	3 219
1983–84	1 583	np	np	6 026	2 666	83	3 305
1984–85	1 693	np	np	6 774	3 498	83	3 553
1985–86	1 805	np	np	7 024	4 165	83	3 998
1986–87	1 971	np	np	7 272	4 191	111	4 413
1987–88	2 112	np	np	7 586	3 918	83	4 946
1988–89	2 276	np	np	7 828	4 053	83	5 524
1989–90	2 472	np	np	8 195	4 389	111	5 972
1990–91	2 584	np	np	8 363	4 473	111	6 335
1991–92	2 777	np	np	8 386	5 026	139	6 692
1992–93	2 916	np	np	8 692	5 138	111	7 054
1993–94	3 083	np	np	9 081	5 221	111	7 331
1994–95	3 222	np	np	9 305	5 555	111	8 055
1995–96	3 194	np	np	9 555	5 917	111	8 805
1996–97	3 333	np	np	9 776	6 166	139	9 332
1997–98	3 583	np	np	12 720	6 999	139	9 887
1998–99	3 888	np	np	13 301	7 053	139	10 108
1999–00	4 222	np	np	13 832	7 027	139	10 665
2000–01	6 150	np	np	15 524	7 672	149	11 136
2001–02	6 105	np	np	15 738	7 943	0	11 411
2002–03	5 971	np	np	14 970	8 665	0	11 221
2003–04	6 167	np	np	15 222	11 806	0	11 556
2004–05	6 221	np	np	15 887	10 054	167	12 082
2005–06	6 167	np	np	16 168	9 445	167	12 057
2006–07	5 917	np	np	15 251	10 223	167	12 501
2007–08	6 224	np	np	15 282	9 975	306	12 948
2008–09	6 307	np	np	15 114	10 641	333	13 197

np not available for publication but included in the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c)

TE 3.5d Electricity usage—Australian electricity consumption, by industry— South Australia

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
	Iron and steel	Basic non-ferrous metals	Total manufacturing	Electricity generation	Other electricity, gas and water			
gigawatt hours								
1974–75	111	np	np	1 694	833	111	972	1 944
1975–76	111	np	np	1 693	860	166	1 082	2 053
1976–77	111	np	np	1 776	888	361	1 138	2 247
1977–78	111	np	np	1 803	943	416	1 248	2 275
1978–79	111	np	np	1 914	943	194	1 304	2 469
1979–80	139	np	np	1 970	999	194	1 359	2 413
1980–81	139	np	np	1 913	1 137	250	1 469	2 551
1981–82	139	np	np	2 002	1 084	195	1 529	2 669
1982–83	139	np	np	1 914	971	444	1 637	2 774
1983–84	250	np	np	1 830	1 109	194	1 636	2 662
1984–85	278	np	np	1 918	1 167	250	1 723	2 807
1985–86	278	np	np	2 002	1 224	278	1 780	2 809
1986–87	278	np	np	2 030	1 307	139	1 808	2 864
1987–88	277	np	np	2 137	1 332	139	1 970	2 969
1988–89	361	np	np	2 251	1 417	139	2 112	2 974
1989–90	416	np	np	2 524	1 359	139	2 219	3 134
1990–91	444	np	np	2 525	1 249	194	2 275	3 163
1991–92	445	np	np	2 585	1 390	195	2 252	3 113
1992–93	444	np	np	2 747	1 276	83	2 386	3 274
1993–94	416	np	np	2 830	1 360	194	2 442	3 191
1994–95	444	np	np	2 969	1 332	250	2 497	3 385
1995–96	444	np	np	2 970	1 415	139	2 525	3 386
1996–97	417	np	np	2 972	1 416	139	2 666	3 583
1997–98	416	np	np	3 080	1 415	194	2 775	3 691
1998–99	583	np	np	3 277	1 555	250	2 916	3 805
1999–00	612	np	np	3 336	1 640	306	2 975	3 948
2000–01	681	np	np	3 263	1 873	312	3 291	4 256
2001–02	655	np	np	3 103	1 964	313	3 444	4 013
2002–03	638	np	np	3 609	1 832	305	3 331	3 831
2003–04	639	np	np	3 113	1 918	306	3 446	4 280
2004–05	639	np	np	3 250	1 945	306	3 584	4 389
2005–06	639	np	np	3 668	1 862	306	3 640	4 446
2006–07	667	np	np	3 725	1 668	306	3 780	4 586
2007–08	667	np	np	3 639	1 694	278	3 917	4 694
2008–09	667	np	np	3 640	1 917	333	3 946	4 807

np not available for publication but included in the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.5e Electricity usage—Australian electricity consumption, by industry— Western Australia

Financial year	Mining	Manufacturing		Electricity, gas and water			Other industries	Household consumption
		Iron and steel	Basic non-ferrous metals	Total manufacturing	Electricity generation	Other electricity, gas and water		
<i>gigawatt hours</i>								
1974–75	1 414	np	np	1 414	776	55	1 054	1 275
1975–76	1 474	np	np	1 585	807	56	1 168	1 418
1976–77	1 497	np	np	1 830	804	55	1 275	1 525
1977–78	1 418	np	np	1 891	890	56	1 362	1 613
1978–79	1 360	np	np	1 998	943	55	1 415	1 720
1979–80	1 168	np	np	2 142	946	56	1 586	1 836
1980–81	1 083	np	np	2 082	1 000	83	1 638	1 999
1981–82	1 195	np	np	2 057	1 056	56	1 751	2 084
1982–83	1 167	np	np	2 112	1 056	56	1 862	2 112
1983–84	1 168	np	np	2 280	1 057	56	1 946	2 141
1984–85	1 276	np	np	2 747	1 249	55	2 109	2 275
1985–86	1 554	np	np	2 941	1 304	83	2 136	2 303
1986–87	1 554	np	np	3 053	1 332	83	2 415	2 443
1987–88	1 779	np	np	3 225	1 390	56	2 586	2 419
1988–89	2 497	np	np	3 330	1 498	83	2 886	2 553
1989–90	3 308	np	np	3 558	1 585	83	3 086	2 641
1990–91	3 473	np	np	3 584	1 639	111	3 223	2 778
1991–92	3 663	np	np	3 746	1 637	111	3 247	2 803
1992–93	3 719	np	np	3 996	1 665	111	3 330	2 803
1993–94	3 720	np	np	4 331	1 749	83	3 525	2 887
1994–95	4 167	np	np	4 500	1 833	83	3 695	3 083
1995–96	4 554	np	np	4 665	1 944	111	3 749	3 082
1996–97	4 580	np	np	4 718	1 860	83	3 886	3 164
1997–98	4 997	np	np	5 108	1 915	83	4 025	3 414
1998–99	5 359	np	np	6 386	1 971	111	4 026	3 554
1999–00	5 669	np	np	7 197	2 084	111	4 113	3 696
2000–01	4 627	np	np	7 016	2 540	151	4 657	4 143
2001–02	4 730	np	np	6 628	2 681	151	4 880	4 308
2002–03	5 003	np	np	7 476	3 113	111	4 669	4 085
2003–04	5 281	np	np	7 615	3 307	139	4 836	4 141
2004–05	5 753	np	np	7 726	3 724	139	5 086	4 363
2005–06	6 249	np	np	6 804	3 916	139	4 971	4 527
2006–07	5 917	np	np	7 695	3 611	139	5 139	4 611
2007–08	5 836	np	np	8 586	4 613	528	5 336	4 891
2008–09	5 975	np	np	8 421	5 586	556	5 419	5 197

np not available for publication but included in the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.5f Electricity usage—Australian electricity consumption, by industry—Tasmania

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
	Iron and steel	Basic non-ferrous metals	Total manufacturing	Electricity generation	Other electricity, gas and water			
gigawatt hours								
1974–75	499	np	np	3 521	582	28	582	887
1975–76	473	np	np	3 420	556	28	640	918
1976–77	473	np	np	4 063	612	28	696	1 002
1977–78	500	np	np	4 309	584	28	723	1 057
1978–79	501	np	np	4 756	640	28	751	1 112
1979–80	500	np	np	4 837	639	28	778	1 167
1980–81	499	np	np	4 741	776	28	860	1 192
1981–82	500	np	np	4 893	639	28	862	1 251
1982–83	500	np	np	4 726	612	28	862	1 279
1983–84	473	np	np	4 837	667	28	890	1 279
1984–85	471	np	np	4 909	693	0	943	1 303
1985–86	500	np	np	4 976	695	0	945	1 334
1986–87	499	np	np	4 939	666	0	971	1 387
1987–88	501	np	np	5 479	667	28	1 001	1 335
1988–89	555	np	np	5 470	750	28	1 000	1 333
1989–90	583	np	np	5 556	750	28	1 000	1 306
1990–91	500	np	np	5 665	694	28	1 027	1 305
1991–92	500	np	np	5 523	694	28	1 055	1 332
1992–93	500	np	np	5 444	667	28	1 055	1 361
1993–94	527	np	np	5 465	666	28	1 054	1 359
1994–95	472	np	np	5 160	666	0	1 248	1 332
1995–96	556	np	np	5 277	667	28	1 361	1 389
1996–97	528	np	np	5 753	695	28	1 390	1 390
1997–98	527	np	np	5 802	722	0	1 443	1 388
1998–99	556	np	np	5 888	694	28	1 444	1 417
1999–00	555	np	np	5 916	694	28	1 472	1 472
2000–01	851	np	np	5 646	709	28	1 674	1 504
2001–02	569	np	np	5 803	711	28	1 735	1 877
2002–03	667	np	np	5 638	667	0	1 805	1 833
2003–04	861	np	np	5 668	667	28	1 834	2 001
2004–05	916	np	np	6 940	666	28	1 777	2 221
2005–06	944	np	np	6 443	639	28	1 750	2 222
2006–07	945	np	np	6 837	556	28	1 807	2 196
2007–08	1 029	np	np	6 922	556	28	1 807	2 279
2008–09	999	np	np	6 438	527	28	1 915	2 303

np not available for publication but included in the totals.

Source: ABARES (2009b), ABARES (2009c).

TE 3.5g Electricity usage—Australian electricity consumption, by industry— Northern Territory

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
	Iron and steel	Basic non-ferrous metals	Total manufacturing	Electricity generation	Other electricity, gas and water			
gigawatt hours								
1974–75	56	np	np	np	28	28	421	112
1975–76	56	np	np	np	84	28	393	140
1976–77	56	np	np	np	84	28	421	140
1977–78	55	np	np	np	111	28	443	138
1978–79	55	np	np	np	83	55	471	166
1979–80	138	np	np	np	83	55	633	193
1980–81	140	np	np	np	84	56	671	224
1981–82	165	np	np	np	83	55	660	220
1982–83	137	np	np	np	82	55	741	220
1983–84	138	np	np	np	83	55	772	248
1984–85	140	np	np	np	112	56	782	279
1985–86	168	np	np	np	112	56	812	308
1986–87	166	np	np	np	111	28	885	304
1987–88	168	np	np	np	84	56	922	335
1988–89	252	np	np	np	140	28	950	335
1989–90	332	np	np	np	111	55	997	332
1990–91	335	np	np	np	140	28	1 061	335
1991–92	305	np	np	np	166	55	1 080	360
1992–93	304	np	np	np	138	28	1 132	359
1993–94	305	np	np	np	111	55	1 108	388
1994–95	335	np	np	np	140	28	1 173	419
1995–96	526	np	np	np	111	55	1 217	443
1996–97	581	np	np	np	111	55	1 273	443
1997–98	599	np	np	np	136	54	1 280	490
1998–99	528	np	np	np	139	56	1 418	445
1999–00	530	np	np	np	139	56	1 451	530
2000–01	425	np	np	np	152	91	1 669	546
2001–02	606	np	np	np	151	91	1 575	545
2002–03	665	np	np	np	139	55	1 635	499
2003–04	667	np	np	np	139	56	1 694	500
2004–05	832	np	np	np	139	55	1 693	472
2005–06	725	np	np	np	140	56	1 674	530
2006–07	1 080	np	np	np	499	55	1 773	526
2007–08	1 086	np	np	np	473	56	1 810	557
2008–09	1 142	np	np	np	557	139	1 951	557

np not available for publication but included in the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.5h Electricity usage—Australian electricity consumption, by industry—Australia

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
	Iron and steel	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water			
gigawatt hours								
1974–75	4 583	4 500	6 972	13 084	10 361	694	11 695	22 112
1975–76	4 666	4 305	7 222	13 499	10 805	778	12 332	23 221
1976–77	4 917	4 250	7 972	14 083	12 083	1 000	13 417	25 333
1977–78	4 862	4 445	8 223	14 446	12 529	1 111	14 335	26 531
1978–79	4 917	4 861	8 695	15 140	13 862	945	15 334	28 196
1979–80	4 805	4 694	9 499	16 332	14 610	1 000	16 805	28 971
1980–81	5 000	4 833	10 555	16 666	15 527	1 167	18 110	30 498
1981–82	5 277	4 083	10 582	18 108	15 886	1 111	19 024	31 994
1982–83	5 416	3 472	11 165	17 720	15 470	1 389	19 581	32 329
1983–84	5 445	3 806	15 361	17 945	16 306	1 222	20 028	32 639
1984–85	5 861	3 916	18 304	18 637	18 498	1 250	21 192	33 302
1985–86	6 527	4 055	19 749	19 415	18 610	1 333	22 776	34 470
1986–87	6 777	4 083	21 193	20 193	19 277	1 194	24 360	35 553
1987–88	7 139	4 528	23 445	21 362	18 862	1 250	26 334	36 168
1988–89	8 361	4 527	25 776	22 637	20 471	1 250	28 137	36 637
1989–90	9 749	5 027	26 304	23 304	20 693	1 278	30 109	38 553
1990–91	9 888	4 777	26 581	23 553	19 887	1 389	31 497	39 246
1991–92	10 306	4 944	26 861	23 278	21 083	1 333	32 445	39 306
1992–93	10 582	5 138	27 748	24 026	20 887	1 278	33 358	40 635
1993–94	10 750	5 472	28 943	24 999	20 999	1 417	34 332	40 554
1994–95	11 472	5 722	27 860	25 860	22 055	1 500	36 527	42 166
1995–96	12 166	5 694	28 165	25 360	22 471	1 417	39 137	43 192
1996–97	12 304	5 832	29 440	25 718	22 580	1 444	40 855	44 771
1997–98	13 245	5 942	33 460	26 852	25 352	1 527	42 818	46 178
1998–99	14 085	6 084	35 864	27 447	27 169	1 611	44 504	47 227
1999–00	14 806	6 278	37 307	28 584	27 723	1 722	45 474	48 335
2000–01	16 434	6 250	45 686	24 912	29 715	2 199	47 798	51 647
2001–02	16 465	6 424	45 721	25 233	30 153	2 083	49 338	52 145
2002–03	17 112	6 889	42 835	26 834	30 640	1 972	49 252	50 918
2003–04	18 474	6 417	43 421	27 225	34 976	2 084	50 728	53 256
2004–05	19 336	7 807	45 811	27 920	34 171	2 334	52 868	55 396
2005–06	19 806	7 473	46 169	27 779	34 390	2 389	53 475	56 086
2006–07	19 864	7 640	47 339	28 476	33 727	2 473	55 452	56 257
2007–08	20 336	8 306	47 894	29 198	34 198	3 000	56 895	58 201
2008–09	20 557	7 917	47 615	28 724	36 197	2 917	57 671	59 366

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.6a Electricity usage—number of electricity customers, by state/territory— residential

At end of financial year	NSW ^g	VIC	QLD	SA ^h	WA ⁱ	TAS	NT ^j	ACT ^g	Australia
	<i>number</i>								
1975–76	1 638 763	1 238 954	590 368	438 811	314 455	135 391	^m 16 910	59 634	4 433 286
1976–77	1 670 130	1 267 648	609 173	453 501	337 193	139 132	^m 18 540	63 732	4 559 049
1977–78	1 704 606	1 295 514	627 874	464 066	362 365	142 729	20 168	66 152	4 683 474
1978–79	1 736 954	1 319 274	641 056	471 670	372 467	145 780	20 254	69 954	4 777 409
1979–80	1 778 482	1 344 255	686 986	479 005	382 500	148 777	20 930	70 529	4 911 464
1980–81	1 827 382	1 368 502	715 571	486 018	397 740	151 615	21 537	72 518	5 040 883
1981–82	1 871 428	1 390 366	747 572	492 616	400 255	153 942	24 106	75 027	5 155 312
1982–83	1 910 929	1 410 782	778 871	500 328	407 679	156 016	25 678	77 517	5 267 800
1983–84	1 941 518	1 434 797	810 816	510 369	410 000	158 448	27 704	79 306	5 372 958
1984–85	1 977 262	1 463 053	841 251	522 654	443 222	161 755	30 842	81 784	5 521 823
1985–86	2 016 735	1 495 878	866 602	534 823	464 403	165 435	33 535	84 978	5 662 389
1986–87	2 047 229	1 523 100	889 389	544 326	481 310	168 796	33 883	88 542	5 776 575
1987–88	2 076 298	1 552 603	914 714	522 980	514 316	172 109	35 417	91 010	5 879 447
1988–89	2 110 063	1 585 877	954 244	561 293	520 623	175 472	36 592	93 549	6 037 713
1989–90	2 155 493	1 618 058	996 542	571 712	544 680	178 291	37 439	96 122	6 198 337
1990–91	2 197 765	1 639 066	1 031 612	581 503	556 378	182 340	38 252	99 078	6 325 994
1991–92	2 231 018	1 661 567	1 073 548	591 655	571 727	186 134	41 304	101 920	6 458 873
1992–93	2 302 524	1 684 837	1 123 671	594 229	590 546	190 308	42 588	105 588	6 634 291
1993–94	2 329 499	1 709 280	1 174 558	605 481	609 852	194 314	48 190	109 005	6 780 179
1994–95									
1995–96									
1996–97									
1997–98	2 555 906	1 804 169	1 346 548	630 060	673 571	206 926	54 998		7 272 178
1998–99	2 513 792	1 800 026	1 382 747	636 283	676 947	205 138	56 686		7 271 619
1999–00	2 572 324	1 871 775	1 426 420	642 878	692 475	207 285	58 550		7 471 707
2000–01	2 610 259	1 896 991	1 460 916	649 387	722 853	207 336	54 748		7 602 490
2001–02	2 661 016	1 942 595	1 487 968	657 209	736 100	208 380	55 779		7 749 047
2002–03	2 850 155	2 005 664	1 491 127	660 926	742 270	208 795	62 317		8 021 254
2003–04	2 876 498	2 048 182	1 558 783	659 211	748 903	211 422	62 330		8 165 329
2004–05	2 919 583	2 097 560	1 574 167	670 743	820 703	213 832	61 222		8 357 810
2005–06	2 949 376	2 109 756	1 603 756	679 069		216 983	61 555		
2006–07	2 923 107	2 141 284	1 629 232	688 524	807 136	219 809	61 783		8 470 875
2007–08	2 977 603	2 164 899	1 670 789	697 518	883 932	220 148	63 800		8 678 689
2008–09	3 000 551	2 190 588	1 697 545	708 242	909 680		60 805		

^g From 1997–98, customer connections for ACT are included in the NSW figure.

^h The method of compiling South Australian customer numbers changed from 2003–04 and is not comparable to earlier years.

ⁱ A breakdown of customer connections for Western Australia was not available for 2005–06. The method of compiling Western Australian customer numbers changed from 2007–08 and again in 2008–09. Estimates are not comparable to earlier years.

^j The method of compiling Northern Territory customer numbers changed from 2005–06 and is not comparable to earlier years.

^k Estimate only.

Note: Data are not readily available for missing years.

Source: ESAA (2005) and ESAA updates.

TE 3.6b Electricity usage—number of electricity customers, by state/territory—business

At end of financial year	NSW ^g	VIC	QLD	SA ^h	WA ⁱ	TAS	NT ^j	ACT ^g	Australia
	<i>number</i>								
1975–76	189 831	212 722	103 590	76 372	33 852	31 999	3 725	6 886	658 977
1976–77	193 256	214 602	105 777	78 171	35 165	32 574	3 842	7 293	670 680
1977–78	197 424	215 600	109 315	79 736	37 812	33 141	3 957	7 698	684 683
1978–79	201 962	218 117	120 791	81 439	40 458	33 945	3 772	7 877	708 361
1979–80	205 546	221 392	110 348	83 387	42 675	34 689	4 201	7 593	709 831
1980–81	210 005	225 018	117 797	84 719	41 490	35 300	4 458	7 829	726 616
1981–82	214 174	226 919	126 009	85 849	59 156	35 609	4 659	7 319	759 694
1982–83	219 349	228 718	130 232	86 831	68 258	35 842	4 733	7 474	781 437
1983–84	223 425	232 144	135 705	87 792	80 639	36 755	4 795	7 636	808 892
1984–85	227 898	236 536	139 314	89 016	69 073	37 253	5 276	8 173	812 539
1985–86	233 894	238 419	146 119	90 830	71 707	37 849	5 768	8 507	833 093
1986–87	240 513	240 848	150 231	90 847	74 242	38 503	6 140	8 821	850 145
1987–88	247 375	246 856	156 614	91 283	70 558	39 209	6 617	9 369	867 881
1988–89	242 024	255 125	162 348	92 488	75 840	40 063	6 689	9 816	884 393
1989–90	248 015	255 895	165 650	93 570	78 318	40 670	6 950	10 244	899 312
1990–91	252 036	254 817	169 271	93 576	84 304	41 731	7 064	10 697	913 496
1991–92	264 021	256 222	172 743	93 784	85 050	42 000	8 330	10 820	932 970
1992–93	260 095	259 862	175 658	85 228	86 785	42 356	8 133	11 175	929 292
1993–94	270 419	262 286	181 103	85 559	89 622	43 086	9 315	11 669	953 059
1994–95									
1995–96									
1996–97									
1997–98	^l 391 107	^l 283 882	^l 185 486	^l 94 471	^l 88 133	^l 38 572	^l 11 128		^l 1 092 779
1998–99	337 090	285 271	^l 193 566	66 303	^l 98 655	27 821	^l 11 663		^l 1 020 369
1999–00	358 674	226 217	173 719	64 199	^l 102 271	28 653	^l 11 283		^l 965 016
2000–01	337 054	265 878	162 095	^l 66 672	^l 87 715	^l 40 563	10 762		^l 970 739
2001–02	319 964	268 453	164 248	^l 67 743	^l 92 013	27 662	11 093		^l 951 176
2002–03	319 156	301 925	195 682	95 061	104 788	42 098	12 664		1 071 374
2003–04	337 501	303 481	192 454	95 626	118 164	42 100	13 066		1 102 392
2004–05	343 345	271 844	199 802	86 885	109 215	42 190	15 305		1 068 586
2005–06	348 482	311 820	205 283	97 425		42 147	12 078		
2006–07	410 577	313 330	216 421	97 980	117 977	43 102	13 499		1 212 886
2007–08	394 249	313 735	221 671	98 695	128 965	44 159	11 874		1 213 348
2008–09	394 817	315 256	211 191	99 311	141 654		11 522		

^g From 1997–98, customer connections for ACT are included in the NSW figure.

^h The method of compiling South Australian customer numbers changed from 2003–04 and is not comparable to earlier years.

ⁱ A breakdown of customer connections for Western Australia was not available for 2005–06. The method of compiling Western Australian customer numbers changed from 2007–08 and again in 2008–09. Estimates are not comparable to earlier years.

^j The method of compiling Northern Territory customer numbers changed from 2005–06 and is not comparable to earlier years.

^l The number of 'other' electricity customers is not separately available and has been included in estimates of the number of business customers.

Note: Data are not readily available for missing years.

Source: ESAA (2005) and ESAA updates.

TE 3.6c Electricity usage—number of electricity customers, by state/territory— other (including public lighting and traction)

At end of financial year	NSW ^g	VIC	QLD	SA	WA	TAS	NT	ACT ^g	Australia
	<i>number</i>								
1975–76	661	377	131	145	190	117	3	660	2 284
1976–77	647	1 324	132	138	213	136	3	712	3 305
1977–78	683	1 424	132	145	237	135	0	755	3 511
1978–79	680	1 522	131	143	261	136	0	777	3 650
1979–80	877	1 582	132	133	281	141	0	823	3 969
1980–81	844	1 667	133	133	288	157	0	776	3 998
1981–82	701	1 732	133	134	169	176	0	792	3 837
1982–83	667	1 782	133	141	201	176	0	801	3 901
1983–84	729	1 836	133	145	179	184	0	986	4 192
1984–85	819	1 858	133	167	146	189	0	819	4 131
1985–86	732	1 926	133	165	144	205	0	821	4 126
1986–87	755	2 071	133	168	146	199	0	838	4 310
1987–88	749	2 073	133	172	146	209	5	867	4 354
1988–89	15 631	2 037	133	173	146	208	5	871	19 204
1989–90	16 723	2 009	133	172	148	208	5	912	20 310
1990–91	29 815	1 870	133	173	148	212	5	924	33 280
1991–92	29 300	2 007	133	166	150	214	5	950	32 925
1992–93	29 637	2 099	133	790	146	231	17	1 002	34 055
1993–94	25 461	14 121	132	1 496	151	207	33	1 005	42 606
1994–95									
1995–96									
1996–97									
1997–98	1	1	1	1	1	1	1		1
1998–99	131 371	68 132	1	31 197	1	12 226	1		1
1999–00	84 338	58 399	29 356	29 307	1	12 322	1		1
2000–01	129 084	55 843	32 496	1	1	1	6 657		1
2001–02	132 889	57 418	32 272	1	1	12 502	6 939		1
2002–03									
2003–04									
2004–05									
2005–06									
2006–07									
2007–08									
2008–09									

^g From 1997–98, customer connections for ACT are included in the NSW figure.
 1 The number of 'other' electricity customers is not separately available and has been included in estimates of the number of business customers.

Note: Data are not readily available for missing years.
 Source: ESAA (2005) and ESAA updates.

TE 3.6d Electricity usage—number of electricity customers, by state/territory—total

At end of financial year	NSW ^g	VIC	QLD	SA ^h	WA ⁱ	TAS	NT ^j	ACT ^g	Australia
	<i>number</i>								
1975–76	1 829 255	1 452 053	694 089	515 328	348 497	167 507	20 638	67 180	5 094 547
1976–77	1 864 033	1 483 574	715 082	531 810	372 571	171 842	22 385	71 737	5 233 034
1977–78	1 902 713	1 512 538	737 321	543 947	400 414	176 005	24 125	74 605	5 371 668
1978–79	1 939 596	1 538 913	761 978	553 252	413 186	179 861	24 026	78 608	5 489 420
1979–80	1 984 905	1 567 229	797 466	562 525	425 456	183 607	25 131	78 945	5 625 264
1980–81	2 038 231	1 595 187	833 501	570 870	439 518	187 072	25 995	81 123	5 771 497
1981–82	2 086 303	1 619 017	873 714	578 599	459 580	189 727	28 765	83 138	5 918 843
1982–83	2 130 945	1 641 282	909 236	587 300	476 138	192 034	30 411	85 792	6 053 138
1983–84	2 165 672	1 668 777	946 654	598 306	490 818	195 387	32 499	87 928	6 186 041
1984–85	2 205 979	1 701 447	980 698	611 837	512 441	199 197	36 118	90 776	6 338 493
1985–86	2 251 361	1 736 223	1 012 854	625 818	536 254	203 489	39 303	94 306	6 499 608
1986–87	2 288 497	1 766 019	1 039 753	635 341	555 698	207 498	40 023	98 201	6 631 030
1987–88	2 324 422	1 801 532	1 071 461	614 435	585 020	211 527	42 039	101 246	6 751 682
1988–89	2 367 718	1 843 039	1 116 725	653 954	596 609	215 743	43 286	104 236	6 941 310
1989–90	2 420 231	1 875 962	1 162 325	665 454	623 146	219 169	44 394	107 278	7 117 959
1990–91	2 479 616	1 895 753	1 201 016	675 252	640 830	224 283	45 321	110 699	7 272 770
1991–92	2 524 339	1 919 796	1 246 424	685 605	656 927	228 348	49 639	113 690	7 424 768
1992–93	2 592 256	1 946 798	1 299 462	680 247	677 477	232 895	50 738	117 765	7 597 638
1993–94	2 625 379	1 985 687	1 355 793	692 536	699 625	237 607	57 538	121 679	7 775 844
1994–95	2 797 616	2 002 363	1 410 842	704 156	706 634	239 876	59 226		7 920 713
1995–96	2 834 776	2 035 584	1 457 364	711 050	725 430	241 818	61 305		8 067 327
1996–97	2 875 350	2 062 587	1 495 900	713 333	742 150	243 522	63 533		8 196 375
1997–98	2 947 013	2 088 051	1 532 034	724 531	761 704	245 498	66 126		8 364 957
1998–99	2 982 253	2 153 429	1 576 313	733 783	775 602	245 185	68 349		8 534 914
1999–00	3 015 336	2 156 391	1 629 495	736 384	794 746	248 260	69 833		8 650 445
2000–01	3 076 397	2 218 712	1 655 507	744 128	810 568	247 899	72 167		8 825 378
2001–02	3 113 869	2 268 466	1 684 488	751 802	828 113	248 544	73 811		8 969 093
2002–03	3 169 311	2 307 589	1 686 809	755 987	847 058	250 893	74 981		9 092 628
2003–04	3 213 999	2 351 663	1 751 237	754 837	867 067	253 522	75 396		9 267 721
2004–05	3 262 928	2 369 404	1 773 969	757 628	929 918	256 022	76 527		9 426 396
2005–06	3 297 858	2 421 576	1 809 039	776 494	892 601	259 130	73 633		9 530 331
2006–07	3 333 684	2 454 614	1 845 653	786 504	925 113	262 911	75 282		9 683 761
2007–08	3 371 852	2 478 634	1 892 460	796 213	1 012 897	264 307	75 674		9 892 037
2008–09	3 395 368	2 505 844	1 908 736	807 553	1 051 334	269 556	72 327		10 010 718

^g From 1997–98, customer connections for ACT are included in the NSW figure.

^h The method of compiling South Australian customer numbers changed from 2003–04 and is not comparable to earlier years.

ⁱ A breakdown of customer connections for Western Australia was not available for 2005–06. The method of compiling Western Australian customer numbers changed from 2007–08 and again in 2008–09. Estimates are not comparable to earlier years.

^j The method of compiling Northern Territory customer numbers changed from 2005–06 and is not comparable to earlier years.

Note: Data are not readily available for missing years.

Source: ESAA (2005) and ESAA updates.

TE 3.7 Electricity usage—price index for residential electricity supply, by capital city

Average over financial year ending	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
	<i>index</i>							
Jun-1981	42.6	50.8	47.0	42.8	48.6	45.3	41.4	38.7
Jun-1982	50.8	59.0	55.3	51.9	55.4	52.1	47.7	46.3
Jun-1983	69.6	68.9	66.5	64.4	63.7	58.1	58.8	64.9
Jun-1984	71.5	74.7	74.4	71.2	73.2	66.5	65.6	67.9
Jun-1985	74.3	78.3	84.2	80.8	76.0	73.3	70.8	69.8
Jun-1986	79.7	82.3	93.0	82.6	79.4	76.0	89.1	75.3
Jun-1987	81.8	87.7	95.9	85.7	88.3	86.4	98.6	79.5
Jun-1988	88.1	92.5	98.5	92.4	93.4	90.4	100.0	90.3
Jun-1989	96.7	95.4	100.0	97.0	93.4	95.1	100.0	96.1
Jun-1990	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Jun-1991	98.7	107.1	101.5	103.5	107.9	112.1	100.8	104.0
Jun-1992	109.4	114.1	103.8	109.3	110.0	118.5	106.6	107.8
Jun-1993	112.5	124.7	105.4	112.0	110.0	123.7	108.5	113.2
Jun-1994	112.5	133.0	106.2	113.6	110.0	128.6	109.1	113.2
Jun-1995	112.5	133.1	106.9	112.5	110.0	130.1	109.1	113.4
Jun-1996	112.5	133.1	106.9	114.6	110.0	131.3	109.1	116.3
Jun-1997	114.4	134.3	106.9	119.7	110.0	135.9	109.1	116.3
Jun-1998	114.4	134.9	106.9	121.2	114.1	140.1	109.1	118.1
Jun-1999	114.4	117.2	106.9	123.8	114.1	141.1	114.9	121.5
Jun-2000	114.8	118.5	106.9	126.0	114.1	144.9	114.9	125.3
Jun-2001	125.6	133.6	120.9	141.7	124.8	165.0	125.5	141.3
Jun-2002	126.1	148.8	124.7	145.8	124.8	164.4	125.5	145.8
Jun-2003	130.4	153.8	128.7	170.5	124.8	170.9	125.5	147.0
Jun-2004	133.9	153.8	134.3	192.9	124.8	176.6	125.5	164.6
Jun-2005	145.2	153.2	137.6	190.4	124.8	180.8	125.5	166.8
Jun-2006	155.4	153.4	143.2	184.0	124.8	185.3	125.5	173.1
Jun-2007	164.3	155.2	148.5	189.0	124.8	192.6	128.9	180.2
Jun-2008	176.8	169.7	165.7	196.8	124.8	208.5	135.6	213.0
Jun-2009	192.5	192.3	179.5	211.7	127.9	229.4	141.0	227.2
Jun-2010	234.2	222.1	207.4	221.3	160.6	242.5	170.5	243.4

Source: ABS (2011a).

TE 3.8a Gas usage—Australian gas consumption, by industry—New South Wales

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
		Petroleum, coal and chemicals	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water		
gigalitres								
1974–75	0	97	np	99	0	39	68	157
1975–76	0	89	np	99	0	39	68	146
1976–77	0	91	np	133	0	251	68	146
1977–78	0	128	np	326	0	311	81	144
1978–79	0	178	np	512	0	295	99	144
1979–80	0	269	np	869	0	292	112	141
1980–81	0	308	np	1 133	0	292	123	146
1981–82	0	363	np	1 209	23	313	159	157
1982–83	0	574	np	1 081	31	319	172	170
1983–84	0	619	np	1 185	31	316	204	178
1984–85	0	582	np	1 238	42	303	209	188
1985–86	0	574	np	1 384	47	266	222	214
1986–87	0	535	np	1 548	44	292	245	222
1987–88	0	535	np	1 358	47	245	251	235
1988–89	0	548	np	1 358	42	219	266	245
1989–90	0	593	np	1 394	44	209	287	274
1990–91	0	606	np	1 248	44	172	303	298
1991–92	0	587	np	1 232	44	157	324	319
1992–93	0	642	np	1 227	44	123	342	358
1993–94	0	629	np	1 290	44	104	334	368
1994–95	0	645	np	1 326	44	91	366	397
1995–96	0	514	np	1 373	136	78	399	426
1996–97	0	990	np	1 292	274	81	415	454
1997–98	0	922	np	1 324	292	70	454	483
1998–99	0	932	np	1 298	397	63	473	535
1999–00	0	956	np	1 324	420	65	499	546
2000–01	31	1 282	np	1 209	436	97	277	554
2001–02	34	1 191	np	1 206	457	99	282	569
2002–03	125	1 243	np	1 201	462	104	316	548
2003–04	78	1 235	np	1 191	488	104	303	540
2004–05	70	1 003	np	1 298	507	112	305	540
2005–06	84	1 042	np	1 209	522	110	303	548
2006–07	89	940	np	1 266	381	70	295	556
2007–08	68	893	np	1 282	379	76	282	559
2008–09	89	846	np	1 219	661	73	287	621

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.8b Gas usage—Australian gas consumption, by industry—Victoria

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
		Petroleum, coal and chemicals	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water		
gigalitres								
1974–75	379	237	np	966	70	144	139	588
1975–76	446	309	np	1 137	95	144	165	624
1976–77	464	394	np	1 255	155	160	201	763
1977–78	428	500	np	1 325	155	170	214	822
1978–79	464	549	np	1 389	338	175	250	910
1979–80	477	637	np	1 510	557	214	268	954
1980–81	430	691	np	1 601	1 255	204	289	1 044
1981–82	412	727	np	1 603	1 683	224	338	1 186
1982–83	528	722	np	1 518	1 322	242	356	1 219
1983–84	624	698	np	1 572	1 510	235	379	1 281
1984–85	552	678	np	1 655	948	229	394	1 343
1985–86	482	673	np	1 665	1 108	222	415	1 394
1986–87	492	678	np	1 716	698	188	436	1 508
1987–88	564	678	np	1 789	606	170	428	1 423
1988–89	539	701	np	1 832	807	168	436	1 464
1989–90	564	735	np	1 750	1 304	175	472	1 701
1990–91	521	683	np	1 616	830	149	479	1 691
1991–92	577	688	np	1 577	907	165	508	1 760
1992–93	580	701	np	1 624	946	170	523	1 812
1993–94	490	665	np	1 673	799	173	518	1 750
1994–95	523	706	np	1 740	1 093	175	564	1 918
1995–96	590	698	np	1 673	987	180	593	2 049
1996–97	603	691	np	1 701	335	183	601	2 046
1997–98	652	644	np	1 760	242	191	660	2 088
1998–99	459	536	np	1 652	304	180	642	2 000
1999–00	567	619	np	1 696	307	196	662	2 075
2000–01	552	794	np	1 469	461	201	747	2 137
2001–02	534	784	np	1 454	562	204	755	2 193
2002–03	474	820	np	1 479	515	191	750	2 206
2003–04	554	827	np	1 528	639	198	755	2 214
2004–05	466	820	np	1 534	678	196	758	2 232
2005–06	482	856	np	1 428	665	198	722	2 317
2006–07	485	768	np	1 477	691	196	716	2 353
2007–08	487	861	np	1 433	892	198	747	2 389
2008–09	466	773	np	1 371	724	193	802	2 407

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.8c Gas usage—Australian gas consumption, by industry—Queensland

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
		Petroleum, coal and chemicals	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water		
gigalitres								
1974–75	0	np	np	228	8	13	15	28
1975–76	0	np	np	205	8	13	15	30
1976–77	0	np	np	205	10	13	15	28
1977–78	0	np	np	243	10	13	15	30
1978–79	0	np	np	246	10	13	15	30
1979–80	0	np	np	284	10	8	18	33
1980–81	0	np	np	304	10	10	13	35
1981–82	5	np	np	319	10	10	15	35
1982–83	10	np	np	372	10	10	20	35
1983–84	15	np	np	382	13	8	25	33
1984–85	25	np	np	370	15	43	25	33
1985–86	35	np	np	370	13	46	30	35
1986–87	38	np	np	380	0	48	33	35
1987–88	56	np	np	453	0	46	38	38
1988–89	51	np	np	405	0	41	43	38
1989–90	46	np	np	418	3	41	46	41
1990–91	43	np	np	797	3	41	48	41
1991–92	73	np	np	820	3	43	46	41
1992–93	94	np	np	805	3	38	53	41
1993–94	122	np	np	904	3	43	43	43
1994–95	124	np	np	914	3	41	41	43
1995–96	122	np	np	939	51	30	33	33
1996–97	127	np	np	924	56	20	35	28
1997–98	132	np	np	962	84	20	38	35
1998–99	144	np	np	1 101	286	18	46	35
1999–00	142	np	np	1 134	489	13	53	38
2000–01	253	np	np	1 167	686	51	43	38
2001–02	266	np	np	1 165	686	84	48	38
2002–03	291	np	np	1 187	815	114	48	35
2003–04	291	np	np	1 192	861	159	51	38
2004–05	327	np	np	1 210	962	38	48	63
2005–06	385	np	np	1 251	904	38	56	63
2006–07	395	np	np	1 271	1 365	38	56	66
2007–08	423	np	np	1 349	1 929	41	53	68
2008–09	425	np	np	1 329	1 894	38	63	61

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.8d Gas usage—Australian gas consumption, by industry—South Australia

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
		Petroleum, coal and chemicals	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water		
gigalitres								
1974–75	57	np	np	253	817	47	34	107
1975–76	63	np	np	285	948	50	44	112
1976–77	60	np	np	389	1 217	50	65	128
1977–78	78	np	np	386	1 319	55	84	131
1978–79	86	np	np	381	1 384	52	84	141
1979–80	136	np	np	465	1 418	52	94	138
1980–81	157	np	np	496	1 499	37	104	138
1981–82	222	np	np	517	1 676	42	115	149
1982–83	240	np	np	512	1 692	34	117	154
1983–84	345	np	np	470	1 648	50	115	151
1984–85	554	np	np	543	1 687	50	136	159
1985–86	561	np	np	585	1 428	47	125	159
1986–87	593	np	np	525	1 376	50	110	170
1987–88	624	np	np	585	1 350	39	110	159
1988–89	577	np	np	561	1 452	39	115	170
1989–90	598	np	np	621	1 319	42	120	175
1990–91	567	np	np	621	1 013	44	102	178
1991–92	546	np	np	608	1 159	42	117	185
1992–93	538	np	np	574	1 225	44	128	191
1993–94	525	np	np	700	1 350	37	141	178
1994–95	538	np	np	760	1 206	39	144	191
1995–96	525	np	np	786	914	37	144	191
1996–97	530	np	np	791	896	37	149	196
1997–98	619	np	np	752	1 034	37	151	198
1998–99	621	np	np	715	1 410	37	162	201
1999–00	582	np	np	728	1 413	39	164	204
2000–01	679	np	np	616	1 491	39	141	206
2001–02	676	np	np	642	1 493	39	154	211
2002–03	744	np	np	697	1 509	37	162	227
2003–04	723	np	np	718	1 525	39	162	240
2004–05	768	np	np	781	1 540	39	185	266
2005–06	679	np	np	794	1 316	39	198	279
2006–07	504	np	np	781	1 896	37	204	277
2007–08	480	np	np	809	2 136	37	209	282
2008–09	486	np	np	765	1 943	37	209	277

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.8e Gas usage—Australian gas consumption, by industry—Western Australia

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
		Petroleum, coal and chemicals	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water		
gigalitres								
1974–75	17	0	np	672	0	14	24	31
1975–76	17	0	np	682	0	14	22	34
1976–77	14	0	np	689	0	14	27	48
1977–78	14	0	np	655	2	14	22	48
1978–79	14	0	np	667	2	10	29	55
1979–80	12	0	np	689	2	12	31	53
1980–81	14	0	np	694	2	12	34	55
1981–82	19	0	np	646	2	12	39	53
1982–83	27	0	np	778	2	12	48	58
1983–84	24	2	np	754	17	10	65	60
1984–85	133	2	np	1 361	154	10	55	67
1985–86	142	14	np	1 607	805	14	123	75
1986–87	154	48	np	1 783	1 031	14	89	84
1987–88	255	92	np	1 863	1 253	29	104	94
1988–89	398	108	np	2 007	1 067	29	108	104
1989–90	829	164	np	2 063	1 111	14	113	125
1990–91	988	205	np	2 060	858	14	111	135
1991–92	1 077	183	np	2 123	896	14	120	142
1992–93	1 354	188	np	2 236	904	17	142	159
1993–94	1 480	210	np	2 390	1 164	22	181	173
1994–95	1 723	195	np	2 460	1 501	22	212	181
1995–96	1 993	173	np	2 441	1 301	22	227	190
1996–97	2 046	193	np	2 484	1 699	22	231	198
1997–98	2 207	243	np	2 475	2 058	22	243	205
1998–99	2 352	258	np	2 581	2 043	22	270	207
1999–00	2 458	198	np	2 716	2 031	24	284	207
2000–01	1 624	369	np	3 176	2 443	24	284	210
2001–02	1 680	381	np	3 246	2 451	24	316	219
2002–03	1 884	434	np	3 641	2 518	34	320	217
2003–04	2 055	506	np	3 723	2 663	34	320	234
2004–05	2 152	569	np	3 099	2 651	34	340	243
2005–06	3 590	552	np	3 178	2 658	39	345	241
2006–07	3 747	559	np	3 535	2 916	10	359	227
2007–08	3 569	670	np	3 193	3 330	7	364	234
2008–09	3 901	571	np	3 224	3 730	7	373	239

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.8f Gas usage—Australian gas consumption, by industry—Tasmania

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
		Petroleum, coal and chemicals	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water		
gigalitres								
1974–75	0	0	np	0	0	0	3	3
1975–76	0	0	np	0	0	0	3	3
1976–77	0	0	np	0	0	0	3	3
1977–78	0	0	np	0	0	0	3	0
1978–79	0	0	np	0	0	0	0	3
1979–80	0	0	np	0	0	0	0	3
1980–81	0	0	np	0	0	0	0	3
1981–82	0	0	np	0	0	0	3	0
1982–83	0	0	np	0	0	0	3	0
1983–84	0	0	np	0	0	0	3	0
1984–85	0	0	np	0	0	0	3	0
1985–86	0	0	np	0	0	0	3	0
1986–87	0	0	np	0	0	0	3	0
1987–88	0	0	np	0	0	0	3	0
1988–89	0	0	np	0	0	0	3	0
1989–90	0	0	np	0	0	0	3	0
1990–91	0	0	np	0	0	0	3	0
1991–92	0	0	np	0	0	0	3	0
1992–93	0	0	np	0	0	0	3	0
1993–94	0	0	np	0	0	0	3	0
1994–95	0	0	np	0	0	0	3	0
1995–96	0	0	np	0	0	0	3	0
1996–97	0	0	np	0	0	0	3	0
1997–98	0	0	np	0	0	0	3	0
1998–99	0	0	np	0	0	0	0	3
1999–00	0	0	np	0	0	0	0	3
2000–01	0	0	np	0	0	0	3	0
2001–02	0	0	np	0	0	0	3	0
2002–03	36	0	np	8	90	0	0	3
2003–04	39	0	np	8	160	0	0	3
2004–05	39	0	np	13	186	0	0	3
2005–06	41	0	np	10	219	0	0	3
2006–07	44	0	np	15	247	0	0	3
2007–08	54	0	np	15	325	0	0	3
2008–09	49	0	np	15	191	0	0	3

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.8g Gas usage—Australian gas consumption, by industry—Northern Territory

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
		Petroleum, coal and chemicals	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water		
gigalitres								
1974–75	0	np	np	0	0	0	0	0
1975–76	0	np	np	0	0	0	0	0
1976–77	0	np	np	0	0	0	0	0
1977–78	0	np	np	0	0	0	0	0
1978–79	0	np	np	0	0	0	0	0
1979–80	0	np	np	0	0	0	0	0
1980–81	0	np	np	0	0	0	0	0
1981–82	0	np	np	0	0	0	0	0
1982–83	0	np	np	0	0	0	0	0
1983–84	0	np	np	0	2	0	0	0
1984–85	2	np	np	0	25	0	–2	0
1985–86	7	np	np	0	25	0	0	0
1986–87	12	np	np	0	114	0	0	0
1987–88	10	np	np	0	264	0	5	0
1988–89	2	np	np	0	264	0	5	0
1989–90	2	np	np	0	304	0	2	0
1990–91	2	np	np	0	321	0	2	0
1991–92	2	np	np	0	333	0	0	0
1992–93	0	np	np	0	336	0	5	0
1993–94	2	np	np	0	333	0	2	0
1994–95	2	np	np	0	363	0	5	0
1995–96	2	np	np	0	420	0	2	0
1996–97	2	np	np	2	435	0	7	0
1997–98	5	np	np	2	447	0	10	0
1998–99	5	np	np	2	479	0	12	0
1999–00	5	np	np	2	521	0	12	0
2000–01	5	np	np	2	528	0	5	0
2001–02	5	np	np	2	541	0	5	0
2002–03	2	np	np	2	548	0	7	0
2003–04	17	np	np	5	551	0	5	0
2004–05	17	np	np	5	578	0	7	0
2005–06	178	np	np	5	474	0	2	0
2006–07	543	np	np	5	568	0	5	0
2007–08	536	np	np	5	274	0	7	0
2008–09	595	np	np	5	454	0	5	0

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.8h Gas usage—Australian gas consumption, by industry—Australia

Financial year	Mining	Manufacturing			Electricity, gas and water		Other industries	Household consumption
		Petroleum, coal and chemicals	Basic non-ferrous metals	Other manufacturing	Electricity generation	Other electricity, gas and water		
gigalitres								
1974–75	453	334	617	1 602	894	258	283	914
1975–76	525	398	614	1 793	1 051	260	317	949
1976–77	538	486	650	2 022	1 381	487	379	1 116
1977–78	521	628	655	2 281	1 486	563	418	1 175
1978–79	565	727	688	2 507	1 734	545	477	1 283
1979–80	625	906	721	3 096	1 987	578	523	1 322
1980–81	602	999	759	3 468	2 766	555	562	1 422
1981–82	659	1 090	774	3 519	3 395	601	669	1 580
1982–83	805	1 296	924	3 337	3 058	617	717	1 636
1983–84	1 008	1 320	881	3 483	3 221	617	791	1 703
1984–85	1 265	1 262	1 506	3 661	2 871	635	820	1 790
1985–86	1 228	1 262	1 655	3 955	3 426	595	919	1 878
1986–87	1 289	1 261	1 770	4 183	3 264	593	916	2 019
1987–88	1 509	1 305	1 808	4 239	3 520	529	938	1 949
1988–89	1 566	1 358	1 947	4 216	3 632	495	976	2 021
1989–90	2 039	1 491	2 059	4 187	4 084	481	1 043	2 316
1990–91	2 121	1 494	2 435	3 908	3 069	421	1 049	2 341
1991–92	2 276	1 459	2 539	3 822	3 343	421	1 118	2 447
1992–93	2 566	1 531	2 646	3 821	3 457	392	1 197	2 560
1993–94	2 618	1 504	2 790	4 166	3 693	378	1 223	2 512
1994–95	2 910	1 546	2 846	4 354	4 210	368	1 334	2 729
1995–96	3 232	1 386	2 828	4 384	3 808	347	1 401	2 888
1996–97	3 308	1 873	2 861	4 334	3 694	342	1 442	2 922
1997–98	3 615	1 809	2 879	4 396	4 157	340	1 560	3 009
1998–99	3 581	1 726	2 945	4 404	4 919	319	1 604	2 982
1999–00	3 754	1 772	2 986	4 615	5 181	337	1 675	3 072
2000–01	3 144	2 444	2 976	4 664	6 046	412	1 501	3 146
2001–02	3 194	2 355	2 999	4 716	6 190	450	1 563	3 231
2002–03	3 558	2 496	3 039	5 177	6 458	479	1 604	3 237
2003–04	3 758	2 568	3 161	5 204	6 886	535	1 596	3 245
2004–05	3 839	2 391	3 428	4 511	7 101	419	1 644	3 324
2005–06	5 439	2 449	3 519	4 356	6 758	424	1 626	3 427
2006–07	5 806	2 267	3 638	4 712	8 063	351	1 632	3 481
2007–08	5 617	2 424	3 496	4 591	9 489	358	1 663	3 535
2008–09	6 011	2 190	3 499	4 430	9 596	348	1 739	3 607

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.9 Gas usage—price index for gas and other household fuels, by capital city

Average over financial year ending	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
	<i>index</i>							
Jun–1990	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Jun–1991	108.7	105.8	107.2	106.2	109.2	113.3	107.8	112.9
Jun–1992	111.0	111.2	110.7	110.9	110.7	109.7	110.0	116.0
Jun–1993	110.6	119.8	111.5	112.4	110.7	110.0	112.2	117.2
Jun–1994	110.4	125.1	112.2	112.9	110.6	113.3	112.9	119.0
Jun–1995	110.5	130.2	112.8	115.4	111.2	113.5	116.1	121.1
Jun–1996	117.5	130.4	114.4	119.9	111.6	115.4	123.4	129.5
Jun–1997	120.3	132.9	114.4	124.5	112.1	118.5	126.8	134.6
Jun–1998	127.4	134.3	114.4	128.3	111.9	114.2	133.7	137.7
Jun–1999	131.4	128.1	114.4	129.9	113.3	113.2	139.7	142.7
Jun–2000	129.4	124.7	114.4	134.0	114.0	122.2	154.1	144.6
Jun–2001	147.7	136.3	130.7	151.8	126.2	139.1	175.2	167.2
Jun–2002	159.3	139.4	135.1	159.0	133.0	140.9	177.2	166.2
Jun–2003	173.6	147.5	139.5	167.5	137.1	148.3	181.4	177.0
Jun–2004	187.8	156.5	144.3	176.9	142.4	158.4	181.4	187.8
Jun–2005	194.7	164.9	153.3	189.4	147.7	166.2	189.3	199.5
Jun–2006	201.9	171.3	179.7	201.5	155.7	179.1	198.0	211.7
Jun–2007	208.4	178.8	193.1	211.2	162.7	178.7	214.4	221.0
Jun–2008	218.5	188.1	211.3	220.3	168.7	192.8	235.7	237.2
Jun–2009	230.7	206.2	229.1	240.0	197.1	209.6	252.5	272.2
Jun–2010	247.4	223.3	242.2	248.8	234.3	209.6	254.5	295.4

Source: ABS (2011a).

TE 3.10a Black coal usage—Australian black coal consumption, by industry— New South Wales

Financial year	Manufacturing						Electricity generation	Coastal bunkers (water transport)	Other industries
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non-ferrous metals	Other manufacturing			
kilotonnes									
1974–75	242	0	np	np	np	8 515	9 593	0	320
1975–76	251	0	np	np	np	8 072	9 239	0	343
1976–77	246	0	np	np	np	7 271	11 615	0	311
1977–78	231	0	np	np	np	7 454	12 450	0	287
1978–79	220	0	np	np	np	7 245	12 890	0	262
1979–80	215	0	np	np	np	6 909	14 642	0	231
1980–81	205	0	np	np	np	7 202	15 239	0	211
1981–82	205	0	np	np	np	6 577	14 664	0	173
1982–83	188	0	np	np	np	5 171	15 489	0	163
1983–84	217	0	np	np	np	4 956	16 255	0	158
1984–85	208	0	np	np	np	5 175	16 942	0	155
1985–86	217	0	np	np	np	5 002	18 195	0	148
1986–87	205	0	np	np	np	5 149	18 765	0	148
1987–88	213	0	np	np	np	5 313	19 205	0	139
1988–89	205	0	np	np	np	5 993	20 002	0	135
1989–90	200	0	np	np	np	5 486	20 516	0	126
1990–91	243	0	np	np	np	5 397	20 180	0	108
1991–92	229	0	np	np	np	5 487	20 501	0	79
1992–93	181	0	np	np	np	5 298	21 186	0	67
1993–94	185	0	np	np	np	5 558	21 683	0	54
1994–95	163	0	np	np	np	5 442	22 245	0	42
1995–96	166	0	np	np	np	4 950	23 305	0	33
1996–97	159	0	np	np	np	5 188	23 669	0	29
1997–98	151	0	np	np	np	5 197	24 016	0	21
1998–99	144	0	np	np	np	5 168	24 517	0	21
1999–00	142	0	np	np	np	4 590	24 808	0	17
2000–01	145	0	np	np	np	3 965	26 466	0	25
2001–02	146	0	np	np	np	4 030	26 649	0	25
2002–03	162	0	np	np	np	4 428	26 871	0	21
2003–04	162	0	np	np	np	4 927	28 790	0	31
2004–05	166	0	np	np	np	5 009	28 506	0	26
2005–06	174	0	np	np	np	4 947	29 196	0	9
2006–07	177	0	np	np	np	4 953	29 355	0	13
2007–08	200	0	np	np	np	5 040	31 762	0	9
2008–09	191	0	np	np	np	3 746	31 049	0	4

np not available for publication but included in the 'other manufacturing' category and the totals.
Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.10b Black coal usage—Australian black coal consumption, by industry—Victoria

Financial year	Manufacturing						Electricity generation	Coastal bunkers (water transport)	Other industries
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non-ferrous metals	Other manufacturing			
kilotonnes									
1974–75	0	0	np	np	np	3	0	0	0
1975–76	0	0	np	np	np	0	0	0	3
1976–77	0	0	np	np	np	4	0	0	0
1977–78	0	0	np	np	np	0	0	0	2
1978–79	0	0	np	np	np	0	0	0	2
1979–80	0	0	np	np	np	4	0	0	0
1980–81	0	0	np	np	np	4	0	0	0
1981–82	0	0	np	np	np	5	0	0	0
1982–83	0	0	np	np	np	3	0	0	0
1983–84	0	0	np	np	np	4	0	0	0
1984–85	0	0	np	np	np	4	0	0	0
1985–86	0	0	np	np	np	4	0	0	0
1986–87	0	0	np	np	np	3	0	0	0
1987–88	0	0	np	np	np	9	0	0	0
1988–89	0	0	np	np	np	2	0	0	0
1989–90	0	0	np	np	np	2	0	0	0
1990–91	0	0	np	np	np	0	0	0	0
1991–92	0	0	np	np	np	0	0	0	0
1992–93	0	0	np	np	np	0	0	0	0
1993–94	0	0	np	np	np	0	0	0	0
1994–95	0	0	np	np	np	0	0	0	0
1995–96	0	0	np	np	np	0	0	0	0
1996–97	0	0	np	np	np	0	0	0	0
1997–98	0	0	np	np	np	0	0	0	0
1998–99	0	0	np	np	np	0	0	0	0
1999–00	0	0	np	np	np	0	0	0	0
2000–01	0	0	np	np	np	0	0	0	0
2001–02	0	0	np	np	np	0	0	0	0
2002–03	0	0	np	np	np	0	0	0	0
2003–04	0	0	np	np	np	0	0	0	0
2004–05	0	0	np	np	np	0	0	0	0
2005–06	0	0	np	np	np	2	0	0	0
2006–07	0	0	np	np	np	2	0	0	0
2007–08	0	0	np	np	np	2	0	0	0
2008–09	0	0	np	np	np	2	0	0	0

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.10c Black coal usage—Australian black coal consumption, by industry— Queensland

Financial year	Manufacturing						Electricity generation	Coastal bunkers (water transport)	Other industries
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non-ferrous metals	Other manufacturing			
kilotonnes									
1974–75	54	54	np	np	np	1 379	3 732	0	37
1975–76	50	62	np	np	np	1 409	3 789	0	33
1976–77	46	62	np	np	np	1 538	4 111	0	33
1977–78	32	56	np	np	np	1 404	4 539	0	36
1978–79	31	55	np	np	np	1 528	4 537	0	31
1979–80	51	59	np	np	np	1 606	4 899	0	39
1980–81	79	59	np	np	np	1 601	5 305	0	39
1981–82	100	73	np	np	np	1 606	5 775	0	42
1982–83	100	77	np	np	np	1 641	6 620	23	42
1983–84	114	85	np	np	np	1 648	7 822	151	45
1984–85	112	84	np	np	np	1 688	8 368	136	44
1985–86	135	93	np	np	np	1 836	8 750	140	47
1986–87	151	98	np	np	np	2 004	9 497	169	44
1987–88	147	107	np	np	np	1 958	9 824	156	40
1988–89	156	89	np	np	np	2 137	10 295	174	40
1989–90	165	101	np	np	np	2 064	11 042	161	41
1990–91	179	97	np	np	np	2 008	11 379	170	41
1991–92	179	101	np	np	np	2 119	12 008	183	37
1992–93	195	86	np	np	np	2 112	12 615	186	27
1993–94	235	97	np	np	np	2 128	13 041	180	37
1994–95	255	96	np	np	np	2 165	13 928	182	32
1995–96	319	97	np	np	np	2 075	14 898	185	28
1996–97	313	134	np	np	np	2 178	15 226	198	28
1997–98	292	119	np	np	np	2 024	17 261	191	23
1998–99	299	119	np	np	np	2 081	17 842	193	14
1999–00	251	108	np	np	np	2 006	16 499	191	1 243
2000–01	165	124	np	np	np	2 132	19 047	161	28
2001–02	142	124	np	np	np	2 123	20 413	161	28
2002–03	143	117	np	np	np	2 065	19 636	152	30
2003–04	139	117	np	np	np	2 114	21 546	174	26
2004–05	135	130	np	np	np	2 335	23 433	243	30
2005–06	130	130	np	np	np	2 287	23 956	208	26
2006–07	135	130	np	np	np	2 417	24 751	226	22
2007–08	135	130	np	np	np	2 504	21 609	191	22
2008–09	135	117	np	np	np	2 317	21 962	208	26

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.10d Black coal usage—Australian black coal consumption, by industry— South Australia

Financial year	Manufacturing						Electricity generation	Coastal bunkers (water transport)	Other industries
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non-ferrous metals	Other manufacturing			
kilotonnes									
1974–75	5	0	np	np	np	1 476	1 398	0	10
1975–76	0	0	np	np	np	1 403	1 484	0	0
1976–77	0	0	np	np	np	1 431	1 387	0	5
1977–78	0	0	np	np	np	1 199	1 366	0	6
1978–79	0	0	np	np	np	1 522	1 171	0	0
1979–80	0	0	np	np	np	1 454	1 244	0	0
1980–81	0	0	np	np	np	1 711	1 183	0	0
1981–82	0	0	np	np	np	1 385	1 052	0	0
1982–83	0	0	np	np	np	1 121	1 064	0	0
1983–84	0	0	np	np	np	1 424	881	0	0
1984–85	0	0	np	np	np	1 578	1 088	0	0
1985–86	0	0	np	np	np	1 734	1 742	0	0
1986–87	0	0	np	np	np	1 762	1 778	0	0
1987–88	0	0	np	np	np	1 849	2 098	0	0
1988–89	0	0	np	np	np	1 863	2 080	0	0
1989–90	0	0	np	np	np	1 831	2 383	0	0
1990–91	0	0	np	np	np	1 688	2 034	0	0
1991–92	0	0	np	np	np	1 650	2 258	0	0
1992–93	0	0	np	np	np	1 621	2 195	0	0
1993–94	0	0	np	np	np	1 526	2 139	0	0
1994–95	0	0	np	np	np	1 541	2 103	0	0
1995–96	0	0	np	np	np	1 555	1 969	0	0
1996–97	0	0	np	np	np	1 553	2 190	0	0
1997–98	0	0	np	np	np	1 599	2 236	0	0
1998–99	0	0	np	np	np	1 574	2 406	0	0
1999–00	0	0	np	np	np	1 249	2 600	0	0
2000–01	0	0	np	np	np	1 357	2 886	0	6
2001–02	0	0	np	np	np	1 239	2 741	0	0
2002–03	0	0	np	np	np	1 598	2 982	0	0
2003–04	0	0	np	np	np	1 609	3 340	0	0
2004–05	0	0	np	np	np	1 729	2 960	0	0
2005–06	0	0	np	np	np	1 742	2 873	0	7
2006–07	0	0	np	np	np	1 708	4 285	0	0
2007–08	0	0	np	np	np	1 678	3 803	0	0
2008–09	0	0	np	np	np	1 437	3 796	0	7

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.10e Black coal usage—Australian black coal consumption, by industry— Western Australia

Financial year	Manufacturing						Electricity generation	Coastal bunkers (water transport)	Other industries
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non-ferrous metals	Other manufacturing			
kilotonnes									
1974–75	0	0	np	np	np	76	1 708	0	46
1975–76	0	0	np	np	np	137	1 971	0	46
1976–77	0	0	np	np	np	157	2 094	0	35
1977–78	0	0	np	np	np	167	2 136	0	36
1978–79	0	0	np	np	np	177	2 188	0	46
1979–80	0	0	np	np	np	152	2 721	0	46
1980–81	0	0	np	np	np	208	2 914	0	46
1981–82	0	0	np	np	np	223	2 983	0	56
1982–83	0	0	np	np	np	269	3 136	0	35
1983–84	0	0	np	np	np	324	3 236	0	41
1984–85	0	0	np	np	np	755	3 365	0	56
1985–86	0	0	np	np	np	786	2 388	0	56
1986–87	0	0	np	np	np	608	2 331	0	132
1987–88	0	0	np	np	np	562	2 361	0	172
1988–89	0	0	np	np	np	578	3 233	0	182
1989–90	0	0	np	np	np	826	3 625	0	299
1990–91	0	0	np	np	np	856	4 398	0	284
1991–92	0	0	np	np	np	922	4 408	0	309
1992–93	0	0	np	np	np	1 033	4 461	0	304
1993–94	0	0	np	np	np	993	4 325	0	284
1994–95	0	0	np	np	np	988	3 977	0	375
1995–96	0	0	np	np	np	1 037	4 746	0	395
1996–97	0	0	np	np	np	983	4 576	0	405
1997–98	0	0	np	np	np	1 004	4 391	0	330
1998–99	0	0	np	np	np	1 013	4 312	0	329
1999–00	0	0	np	np	np	998	4 737	0	345
2000–01	0	0	np	np	np	1 061	4 629	0	325
2001–02	0	0	np	np	np	1 082	4 753	0	325
2002–03	0	0	np	np	np	1 366	4 955	0	325
2003–04	0	0	np	np	np	1 396	4 989	0	355
2004–05	0	0	np	np	np	1 309	4 882	0	365
2005–06	0	0	np	np	np	1 309	4 714	0	360
2006–07	0	0	np	np	np	1 365	4 690	0	264
2007–08	0	0	np	np	np	1 407	4 195	0	239
2008–09	0	0	np	np	np	1 432	4 362	0	254

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.10f Black coal usage—Australian black coal consumption, by industry—Tasmania

Financial year	Manufacturing						Electricity generation	Coastal bunkers (water transport)	Other industries
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non-ferrous metals	Other manufacturing			
kilotonnes									
1974–75	4	0	np	np	np	88	0	0	18
1975–76	4	0	np	np	np	108	0	0	17
1976–77	4	0	np	np	np	165	0	0	17
1977–78	4	0	np	np	np	155	0	0	13
1978–79	4	0	np	np	np	174	0	0	9
1979–80	4	0	np	np	np	175	0	0	9
1980–81	9	0	np	np	np	181	0	0	17
1981–82	13	0	np	np	np	233	0	0	22
1982–83	16	0	np	np	np	287	0	0	21
1983–84	13	0	np	np	np	262	0	0	30
1984–85	26	0	np	np	np	293	0	0	30
1985–86	34	0	np	np	np	318	0	0	39
1986–87	39	0	np	np	np	324	0	0	22
1987–88	39	0	np	np	np	335	0	0	34
1988–89	39	0	np	np	np	375	0	0	34
1989–90	39	0	np	np	np	360	0	0	30
1990–91	35	0	np	np	np	376	0	0	22
1991–92	34	0	np	np	np	329	0	0	26
1992–93	34	0	np	np	np	301	0	0	22
1993–94	34	0	np	np	np	366	0	0	22
1994–95	38	0	np	np	np	375	0	0	26
1995–96	34	0	np	np	np	376	0	0	21
1996–97	34	0	np	np	np	391	0	0	17
1997–98	39	0	np	np	np	383	0	0	17
1998–99	39	0	np	np	np	364	0	0	17
1999–00	38	0	np	np	np	359	0	0	21
2000–01	68	0	np	np	np	325	0	0	21
2001–02	69	0	np	np	np	325	0	0	17
2002–03	66	0	np	np	np	345	0	0	17
2003–04	61	0	np	np	np	460	0	0	22
2004–05	61	0	np	np	np	517	0	0	18
2005–06	66	0	np	np	np	539	0	0	22
2006–07	61	0	np	np	np	571	0	0	22
2007–08	61	0	np	np	np	557	0	0	22
2008–09	66	0	np	np	np	556	0	0	22

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.10g Black coal usage—Australian black coal consumption, by industry— Northern Territory

Financial year	Manufacturing						Electricity generation	Coastal bunkers (water transport)	Other industries
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non-ferrous metals	Other manufacturing			
kilotonnes									
1974–75	0	0	np	np	np	0	0	0	0
1975–76	0	0	np	np	np	0	0	0	0
1976–77	0	0	np	np	np	0	0	0	0
1977–78	0	0	np	np	np	0	0	0	0
1978–79	0	0	np	np	np	0	0	0	0
1979–80	0	0	np	np	np	0	0	0	0
1980–81	0	0	np	np	np	0	0	0	0
1981–82	0	0	np	np	np	0	0	0	0
1982–83	0	0	np	np	np	0	0	0	0
1983–84	0	0	np	np	np	0	0	0	0
1984–85	0	0	np	np	np	0	0	0	0
1985–86	0	0	np	np	np	0	0	0	0
1986–87	0	0	np	np	np	0	0	0	0
1987–88	0	0	np	np	np	0	0	0	0
1988–89	0	0	np	np	np	0	0	0	0
1989–90	0	0	np	np	np	0	0	0	0
1990–91	0	0	np	np	np	0	0	0	0
1991–92	0	0	np	np	np	0	0	0	0
1992–93	0	0	np	np	np	0	0	0	0
1993–94	0	0	np	np	np	0	0	0	0
1994–95	0	0	np	np	np	0	0	0	0
1995–96	0	0	np	np	np	0	0	0	0
1996–97	0	0	np	np	np	0	0	0	0
1997–98	0	0	np	np	np	0	0	0	0
1998–99	0	0	np	np	np	0	0	0	0
1999–00	0	0	np	np	np	0	0	0	0
2000–01	0	0	np	np	np	0	0	0	0
2001–02	0	0	np	np	np	0	0	0	0
2002–03	0	0	np	np	np	0	0	0	0
2003–04	0	0	np	np	np	0	0	0	0
2004–05	0	0	np	np	np	0	0	0	0
2005–06	0	0	np	np	np	0	0	0	0
2006–07	0	0	np	np	np	0	0	0	0
2007–08	0	0	np	np	np	0	0	0	0

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: ABARES (2009b), ABARES (2009c).

TE 3.10h Black coal usage—Australian black coal consumption, by industry—Australia

Financial year	Manufacturing						Electricity generation	Coastal bunkers (water transport)	Other industries
	Food beverages and tobacco	Wood, paper and printing	Cement, lime, plaster and concrete	Iron and steel	Basic non-ferrous metals	Other manufacturing			
kilotonnes									
1974–75	305	54	820	8 620	948	1 149	16 431	0	431
1975–76	305	62	749	8 227	1 011	1 142	16 483	0	441
1976–77	296	62	774	7 537	1 115	1 141	19 207	0	402
1977–78	267	56	707	7 567	1 056	1 050	20 491	0	378
1978–79	256	55	766	7 687	1 178	1 017	20 786	0	349
1979–80	271	59	745	7 357	1 259	940	23 506	0	324
1980–81	293	59	774	7 840	1 259	1 033	24 641	0	313
1981–82	318	73	891	7 103	1 211	822	24 475	0	293
1982–83	305	77	833	5 487	1 241	932	26 309	23	261
1983–84	344	85	703	5 583	1 300	1 032	28 195	151	273
1984–85	346	84	803	5 810	1 615	1 265	29 763	136	285
1985–86	387	93	791	5 620	1 700	1 569	31 075	140	289
1986–87	395	98	653	5 817	1 837	1 543	32 372	169	345
1987–88	399	107	636	6 003	1 819	1 569	33 489	156	386
1988–89	400	89	766	6 703	1 863	1 615	35 610	174	392
1989–90	404	101	724	6 203	1 844	1 799	37 565	161	496
1990–91	457	97	665	6 127	1 856	1 678	37 991	170	455
1991–92	442	101	632	6 197	1 970	1 707	39 176	183	451
1992–93	410	86	649	5 997	2 022	1 698	40 458	186	419
1993–94	454	97	753	6 107	2 044	1 666	41 188	180	396
1994–95	456	96	766	6 030	2 067	1 649	42 253	182	474
1995–96	520	97	674	5 663	1 989	1 668	44 918	185	477
1996–97	506	134	682	5 877	2 044	1 689	45 660	198	479
1997–98	481	119	732	5 753	2 004	1 717	47 904	191	391
1998–99	481	119	749	5 687	2 026	1 740	49 077	193	382
1999–00	432	108	703	5 027	2 056	1 416	48 645	191	1 626
2000–01	379	124	803	4 440	1 993	1 602	53 025	161	405
2001–02	356	124	803	4 487	1 993	1 515	54 556	161	395
2002–03	371	117	1 042	4 863	2 074	1 956	55 247	152	395
2003–04	362	117	1 079	5 213	2 115	2 098	58 665	174	434
2004–05	362	130	1 013	5 297	2 370	2 219	59 782	243	439
2005–06	370	130	1 021	5 250	2 337	2 219	60 739	208	424
2006–07	373	130	1 059	5 293	2 456	2 209	63 081	226	321
2007–08	396	130	1 096	5 303	2 607	2 180	61 369	191	291
2008–09	391	117	1 033	4 000	2 496	1 961	61 169	208	313

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.11 Black coal usage—coal prices (export)

Average over financial year ending	Hard coking coal	Semisoft coking coal \$/tonne	Thermal coal
Jun–2002	81.77	66.51	57.51
Jun–2003	77.08	56.25	44.50
Jun–2004	64.26	49.10	40.98
Jun–2005	95.28	69.40	59.55
Jun–2006	157.49	111.65	65.02
Jun–2007	132.96	81.97	60.54
Jun–2008	129.66	97.46	72.70
Jun–2009	318.28	251.46	131.16
Jun–2010	174.59	125.37	88.05

Source: ABARES (2010a).

TE 3.12a Brown coal usage—Australian brown coal consumption (including briquettes), by industry—New South Wales

Financial year	Mining	Manufacturing	Electricity generation	Households	Other industries
<i>kilotonnes</i>					
1974–75	0	0	0	0	0
1975–76	0	0	0	0	0
1976–77	0	0	0	0	0
1977–78	0	0	0	0	0
1978–79	0	0	0	0	0
1979–80	0	0	0	0	0
1980–81	0	0	0	0	0
1981–82	0	0	0	0	0
1982–83	0	0	0	0	0
1983–84	0	0	0	0	0
1984–85	0	0	0	0	0
1985–86	0	0	0	0	0
1986–87	0	0	0	0	0
1987–88	0	0	0	0	0
1988–89	0	0	0	0	0
1989–90	0	0	0	0	0
1990–91	0	0	0	0	0
1991–92	0	0	0	0	0
1992–93	0	0	0	0	0
1993–94	0	0	0	0	0
1994–95	0	0	0	0	0
1995–96	0	0	0	0	0
1996–97	0	0	0	0	0
1997–98	0	0	0	0	0
1998–99	0	0	0	0	0
1999–00	0	0	0	0	0
2000–01	0	0	0	0	0
2001–02	0	0	0	0	0
2002–03	0	0	0	0	0
2003–04	0	0	0	0	0
2004–05	0	0	0	0	0
2005–06	0	0	0	0	0
2006–07	0	0	0	0	0
2007–08	0	0	0	0	0
2008–09	0	0	0	0	0

Source: ABARES (2009b), ABARES (2009c).

TE 3.12b Brown coal usage—Australian brown coal consumption, by industry— Victoria

Financial year	Mining	Manufacturing	Electricity generation	Households	Other industries
<i>kilotonnes</i>					
1974–75	2 514	1 024	23 621	286	98
1975–76	2 160	963	25 807	192	89
1976–77	2 369	862	27 513	158	93
1977–78	2 458	843	26 970	119	84
1978–79	2 600	899	28 422	97	84
1979–80	2 875	854	29 008	74	83
1980–81	2 497	862	28 602	62	79
1981–82	2 367	806	34 266	45	82
1982–83	1 756	750	32 103	32	68
1983–84	1 776	720	30 657	27	76
1984–85	1 887	740	35 644	23	86
1985–86	1 897	819	33 256	18	85
1986–87	1 843	779	39 089	18	75
1987–88	1 808	803	40 690	13	85
1988–89	1 584	637	45 975	13	79
1989–90	1 588	553	43 751	13	85
1990–91	1 611	506	47 175	9	85
1991–92	1 806	422	48 406	9	81
1992–93	1 141	404	46 017	9	76
1993–94	1 334	364	46 968	9	77
1994–95	1 298	365	48 997	9	82
1995–96	1 201	359	52 054	9	88
1996–97	1 413	399	56 261	9	73
1997–98	1 147	371	64 681	5	55
1998–99	889	270	68 326	5	56
1999–00	1 064	298	68 509	5	82
2000–01	821	198	66 807	4	127
2001–02	1 198	104	67 294	5	113
2002–03	1 151	90	67 448	5	117
2003–04	864	50	68 852	5	59
2004–05	904	63	69 223	5	77
2005–06	686	50	71 108	5	63
2006–07	646	41	61 578	5	50
2007–08	615	36	63 552	0	50
2008–09	544	36	65 769	0	36

Source: ABARES (2009b), ABARES (2009c).

TE 3.12c Brown coal usage—Australian brown coal consumption, by industry— Australia

Financial year	Mining	Manufacturing	Electricity generation	Households	Other industries
<i>kilotonnes</i>					
1974–75	2 514	1 024	23 621	286	98
1975–76	2 160	963	25 807	192	89
1976–77	2 369	862	27 513	158	93
1977–78	2 458	843	26 970	119	84
1978–79	2 600	899	28 422	97	84
1979–80	2 875	854	29 008	74	83
1980–81	2 497	862	28 602	62	79
1981–82	2 367	806	34 266	45	82
1982–83	1 756	750	32 103	32	68
1983–84	1 776	720	30 657	27	76
1984–85	1 887	740	35 644	23	86
1985–86	1 897	819	33 256	18	85
1986–87	1 843	779	39 089	18	75
1987–88	1 808	803	40 690	13	85
1988–89	1 584	637	45 975	13	79
1989–90	1 588	553	43 751	13	85
1990–91	1 611	506	47 175	9	85
1991–92	1 806	422	48 406	9	81
1992–93	1 141	404	46 017	9	76
1993–94	1 334	364	46 968	9	77
1994–95	1 298	365	48 997	9	82
1995–96	1 201	359	52 054	9	88
1996–97	1 413	399	56 261	9	73
1997–98	1 147	371	64 681	5	55
1998–99	889	270	68 326	5	56
1999–00	1 064	298	68 509	5	82
2000–01	821	198	66 807	4	127
2001–02	1 198	104	67 294	5	113
2002–03	1 151	90	67 448	5	117
2003–04	864	50	68 852	5	59
2004–05	904	63	69 223	5	77
2005–06	686	50	71 108	5	63
2006–07	646	41	61 578	5	50
2007–08	615	36	63 552	0	50
2008–09	544	36	65 769	0	36

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.13a Petroleum usage—Australian petroleum fuel consumption,¹ by industry— New South Wales

Financial year	Mining	Manufacturing			Transport				Residential	Total consumption
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manufacturing	Road transport	Water transport	Air transport	Other transport		
gigalitres										
1974–75	59.1	np	np	2 906.0	4 043.5	721.4	673.2	167.0	343.2	9 881.0
1975–76	62.0	np	np	2 794.4	4 237.1	632.5	691.1	179.9	345.7	9 892.0
1976–77	67.2	np	np	2 868.4	4 460.0	716.2	700.7	184.6	393.2	10 242.0
1977–78	68.1	np	np	2 664.7	4 811.1	765.7	756.7	191.5	361.1	10 328.0
1978–79	73.5	np	np	2 507.1	5 010.7	676.2	741.3	200.8	363.7	10 273.0
1979–80	82.4	np	np	2 239.2	5 164.8	683.1	756.6	195.2	251.6	10 060.0
1980–81	90.4	np	np	1 911.1	5 399.2	704.2	744.0	190.4	187.7	9 877.0
1981–82	96.6	np	np	1 733.4	5 491.8	561.5	803.9	205.6	175.0	9 716.0
1982–83	101.1	np	np	1 343.9	5 441.4	580.1	747.2	170.1	162.5	9 002.0
1983–84	91.7	np	np	1 480.7	5 766.8	565.8	808.4	183.5	147.9	9 520.0
1984–85	88.5	np	np	1 668.0	5 933.4	523.3	901.7	200.3	153.7	9 969.0
1985–86	95.1	np	np	1 739.7	6 072.4	458.2	914.3	162.3	143.0	10 168.0
1986–87	107.3	np	np	1 712.0	6 153.7	408.3	924.7	189.0	142.5	10 177.0
1987–88	99.9	np	np	1 904.7	6 346.0	407.6	1 081.6	197.4	129.8	10 701.0
1988–89	125.5	np	np	1 916.2	6 533.3	425.4	1 194.6	190.6	123.8	11 081.0
1989–90	146.4	np	np	2 046.2	6 656.0	367.7	1 187.0	173.3	138.0	11 267.0
1990–91	147.8	np	np	2 008.4	6 617.3	324.8	1 286.3	165.2	147.8	11 245.0
1991–92	149.0	np	np	2 062.7	6 773.5	300.8	1 349.8	167.6	157.4	11 533.0
1992–93	147.5	np	np	2 284.3	6 817.1	274.9	1 447.7	172.8	140.2	11 881.0
1993–94	161.9	np	np	2 141.5	7 109.3	296.8	1 469.1	169.0	135.5	12 106.0
1994–95	160.0	np	np	2 266.8	7 200.5	469.4	1 597.4	160.0	141.9	12 632.0
1995–96	176.1	np	np	2 169.2	7 247.4	592.7	1 841.5	164.5	135.8	12 964.0
1996–97	210.6	np	np	1 400.7	7 560.7	516.0	1 980.5	170.0	136.5	12 652.0
1997–98	226.9	np	np	1 495.2	7 624.9	436.4	2 036.4	172.0	136.3	12 818.0
1998–99	232.3	np	np	1 546.2	7 757.3	466.5	2 004.4	246.7	127.2	13 087.0
1999–00	233.7	np	np	1 546.2	7 989.3	555.2	2 067.0	274.7	139.2	13 532.0
2000–01	252.9	np	np	1 645.8	7 624.3	448.8	2 275.3	148.9	129.1	13 477.0
2001–02	278.5	np	np	1 664.4	7 739.1	472.9	1 917.7	158.3	131.0	13 342.0
2002–03	326.1	np	np	1 520.5	7 238.0	367.9	1 559.1	166.4	122.1	12 184.0
2003–04	425.8	np	np	1 578.9	7 539.0	346.4	1 518.3	179.8	98.5	12 543.0
2004–05	524.9	np	np	1 599.2	7 415.4	353.9	1 699.1	182.6	91.4	12 723.0
2005–06	497.6	np	np	1 552.3	7 772.1	464.4	1 844.9	199.0	92.9	13 328.0
2006–07	497.2	np	np	1 630.9	7 816.7	464.5	2 111.7	211.5	122.5	13 771.0
2007–08	495.3	np	np	1 614.7	7 931.1	479.3	2 436.9	219.1	137.4	14 235.0
2008–09	503.5	np	np	1 349.7	8 137.1	360.6	2 446.2	236.6	141.0	14 130.0

¹ See End Notes.

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.13b Petroleum usage—Australian petroleum fuel consumption,¹ by industry—Victoria

Financial year	Mining	Manufacturing			Transport				Residential	Total consumption
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manufacturing	Road transport	Water transport	Air transport	Other transport		
gigalitres										
1974–75	36.1	np	np	1 947.8	3 262.5	558.0	312.8	63.2	486.4	7 273.0
1975–76	34.2	np	np	1 753.4	3 430.9	527.9	325.7	61.4	460.2	7 231.0
1976–77	40.5	np	np	1 841.5	3 583.8	523.6	323.7	64.7	483.5	7 559.0
1977–78	33.0	np	np	1 894.1	3 699.8	617.8	359.7	64.4	433.0	7 853.0
1978–79	29.1	np	np	1 830.7	3 914.2	572.0	343.6	65.0	414.4	7 948.0
1979–80	24.9	np	np	1 735.8	3 964.5	485.9	361.4	65.2	286.2	7 592.0
1980–81	14.5	np	np	1 617.3	3 968.2	466.7	383.3	65.2	194.5	7 289.0
1981–82	18.1	np	np	1 471.7	4 253.3	396.2	411.6	66.9	178.3	7 361.0
1982–83	14.0	np	np	1 368.5	4 260.6	348.1	393.7	56.2	153.9	7 113.0
1983–84	13.7	np	np	1 490.2	4 327.5	322.7	357.8	58.4	149.7	7 214.0
1984–85	15.9	np	np	1 529.0	4 481.1	309.0	387.2	56.0	140.9	7 392.0
1985–86	13.8	np	np	1 595.3	4 591.2	268.5	396.8	56.0	129.9	7 501.0
1986–87	15.9	np	np	1 621.3	4 656.9	334.5	446.1	51.9	128.7	7 716.0
1987–88	12.7	np	np	1 705.6	4 911.9	302.5	471.7	53.8	120.5	8 047.0
1988–89	12.9	np	np	1 737.6	5 169.5	319.2	470.0	54.4	117.3	8 402.0
1989–90	17.4	np	np	1 671.2	5 338.1	339.5	471.1	49.0	120.7	8 523.0
1990–91	19.1	np	np	1 786.6	5 035.6	261.9	484.1	48.0	111.3	8 198.0
1991–92	17.3	np	np	1 672.0	5 166.6	312.9	545.7	50.9	123.4	8 348.0
1992–93	19.4	np	np	1 787.9	5 308.0	259.9	513.7	48.4	144.8	8 567.0
1993–94	20.0	np	np	1 975.3	5 249.1	271.3	499.2	35.1	130.4	8 635.0
1994–95	20.1	np	np	1 980.7	5 498.0	269.3	573.5	29.6	123.6	8 956.0
1995–96	16.9	np	np	2 017.2	5 580.9	295.3	610.0	31.7	127.8	9 142.0
1996–97	15.0	np	np	1 953.9	5 704.0	322.2	649.0	29.9	131.5	9 295.0
1997–98	14.8	np	np	2 078.5	5 808.5	235.8	669.1	29.5	122.0	9 454.0
1998–99	14.9	np	np	2 143.4	6 039.9	251.3	669.7	34.0	123.3	9 811.0
1999–00	15.0	np	np	2 163.1	6 215.2	288.7	682.6	36.4	122.2	10 050.0
2000–01	22.3	np	np	1 397.4	6 233.5	272.8	861.7	42.5	128.4	9 475.0
2001–02	22.5	np	np	1 342.1	6 645.8	312.6	833.5	42.8	129.5	9 851.0
2002–03	22.3	np	np	1 392.0	6 663.4	302.1	779.6	42.3	135.9	9 877.0
2003–04	19.1	np	np	1 853.8	6 787.3	339.4	818.0	42.6	116.4	10 502.0
2004–05	28.0	np	np	1 935.5	6 675.9	256.7	876.5	79.6	114.1	10 533.0
2005–06	77.2	np	np	1 878.3	6 683.6	267.0	950.5	81.5	113.8	10 517.0
2006–07	82.7	np	np	2 009.1	6 434.8	256.3	923.3	93.6	144.9	10 389.0
2007–08	85.5	np	np	2 091.5	6 535.2	318.8	812.3	100.8	142.6	10 575.0
2008–09	85.1	np	np	1 955.9	6 274.2	378.9	914.5	102.6	138.8	10 303.0

¹ See End Notes.

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.13c Petroleum usage—Australian petroleum fuel consumption,¹ by industry— Queensland

Financial year	Mining	Manufacturing			Transport				Residential	Total consumption
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manufacturing	Road transport	Water transport	Air transport	Other transport		
gigalitres										
1974–75	85.2	np	np	1 104.7	1 920.8	207.7	255.7	135.0	89.1	4 441.0
1975–76	93.3	np	np	1 241.6	2 040.1	225.7	280.8	147.2	91.2	4 763.0
1976–77	98.4	np	np	1 360.7	2 176.0	234.9	294.8	138.3	91.8	5 065.0
1977–78	93.2	np	np	1 383.5	2 257.0	213.7	290.5	142.1	93.7	5 168.0
1978–79	97.8	np	np	1 326.3	2 479.5	221.3	302.8	159.9	93.5	5 416.0
1979–80	98.8	np	np	1 300.2	2 610.2	206.6	328.2	163.8	94.2	5 571.0
1980–81	111.6	np	np	1 248.2	2 733.2	219.9	333.2	157.6	89.7	5 707.0
1981–82	115.9	np	np	1 118.8	2 966.2	195.8	372.7	164.3	96.6	5 979.0
1982–83	115.5	np	np	869.8	2 984.6	171.8	368.4	158.8	89.0	5 580.0
1983–84	128.0	np	np	961.4	3 079.2	126.8	355.8	184.0	81.0	5 747.0
1984–85	138.3	np	np	953.8	3 293.4	86.0	380.4	192.1	80.3	5 900.0
1985–86	153.8	np	np	908.2	3 416.8	84.2	401.2	201.0	79.5	6 029.0
1986–87	182.2	np	np	920.7	3 495.6	122.9	422.4	190.2	80.1	6 205.0
1987–88	192.4	np	np	976.7	3 700.3	99.0	476.7	172.1	81.3	6 559.0
1988–89	212.4	np	np	1 013.7	3 936.6	139.3	547.2	121.8	81.1	6 958.0
1989–90	225.3	np	np	1 009.7	4 074.4	158.2	482.0	122.1	86.5	7 077.0
1990–91	238.7	np	np	762.5	4 014.7	148.6	614.4	125.7	90.1	6 892.0
1991–92	239.9	np	np	820.1	4 113.7	133.8	670.4	89.6	81.7	7 068.0
1992–93	262.6	np	np	827.1	4 282.9	99.0	787.3	87.5	92.0	7 400.0
1993–94	267.2	np	np	871.0	4 515.2	101.1	868.0	89.8	85.5	7 801.0
1994–95	296.7	np	np	883.8	4 706.1	239.3	1 017.1	92.3	83.1	8 364.0
1995–96	333.9	np	np	878.4	4 954.7	138.8	1 037.4	92.6	81.9	8 552.0
1996–97	357.9	np	np	908.8	5 107.9	157.8	1 064.3	90.0	89.4	8 837.0
1997–98	417.6	np	np	967.1	5 062.1	191.4	1 004.7	89.3	86.2	8 888.0
1998–99	453.9	np	np	927.2	5 208.1	99.3	939.2	95.1	84.9	8 930.0
1999–00	446.8	np	np	1 067.3	5 317.7	106.7	1 014.5	93.1	91.5	9 339.0
2000–01	592.7	np	np	862.0	5 383.6	137.6	918.1	181.0	101.1	9 068.0
2001–02	635.7	np	np	826.5	5 550.0	134.5	818.3	199.5	97.9	9 194.0
2002–03	689.1	np	np	942.0	5 497.1	127.8	797.5	191.4	99.7	9 274.0
2003–04	702.0	np	np	1 014.5	5 965.9	125.2	801.2	221.0	100.8	9 876.0
2004–05	771.2	np	np	1 693.8	5 619.7	117.9	814.7	194.9	85.6	10 218.0
2005–06	714.6	np	np	1 783.8	5 847.0	130.5	899.1	223.2	71.5	10 625.0
2006–07	783.3	np	np	1 775.0	6 116.6	162.0	982.7	228.6	89.5	11 181.0
2007–08	848.5	np	np	1 646.4	6 329.2	163.5	1 170.8	342.0	108.7	11 677.0
2008–09	900.0	np	np	1 645.3	6 173.6	115.8	1 204.3	341.9	109.9	11 550.0

¹ See End Notes.

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.13d Petroleum usage—Australian petroleum fuel consumption,¹ by industry— South Australia

Financial year	Mining	Manufacturing			Transport				Residential	Total consumption
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manufacturing	Road transport	Water transport	Air transport	Other transport		
gigalitres										
1974–75	49.8	np	np	555.4	1 270.0	75.0	105.3	85.0	111.8	2 608.0
1975–76	55.9	np	np	617.9	1 310.6	75.3	100.2	87.6	107.8	2 712.
1976–77	98.7	np	np	478.7	1 378.1	92.6	106.6	86.6	116.2	2 725.0
1977–78	103.3	np	np	505.0	1 400.3	123.9	113.9	88.8	101.6	2 752.0
1978–79	109.2	np	np	446.9	1 438.3	132.2	115.7	86.0	105.9	2 762.0
1979–80	106.8	np	np	440.8	1 418.3	146.3	113.8	91.1	75.9	2 732.0
1980–81	100.6	np	np	307.0	1 401.4	146.8	119.2	96.1	59.2	2 509.0
1981–82	73.2	np	np	275.3	1 453.2	101.9	112.0	84.0	60.5	2 484.0
1982–83	49.9	np	np	225.7	1 503.5	121.4	123.3	77.6	53.6	2 451.0
1983–84	45.6	np	np	189.4	1 584.4	82.2	126.5	92.6	47.5	2 449.0
1984–85	38.9	np	np	192.6	1 671.3	73.3	132.4	90.8	54.0	2 536.0
1985–86	37.9	np	np	207.7	1 725.9	54.8	145.6	93.6	52.8	2 601.0
1986–87	39.2	np	np	260.3	1 700.0	60.4	144.4	93.7	49.0	2 586.0
1987–88	40.3	np	np	233.0	1 805.1	37.8	144.8	95.5	51.1	2 634.0
1988–89	44.3	np	np	302.4	1 823.3	51.2	165.0	101.1	45.2	2 760.0
1989–90	38.7	np	np	259.0	1 890.3	39.9	136.1	101.9	45.6	2 748.0
1990–91	33.3	np	np	315.6	1 784.4	29.9	163.5	97.6	42.2	2 682.0
1991–92	42.4	np	np	317.8	1 796.6	25.0	149.0	98.9	39.3	2 681.0
1992–93	47.3	np	np	324.6	1 823.4	47.7	156.3	101.0	45.2	2 758.0
1993–94	47.3	np	np	332.0	1 847.9	54.5	153.7	101.1	42.8	2 798.0
1994–95	49.8	np	np	315.0	1 856.9	41.0	164.0	96.6	42.9	2 776.0
1995–96	50.2	np	np	310.3	1 874.6	25.3	169.8	94.8	44.3	2 780.0
1996–97	50.7	np	np	281.5	1 908.2	25.6	174.3	98.2	42.2	2 818.0
1997–98	47.7	np	np	309.7	1 947.1	27.6	172.3	97.1	41.7	2 879.0
1998–99	68.1	np	np	280.0	1 985.2	20.8	197.4	98.0	42.2	2 942.0
1999–00	84.4	np	np	291.5	2 088.5	20.9	171.7	98.2	42.3	3 051.0
2000–01	90.1	np	np	233.6	2 121.5	9.6	186.2	58.9	40.8	3 017.0
2001–02	87.4	np	np	219.3	2 197.9	14.3	141.4	51.3	40.6	3 001.0
2002–03	83.4	np	np	212.3	2 245.8	14.2	128.1	51.1	49.1	3 106.0
2003–04	72.1	np	np	253.4	1 986.2	6.9	126.1	53.0	46.5	2 832.0
2004–05	75.8	np	np	256.8	1 991.9	11.7	138.4	42.2	39.9	2 854.0
2005–06	64.8	np	np	277.7	2 064.7	14.6	188.8	38.8	30.4	2 992.0
2006–07	57.5	np	np	286.3	2 120.2	12.4	192.8	39.6	34.7	3 060.0
2007–08	54.3	np	np	307.4	2 127.7	7.5	233.9	40.0	42.5	3 144.0
2008–09	65.6	np	np	292.2	2 158.3	7.5	202.7	40.0	42.6	3 147.0

¹ See End Notes.
 np not available for publication but included in the 'other manufacturing' category and the totals.
 Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.13e Petroleum usage—Australian petroleum fuel consumption,¹ by industry— Western Australia

Financial year	Mining	Manufacturing			Transport				Residential	Total consumption
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manufacturing	Road transport	Water transport	Air transport	Other transport		
gigalitres										
1974–75	328.5	np	np	890.8	1 171.4	639.4	189.4	140.2	121.4	4 335.0
1975–76	328.0	np	np	1 077.4	1 234.8	536.0	191.2	146.6	124.5	4 471.0
1976–77	381.9	np	np	1 315.1	1 364.8	683.8	221.7	146.8	126.7	5 147.0
1977–78	382.9	np	np	1 357.1	1 428.6	682.8	233.0	150.2	125.1	5 309.0
1978–79	428.0	np	np	1 349.7	1 513.4	596.6	239.6	146.5	133.5	5 395.0
1979–80	470.5	np	np	1 283.5	1 530.6	544.1	237.4	139.8	116.6	5 198.0
1980–81	258.1	np	np	1 193.6	1 566.6	529.8	239.0	139.2	103.7	4 911.0
1981–82	190.8	np	np	1 137.8	1 613.1	330.5	257.1	126.6	90.7	4 597.0
1982–83	172.9	np	np	962.6	1 619.3	388.1	271.7	123.0	78.7	4 454.0
1983–84	181.0	np	np	1 171.1	1 672.4	295.4	243.9	112.1	74.2	4 604.0
1984–85	201.7	np	np	744.0	1 737.4	339.6	243.4	128.2	71.6	4 185.0
1985–86	204.8	np	np	442.4	1 779.3	241.3	266.3	133.3	68.0	3 739.0
1986–87	232.9	np	np	371.0	1 870.2	241.7	289.3	138.4	69.4	3 800.0
1987–88	240.0	np	np	417.0	1 941.8	355.3	274.1	140.6	61.2	4 042.0
1988–89	296.1	np	np	451.4	2 064.9	268.5	270.9	132.0	64.6	4 310.0
1989–90	378.1	np	np	414.7	2 136.2	237.3	274.3	138.3	65.3	4 486.0
1990–91	400.8	np	np	493.4	2 128.6	210.0	302.5	143.5	64.2	4 554.0
1991–92	430.0	np	np	394.6	2 174.3	197.5	327.2	149.3	62.1	4 551.0
1992–93	456.1	np	np	391.1	2 206.2	206.9	332.1	132.4	65.7	4 631.0
1993–94	498.1	np	np	411.9	2 404.7	170.4	363.1	137.4	63.3	4 906.0
1994–95	537.2	np	np	434.2	2 512.8	220.8	407.3	137.9	60.9	5 292.0
1995–96	645.2	np	np	493.6	2 696.3	240.8	430.9	134.8	64.2	5 705.0
1996–97	746.8	np	np	434.5	2 821.1	212.4	458.0	139.5	61.8	5 717.0
1997–98	693.1	np	np	401.9	2 867.2	140.3	455.3	134.5	61.7	5 550.0
1998–99	687.7	np	np	417.5	2 916.8	149.8	466.3	134.9	61.9	5 566.0
1999–00	723.2	np	np	375.7	2 916.9	130.8	462.4	135.2	65.7	5 553.0
2000–01	699.9	np	np	781.2	2 746.9	152.3	461.7	159.4	60.4	5 673.0
2001–02	753.8	np	np	801.0	2 765.2	158.1	372.4	160.0	58.9	5 694.0
2002–03	849.1	np	np	781.9	2 809.0	208.3	356.2	162.5	58.2	5 875.0
2003–04	782.4	np	np	833.2	2 844.2	205.5	349.7	176.1	58.3	5 963.0
2004–05	870.4	np	np	574.2	3 187.5	257.7	395.9	197.7	61.5	6 404.0
2005–06	782.7	np	np	549.7	3 098.4	242.7	651.2	193.9	43.8	6 373.0
2006–07	841.2	np	np	540.5	3 368.0	390.1	848.2	203.0	49.0	7 089.0
2007–08	916.0	np	np	774.3	3 346.6	424.4	646.9	207.5	50.8	7 264.0
2008–09	1 010.5	np	np	644.3	3 506.5	444.3	685.7	223.0	51.6	7 497.0

¹ See End Notes.

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.13f Petroleum usage—Australian petroleum fuel consumption,¹ by industry— Tasmania

Financial year	Mining	Manufacturing			Transport				Residential	Total consumption
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manufacturing	Road transport	Water transport	Air transport	Other transport		
gigalitres										
1974–75	22.7	np	np	64.5	407.0	54.3	21.6	10.1	82.5	1 027.0
1975–76	22.7	np	np	79.2	418.0	64.3	26.9	10.1	85.1	1 040.0
1976–77	25.2	np	np	81.6	452.6	61.8	26.8	10.1	95.4	1 057.0
1977–78	25.3	np	np	77.0	467.0	47.0	29.5	10.1	91.4	1 056.0
1978–79	25.2	np	np	67.0	482.0	39.5	37.4	10.1	85.9	1 082.0
1979–80	25.3	np	np	62.1	484.3	46.9	42.7	10.1	62.4	1 113.0
1980–81	25.2	np	np	57.0	480.0	46.8	37.3	10.1	46.6	1 067.0
1981–82	22.8	np	np	54.7	488.1	27.3	37.4	10.1	38.9	1 078.0
1982–83	22.7	np	np	53.5	480.3	17.4	37.3	10.1	33.6	987.0
1983–84	22.7	np	np	57.5	502.0	27.1	34.7	10.1	28.5	996.0
1984–85	22.6	np	np	61.1	521.0	14.6	37.2	12.6	28.3	957.0
1985–86	25.0	np	np	64.6	532.5	29.3	44.9	10.0	25.6	937.0
1986–87	25.3	np	np	57.7	536.8	27.1	37.4	10.1	25.8	920.0
1987–88	25.2	np	np	60.1	543.6	22.0	37.3	10.1	25.8	932.0
1988–89	20.2	np	np	66.7	565.1	19.6	32.1	10.1	25.9	956.0
1989–90	22.8	np	np	89.7	577.0	19.8	29.5	10.1	25.9	1 130.0
1990–91	20.2	np	np	97.1	572.1	12.3	32.1	12.6	23.2	1 178.0
1991–92	20.1	np	np	99.1	571.6	7.4	29.3	10.1	24.3	925.0
1992–93	20.2	np	np	96.9	597.2	9.9	32.1	10.1	27.0	973.0
1993–94	20.4	np	np	90.1	593.3	25.4	35.1	10.2	22.0	978.0
1994–95	17.9	np	np	90.2	599.7	23.0	37.8	10.2	24.6	994.0
1995–96	20.3	np	np	88.7	603.4	15.3	35.0	10.2	21.9	971.0
1996–97	22.7	np	np	79.4	610.2	12.5	34.8	10.1	21.8	957.0
1997–98	22.6	np	np	64.1	616.6	7.5	29.2	10.0	19.1	942.0
1998–99	22.7	np	np	61.8	621.0	5.0	29.4	10.1	16.7	948.0
1999–00	22.8	np	np	62.0	621.9	5.1	29.5	10.1	19.4	948.0
2000–01	22.1	np	np	64.0	568.3	4.9	31.2	12.3	18.9	935.0
2001–02	22.0	np	np	63.8	586.8	7.3	33.7	12.2	16.2	955.0
2002–03	23.5	np	np	61.1	572.0	11.6	29.8	11.7	21.5	924.0
2003–04	21.1	np	np	65.7	615.9	18.8	32.3	14.1	21.5	955.0
2004–05	20.2	np	np	70.9	556.1	9.0	38.0	18.0	10.1	923.0
2005–06	21.7	np	np	70.7	562.0	8.7	55.2	13.0	9.8	945.0
2006–07	26.8	np	np	66.0	581.8	8.9	28.3	11.2	10.1	947.0
2007–08	42.3	np	np	73.6	570.7	13.4	30.6	13.4	13.4	960.0
2008–09	52.9	np	np	69.6	552.4	4.4	34.9	15.4	13.2	922.0

¹ See End Notes.
 np not available for publication but included in the 'other manufacturing' category and the totals.
 Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c).

TE 3.13g Petroleum usage—Australian petroleum fuel consumption,¹ by industry— Northern Territory

Financial year	Mining	Manufacturing			Transport				Residential	Total consumption
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manufacturing	Road transport	Water transport	Air transport	Other transport		
gigalitres										
1974–75	15.4	np	np	10.2	104.6	22.3	95.2	2.6	7.7	812.0
1975–76	12.9	np	np	10.2	113.3	7.6	65.7	0.0	5.1	778.0
1976–77	15.5	np	np	5.2	132.3	20.4	68.6	0.0	5.2	839.0
1977–78	12.9	np	np	5.2	138.1	7.7	79.6	0.0	5.2	880.0
1978–79	12.8	np	np	5.1	147.5	15.1	84.3	0.0	5.1	891.0
1979–80	15.4	np	np	7.7	163.4	32.8	92.6	0.0	5.1	995.0
1980–81	17.9	np	np	7.7	176.6	15.2	76.0	0.0	7.8	1 026.0
1981–82	12.9	np	np	10.3	187.9	7.5	79.2	0.0	7.8	962.0
1982–83	12.9	np	np	5.1	203.7	2.6	87.3	0.0	5.1	1 018.0
1983–84	12.8	np	np	5.1	224.3	5.0	92.5	0.0	9.0	1 090.0
1984–85	28.5	np	np	5.1	235.3	5.1	91.4	0.0	8.9	1 099.0
1985–86	20.5	np	np	7.7	251.4	2.6	103.6	0.0	9.0	1 141.0
1986–87	20.6	np	np	2.6	287.0	7.7	117.5	- 2.6	9.0	1 112.0
1987–88	23.3	np	np	2.6	266.9	7.8	123.3	0.0	9.1	1 003.0
1988–89	31.0	np	np	0.0	287.3	7.8	96.1	0.0	9.0	1 009.0
1989–90	36.0	np	np	0.0	292.8	2.6	103.3	0.0	9.0	1 008.0
1990–91	36.1	np	np	0.0	296.5	5.1	111.4	0.0	9.0	1 053.0
1991–92	30.7	np	np	0.0	300.9	2.6	138.3	0.0	9.0	1 092.0
1992–93	30.8	np	np	0.0	293.7	5.1	154.6	2.6	9.0	1 097.0
1993–94	28.3	np	np	0.0	297.5	12.8	171.1	0.0	9.0	1 131.0
1994–95	25.7	np	np	0.0	300.4	28.3	193.0	0.0	9.0	1 181.0
1995–96	33.5	np	np	2.6	377.7	23.2	185.0	0.0	9.0	1 262.0
1996–97	38.7	np	np	2.6	382.5	25.8	179.7	2.6	12.9	1 300.0
1997–98	48.8	np	np	2.6	390.6	41.1	157.5	0.0	9.0	1 304.0
1998–99	43.8	np	np	2.6	391.9	49.0	163.5	- 2.7	9.0	1 337.0
1999–00	47.6	np	np	2.6	400.1	52.9	167.6	- 2.8	9.3	1 407.0
2000–01	50.5	np	np	25.3	360.3	30.3	181.1	2.5	6.3	1 296.0
2001–02	45.4	np	np	27.7	380.0	25.2	162.2	5.0	6.3	1 291.0
2002–03	52.7	np	np	26.4	358.0	19.2	134.0	4.8	9.6	1 220.0
2003–04	81.0	np	np	26.2	362.9	14.3	153.3	2.4	6.0	1 289.0
2004–05	143.9	np	np	2.2	345.4	13.3	147.1	2.2	5.5	1 269.0
2005–06	241.4	np	np	1.9	304.6	30.4	124.3	1.9	4.8	1 225.0
2006–07	179.9	np	np	24.1	365.6	63.6	152.6	2.2	5.5	1 380.0
2007–08	162.0	np	np	23.1	371.1	46.3	126.5	0.0	5.3	1 455.0
2008–09	153.9	np	np	22.3	363.8	40.5	123.9	0.0	5.1	1 507.0

¹ See End Notes.

np not available for publication but included in the 'other manufacturing' category and the totals.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c)

TE 3.13h Petroleum usage—Australian petroleum fuel consumption,¹ by industry— Australia

Financial year	Mining	Manufacturing			Transport					Residential	Total consump- tion
		Petroleum refining (excluding feedstock)	Basic chemicals	Other manu- facturing	Road transport	Water transport	Air transport	Other transport			
gigalitres											
1974–75	597.0	2 239.0	1 672.2	3 568.2	12 179.8	2 278.1	1 653.2	603.2	1 242.1	30 377.0	
1975–76	609.0	2 344.4	1 478.1	3 751.6	12 784.8	2 069.4	1 681.6	632.8	1 219.6	30 887.0	
1976–77	727.3	2 506.6	1 588.7	3 855.9	13 547.7	2 333.3	1 742.9	631.1	1 312.1	32 634.0	
1977–78	718.7	2 588.9	1 621.0	3 676.6	14 202.0	2 458.5	1 863.0	647.1	1 211.1	33 346.0	
1978–79	775.7	2 345.1	1 568.1	3 619.6	14 985.7	2 253.1	1 864.8	668.3	1 202.0	33 767.0	
1979–80	824.0	2 067.9	1 692.8	3 308.6	15 336.1	2 145.7	1 932.7	665.1	892.0	33 261.0	
1980–81	618.3	1 927.6	1 585.8	2 828.5	15 725.1	2 129.6	1 932.1	658.6	689.2	32 386.0	
1981–82	530.3	1 869.5	1 574.3	2 358.1	16 453.6	1 620.7	2 073.8	657.5	647.8	32 177.0	
1982–83	489.0	1 734.9	1 336.9	1 757.3	16 493.4	1 629.4	2 028.9	595.9	576.4	30 605.0	
1983–84	495.7	1 811.5	1 569.5	1 974.5	17 156.5	1 425.1	2 019.6	640.8	537.8	31 620.0	
1984–85	534.3	1 760.4	1 753.1	1 640.1	17 872.8	1 350.9	2 173.8	680.0	537.7	32 038.0	
1985–86	550.9	1 746.8	1 788.4	1 430.6	18 369.5	1 138.8	2 272.7	656.3	507.8	32 116.0	
1986–87	623.3	1 840.5	1 709.5	1 395.6	18 700.1	1 202.7	2 381.8	670.7	504.7	32 516.0	
1987–88	633.8	1 856.9	1 941.0	1 501.9	19 515.7	1 232.0	2 609.4	669.6	478.8	33 918.0	
1988–89	742.5	1 923.5	1 963.2	1 601.5	20 380.0	1 231.0	2 775.9	610.1	467.0	35 476.0	
1989–90	864.7	1 885.8	2 012.6	1 592.1	20 964.9	1 164.9	2 683.3	594.8	491.0	36 239.0	
1990–91	895.9	1 950.5	2 026.0	1 487.0	20 449.1	992.7	2 994.2	592.7	487.9	35 802.0	
1991–92	929.5	1 918.2	2 023.4	1 424.8	20 897.3	980.1	3 209.8	566.4	497.2	36 198.0	
1992–93	983.9	2 041.5	2 238.9	1 431.5	21 328.6	903.5	3 423.9	554.7	523.9	37 307.0	
1993–94	1 043.3	2 114.8	2 260.0	1 446.9	22 017.0	932.3	3 559.3	542.7	488.5	38 355.0	
1994–95	1 107.3	2 181.4	2 310.3	1 479.1	22 674.3	1 291.1	3 990.1	526.7	486.0	40 195.0	
1995–96	1 276.1	2 095.3	2 356.5	1 508.1	23 334.9	1 331.3	4 309.5	528.5	484.9	41 376.0	
1996–97	1 442.5	1 943.1	1 630.3	1 488.0	24 094.7	1 272.3	4 540.4	540.3	496.0	41 576.0	
1997–98	1 471.4	2 045.4	1 566.9	1 706.8	24 317.2	1 080.1	4 524.4	532.5	476.0	41 835.0	
1998–99	1 523.5	1 989.2	1 487.6	1 901.8	24 920.2	1 041.8	4 469.9	616.1	465.2	42 621.0	
1999–00	1 573.4	1 960.8	1 384.0	2 163.6	25 549.7	1 160.2	4 595.3	645.0	489.5	43 880.0	
2000–01	1 730.6	2 235.5	1 222.1	1 551.7	25 038.2	1 056.3	4 915.3	605.5	484.9	42 941.0	
2001–02	1 845.4	2 157.6	1 222.5	1 564.7	25 864.8	1 124.9	4 279.3	629.2	480.5	43 328.0	
2002–03	2 046.2	2 238.3	1 165.4	1 532.6	25 383.4	1 051.1	3 784.3	630.1	496.1	42 460.0	
2003–04	2 103.5	2 636.9	1 431.3	1 557.6	26 101.5	1 056.6	3 798.9	688.9	447.9	43 960.0	
2004–05	2 434.4	2 918.6	1 496.7	1 717.4	25 791.9	1 020.2	4 109.7	717.2	408.4	44 924.0	
2005–06	2 400.0	2 901.5	1 537.0	1 676.0	26 332.5	1 158.3	4 714.0	751.4	366.9	46 005.0	
2006–07	2 468.6	2 989.5	1 653.6	1 688.9	26 803.7	1 357.9	5 239.6	789.5	456.0	47 817.0	
2007–08	2 603.8	2 913.2	1 600.9	2 017.0	27 211.7	1 453.2	5 458.0	922.7	500.7	49 310.0	
2008–09	2 771.5	2 778.9	1 348.5	1 851.7	27 165.8	1 352.0	5 612.2	959.5	502.1	49 056.0	

¹ See End Notes.

Source: BITRE estimates based on ABARES (2010b) and ABARES (2010c)

TE 3.14 Petroleum usage—world crude oil prices, by region of origin

Financial year	World Trade Weighted	Dubai 2	Brent 3	West Texas Intermediate 4	Gippsland 5	Tapis 6
<i>US\$/bbl</i>						
1990–91	21.95	20.74	24.64	25.32		
1991–92	17.76	16.96	19.61	20.89		
1992–93	17.74	16.91	19.08	20.52		
1993–94	14.45	13.88	15.51	16.74		
1994–95	16.83	16.20	17.31	18.48		
1995–96	17.44	16.30	17.92	19.38		
1996–97	20.35	19.35	21.20	22.47		
1997–98	14.88	15.10	16.47	17.59	16.52	18.04
1998–99	12.08	12.61	13.01	14.49	13.33	13.07
1999–00	23.73	22.96	25.07	25.84	25.00	24.33
2000–01	26.35	26.25	28.90	30.10	29.48	29.23
2001–02	21.24	21.78	22.75	23.80	23.01	24.15
2002–03	26.21	25.90	27.78	29.86	28.59	28.79
2003–04	29.20	29.47	31.31	33.76	32.99	33.20
2004–05	41.43	40.80	46.24	48.80	48.36	49.18
2005–06	57.52	58.32	62.42	64.27	64.60	66.73
2006–07	59.96	61.27	63.94	63.37	67.53	69.32
2007–08	92.23	90.42	95.27	96.85	98.45	100.87
2008–09	67.21	67.58	68.25	69.93	71.07	74.13
2009–10	73.39	74.23	74.52	75.22	76.53	77.46

2, 3, 4, 5, 6

See End Notes.

Note:

Data are not readily available for missing years.

Source:

ABARES (2010a).

CHAPTER 4

Energy safety and emissions

TE 4.1a Energy safety—number of hospital admissions (separations) due to exposure to electricity, radiation, extreme temperature/pressure—public hospitals

Financial year	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	Australia
1998–99	286	186	494	162	202	53	2	0	1 385
1999–00	352	173	576	213	163	64	2	20	1 563
2000–01	352	175	507	257	121	54	7	18	1 491
2001–02	306	177	466	240	84	63	4	29	1 369
2002–03	323	257	373	236	92	69	3	21	1 374
2003–04	364	254	376	175	98	112	4	33	1 416
2004–05	349	212	302	167	99	95	7	12	1 243
2005–06	354	223	299	132	89	54	18	20	1 189
2006–07	357	242	272	128	85	61	10	14	1 169
2007–08	361	263	300	245	88	52	8	24	1 341
2008–09	340	223	251	381	85	49	11	15	1 355

Note: Data on state of hospitalisation should be interpreted with caution because of cross-border flows of patients.
Source: AIHW (2010).

TE 4.1b Energy safety—number of hospital admissions (separations) due to exposure to electricity, radiation, extreme temperature/pressure—private hospitals

Financial year	NSW	VIC	QLD	WA	SA	TAS	ACT	NT	Australia
1998–99	13	92	38	19	7	6	0		175
1999–00	18	31	67	18	18	6	0		158
2000–01	28	29	76	20	15	6	0		174
2001–02	24	20	127	8	np	np	0		185
2002–03	39	30	88	12	9	np	np	np	183
2003–04	59	12	85	10	7	np	np	np	180
2004–05	34	18	114	17	7	np	np	np	194
2005–06	40	19	128	19	9	np	np	np	219
2006–07	37	11	84	26	48	np	np	np	212
2007–08	35	9	68	38	59	np	np	np	214
2008–09	50	17	107	16	5	np	np	np	204

Note: Data on state of hospitalisation should be interpreted with caution because of cross-border flows of patients.
np not available for publication but included in the totals.
Source: AIHW (2010).

TE 4.2 Energy emissions—Electricity generation greenhouse gas (carbon dioxide equivalent) emissions by type of emissions

Financial year	Carbon dioxide	Methane	Nitrous oxide
	<i>gigagrams of CO₂ equivalent</i>		
1989–90	129 011.7	27.1	417.0
1990–91	131 205.1	27.2	432.5
1991–92	134 060.1	28.9	441.8
1992–93	134 968.1	28.5	439.3
1993–94	136 538.4	28.7	444.8
1994–95	142 129.8	31.8	461.1
1995–96	147 149.5	30.7	482.8
1996–97	152 135.2	29.1	506.2
1997–98	164 663.6	80.1	553.3
1998–99	170 885.1	88.1	571.4
1999–00	174 581.7	158.3	582.7
2000–01	181 752.5	157.5	601.1
2001–02	182 961.0	179.7	600.5
2002–03	191 187.6	153.0	623.2
2003–04	192 712.0	172.2	626.7
2004–05	193 349.1	167.4	630.4
2005–06	197 173.2	154.3	621.3
2006–07	199 159.4	196.3	603.7
2007–08	203 452.3	194.6	648.4

Source: DCCEE (2010).

TE 4.3a Energy emissions—public electricity and heat production greenhouse gas (carbon dioxide equivalent) emissions—New South Wales

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990	43 828.3	0.0	0.0	102.6	32.0	0.0		84.7		
1991	43 396.3	0.0	0.0	87.9	31.1	0.0		84.7		
1992	43 905.3	0.0	0.0	82.0	23.3	0.0		84.7		
1993	45 330.1	0.0	0.0	63.5	37.3	0.0		84.7		
1994	46 685.9	0.0	0.0	70.2	41.1	0.0		88.3		
1995	46 989.6	0.0	0.0	64.8	46.1	0.0		88.3		
1996	48 364.1	0.0	0.0	59.9	44.1	0.0		267.5		
1997	48 841.3	0.0	0.0	56.6	46.4	0.0		538.6		
1998	49 814.1	0.0	0.0	53.2	43.9	0.0	277.4	328.5		
1999	51 185.9	0.0	0.0	48.6	48.3	0.0	311.4	501.9		
2000	52 853.0	0.0	0.0	61.2	37.6	0.0	382.6	375.6	1.0	10.0
2001	55 819.7	0.0	0.0	63.7	89.8	0.0	453.4	342.0	1.7	9.7
2002	55 852.8	0.0	0.0	71.2	95.7	0.0	477.2	349.7	0.0	9.7
2003	55 901.6	0.0	0.0	76.4	84.2	0.0	352.6	471.1	1.1	12.0
2004	57 063.6	0.0	0.0	73.3	122.6	0.0	361.8	549.8	1.4	12.7
2005	56 690.3	0.0	0.0	90.8	153.3	0.0	328.2	571.4	1.6	13.5
2006	58 108.8	0.0	0.0	84.0	181.6	0.0	304.0	585.9	1.4	16.9
2007	59 661.4	0.0	0.0	85.7	178.9	0.0	379.5	563.6	0.6	17.6
2008	62 016.9	0.0	0.0	118.6	160.0	0.0	277.4	590.6	0.2	15.1

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.
Source: DCCEE (2010).

TE 4.3b Energy emissions—public electricity and heat production greenhouse gas (carbon dioxide equivalent) emissions—Victoria

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO2 equivalent</i>										
1990	0.0	41 223.7	284.0	98.7	1.4		0.0	2 577.6	0.0	
1991	0.0	44 429.4	179.8	58.1	2.5		0.0	1 633.5	0.0	
1992	0.0	45 494.2	189.0	33.2	13.4		0.0	1 790.6	0.0	
1993	0.0	43 263.8	135.3	45.3	10.2		0.0	1 873.9	0.0	
1994	0.0	43 746.8	114.4	24.9	7.2		0.0	1 573.4	0.0	
1995	0.0	45 528.5	116.5	21.9	0.1		0.0	2 149.7	0.0	
1996	0.0	47 714.6	181.6	21.9	15.4		0.0	1 946.4	0.0	
1997	0.0	51 676.8	180.0	21.9	9.6		0.0	660.6	0.0	
1998	0.0	58 458.9	215.3	26.1			0.0	480.5	0.0	
1999	0.0	61 017.1	160.8	21.4	5.7		0.0	598.6	0.0	
2000	0.0	61 860.0	262.2	28.0	1.5		0.0	474.9	0.0	12.7
2001	0.0	61 125.7	261.8	30.8	1.3		0.0	784.2	0.0	12.5
2002	0.0	59 257.3	125.0	35.0	1.3		0.0	962.0	0.0	14.0
2003	0.0	62 806.6	167.8	29.1	7.3		0.0	900.9	0.0	11.3
2004	0.0	63 130.0	41.6	40.8	0.0		0.0	1 151.6	0.0	11.3
2005	0.0	61 813.6	41.9	41.3	16.7	0.7	0.0	1 246.5	0.0	9.5
2006	0.0	62 466.7	68.0	42.3	42.9	1.0	0.0	1 229.0	0.0	8.9
2007	0.0	61 486.8	61.5	40.3	17.4	0.9	0.0	1 274.8	0.0	8.7
2008	0.0	61 502.4	136.0	40.1	38.5	0.8	0.0	1 470.8	0.0	18.7

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.

Source: DCCEE (2010).

TE 4.3c Energy emissions—public electricity and heat production greenhouse gas (carbon dioxide equivalent) emissions—Queensland

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990	22 406.0	0.0	0.0	50.6	331.7	0.0		2.6	0.0	
1991	23 038.2	0.0	0.0	39.2	328.2	0.0		2.6	0.0	
1992	24 294.7	0.0	0.0	33.0	310.2	0.0		2.6	0.0	
1993	25 818.3	0.0	0.0	55.1	327.8	0.0		2.6	0.0	
1994	26 399.3	0.0	0.0	50.7	382.3	0.0		2.6	0.0	
1995	28 262.5	0.0	0.0	41.8	388.8	0.0		2.6	0.0	
1996	29 168.9	0.0	0.0	40.3	394.3	0.0		102.7	0.0	
1997	30 425.8	0.0	0.0	40.3	417.3	0.0		110.4	0.0	
1998	34 661.2	0.0	0.0	67.3	344.0	0.0		167.4	0.0	
1999	35 591.5	0.0	0.0	55.8	434.4	0.0		576.0	0.0	
2000	35 560.6	0.0	0.0	29.7	565.4	0.0		979.7	0.0	1.1
2001	38 736.6	0.0	0.0	146.1	380.4	0.0		1 378.4	0.0	1.1
2002	41 218.1	0.0	0.0	20.6	519.6	0.0		1 387.4	0.0	1.6
2003	45 358.8	0.0	0.0	35.1	520.2	0.0	238.2	1 412.4	0.0	1.0
2004	44 451.6	0.0	0.0	46.1	403.0	0.0	235.8	1 474.9	0.0	1.0
2005	45 208.8	0.0	0.0	39.6	402.5	0.0	754.5	1 174.6	0.0	1.1
2006	46 810.0	0.0	0.0	37.1	414.6	0.0	1 443.7	1 077.1	0.0	1.5
2007	45 237.4	0.0	0.0	45.4	601.2	0.0	1 737.7	1 890.5	0.0	1.2
2008	44 419.1	0.0	0.0	42.8	374.9	0.0	1 530.8	2 205.8	0.0	5.5

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.
Source: DCCEE (2010).

TE 4.3d Energy emissions—public electricity and heat production greenhouse gas (carbon dioxide equivalent) emissions—South Australia

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990	3 888.3	0.0	0.0	15.9	21.8	0.0	0.0	2 560.1	0.0	
1991	3 351.3	0.0	0.0	7.3	37.9	0.0	0.0	1 971.5	0.0	
1992	3 659.1	0.0	0.0	7.8	19.2	0.0	0.0	2 270.2	0.0	
1993	3 563.2	0.0	0.0	11.1	21.0	0.0	0.0	2 402.3	0.0	
1994	3 457.8	0.0	0.0	7.3	21.8	0.0	0.0	2 644.8	0.0	
1995	3 411.7	0.0	0.0	7.3	24.4	0.0	0.0	2 365.4	0.0	
1996	3 230.5	0.0	0.0	42.2	10.3	0.0	0.0	1 790.7	0.0	
1997	3 537.4	0.0	0.0	4.0	35.0	0.0	0.0	1 755.3	0.0	
1998	3 614.1	0.0	0.0	4.5	40.9	0.0	0.0	2 024.0	0.0	
1999	3 797.2	0.0	0.0	73.4	24.3	0.0	0.0	2 732.5	0.0	
2000	4 253.6	0.0	0.0	73.6	23.8	0.0	0.0	2 513.4	0.0	22.7
2001	4 617.1	0.0	0.0	74.5	29.1	0.0	0.0	2 674.0	0.0	22.2
2002	4 708.1	0.0	0.0	19.8	1.9	0.0	0.0	2 797.2	0.0	10.0
2003	4 120.4	0.0	0.0	15.5	35.5	0.0	0.0	2 875.1	0.0	10.3
2004	4 454.0	0.0	0.0	21.9	62.6	0.0	0.0	2 893.4	0.0	10.3
2005	5 099.9	0.0	0.0	20.5	36.1	0.0	0.0	2 880.4	0.0	4.8
2006	4 839.5	0.0	0.0	12.1	44.0	0.0	0.0	2 964.5	0.0	5.1
2007	5 595.3	0.0	0.0	30.7	33.3	0.0	0.0	3 662.8	0.0	4.7
2008	5 262.4	0.0	0.0	25.2	31.7	0.0	0.0	4 249.6	0.0	9.2

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.

Source: DCCEE (2010).

TE 4.3e Energy emissions—public electricity and heat production greenhouse gas (carbon dioxide equivalent) emissions—Western Australia

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990	6 656.9	0.0	0.0	268.2	1 176.8	0.0	0.0	2 395.1	0.0	
1991	8 078.9	0.0	0.0	277.2	1 127.8	0.0	0.0	1 837.1	0.0	
1992	8 100.4	0.0	0.0	215.2	1 100.6	0.0	0.0	1 930.8	0.0	
1993	8 201.9	0.0	0.0	214.0	1 089.6	0.0	0.0	1 926.0	0.0	
1994	7 954.2	0.0	0.0	212.6	1 066.3	0.0	0.0	2 484.5	0.0	
1995	7 313.5	0.0	0.0	213.5	1 337.9	0.0	0.0	3 205.3	0.0	
1996	8 730.5	0.0	0.0	239.7	1 345.8	0.0	0.0	2 772.7	0.0	
1997	8 412.4	0.0	0.0	206.8	850.5	0.0	0.0	3 621.9	0.0	
1998	8 063.0	0.0	0.0	13.9	884.1	0.0	0.0	4 454.0	0.0	
1999	7 926.0	0.0	0.0	38.0	620.3	0.0	0.0	4 415.6	0.0	
2000	8 708.3	0.0	0.0	21.9	486.5	0.0	0.0	4 373.7	0.0	2.8
2001	8 490.7	0.0	0.0	18.3	409.5	0.0	0.0	5 266.3	0.0	2.7
2002	8 718.9	0.0	0.0	13.2	415.2	0.0	0.0	5 273.8	0.0	3.6
2003	9 090.9	0.0	0.0	13.9	398.8	0.0	0.0	5 397.2	0.0	5.9
2004	8 993.7	0.0	0.0	23.1	491.0	0.0	0.0	5 601.4	0.0	5.8
2005	9 170.3	0.0	0.0	77.0	541.0	0.0	0.0	5 632.1	0.0	2.9
2006	9 209.3	0.0	0.0	178.8	445.7	0.0	0.0	5 658.3	0.0	2.9
2007	8 429.9	0.0	0.0	171.9	480.3	0.0	0.0	6 210.2	0.0	2.7
2008	7 978.3	0.0	0.0	166.2	771.0	0.0	0.0	8 747.1	0.0	9.4

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.
Source: DCCEE (2010).

TE 4.3f Energy emissions—public electricity and heat production greenhouse gas (carbon dioxide equivalent) emissions—Tasmania

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990	0.0	0.0	0.0	499.3	9.7	0.0	0.0		0.0	
1991	0.0	0.0	0.0	693.6	9.5	0.0	0.0		0.0	
1992	0.0	0.0	0.0	4.1	10.0	0.0	0.0		0.0	
1993	0.0	0.0	0.0		10.4	0.0	0.0		0.0	
1994	0.0	0.0	0.0	0.5	10.7	0.0	0.0		0.0	
1995	0.0	0.0	0.0		11.8	0.0	0.0		0.0	
1996	0.0	0.0	0.0		12.5	0.0	0.0		0.0	
1997	0.0	0.0	0.0		12.5	0.0	0.0		0.0	
1998	0.0	0.0	0.0		13.4	0.0	0.0		0.0	
1999	0.0	0.0	0.0	5.0	10.5	0.0	0.0		0.0	
2000	0.0	0.0	0.0	2.6	8.6	0.0	0.0		0.0	
2001	0.0	0.0	0.0	12.4	45.3	0.0	0.0		0.0	
2002	0.0	0.0	0.0	46.5	12.0	0.0	0.0		0.0	
2003	0.0	0.0	0.0	95.6	1.1	0.0	0.0	182.1	0.0	
2004	0.0	0.0	0.0		90.3	0.0	0.0	319.8	0.0	
2005	0.0	0.0	0.0	102.3	13.1	0.0	0.0	478.0	0.0	
2006	0.0	0.0	0.0	95.0	13.9	0.0	0.0	311.6	0.0	
2007	0.0	0.0	0.0	102.3	13.9	0.0	0.0	504.3	0.0	
2008	0.0	0.0	0.0	102.3	13.9	0.0	0.0	635.7	0.0	1.4

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.

Source: DCCEE (2010).

TE 4.3g Energy emissions—public electricity and heat production greenhouse gas (carbon dioxide equivalent) emissions—Northern Territory

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990	0.0	0.0	0.0	0.0	261.2	0.0	0.0	628.9	0.0	0.0
1991	0.0	0.0	0.0	0.0	246.8	0.0	0.0	664.4	0.0	0.0
1992	0.0	0.0	0.0	0.0	215.6	0.0	0.0	691.9	0.0	0.0
1993	0.0	0.0	0.0	0.0	199.0	0.0	0.0	698.1	0.0	0.0
1994	0.0	0.0	0.0	0.0	203.8	0.0	0.0	698.7	0.0	0.0
1995	0.0	0.0	0.0	0.0	211.4	0.0	0.0	761.2	0.0	0.0
1996	0.0	0.0	0.0	0.0	226.7	0.0	0.0	877.4	0.0	0.0
1997	0.0	0.0	0.0	0.0	241.9	0.0	0.0	908.2	0.0	0.0
1998	0.0	0.0	0.0	0.0	256.4	0.0	0.0	935.2	0.0	0.0
1999	0.0	0.0	0.0	0.0	276.7	0.0	0.0	1 008.3	0.0	0.0
2000	0.0	0.0	0.0	0.0	163.0	0.0	0.0	1 105.5	0.0	0.0
2001	0.0	0.0	0.0	0.0	93.0	0.0	0.0	1 114.8	0.0	0.0
2002	0.0	0.0	0.0	0.0	91.0	0.0	0.0	1 173.2	0.0	0.0
2003	0.0	0.0	0.0	0.0	120.9	0.0	0.0	1 158.8	0.0	0.0
2004	0.0	0.0	0.0	0.0	187.6	0.0	0.0	1 175.8	0.0	0.0
2005	0.0	0.0	0.0	0.0	229.3	0.0	0.0	1 239.2	0.0	0.0
2006	0.0	0.0	0.0	0.0	229.3	0.0	0.0	1 005.9	0.0	0.0
2007	0.0	0.0	0.0	0.0	201.5	0.0	0.0	1 216.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	472.4	0.0	0.0	828.1	0.0	0.0

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.
Source: DCCCE (2010).

TE 4.3h Energy emissions—public electricity and heat production greenhouse gas (carbon dioxide equivalent) emissions—Australian external territories

Calendar year	Solid fuels			Liquid fuels			Gaseous fuels		Renewable	
	Black coal	Brown coal	Brown coal briquettes	Fuel oil	Auto-motive diesel oil	Liquified petroleum gas (LPG)	Coal gas	Natural gas	Wood and wood waste	Gas biomass
<i>gigagrams of CO₂ equivalent</i>										
1990	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0
1991	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0
1992	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0
1993	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
1994	0.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	0.0	0.0
1995	0.0	0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0
1996	0.0	0.0	0.0	0.0	8.8	0.0	0.0	0.0	0.0	0.0
1997	0.0	0.0	0.0	0.0	5.5	0.0	0.0	0.0	0.0	0.0
1998	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0
1999	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0
2000	0.0	0.0	0.0	0.0	12.6	0.0	0.0	0.0	0.0	0.0
2001	0.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0
2002	0.0	0.0	0.0	0.0	7.6	0.0	0.0	0.0	0.0	0.0
2003	0.0	0.0	0.0	0.0	6.5	0.0	0.0	0.0	0.0	0.0
2004	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.0	0.0
2005	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0	0.0	0.0
2006	0.0	0.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0
2007	0.0	0.0	0.0	0.0	8.4	0.0	0.0	0.0	0.0	0.0
2008	0.0	0.0	0.0	0.0	26.8	0.0	0.0	0.0	0.0	0.0

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.

Source: DCCEE (2010).

TE 4.4a Energy emissions—natural gas supply greenhouse gas (carbon dioxide equivalent) emissions, by state or territory—from gas production and distribution

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>gigagrams of CO₂ equivalent</i>								
1990	30.3	184.2		4.3				
1991	49.1	143.4		50.1				
1992	2.4	176.5		13.8				
1993	47.2	189.9		36.9				
1994	16.9	220.9		2.9				
1995	24.3	120.4						
1996	40.0	167.4		21.1				
1997	31.6	165.3		9.8				
1998	36.3	220.7	36.8					
1999	46.1	223.0	89.2	26.2				
2000	24.9	215.3	113.2	25.1				
2001	89.0	199.4	68.5	25.4				
2002	98.5	208.3	128.4	25.9				
2003	129.5	190.9	220.5	35.7				
2004	129.0	36.0	310.9	33.9				
2005	113.9	194.6	25.8	32.1				
2006	94.1	192.8	39.9	17.5				
2007	38.4	177.4	35.5					
2008	51.7	182.1	40.5	4.7				

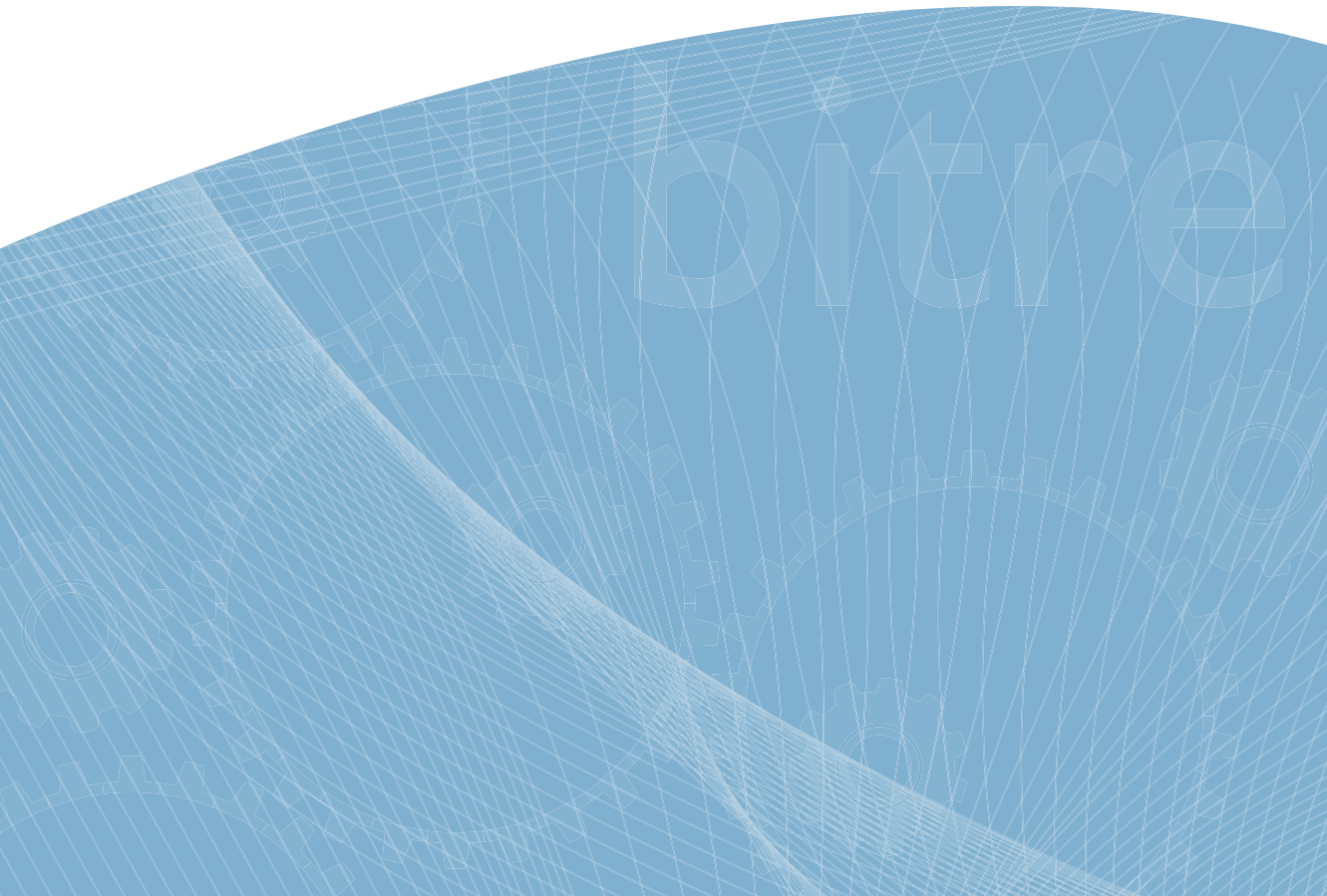
Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.
Source: DCCCE (2010).

TE 4.4b Energy emissions—natural gas supply greenhouse gas (carbon dioxide equivalent) emissions, by state or territory—from natural gas transmission

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>gigagrams of CO₂ equivalent</i>								
1990	21.0	21.0	46.1	73.3	101.5			
1991	21.0	20.0	47.7	47.1	90.2			
1992	23.1	24.6	48.7	55.3	104.5			
1993	23.6	25.1	50.2	65.6	133.2			
1994	25.1	25.1	36.9	81.5	183.4			
1995	28.2	25.6	30.7	75.3	235.2			
1996	26.6	25.6	28.2	76.9	258.8			
1997	34.0	26.2	28.3	77.2	274.7			
1998	32.5	26.4	28.0	76.3	273.5		4.1	
1999	39.0	24.6	32.4	78.0	308.1		6.2	
2000	42.6	27.2	49.8	79.1	326.6		7.2	
2001	38.0	27.7	51.9	79.6	446.8		7.7	
2002	37.5	28.8	53.4	80.1	518.6		7.7	
2003	87.3	30.8	51.4	82.2	523.8		10.3	
2004	41.1	30.8	56.5	82.2	523.8		5.1	
2005	46.2	30.8	56.5	92.4	554.6		5.1	
2006	46.2	36.0	61.6	102.7	575.1		5.1	
2007	46.2	41.1	66.8	102.7	600.8		5.1	
2008	46.2	41.1	66.8	102.7	605.9		5.1	

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.
Source: DCCEE (2010).

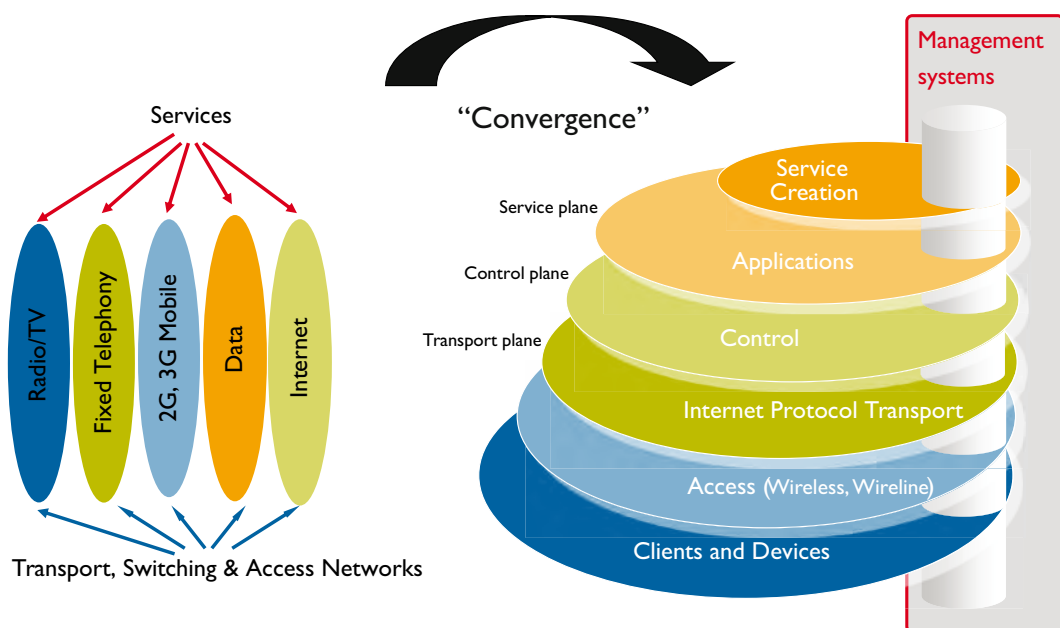
PART C: Communication



FC I Telecommunication networks: traditional and next generation

Single – service networks

Next generation network



Source: Australian Communications and Media Authority

PART C

Communication

The study of Australian economic infrastructure focuses on key networks that enable economic activity. Telecommunications networks are a vital part of Australian infrastructure, with communications networks now in a period of significant transition.

Traditional communications architecture was based on vertically integrated separate networks that delivered separate services over a dedicated network (see Figure C I, facing page). Modern communications networks are moving to the use of a more horizontal, next generation network architecture organised into layers of common functions, which allows the delivery of multiple services to a single user device delivered over a common internet protocol based platform.

The upper layers of the diagram (control, applications and service creation) are associated with the presentation of software-based user-focussed features and services, while the lower layers in the diagram are associated with the more physical elements of the communications process. Management systems provide overall management of network interaction between layers. The horizontal architecture allows for competition amongst industry participants operating within a layer.

The phenomenon of communications 'convergence' is not just occurring at the network, service and device level, but also among the previously distinct industries of telecommunications, broadcasting, radio communications and the Internet.

Readers should take these rapid developments in communications technology into account when analysing time series statistics for communications networks.

Where possible, statistics in Part C: Communication of the *Australian Infrastructure Statistics Yearbook* focus on physical infrastructure networks and their usage, rather than the broader communications industry. For Chapter 2, these distinctions are not possible as data are not available with sufficient detail to separately identify physical infrastructure networks.

Traditional measures of infrastructure construction activity only provide a partial picture of the capacity and usage of communications infrastructure as they only measure investment in the physical infrastructure networks. Information technology upgrades that provide additional functionality or new services on existing networks, along with network upgrades that extend geographic coverage, have been major drivers of increased infrastructure capacity in the communications industry. Chapter 2 of Part C: Communication provides estimates of investment in information technology by the information media and telecommunications industry.

Major drivers of communications infrastructure activity over recent years have been:

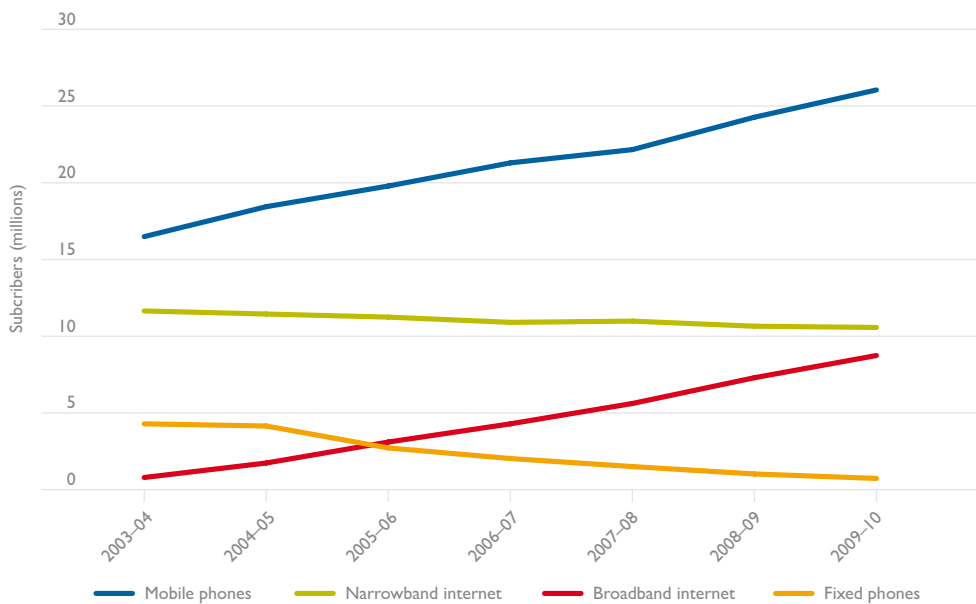
- increasing international bandwidth capacity
- growth in domestic backhaul transmission capacity (infrastructure connecting access nodes to the core network)
- a broadening range of internet access technologies available, including digital subscriber line (DSL) and wireless broadband network deployments (with increasing intensity of use and reliance on radio communications spectrum allocations)

- mobile network extensions for 3G mobile services and ongoing upgrades in network speeds and data capabilities and
- the convergence of networks, devices and service

Looking to the future, the deployment of the National Broadband Network (NBN) represents a significant investment in a fibre to the premises network. The Australian Government established the NBN Co Limited in April 2009 to build and operate a wholesale NBN with fibre to the premises connections. The Government has designated fibre as the preferred access network technology to meet Australia's future communications needs. This large public investment in infrastructure will be reflected in the statistics over the coming years of the NBN deployment and beyond.

An illustration of the dynamism of the communications sector, Figure C2 demonstrates the take-up of the newer technologies of mobile phones and broadband internet over the last seven years, and the decline of the number of subscribers to the older technologies of 'narrowband' internet and fixed phones.

FC 2 Communications subscribers, by medium



CHAPTER I

Communications infrastructure

TC I.1 Flow of new infrastructure—value of telecommunications engineering construction work done by sector of construction and sector of ownership, adjusted by chain volume index

Financial year	Private sector for the private sector	Private sector for the public sector	Public sector	Total major infrastructure engineering construction	Telecommunications percentage of total
		\$ million			per cent
1986–87	28.1	70.1	3 418.9	16 793.7	20.94
1987–88	14.1	53.1	3 162.9	15 513.6	20.82
1988–89	14.9	12.1	3 404.5	15 592.4	22.01
1989–90	11.9	18.7	3 735.4	16 628.8	22.65
1990–91	15.7	35.4	3 795.9	17 200.3	22.37
1991–92	11.8	51.2	2 901.9	15 905.9	18.64
1992–93	119.3	37.6	2 875.1	16 969.0	17.87
1993–94	142.3	50.6	2 596.1	18 182.1	15.34
1994–95	122.5	19.3	3 493.3	18 461.2	19.69
1995–96	321.5	40.9	4 047.4	19 584.4	22.52
1996–97	273.4	11.0	4 027.0	19 298.9	22.34
1997–98	108.9	49.2	4 130.9	21 084.3	20.34
1998–99	176.5	33.1	4 375.9	23 583.9	19.44
1999–00	535.3	194.6	5 073.3	24 927.6	23.28
2000–01	930.4	373.1	4 307.1	22 608.9	24.82
2001–02	529.9	451.0	3 934.0	24 037.5	20.45
2002–03	502.9	381.4	3 499.5	26 603.2	16.48
2003–04	1 057.8	58.6	2 936.5	29 778.5	13.61
2004–05	1 205.7	201.6	3 092.8	33 315.0	13.51
2005–06	1 498.3	69.1	4 136.4	39 350.2	14.50
2006–07	3 869.0	42.2	1 535.9	41 207.0	13.22
2007–08	4 608.3	25.2	*7.1	47 954.3	9.68
2008–09	3 938.5	48.6	*7.1	56 682.9	7.05
2009–10	3 743.5	171.5	*9.9	58 346.0	6.73

* Following the third tranche of privatisation of Telstra, ABS classifies Telstra investment as private sector rather than public sector investment.

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

TC 1.2a Flow of new infrastructure—capital investment by selected communications industries—gross fixed capital formation^c

Financial year	Broadcasting (except internet)	Internet publishing and broadcasting	Tele- communications services	Internet service providers, web search portals and data processing services	Publishing, motion picture and sound recording, and library and other information services b	TOTAL information media and tele- communications industry
\$ million						
2006–07	358	52	7 184	210	776	8 580
2007–08	455	24	5 797	^a 160	772	7 207
2008–09	463	^a 18	5 733	^a 123	765	7 103

a Estimate has a relative standard error between 10% and 25%.

b This series groups several industries into the one measure. Relative standard errors were calculated for component series, but are not available for the new measure.

c Gross fixed capital expenditure represents expenditure on fixed assets that excludes repair and maintenance expenses, but includes all costs associated with own-account capital formation. Fixed assets include all produced assets (physical assets, cultivated assets and intellectual property products) that are used in processes of production for more than one year. Non-produced assets such as spectrum assets are not included in gross fixed capital formation.

Source: ABS (2010a).

TC 1.2b Flow of new infrastructure—capital investment by selected communications industries—net capital expenditure^c

Financial year	Broadcasting (except internet)	Internet publishing and broadcasting	Tele- communications services	Internet service providers, web search portals and data processing services	Publishing, motion picture and sound recording, and library and other information services b	TOTAL information media and tele- communications industry
\$ million						
2006–07	366	54	7 164	185	912	8 681
2007–08	1 312	26	5 883	585	824	8 629
2008–09	474	^a 23	5 957	^a 143	666	7 263

a Estimate has a relative standard error between 10% and 25%.

b This series groups several industries into the one measure. Relative standard errors were calculated for component series, but are not available for the new measure.

d Net capital expenditure represents expenditure on all forms of capital, net of depreciation of fixed capital. This measure of capital expenditure includes non-produced assets such as spectrum assets.

Source: ABS (2010a).

TC 1.2c Flow of new infrastructure—capital investment by selected communications industries—depreciation and amortisation

Financial year	Broadcasting (except internet)	Internet publishing and broadcasting	Tele- communications services	Internet service providers, web search portals and data processing services	Publishing, motion picture and sound recording, and library and other information services b	TOTAL information media and tele- communications industry
\$ million						
2006–07	897	31	5 826	214	791	7 759
2007–08	769	^a 33	5 833	222	974	7 832
2008–09	821	10	6 042	^a 171	742	7 786

a Estimate has a relative standard error between 10% and 25%.

b This series groups several industries into the one measure. Relative standard errors were calculated for component series, but are not available for the new measure.

Source: ABS (2010a).

CHAPTER 2

Investment in information technology

TC 2.1 Investment in information technology—information media and telecommunications industry^e investment in information technology gross fixed capital formation,¹ chain volume measures

Financial year	Information media and telecommunications industry investment in IT				Total Australian investment in information technology	Communications industry percentage of total
	Computers and peripherals	Electrical and electronic equipment	Intellectual property products—computer software	TOTAL investment in IT by the information media and telecommunications industry		
	\$ million					per cent
1971–72	0	53	1	54	589	9.17
1972–73	0	80	1	81	636	12.74
1973–74	0	88	2	90	666	13.51
1974–75	0	84	2	86	661	13.01
1975–76	0	54	2	56	704	7.95
1976–77	0	64	2	66	701	9.42
1977–78	0	56	3	59	741	7.96
1978–79	0	61	5	66	832	7.93
1979–80	0	62	6	68	837	8.12
1980–81	1	75	9	85	1 020	8.33
1981–82	1	84	12	97	1 166	8.32
1982–83	1	89	17	107	1 134	9.44
1983–84	2	152	21	175	1 645	10.64
1984–85	2	194	25	221	1 858	11.89
1985–86	3	306	36	345	2 163	15.95
1986–87	3	247	36	286	2 432	11.76
1987–88	4	260	72	336	2 633	12.76
1988–89	5	323	66	394	2 900	13.59
1989–90	7	492	93	592	3 401	17.41
1990–91	9	435	105	549	3 231	16.99
1991–92	11	500	133	644	3 644	17.67
1992–93	18	734	227	979	4 577	21.39
1993–94	10	445	273	728	4 805	15.15
1994–95	24	599	262	885	5 340	16.57
1995–96	36	735	336	1 107	6 031	18.36
1996–97	50	873	328	1 251	7 250	17.26
1997–98	51	652	389	1 092	8 532	12.80
1998–99	77	754	445	1 276	9 379	13.60
1999–00	135	1 129	504	1 768	11 783	15.00
2000–01	155	1 565	677	2 397	14 055	17.05
2001–02	143	1 188	712	2 043	14 167	14.42
2002–03	150	1 210	693	2 053	17 435	11.78
2003–04	161	1 138	745	2 044	20 118	10.16
2004–05	240	1 379	744	2 363	22 136	10.67
2005–06	247	1 349	881	2 477	25 717	9.63
2006–07	336	1 858	673	2 867	28 506	10.06
2007–08	453	2 110	655	3 218	35 264	9.13
2008–09	467	2 110	667	3 244	37 580	8.63
2009–10	467	1 768	807	3 042	40 424	7.53

¹ See End Notes.

^e Investment in information technology statistics are not available with the same level of industry detail as Table C 1.2.
Source: ABS (2010c).

TC 2.2 Investment in information technology—information media and telecommunications industry^e consumption of information technology fixed capital,² chain volume measures

Financial year	Information media and telecommunications industry consumption of IT				Total Australian consumption of fixed information technology capital	Communications industry percentage of total
	Computers and peripherals	Electrical and electronic equipment	Intellectual property products—Computer software	TOTAL consumption of IT fixed capital by the information media and telecommunications industry		
	\$ million					per cent
1971–72	0	47	0	47	380	12.37
1972–73	0	49	0	49	401	12.22
1973–74	0	52	1	53	424	12.50
1974–75	0	55	1	56	445	12.58
1975–76	0	56	1	57	467	12.21
1976–77	0	56	1	57	490	11.63
1977–78	0	56	1	57	511	11.15
1978–79	0	56	2	58	538	10.78
1979–80	0	56	2	58	569	10.19
1980–81	0	57	3	60	607	9.88
1981–82	0	59	4	63	656	9.60
1982–83	0	61	6	67	706	9.49
1983–84	1	67	7	75	770	9.74
1984–85	1	77	10	88	862	10.21
1985–86	1	94	13	108	978	11.04
1986–87	2	113	17	132	1 118	11.81
1987–88	2	128	22	152	1 280	11.88
1988–89	3	145	29	177	1 465	12.08
1989–90	3	173	39	215	1 718	12.51
1990–91	5	203	53	261	2 017	12.94
1991–92	6	232	69	307	2 327	13.19
1992–93	8	272	94	374	2 701	13.85
1993–94	10	307	127	444	3 118	14.24
1994–95	12	331	161	504	3 543	14.23
1995–96	16	366	196	578	3 981	14.52
1996–97	22	412	230	664	4 472	14.85
1997–98	29	451	264	744	5 071	14.67
1998–99	38	480	300	818	5 756	14.21
1999–00	55	533	339	927	6 603	14.04
2000–01	79	626	388	1 093	7 677	14.24
2001–02	101	717	446	1 264	8 824	14.32
2002–03	118	781	504	1 403	10 113	13.87
2003–04	133	836	562	1 531	11 725	13.06
2004–05	153	894	618	1 665	13 571	12.27
2005–06	178	957	677	1 812	15 655	11.57
2006–07	211	1 041	717	1 969	18 010	10.93
2007–08	263	1 160	727	2 150	20 893	10.29
2008–09	323	1 282	724	2 329	24 165	9.64
2009–10	374	1 371	724	2 469	27 464	8.99

2 See End Notes.

e Investment in information technology statistics are not available with the same level of industry detail as Table C 1.2

Source: ABS (2009a).

TC 2.3 Stock of information technology—information media and telecommunications industry^e net capital stock³ of information technology assets, chain volume measures

Information media and telecommunications industry stock of IT assets						
Financial year	Computers and peripherals	Electrical and electronic equipment	Intellectual property products—Computer software	TOTAL stock of IT held by the information media and telecommunications industry	Total stock of information technology	Communications industry percentage of total
	\$ million				per cent	
1971–72	0	328	2	330	3 546	9.31
1972–73	0	352	2	354	3 723	9.51
1973–74	0	380	3	383	3 906	9.81
1974–75	0	401	5	406	4 063	9.99
1975–76	0	393	6	399	4 241	9.41
1976–77	0	395	8	403	4 395	9.17
1977–78	0	389	9	398	4 564	8.72
1978–79	1	388	13	402	4 791	8.39
1979–80	1	388	16	405	4 992	8.11
1980–81	1	399	22	422	5 328	7.92
1981–82	2	416	30	448	5 753	7.79
1982–83	2	436	42	480	6 098	7.87
1983–84	3	507	56	566	6 854	8.26
1984–85	4	606	72	682	7 725	8.83
1985–86	6	789	96	891	8 769	10.16
1986–87	7	901	116	1 024	9 944	10.30
1987–88	8	1 008	167	1 183	11 155	10.61
1988–89	10	1 156	204	1 370	12 423	11.03
1989–90	13	1 429	260	1 702	13 937	12.21
1990–91	16	1 621	314	1 951	15 010	13.00
1991–92	20	1 843	380	2 243	16 174	13.87
1992–93	28	2 237	518	2 783	17 860	15.58
1993–94	27	2 334	670	3 031	19 351	15.66
1994–95	37	2 547	775	3 359	20 922	16.05
1995–96	53	2 847	914	3 814	22 618	16.86
1996–97	76	3 234	1 010	4 320	24 989	17.29
1997–98	94	3 387	1 133	4 614	27 992	16.48
1998–99	127	3 621	1 276	5 024	31 234	16.09
1999–00	200	4 171	1 435	5 806	35 902	16.17
2000–01	272	5 084	1 717	7 073	41 840	16.90
2001–02	312	5 547	1 972	7 831	46 791	16.74
2002–03	341	5 970	2 162	8 473	53 787	15.75
2003–04	367	6 271	2 359	8 997	61 981	14.52
2004–05	449	6 746	2 503	9 698	70 304	13.79
2005–06	518	7 140	2 708	10 366	80 416	12.89
2006–07	645	7 970	2 657	11 272	90 912	12.40
2007–08	840	8 947	2 572	12 359	105 286	11.74
2008–09	984	9 775	2 515	13 274	118 702	11.18
2009–10	1 077	10 172	2 597	13 846	131 663	10.52

3 See End Notes.

e Investment in information technology statistics are not available with the same level of industry detail as Table C 1.2

Source: ABS (2009a).

CHAPTER 3

Subscribers and providers

TC 3.1 Communications subscribers—number of services, by communications medium

End of financial year	Number of payphones	Terrestrial mobile	Fixed voice	Internet		
				Narrowband	Broadband	Total
Number of subscribers (millions)						
2003–04	64 803	16.48	11.66	4.36	0.86	5.22
2004–05	61 735	18.42	11.46	4.18	1.80	5.98
2005–06 ^f	58 230	19.76	11.26	2.78	3.16	5.95
2006–07	49 862	21.26	10.92	2.09	4.34	6.43
2007–08	45 114	22.12	11.00	1.57	5.66	7.23
2008–09 ^g	39 328	24.22	10.67	1.09	7.33	8.42
2009–10 ^h	35 012	25.99	10.59	0.80	8.77	9.57

^f From 2005–06 to 2007–08 internet subscriptions reflect data from ISPs with more than 10 000 active subscribers.

^g Internet subscriptions for 2008–09 reflect data from ISPs with more than 1000 active subscribers.

^h Internet subscriptions for 2009–10 and years prior to 2005–06 reflect data from all ISPs.

ⁱ Internet subscriptions for the end of the March quarter

Source: ABS (2010i), ACMA (2010).

TC 3.2 Communications subscribers—number of terrestrial mobile services, by technology

End of financial year	GSM 4	3G 5	Total
	Number of subscribers (millions)		
2003–04			16.48
2004–05			18.42
2005–06			19.76
2006–07		4.56	21.26
2007–08	13.26	8.55	22.12
2008–09	11.16	12.28	24.22

^{4, 5} See End Notes.

Source: ACMA (2010).

TC 3.3a Communications subscribers—number of internet subscribers, by download speed—business and government subscribers

	Broadband							Total business and government subscribers
	Less than 256kbps	256kbps to less than 512kbps	512kbps to less than 1.5Mbps	1.5Mbps to less than 8Mbps	8Mbps to less than 24Mbps	24Mbps or greater	Total broadband	
Number of subscribers ('000)								
Census of all ISPs								
September 2000								432
September 2001								559
September 2002								650
September 2003	528	70	73	np	np	np	168	696
September 2004	535	140	84	np	np	np	311	846
March 2005	447	151	130	np	np	np	398	845
September 2006	279	176	218	np	np	np	547	826
December 2007	268	190	172	224	95	17	697	965
December 2008	234	160	169	538	175	45	1 087	1 321
ISPs with more than 1 000 active subscribers								
December 2009	188	113	160	911	219	37	1 440	1 629

Note: Data are not readily available for missing years.

np not available for publication but included in the totals.

Source: ABS (2010i).

TC 3.3b Communications subscribers—number of internet subscribers, by download speed—household subscribers

	Less than 256kbps	Broadband					Total broadband	Total household subscribers
		256kbps to less than 512kbps	512kbps to less than 1.5Mbps	1.5Mbps to less than 8Mbps	8Mbps to less than 24Mbps	24Mbps or greater		
Number of subscribers ('000)								
Census of all ISPs								
September 2000								3 417
September 2001								3 731
September 2002								3 904
September 2003	4 027	165	181	np	np	np	488	4 516
September 2004	3 916	390	222	np	np	np	979	4 895
March 2005	3 746	508	398	np	np	np	1 388	5 135
September 2006	2 478	1 150	1 224	np	np	np	3 353	5 831
December 2007	1 619	1 391	949	821	1 198	163	4 522	6 141
December 2008	1 084	1 299	1 012	1 474	1 478	329	5 591	6 675
ISPs with more than 1 000 active subscribers								
December 2009	717	918	1 191	2 277	1 754	466	6 605	7 322

Note: Data are not readily available for missing years.

np not available for publication but included in the totals.

Source: ABS (2010i).

TC 3.3c Communications subscribers—number of internet subscribers, by download speed—total all subscribers

	Broadband							All subscribers
	Less than 256kbps	256kbps to less than 512kbps	512kbps to less than 1.5Mbps	1.5Mbps to less than 8Mbps	8Mbps to less than 24Mbps	24Mbps or greater	Total broadband	
Number of subscribers ('000)								
Census of all ISPs								
September 2000								3 849
September 2001								4 289
September 2002								4 555
September 2003	4 554	235	254	np	np	np	656	5 211
September 2004	4 451	530	305	np	np	np	1 290	5 741
March 2005	4 193	659	529	np	np	np	1 787	5 980
September 2006	2 757	1 327	1 442	np	np	np	3 900	6 657
December 2007	1 887	1 580	1 121	1 045	1 293	180	5 218	7 105
December 2008	1 319	1 458	1 181	2 012	1 653	-	6 678	7 996
ISPs with more than 1 000 active subscribers								
December 2009	905	1 030	1 351	3 188	1 973	503	8 046	8 951

Note: Data are not readily available for missing years.
 np not available for publication but included in the totals.
 Source: ABS (2010i).

TC 3.4 Communications subscribers—number of internet subscribers, by access connection

	Dial-up	Non dial-up						Other	Com- bined conn- ections	Total all sub- scribers
	DSL	Cable and fibre	Satellite	Wireless (excluding mobile handset connections)						
				Fixed	Mobile	Total wireless (excluding mobile handset conn- ections)				
Number of subscribers ('000)										
Census of all ISPs										
September 2000	3 745	6	np	np				np		3 849
September 2001	4 088	30	np	np				np		4 273
September 2002	4 204	127	np	np				np		4 555
September 2003	4 522	372	np	np	5	3	8	np		5 211
September 2004	4 441	822	np	np	6	9	15	np		5 741
March 2005	4 177	1 256	np	np	31	7	38	np		5 980
September 2006	2 749	2 995	np	np	np	np	138	np	706	6 227
December 2007	1 887	3 815	np	np	np	np	433	np	888	6 746
December 2008	1 311	4 208	916	80	np	1 369	1 462	19	np	7 996
ISPs with more than 1 000 active subscribers										
December 2009	891	4 178	np	107	22	2 838	2 860	5	np	8951

j Total subscribers differs to total in Table C3.3c as source data have been revised for C3.3, but not for C3.4.

np not available for publication but included in the totals.

Note: Data not readily available.

Source: ABS (2010i).

TC 3.5 Communications providers—number of internet service providers (ISP), by size

	Very small 1 to 100 subscribers	Small 101 to 1 000 subscribers	Medium 1 001 to 10 000 subscribers	Large 10 001 to 100 000 subscribers	Very large 100 000 + subscribers	Total
<i>Number of ISPs</i>						
September 2000	132	377	173	28	8	718
September 2001	112	299	155	30	6	602
September 2002	102	254	172	29	6	563
September 2003	153	316	163	27	8	667
September 2004	171	323	157	26	10	687
March 2005	180	312	162	25	10	689
September 2006	124	199	112	22	10	467
December 2007	108	179	96	28	10	421
December 2008			88	27	11	126
December 2009			66	27	10	103

Note: Data are not readily available for missing years.

Source: ABS (2010i).

CHAPTER 4

Price and activity

TC 4.1 Communications prices—consumer price index, telecommunication services, index numbers by capital city

End of financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Australia
<i>base of each index: 1989–90 = 100</i>									
1980–81	65.0	66.3	65.3	66.5	63.8	67.0	68.0	65.6	65.6
1981–82	69.0	70.3	69.3	70.5	67.7	71.0	72.1	69.5	69.6
1982–83	76.1	77.5	76.4	77.7	74.8	78.2	79.4	76.7	76.7
1993–84	82.4	83.9	82.3	84.2	81.0	84.4	86.3	83.2	83.0
1994–85	85.9	87.5	85.5	87.8	84.3	87.9	89.8	86.8	86.5
1995–86	90.0	91.5	89.3	91.6	88.6	91.9	92.9	90.6	90.5
1986–87	92.5	93.1	92.7	93.3	91.6	94.2	95.6	92.8	92.7
1987–88	100.1	100.7	100.9	100.8	99.1	101.8	103.1	100.5	100.4
1988–89	101.8	102.2	102.1	102.2	101.3	102.8	103.3	102.0	102.0
1989–90	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1990–91	102.7	102.6	102.2	102.5	102.5	102.1	102.1	102.7	102.6
1991–92	107.4	107.3	106.3	107.1	107.2	106.2	106.2	107.4	107.1
1992–93	106.7	106.8	105.5	106.6	106.7	104.7	105.3	106.9	106.4
1993–94	105.9	105.9	104.7	105.7	106.0	103.6	104.3	106.0	105.6
1994–95	107.3	107.0	107.3	107.0	107.6	105.6	106.4	107.4	107.1
1995–96	106.9	106.5	107.4	106.7	107.4	105.3	106.3	106.9	106.8
1996–97	106.1	105.6	106.6	104.9	106.7	104.1	105.4	106.0	105.9
1997–98	106.3	105.7	106.9	104.5	106.5	104.3	104.7	105.9	105.9
1998–99	102.0	101.8	104.0	100.5	101.5	101.3	97.0	101.3	101.8
1999–00	96.3	95.9	99.0	95.4	94.4	96.8	89.3	95.3	96.1
2000–01	103.2	102.9	106.4	102.4	100.7	104.0	95.3	102.1	103.0
2001–02	103.3	103.4	107.0	103.5	101.4	104.3	95.5	101.9	103.4
2002–03	106.3	106.5	110.3	107.3	104.6	107.6	98.1	104.9	106.6
2003–04	107.6	107.8	111.7	108.7	105.9	109.0	99.3	106.2	107.9
2004–05	108.6	108.8	112.8	109.9	106.9	110.0	100.2	107.1	108.9
2005–06	106.9	107.1	111.0	108.1	105.2	108.3	98.6	105.4	107.2
2006–07	108.2	108.1	112.4	109.4	106.6	109.6	99.8	106.7	108.4
2007–08	108.5	108.4	112.8	109.7	106.9	109.9	100.0	107.0	108.7
2008–09	109.1	108.9	113.5	110.3	107.5	110.6	100.7	107.6	109.4
2009–10	109.4	109.2	113.9	110.6	107.9	110.9	101.0	107.9	109.7

Source: ABS (2011a).

TC 4.2 Communications prices—representative monthly broadband subscription prices

	DSL k			Cable l		
	Speed	Bit cap	Price	Speed	Bit cap	Price
	<i>kbps m</i>	<i>Megabits (Mb)</i>	<i>\$</i>	<i>kbps m</i>	<i>Megabits (Mb)</i>	<i>\$</i>
2005	1 536	10 000	129.40	2 880	12 000	74.95
2006	1 536	10 000	109.95	9 900	20 000	79.95
2007	1 536	12 000	69.95	9 900	30 000	109.99
2008	1 536	12 000	69.95	20 000	30 000	109.99

k Representative Digital Subscriber Line (DSL) provider chosen by OECD was Bigpond.

l Representative internet Cable service provider chosen by OECD was Optus.

m Kilobits per second. A kilobit is a data unit of 1024 bits.

Source: OECD (2010).

TC 4.3 Communication activity—internet domain names registered, excluding the 'gov.au' domain

End of financial year	com.au	net.au	org.au	asn.au	id.au	Total (.au)
			<i>number</i>			
2001–02	255 408	12 794	9 203	2 832	0	280 237
2002–03	308 423	20 149	13 279	3 198	2 527	347 576
2003–04	382 994	34 391	17 480	3 581	4 682	443 128
2004–05	477 376	46 727	18 562	2 800	5 826	551 291
2005–06	612 918	60 000	23 406	3 058	6 746	706 128
2006–07	795 368	79 783	28 363	3 166	8 091	914 771
2007–08	1 009 347	112 555	34 167	3 483	8 954	1 168 506
2008–09	1 221 915	140 364	41 323	3 842	9 853	1 417 297
2009–10	1 513 617	185 029	45 536	4 196	10 917	1 759 295

Source: AusRegistry (2010).

TC 4.4 Communication activity—internet commerce

End of financial year	Proportion of businesses which:		Internet income
	Placed orders via the internet or web	Received orders via the internet or web	
	<i>per cent</i>		<i>\$ billion</i>
1999–00	4.0	6.0	5.1
2000–01	20.0	9.0	9.4
2001–02	25.0	6.0	11.3
2002–03	27.8	13.3	24.3
2003–04	31.3	12.0	33.3
2004–05	32.7	12.2	39.6
2005–06	37.3	20.9	56.7
2006–07	39.8	23.3	67.6
2007–08	42.7	23.7	81.0
2008–09	46.0	27.1	122.9

Source: ABS (2009a), ABS (2010n).

TC 4.5 Communication activity—internet use—volume of data downloaded by subscriber type, for ISPs with more than 1 000 active subscribers

Quarter ending	Dial-up	Non dial-up	Total	Business and government	Household	Total
<i>Terabytes</i>						
September 2000			981	437	544	981
September 2001			1 227	466	762	1 227
September 2002			2 841	690	2 152	2 841
September 2003	1 430	2 891	4 322	1 117	3 204	4 322
September 2004	1 667	8 890	10 557	2 259	8 298	10 557
March 2005	1 820	11 805	13 625	3 252	10 372	13 625
September 2006	2 216	33 931	36 148	6 733	29 415	36 148
December 2007	2 693	56 638	59 331	6 247	53 084	59 331
December 2008	1 079	80 274	81 352	15 180	66 172	81 352
December 2009	294	127 661	127 954			

Source: ABS (2010i).

CHAPTER 5

Communications security

TC 5.1 Communication security—do not call register

Telephone numbers listed on register, by prefix								Complaints received relating to potential breaches of the DNCR Act
(01) Satellite, (05) VOIP	(02) NSW, ACT	(03) VIC, TAS	(04) Mobile	(07) QLD	(08) WA, SA, NT	Total numbers listed		
Number '000								
May–June 2007							1 370	2.3
2007–08	0.5	459.3	484.0	750.2	411.4	314.6	2 420	28.8
2008–09	0.8	603.7	653.9	1 369.9	509.4	403.4	3 541	10.6
2009–10	1.5	821.2	872.5	2 153.8	663.9	519.4	5 332	9.3

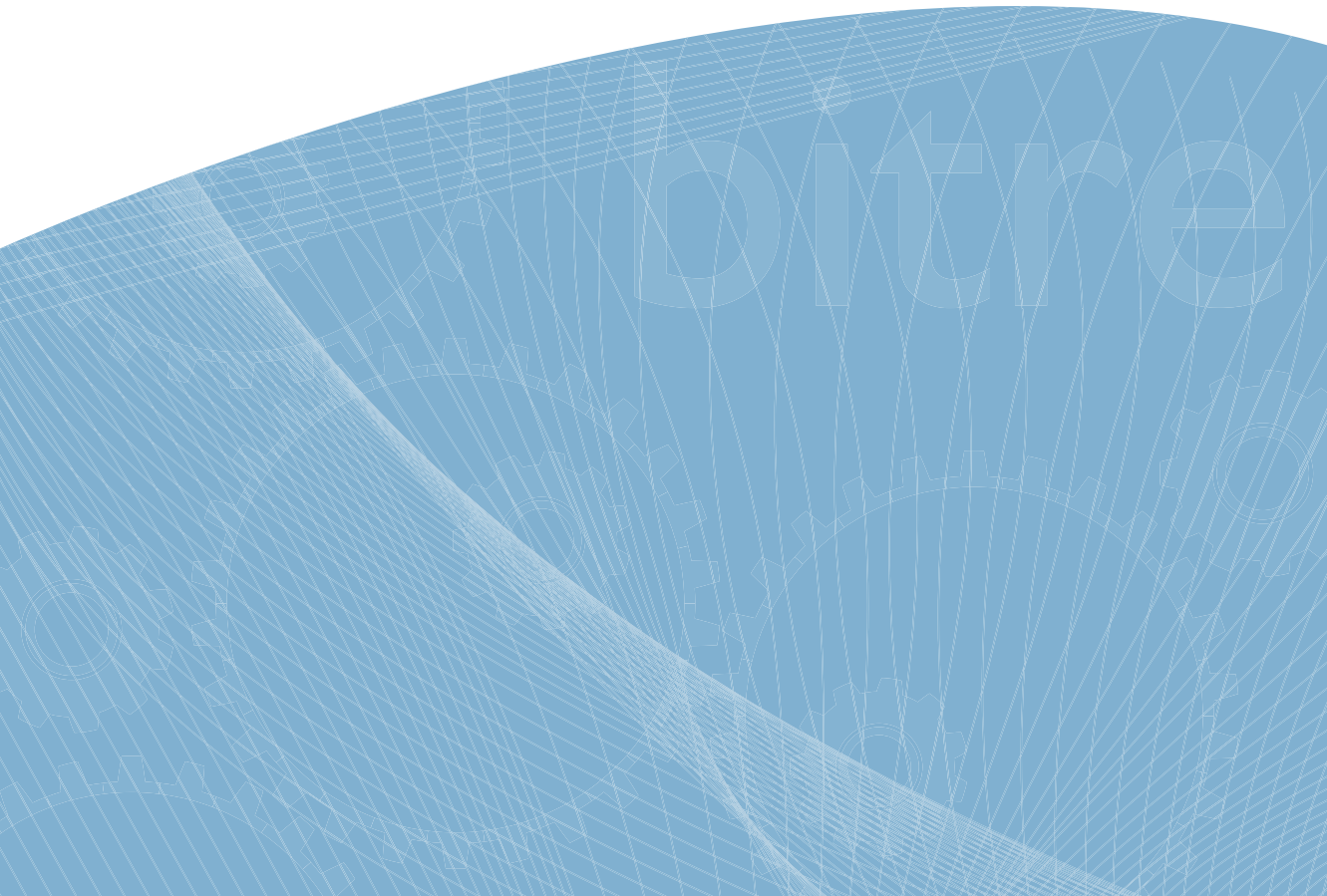
Source: ACMA (2010).

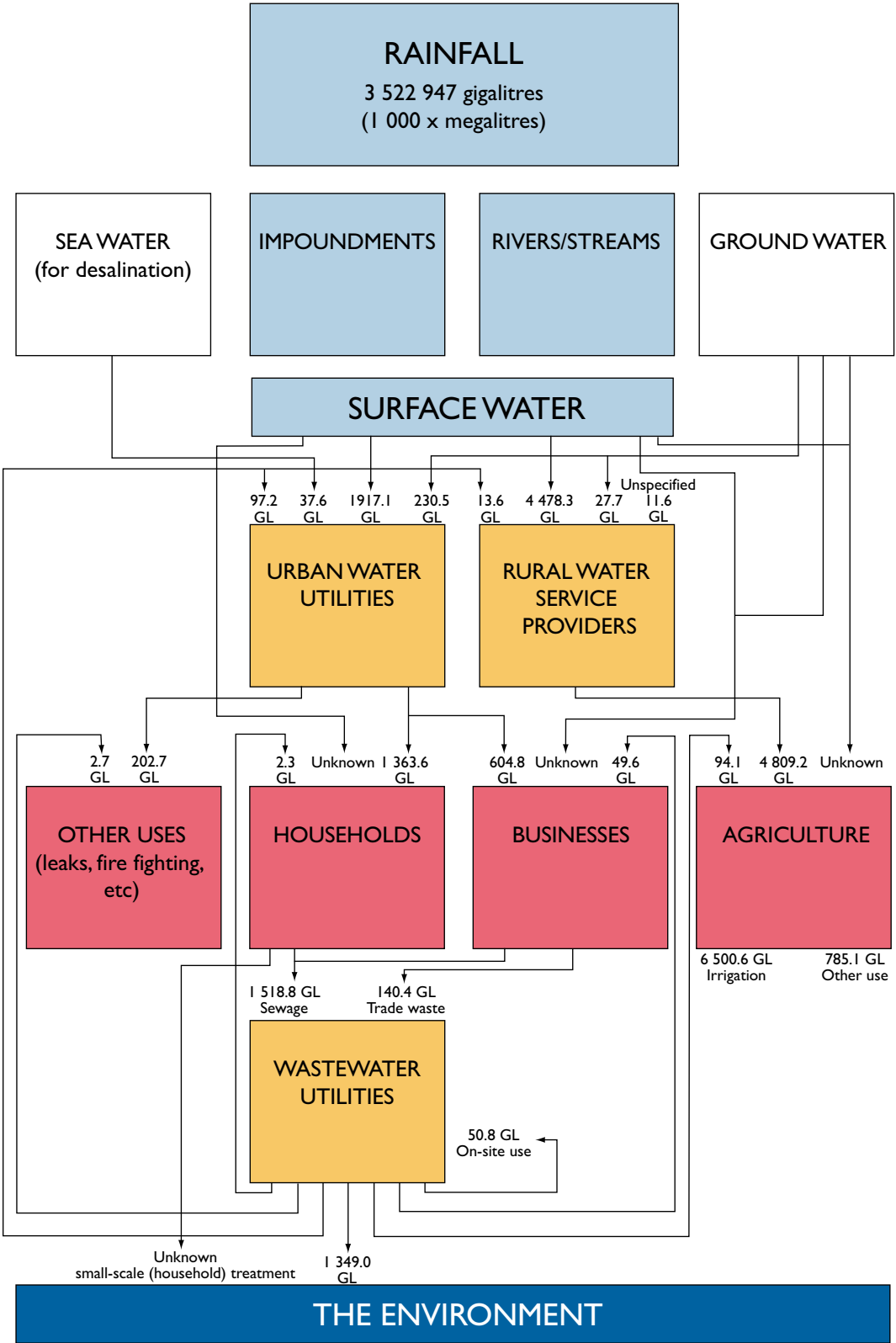
TC 5.2 Communication security—000 and 112 Emergency call services call handling

	Caller no response (CNR)		Calls aborted by caller before being answered	Calls aborted by caller after being answered (non-CNR)	Calls transferred to emergency service organisations	Total number of 000 and 112 emergency calls
	CNR calls terminated by Interactive Voice Response (IVR)	CNR calls connected to police through IVR				
2001–02					5 727 775	9 709 377
2002–03					3 948 657	11 332 701
2003–04	5 449 511	145 397	835 966	2 294 635	4 015 738	12 741 247
2004–05	4 241 385	163 330	693 745	1 512 737	4 196 430	10 807 627
2005–06	3 706 705	179 409	963 606	2 167 537	4 571 520	11 588 777
2006–07	2 990 652	216 863	1 079 821	2 718 333	5 133 857	12 139 526
2007–08	2 612 893	211 356	1 126 190	2 860 558	5 409 199	12 220 196
2008–09	n	n	n	n	5 356 526	10 301 011
2009–10					5 291 376	8 833 683

n Data are no longer reported in the ACMA Communications Report.
Source: ACMA (2010).

PART W: Water



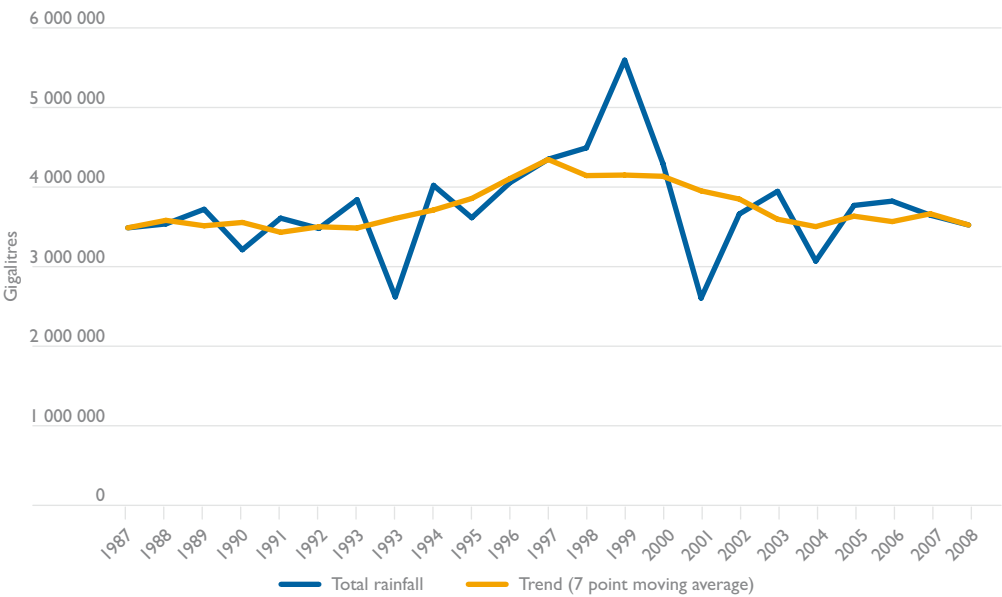


PART W

Water

Australian water utilities use infrastructure networks to provide water to urban and rural areas and to provide wastewater collection and treatment services to large areas of the country. Part W: Water provides both physical and financial measures of water infrastructure, inputs to water supply and wastewater treatment activity, water supply and wastewater treatment activity, and measures of water health and emissions issues.

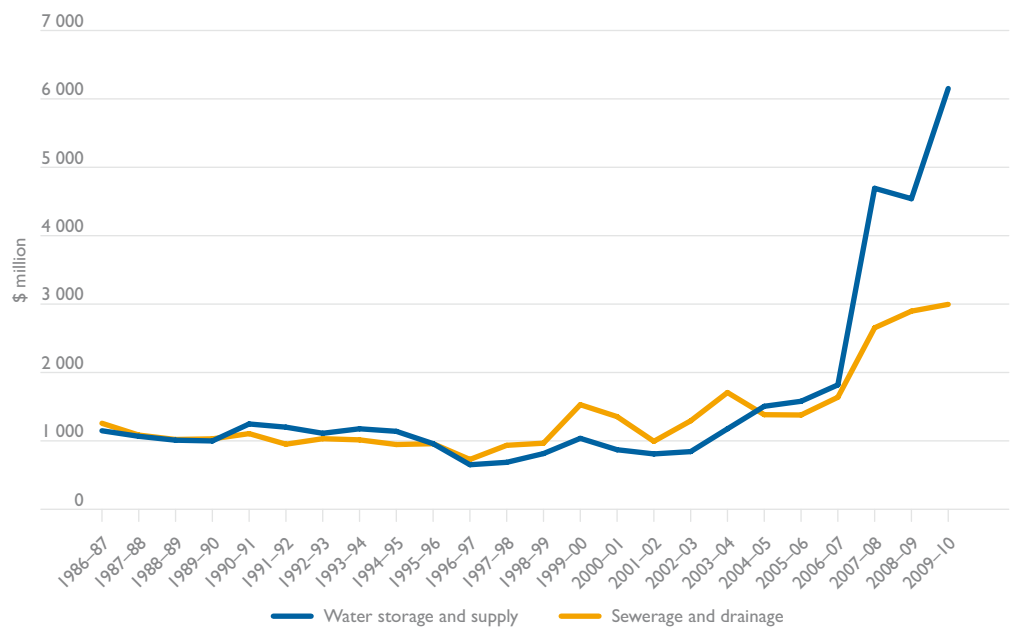
FW 2 Total volume of rainfall in Australia



While the total volume of rainfall falling on Australian land is roughly the same in 2009 as it was in 1987 (3.5 million gigalitres), the population of Australia increased by 35 per cent. In contrast, the capacity of Australia's large dams increased 3.5 per cent (see Table W 1.3) between 1986–87 and 2004–05 (the latest available data).

Infrastructure construction activity was relatively constant (in chain volume adjusted terms) until about 2002–03. Since 2003–04, water infrastructure construction expenditure has increased sharply in real terms, particularly for water storage and supply projects, which reflect recent construction work on the SE Queensland water grid and the construction of a desalination plant in Victoria.

FW 3 Water infrastructure engineering construction, adjusted by chain volume index



CHAPTER 1

Water infrastructure

TW 1.1a Flow of new infrastructure—value of water infrastructure engineering construction work done by the private sector for the private sector, adjusted by chain volume index

Financial year	Water storage and supply	Sewerage and drainage	Total major infrastructure engineering construction	Water percentage of total
	\$ million			per cent
1986–87	103.2	78.7	2 883.5	6.31
1987–88	118.0	120.8	3 551.7	6.72
1988–89	126.3	124.1	3 863.0	6.48
1989–90	140.0	103.2	3 422.7	7.11
1990–91	178.9	167.2	3 288.2	10.53
1991–92	103.3	97.7	3 399.8	5.91
1992–93	141.3	128.1	3 513.7	7.67
1993–94	248.5	188.2	4 352.0	10.03
1994–95	450.2	122.5	4 183.3	13.69
1995–96	419.1	244.5	5 190.3	12.79
1996–97	198.8	123.9	5 063.9	6.37
1997–98	225.5	165.7	6 349.4	6.16
1998–99	227.5	125.0	7 678.5	4.59
1999–00	262.7	228.8	7 657.7	6.42
2000–01	273.4	283.5	6 788.3	8.20
2001–02	206.6	227.4	8 954.9	4.85
2002–03	231.8	397.3	11 449.5	5.49
2003–04	402.6	660.2	14 903.5	7.13
2004–05	460.2	384.5	16 269.0	5.19
2005–06	554.5	394.7	19 544.4	4.86
2006–07	539.7	411.7	22 036.7	4.32
2007–08	786.1	936.6	25 848.3	6.66
2008–09	598.8	1 022.8	30 371.4	5.34
2009–10	1 778.7	529.3	29 904.4	7.72

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

TW 1.1b Flow of new infrastructure—value of water infrastructure engineering construction work done by the private sector for the public sector, adjusted by chain volume index

Financial year	Water storage and supply	Sewerage and drainage	Total major infrastructure engineering construction	Water percentage of total
	\$ million			per cent
1986–87	380.4	350.6	4 620.2	15.82
1987–88	344.2	352.9	3 394.9	20.54
1988–89	267.7	297.5	3 052.6	18.51
1989–90	233.3	347.0	3 274.2	17.72
1990–91	348.0	386.0	4 081.3	17.99
1991–92	475.1	280.1	4 105.6	18.39
1992–93	384.0	360.5	4 416.6	16.86
1993–94	547.1	409.9	5 167.9	18.52
1994–95	347.4	378.7	4 518.2	16.07
1995–96	269.8	392.0	4 413.4	15.00
1996–97	265.2	330.1	4 884.4	12.19
1997–98	229.4	405.9	5 398.0	11.77
1998–99	269.0	464.4	5 769.4	12.71
1999–00	340.0	923.6	6 166.6	20.49
2000–01	278.0	775.4	5 721.4	18.41
2001–02	297.4	478.5	5 038.6	15.40
2002–03	247.2	575.1	5 165.1	15.92
2003–04	458.3	738.9	5 119.1	23.39
2004–05	712.2	642.5	6 870.6	19.72
2005–06	702.6	486.8	7 384.0	16.11
2006–07	776.4	576.6	7 750.9	17.46
2007–08	3 140.3	1 061.9	11 040.5	38.06
2008–09	3 066.9	1 098.5	13 515.5	30.82
2009–10	2 769.7	1 378.8	13 978.8	29.68

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

TW 1.1c Flow of new infrastructure—value of water infrastructure engineering construction work done by public sector, adjusted by chain volume index

Financial year	Water storage and supply	Sewerage and drainage	Total major infrastructure engineering construction	Water percentage of total
	\$ million			per cent
1986–87	709.3	876.3	9 290.0	17.07
1987–88	646.8	653.9	8 567.0	15.18
1988–89	655.5	638.7	8 676.8	14.92
1989–90	664.6	620.1	9 931.9	12.94
1990–91	769.5	597.2	9 830.8	13.90
1991–92	669.8	610.8	8 400.5	15.24
1992–93	630.1	584.3	9 038.7	13.43
1993–94	430.6	458.4	8 662.2	10.26
1994–95	390.5	483.7	9 759.6	8.96
1995–96	311.5	362.4	9 980.7	6.75
1996–97	215.0	304.5	9 350.6	5.56
1997–98	260.5	402.0	9 336.9	7.10
1998–99	351.4	416.6	10 136.0	7.58
1999–00	477.0	441.6	11 103.3	8.27
2000–01	355.5	353.9	10 099.3	7.02
2001–02	339.1	329.8	10 043.9	6.66
2002–03	398.7	376.0	9 988.6	7.76
2003–04	365.5	382.4	9 756.0	7.67
2004–05	398.4	414.8	10 175.3	7.99
2005–06	390.2	554.3	12 421.8	7.60
2006–07	579.6	717.1	11 419.3	11.36
2007–08	970.5	769.7	11 065.5	15.73
2008–09	903.9	793.2	12 796.0	13.26
2009–10	1 399.0	972.6	14 462.8	16.40

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

TW 1.1d Flow of new infrastructure—total value of water infrastructure engineering construction work done, adjusted by chain volume index

Financial year	Water storage and supply	Sewerage and drainage	Total major infrastructure engineering construction	Water percentage of total
	\$ million			per cent
1986–87	1 192.9	1 305.6	16 793.7	14.88
1987–88	1 109.0	1 127.7	15 513.6	14.42
1988–89	1 049.5	1 060.3	15 592.4	13.53
1989–90	1 037.9	1 070.4	16 628.8	12.68
1990–91	1 296.5	1 150.5	17 200.3	14.23
1991–92	1 248.1	988.6	15 905.9	14.06
1992–93	1 155.3	1 072.9	16 969.0	13.13
1993–94	1 226.2	1 056.5	18 182.1	12.55
1994–95	1 188.2	984.9	18 461.2	11.77
1995–96	1 000.5	998.8	19 584.4	10.21
1996–97	679.0	758.5	19 298.9	7.45
1997–98	715.4	973.7	21 084.3	8.01
1998–99	848.0	1 006.1	23 583.9	7.86
1999–00	1 079.7	1 594.0	24 927.6	10.73
2000–01	906.8	1 412.9	22 608.9	10.26
2001–02	843.1	1 035.7	24 037.5	7.82
2002–03	877.6	1 348.4	26 603.2	8.37
2003–04	1 226.5	1 781.5	29 778.5	10.10
2004–05	1 570.7	1 441.8	33 315.0	9.04
2005–06	1 647.2	1 435.9	39 350.2	7.84
2006–07	1 895.7	1 705.4	41 207.0	8.74
2007–08	4 897.0	2 768.2	47 954.3	15.98
2008–09	4 569.6	2 914.6	56 682.9	13.20
2009–10	5 947.4	2 880.6	58 346.0	15.13

Source: (ABS 2011b) including unpublished data, adjusted by chain volume index.

TW 1.2a Stock of infrastructure—current value of Australian water infrastructure, by state or territory—urban water infrastructure assets

End of financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT	Australia
\$ million									
2004–05									35 431
2005–06	12 635	8 881	5 579	4 711	4 033		492	1 107	38 763
2006–07	14 542	9 109	5 909	4 916	4 912		493	1 261	42 468
2007–08	16 315	9 774	6 382	5 428	5 306	1 325	410	1 623	46 562
2008–09	18 257	10 459	7 530	6 242	6 326		426	1 698	52 263

I See End Notes.

Note: Data are not readily available for missing years.

Source: ABS (2007b), OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 1.2b Stock of infrastructure—current value of Australian water infrastructure, by state or territory—waste water and sewerage infrastructure assets

End of financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT	Australia
\$ million									
2004–05									37 457
2005–06	18 945	9 268	5 100	2 660	4 586		205	1 093	42 781
2006–07	21 406	9 859	5 601	2 949	4 896		210	1 155	47 000
2007–08	25 943	10 595	5 769	3 015	5 087	923	212	1 269	52 814
2008–09	28 845	10 806	7 495	3 171	6 324		227	1 306	59 098

I See End Notes.

Note: Data are not readily available for missing years.

Source: ABS (2007b), OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 1.2c Stock of infrastructure—current value of Australian water infrastructure, by state or territory—irrigation and drainage

End of financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Australia
\$ million									
2004–05									6 181
2005–06									
2006–07	1 038	1 902	2 951	181	94				6 166
2007–08	1 016	2 453	2 951	180	124				6 724
2008–09	1 008	2 481	2 738	180	125				6 531

Note: Data are not readily available for missing years.

Source: ABS (2007b), BITRE estimates based NWC et al. (2010a).

TW 1.3 Infrastructure capacity—major Australian water storage dams²

End of financial year	Storage capacity	Water held in dams at end of year	Percentage of capacity used
	<i>gigalitres</i>		<i>per cent</i>
1971–72	52 430		
1972–73	52 771		
1973–74	65 644		
1974–75	66 211		
1975–76	68 491		
1976–77	68 700		
1977–78	68 738		
1978–79	72 816		
1979–80	72 966		
1980–81	73 900		
1981–82	74 365		
1982–83	76 153		
1983–84	77 061		
1984–85	78 293		
1985–86	78 615		
1986–87	80 997		
1987–88	81 138		
1988–89	81 210		
1989–90	82 860		
1990–91	82 876		
1991–92	82 972		
1992–93	83 016		
1993–94	83 109		
1994–95	83 111		
1995–96	83 112		
1996–97	83 292		
1997–98	83 296		
1998–99	83 297		
1999–00	83 312		
2000–01	83 312		
2001–02	83 853	48 684	58.1
2002–03	83 853	39 575	47.2
2003–04	83 853	44 164	52.7
2004–05	83 853	39 958	47.7

2 See End Notes.

Note: Data are not readily available for missing years.

Source: ABS (2006b).

TW 1.4 Infrastructure capacity—water storage in major dams—actual holdings of major water storage dams, by state/territory

End of financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
				<i>gigalitres</i>				
2001–02	12 206	6 083	6 226	115	11 254	12 494	237	69
2002–03	8 629	2 815	5 602	105	10 236	11 886	241	61
2003–04	7 970	4 371	6 287	111	11 352	13 744	251	78
2004–05	8 200	4 729	5 309	116	10 135	11 191	196	82

Source: ABS (2006b).

TW 1.5a Flow of new infrastructure—capital expenditure on Australian water infrastructure, by state or territory—urban water infrastructure assets

End of financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT	Australia
\$ million									
2005–06	521	321	196	116	444		11	26	1 650
2006–07	661	387	348	119	340		8	21	1 901
2007–08	1 323	556	354	151	240	16	16	49	2 706
2008–09	1 859	1 046	1 830	536	336		31	90	5 743

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 1.5b Flow of new infrastructure—capital expenditure on Australian water infrastructure, by state or territory—waste water & sewerage infrastructure assets

End of financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT	Australia
\$ million									
2005–06	592	417	302	32	169		10	6	1 549
2006–07	702	531	354	33	252		13	11	1 918
2007–08	764	660	379	38	389	14	14	21	2 286
2008–09	759	694	478	143	494		15	52	2 656

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 1.5c Flow of new infrastructure—capital expenditure on Australian water infrastructure, by state or territory—irrigation & drainage

End of financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Australia
\$ million									
2005–06									
2006–07	39	167	9	1	27				243
2007–08	38	279	7	1	15				341
2008–09	44	289	5	1	9				348

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010a).

TW 1.6 Stock of infrastructure—number of urban water treatment plants providing full treatment, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
2005–06	58	152	11	7	17		0	2
2006–07	59	156	11	7	18		0	2
2007–08	60	163	11	7	18	36	0	2
2008–09	57	157	9	7	18		0	2

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 1.7 Stock of infrastructure—length of urban water mains, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
<i>kilometres</i>								
2005–06	43 822	42 739	17 152	9 263	14 713		1 625	3 004
2006–07	44 068	43 027	17 385	9 357	15 094		1 651	2 954
2007–08	44 365	43 653	18 716	9 640	15 413	5 316	1 672	2 980
2008–09	44 697	44 193	19 245	9 465	15 610		1 704	3 059

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 1.8 Water infrastructure—average number of properties served per kilometre of water main, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
<i>number of properties</i>								
2005–06	56.9	50.4	54.7	56.0	51.8		35.1	46.3
2006–07	57.3	50.9	55.3	56.3	51.7		35.7	47.4
2007–08	57.6	51.2	52.8	55.3	51.8	36.3	36.5	47.3
2008–09	57.6	51.4	54.4	57.1	52.3		36.6	47.1

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 1.9 Infrastructure quality—average number of water main breaks per 100 kilometres of water main, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
<i>number of water main breaks</i>								
2005–06	29.6	24.7	23.6	20.6	15.7		55.2	43.0
2006–07	25.8	40.4	28.4	26.1	14.1		44.5	48.0
2007–08	21.9	33.9	26.1	24.4	14.0	38.3	42.8	38.0
2008–09	21.8	33.5	25.4	24.8	13.8		42.0	37.0

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 1.10 Stock of infrastructure—number of sewage treatment plants providing full treatment, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
<i>number of sewage treatment plants</i>								
2005–06	161	185	35	6	18		7	2
2006–07	163	184	34	6	18		7	2
2007–08	162	185	32	6	18	76	7	2
2008–09	162	197	46	7	18		7	2

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 1.11 Stock of infrastructure—length of sewerage mains and channels, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
<i>kilometres</i>								
2005–06	40 088	33 101	16 055	7 443	11 862		866	2 985
2006–07	40 171	33 533	16 218	7 492	12 146		877	2 993
2007–08	40 853	34 135	16 995	7 530	12 459	4 118	884	3 014
2008–09	41 241	34 500	17 270	7 584	12 684		913	3 059

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 1.12 Water infrastructure—average number of properties served per kilometre of sewer main, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
<i>number of properties</i>								
2005–06	58.6	60.0	56.2	65.7	54.8		63.5	46.2
2006–07	59.1	59.9	57.0	66.2	55.4		63.9	46.4
2007–08	58.8	60.3	57.0	66.7	55.8	43.2	65.6	46.8
2008–09	59.0	60.8	57.2	67.2	56.5		65.0	47.1

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 1.13 Stock of infrastructure—number of recycled water treatment plants, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
<i>number of recycled water treatment plants</i>								
2005–06	2	46	1	4	1		1	2
2006–07	2	46	1	2	1		1	2
2007–08	2	43	2	3	1	0	2	2
2008–09	2	66	13	2	1		2	2

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 1.14 Infrastructure quality—average number of sewer main breaks and chokes
per 100 kilometres of sewer main, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
<i>number of sewer main breaks and chokes</i>								
2005–06	74.5	30.4	29.9	50.1	19.5	na	39.6	157.4
2006–07	82.3	33.9	32.7	62.9	23.5	na	36.5	166.4
2007–08	58.5	31.0	26.0	55.3	22.4	57.8	33.8	166.9
2008–09	60.6	31.8	25.6	^a 276.1	20.8	na	35.0	189.8

I See End Notes.

a South Australian data for 2008–09 includes new data to conform with NWC definitions. Users should use caution when comparing with previous years.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 1.15a Stock of infrastructure—length of rural water supply and drainage networks, by asset type—New South Wales

Financial year	Water supply					Drainage			
	Unlined channel	Lined channel	Regulated river	Natural waterway	Pipe	Unlined channel	Lined channel	Natural waterway	Pipe
	<i>kilometres</i>								
2006–07	5 488	571	7 820	0	96	2 828	182	70	5
2007–08	5 484	570	7 820	0	86	2 828	182	70	5
2008–09	5 481	565	7 920	0	108	4 293	182	70	5

Source: BITRE estimates based on NWC et al. (2010a).

TW 1.15b Stock of infrastructure—length of rural water supply and drainage networks, by asset type—Victoria

Financial year	Water supply					Drainage			
	Unlined channel	Lined channel	Regulated river	Natural waterway	Pipe	Unlined channel	Lined channel	Natural waterway	Pipe
	<i>kilometres</i>								
2006–07	14 609	343	4 318	521	4 687	5 309	8	27	702
2007–08	14 040	199	4 897	546	9 150	3 726	4	27	917
2008–09	9 920	190	4 897	737	9 801	3 715	4	27	744

Source: BITRE estimates based on NWC et al. (2010a).

TW 1.15c Stock of infrastructure—length of rural water supply and drainage networks, by asset type—Queensland

Financial year	Water supply					Drainage			
	Unlined channel	Lined channel	Regulated river	Natural waterway	Pipe	Unlined channel	Lined channel	Natural waterway	Pipe
	<i>kilometres</i>								
2006–07	712	163	3 637	0	1 087	736	0	0	0
2007–08	712	163	3 637	0	1 087	736	0	0	0
2008–09	697	163	3 254	0	1 061	736	0	0	0

Source: BITRE estimates based on NWC et al. (2010a).

TW 1.15d Stock of infrastructure—length of rural water supply and drainage networks, by asset type—South Australia

Financial year	Water supply					Drainage			
	Unlined channel	Lined channel	Regulated river	Natural waterway	Pipe	Unlined channel	Lined channel	Natural waterway	Pipe
	<i>kilometres</i>								
2006–07	0	0	0	0	390	0	0	0	335
2007–08	0	0	0	0	390	0	0	0	335
2008–09	0	0	0	0	404	0	0	0	339

Source: BITRE estimates based on NWC et al. (2010a).

TW 1.15e Stock of infrastructure—length of rural water supply and drainage networks, by asset type—Western Australia

Financial year	Water supply					Drainage			
	Unlined channel	Lined channel	Regulated river	Natural waterway	Pipe	Unlined channel	Lined channel	Natural waterway	Pipe
	<i>kilometres</i>								
2006–07	331	127	0	50	340	170	0	0	0
2007–08	296	83	0	20	410	170	0	0	0
2008–09	296	83	0	20	430	170	0	0	0

Source: BITRE estimates based on NWC et al. (2010a).

TW 1.15f Stock of infrastructure—length of rural water supply and drainage networks, by asset type—Australia

Financial year	Water supply					Drainage			
	Unlined channel	Lined channel	Regulated river	Natural waterway	Pipe	Unlined channel	Lined channel	Natural waterway	Pipe
	<i>kilometres</i>								
2006–07	21 140	1 204	15 774	571	6 600	9 042	190	97	1 042
2007–08	20 532	1 015	16 354	566	11 123	7 459	186	97	1 257
2008–09	16 395	1 001	16 072	757	11 805	8 913	186	97	1 088

Source: BITRE estimates based on NWC et al. (2010a).

TW 1.16a Stock of infrastructure—value of rural water supply and drainage networks, by state/territory—current asset replacement cost

End of financial year	NSW	VIC	QLD	SA	WA
	<i>\$ million</i>				
2006–07	4 556.7	3 147.2	3 984.6	272.9	113.2
2007–08	4 703.1	3 739.5	3 984.6	274.3	201.2
2008–09	4 863.9	3 696.0	3 769.3	282.6	200.7

Source: BITRE estimates based on NWC et al. (2010a).

TW 1.16b Stock of infrastructure—value of rural water supply and drainage networks, by state/territory—written down replacement cost of fixed assets

End of financial year	NSW	VIC	QLD	SA	WA
	<i>\$ million</i>				
2006–07	1 038.4	1 901.6	2 951.0	180.6	94.2
2007–08	1 016.4	2 452.6	2 951.0	180.0	123.8
2008–09	1 008.1	2 480.5	2 737.8	179.7	125.0

Source: BITRE estimates based on NWC et al. (2010a).

TW 1.17 Infrastructure capacity—capacity of rural water supply networks, by state/territory

End of financial year	NSW	VIC	QLD	SA	WA
	<i>megalitres per day</i>				
2006–07	33 929.2	27 537.0	10 098.3	1 646.0	2 050.0
2007–08	33 929.2	27 541.0	10 098.3	1 646.0	2 050.0
2008–09	33 929.2	27 156.0	10 008.3	1 687.0	2 050.0

Source: BITRE estimates based on NWC et al. (2010a).

CHAPTER 2

Water inputs

TW 2.1 Inputs to water supply—total rainfall on Australian land,³ by state/territory

Financial year	NSW 4	VIC	QLD	SA	WA	TAS	NT	Australia
<i>gigalitres</i>								
1987								3 487 564
1988								3 536 793
1989								3 720 632
1990								3 212 189
1991								3 609 098
1992								3 479 872
1993								3 840 628
1994								2 619 903
1995								4 021 390
1996								3 614 482
1997								4 055 235
1998								4 349 840
1999								4 492 911
2000								5 594 409
2001								4 296 765
2002								2 604 519
2003	388 687	138 951	896 476	255 705	981 592	83 928	925 502	3 661 403
2004	400 733	132 356	1 079 924	212 432	1 173 862	83 860	868 839	3 946 008
2005	399 930	140 088	827 250	202 597	774 142	85 501	643 535	3 069 118
2006	280 272	83 462	1 050 503	150 473	1 226 989	59 988	926 852	3 769 092
2007	436 069	139 179	1 135 305	211 449	966 412	71 274	867 490	3 822 936
2008	420 007	114 618	1 159 534	184 895	974 002	67 717	724 482	3 646 019
2009	399 127	121 440	1 188 955	197 680	832 329	103 628	685 358	3 522 947
2010	646 474	195 123	1 921 019	356 020	844 978	95 077	1 250 643	5 307 497

3, 4

See End Notes.

Note: Data are not readily available for missing years.

Source: BoM (2011), GA (2011).

TW 2.2 Inputs to urban water supply—volume of water sourced from surface water, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS 1	NT	ACT
<i>megalitres</i>								
2005–06	752 995	708 714	376 759	159 232	128 368		34 643	54 340
2006–07	732 396	611 808	334 952	164 742	95 779		36 105	51 060
2007–08	682 816	560 386	285 790	147 078	102 108	100 438	35 067	43 694
2008–09	700 192	549 377	234 380	147 187	102 734		37 815	44 950

1

See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 2.3 Inputs to urban water supply—volume of water sourced from groundwater, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
<i>megalitres</i>								
2005–06	38 912	5 901	3 033	3 855	145 124		14 133	0
2006–07	38 197	24 292	3 745	3 855	170 237		14 221	0
2007–08	26 611	25 203	7 017	3 701	151 081	260	15 232	0
2008–09	29 340	25 513	5 208	3 598	151 505		15 119	0

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 2.4 Inputs to urban water supply—volume of water sourced from desalination, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
<i>megalitres</i>								
2005–06	40	0	0	0	0		0	0
2006–07	0	0	0	0	18 120		0	0
2007–08	0	0	0	0	26 565	0	0	0
2008–09	0	0	0	0	37 647		0	0

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 2.5 Inputs to urban water supply—volume of water sourced from recycling, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
<i>megalitres</i>								
2005–06	10 663	29 305	10 874	17 336	4 365		1 585	2 141
2006–07	15 582	29 631	14 748	25 047	5 248		942	2 104
2007–08	18 526	27 279	13 586	25 868	6 201	0	974	3 789
2008–09	17 852	26 223	15 947	25 858	5 951		1 159	4 207

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 2.6a Urban water treatment—volume of residential sewage, non-residential sewage and non-trade waste collected, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	572 299	396 338	217 341	80 027	122 671		16 455	31 976
2006–07	641 456	349 922	191 138	82 143	122 720		16 226	30 995
2007–08	705 400	347 562	197 359	77 943	130 162		17 104	30 712
2008–09	626 471	348 902	238 146	77 608	129 790		17 105	30 051

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 2.6b Urban water treatment—volume of trade waste collected, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	37 018	65 115	22 642	10 574	6 100		1 051	0
2006–07	35 252	62 106	19 572	10 476	6 300		1 037	0
2007–08	35 530	60 123	19 135	9 217	6 473		1 091	0
2008–09	36 050	61 383	21 602	9 269	6 510		905	0

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 2.6c Urban water treatment—volume of total sewage collected, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
<i>megalitres</i>								
2005–06	609 317	461 453	239 983	90 601	128 771		17 506	31 976
2006–07	676 708	412 028	210 710	92 619	129 020		17 263	30 995
2007–08	740 930	407 685	216 494	87 160	136 635	55 363	18 195	30 712
2008–09	662 521	410 285	259 749	86 877	136 300		18 011	30 051

¹ See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b)

TW 2.7 Urban water prices—consumer price index, water and sewerage services, index numbers by capital city

Average over financial year	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Australia
<i>base of each index: June quarter 1998 = 100</i>									
1998–99	100.5	100.0	111.0	103.0	103.3	99.5	123.2	99.5	102.4
1999–00	106.0	100.0	117.0	106.0	107.9	98.7	123.2	106.6	106.2
2000–01	106.0	100.0	128.4	106.8	110.5	103.6	129.6	112.4	108.0
2001–02	107.8	104.9	133.8	111.5	114.0	106.7	132.8	116.8	111.8
2002–03	110.9	109.0	139.8	117.1	117.4	113.5	137.8	121.4	115.9
2003–04	114.7	114.5	145.5	126.1	121.8	118.7	139.5	129.7	121.3
2004–05	117.7	119.9	150.5	130.1	121.8	124.9	139.5	136.2	125.2
2005–06	126.6	126.1	158.8	134.5	124.4	136.0	139.5	147.5	132.1
2006–07	135.7	133.0	168.5	139.0	129.6	142.3	143.3	175.9	140.1
2007–08	141.8	139.9	186.9	143.8	138.8	150.6	149.9	192.4	148.4
2008–09	163.5	164.6	198.8	156.5	151.6	158.0	155.2	216.6	167.7
2009–10	188.8	193.6	228.2	172.7	160.8	170.2	187.5	231.2	191.7

Source: ABS (2011a).

TW 2.8 Inputs to rural water supply—power consumed to provide rural water distribution services, by state/territory

Financial year	NSW	VIC	QLD	SA	WA
<i>kilowatt hours</i>					
2006–07	5 155 535	21 250 309	57 853 728	18 068 925	1 635 530
2007–08	4 956 344	18 065 716	36 531 867	15 666 171	2 319 205
2008–09	5 051 822	18 693 179	35 492 986	14 207 826	2 101 702

Source: BITRE estimates based on NWC et al. (2010a).

TW 2.9a Inputs to rural water supply—supply network intake volume for surface water source, by state/territory

Financial year	NSW	VIC	QLD	SA	WA
	<i>megalitres</i>				
2006–07	1 529 603	1 823 328	536 032	89 805	405 333
2007–08	549 167	1 383 487	622 979	79 854	298 652
2008–09	751 263	1 329 711	602 148	81 473	266 717

Source: BITRE estimates based on NWC et al. (2010a).

TW 2.9b Inputs to rural water supply—supply network intake volume for groundwater source, by state/territory

Financial year	NSW	VIC	QLD	SA	WA
	<i>megalitres</i>				
2006–07	3 615	70	39 938	0	0
2007–08	5 896	1 571	27 908	0	0
2008–09	4 178	0	23 567	0	0

Source: BITRE estimates based on NWC et al. (2010a).

TW 2.9c Inputs to rural water supply—supply network intake volume for treated waste water, by state/territory

Financial year	NSW	VIC	QLD	SA	WA
	<i>megalitres</i>				
2006–07	0	10 944	0	0	0
2007–08	0	12 521	0	0	0
2008–09	0	13 577	0	0	0

Source: BITRE estimates based on NWC et al. (2010a).

TW 2.9d Inputs to rural water supply—supply network intake volume for other sources, by state/territory

Financial year	NSW	VIC	QLD	SA	WA
	<i>megalitres</i>				
2006–07	0	16 000	0	0	0
2007–08	0	66 480	0	0	0
2008–09	0	11 604	0	0	0

Source: BITRE estimates based on NWC et al. (2010a).

TW 2.9e Inputs to rural water supply—total supply network intake volume, by state/territory

Financial year	NSW	VIC	QLD	SA	WA
	<i>megalitres</i>				
2006–07	3 726 574	1 850 342	575 970	89 805	405 333
2007–08	1 677 930	1 464 059	650 887	79 854	298 652
2008–09	2 202 435	1 354 892	625 715	81 473	266 717

Source: BITRE estimates based on NWC et al. (2010a).

TW 2.10a Rural water markets—entitlements⁵ on issue, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>gigalitres</i>								
2007–08	11 058	4 295	4 717	1 333	2 515	1 471	117	65
2008–09	10 679	4 530	4 938	1 691	2 561	1 460	188	80
2009–10	11 094	5 701	5 604	1 374	2 437	1 650	258	76

5 See End Notes.

Source: NWC (2010).

TW 2.10b Rural water markets—total entitlement⁵ trade, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>gigalitres</i>								
2007–08		217 517	75 968	16 983	2 238	56 515	0	34
2008–09	1 286 031	251 766	75 250	73 412	8 491	103 679	0	2
2009–10	1 275 769	402 409	70 269	150 141	24 360	26 913	0	10

5 See End Notes.

Note: Data are not readily available for missing years.

Source: NWC (2010).

TW 2.10c Rural water markets—value of market turnover for water entitlements,⁵ by state/territory

Financial year	NSW	VIC	QLD	SA ^b	WA	TAS	NT	ACT
<i>gigalitres</i>								
2007–08	470.5	277.4	57.7	38.3	1.0	na	0.0	na
2008–09	1 661.8	370.6	70.4	118.6	1.7	na	0.0	na
2009–10	1564.2	733.2	91.6	227.1	0.7	na	0.0	na

b The South Australian entitlement turnover value for 2007-08 is based on average prices for whole-of-licence transfers whereas for 2008-09 and 2009-10 the values are based on permanent allocation trades.

5 See End Notes.

na not available.

Source: NWC (2010).

TW 2.10d Rural water markets—value of market turnover for water allocations,⁶ by state/territory

Financial year	NSW	VIC	QLD	SA ^b	WA	TAS	NT	ACT
<i>gigalitres</i>								
2007–08	384.0	270.5	na	181.3	0.3	na	0.0	na
2008–09	448.0	124.6	na	33.2	0.1	na	0.0	na
2009–10	217.9	127.7	na	20.4	0.3	na	0.0	na

b The South Australian entitlement turnover value for 2007-08 is based on average prices for whole-of-licence transfers whereas for 2008-09 and 2009-10 the values are based on permanent allocation trades.

6 See End Notes.

na not available.

Source: NWC (2010).

CHAPTER 3

Supply and use

TW 3.1 Urban water supply—Australian population receiving water supply services, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ^I	NT	ACT ^c
				<i>thousands</i>				
2005–06	6 214	4 879	2 389	1 131	1 714		132	372
2006–07	6 267	4 905	2 437	1 139	1 772		134	374
2007–08	6 294	5 087	2 491	1 147	1 820	392	136	380
2008–09	6 341	5 196	2 484	1 165	1 882		138	387

^I See End Notes.

^c ACT population receiving water supply services includes some NSW residents in adjacent areas.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 3.2a Urban water supply—number of residential properties connected to the urban water supply network, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
				<i>thousands</i>				
2005–06	2 311	1 962	855	489	672		49	132
2006–07	2 342	1 994	877	496	689		50	133
2007–08	2 363	2 033	905	502	707		51	134
2008–09	2 380	2 069	958	509	725		51	137

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 3.2b Urban water supply—number of non-residential properties connected to the urban water supply network, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
				<i>thousands</i>				
2005–06	185	194	82	30	91		8	7
2006–07	186	198	85	31	91		9	7
2007–08	190	203	85	31	90		10	7
2008–09	195	203	89	31	91		11	7

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 3.2c Urban water supply—Total number of properties connected to the urban water supply network, by state/territory^d

Financial year	NSW	VIC	QLD	SA	WA	TAS ^I	NT	ACT
				<i>thousands</i>				
2005–06	2 495	2 155	938	519	762		57	139
2006–07	2 527	2 191	962	527	781		59	140
2007–08	2 556	2 233	989	533	799	193	61	141
2008–09	2 575	2 273	1 047	540	816		62	144

^I See End Notes.

^d Components may not sum to total due to rounding.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 3.3a Urban water supply—volume of urban water supplied to residential properties, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	470 482	400 484	193 215	113 887	184 440		22 523	34 436
2006–07	462 604	358 567	172 528	115 690	198 472		24 634	31 954
2007–08	422 698	323 974	150 428	97 152	192 962		25 299	26 079
2008–09	457 002	324 878	178 123	96 680	202 972		25 642	27 494

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 3.3b Urban water supply—volume of urban water supplied to commercial, municipal, and industrial properties, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	228 245	184 741	93 084	41 187	61 525		19 175	14 177
2006–07	227 387	171 501	91 470	42 889	64 006		19 589	13 642
2007–08	209 872	158 010	82 257	38 580	64 015		19 435	11 153
2008–09	205 744	156 366	85 625	38 936	64 026		20 280	11 223

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 3.3c Urban water supply—volume of urban water supplied for other uses,⁷ by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	90 184	70 843	28 095	20 932	24 201		1 681	3 857
2006–07	76 414	65 275	22 137	13 327	20 354		1 253	2 103
2007–08	83 193	62 558	19 598	16 924	22 946		1 290	3 517
2008–09	74 406	57 634	18 983	16 465	23 496		1 061	3 080

⁷ See End Notes.

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 3.3d Urban water supply—total volume of urban water supplied, by state/territory^d

Financial year	NSW	VIC	QLD	SA	WA	TAS ^l	NT	ACT
<i>megalitres</i>								
2005–06	788 909	656 069	314 395	176 006	270 166		43 379	52 470
2006–07	766 405	595 343	286 134	171 906	282 833		45 476	47 699
2007–08	715 762	544 542	252 283	152 656	279 922	80 961	46 025	40 749
2008–09	737 152	538 878	282 731	152 081	290 494		46 983	41 797

^l See End Notes.

^d Components may not sum to total due to rounding.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 3.4 Urban water supply—Australian population receiving sewerage services, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
<i>thousands</i>								
2005–06	5 821	4 588	2 165	1 070	1 502		126	334
2006–07	5 846	4 624	2 197	1 078	1 552		129	336
2007–08	5 873	4 796	2 250	1 085	1 619	361	131	341
2008–09	5 937	4 946	2 380	1 103	1 693		133	348

I See End Notes.

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 3.5a Urban water treatment—number of residential properties connected to sewerage services, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>thousands</i>								
2005–06	2 194	1 822	818	462	594		47	132
2006–07	2 212	1 847	834	469	617		48	133
2007–08	2 240	1 892	879	475	637		49	134
2008–09	2 267	1 929	901	482	656		49	137

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 3.5b Urban water treatment—number of non-residential properties connected to sewerage services, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>thousands</i>								
2005–06	155	163	84	27	55		8	6
2006–07	164	162	90	27	56		8	6
2007–08	164	167	88	27	58		9	7
2008–09	164	171	86	28	61		10	7

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 3.5c Urban water treatment—total number of properties connected to sewerage services, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
<i>thousands</i>								
2005–06	2 349	1 986	902	489	650		55	138
2006–07	2 376	2 009	924	496	673		56	139
2007–08	2 404	2 060	968	502	695	178	58	141
2008–09	2 431	2 099	987	509	717		59	144

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 3.6a Urban water treatment—volume of recycled water supplied to residential properties,⁸ by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	1 693	0	0	50	0		0	0
2006–07	1 667	5	0	200	0		0	0
2007–08	1 415	123	5	305	0		0	0
2008–09	1 704	213	0	352	0		0	0

8 See End Notes.

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 3.6b Urban water treatment—volume of recycled water supplied to commercial, municipal, and industrial properties,^{8,9} by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	8 851	4 491	8 632	373	5 385		1 415	2 021
2006–07	13 615	5 298	11 486	2 124	6 402		942	2 009
2007–08	16 318	6 151	10 521	2 672	7 420		974	3 736
2008–09	15 051	7 621	12 268	1 516	7 732		1 159	4 204

8, 9 See End Notes.

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 3.6c Urban water treatment—volume of recycled water supplied for agricultural uses,¹⁰ by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	12 090	50 211	2 417	12 680	1 915		0	120
2006–07	13 109	52 141	2 355	18 465	1 873		0	95
2007–08	11 362	51 376	1 397	18 727	1 900		0	53
2008–09	16 596	50 547	6 132	18 839	1 958		0	0

10 See End Notes.

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 3.6d Urban water treatment—volume of recycled water supplied for on-site use,¹¹ by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	15 185	16 369	5 127	4 073	2 069		187	0
2006–07	17 587	16 274	5 852	2 914	2 069		343	0
2007–08	20 208	15 873	6 656	3 033	2 075		295	0
2008–09	17 270	18 898	9 614	2 675	2 087		300	3

11 See End Notes.

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 3.6e Urban water treatment—volume of recycled water supplied for other uses, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>megalitres</i>								
2005–06	0	0	0	160	0		0	0
2006–07	8	0	0	1 344	0		0	0
2007–08	0	0	0	1 132	0		0	0
2008–09	0	0	0	2 477	0		185	0

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 3.6f Urban water treatment—total volume of recycled water supplied, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
<i>megalitres</i>								
2005–06	37 819	72 787	16 176	17 336	9 369		1 602	31 160
2006–07	45 986	75 272	19 693	25 047	10 344		1 285	29 061
2007–08	49 303	75 273	23 354	25 869	11 395	4 216	1 269	29 496
2008–09	54 637	78 908	28 015	25 858	11 778		1 645	29 516

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 3.7 Urban water treatment—percentage of effluent recycled, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
<i>per cent</i>								
2005–06	6.21	15.77	6.74	19.13	7.28		9.15	97.45
2006–07	6.80	18.27	9.35	27.04	8.02		7.44	93.76
2007–08	6.65	18.46	10.79	29.68	8.34	7.62	6.97	96.04
2008–09	8.25	19.23	10.79	29.76	8.64		9.13	98.22

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 3.8 Rural water supply—volume of rural water supplied at customer service points, by state/territory

Financial year	NSW	VIC	QLD	SA	WA
<i>megalitres</i>					
2006–07	3 007 411	1 803 445	1 047 399	89 805	248 113
2007–08	1 405 459	1 578 128	861 623	76 793	198 020
2008–09	1 848 660	1 837 605	830 011	80 188	212 771

Source: BITRE estimates based on NWC et al. (2010a).

TW 3.9a Rural water supply—water consumption by agricultural activity, by state or territory—irrigation water

Financial year	NSW ^e	VIC	QLD	SA	WA	TAS	NT	Australia
<i>megalitres</i>								
2004–05	3 716 557	2 363 764	2 613 404	877 818	267 098	231 758	14 198	10 084 596
2005–06	4 534 108	2 448 485	2 325 003	897 197	306 284	203 931	22 356	10 737 364
2006–07	2 605 019	1 648 914	1 840 252	966 057	293 186	263 029	19 737	7 636 194
2007–08	1 677 083	1 332 045	1 842 729	880 268	284 878	252 113	15 683	6 284 799
2008–09	1 910 033	1 194 501	2 058 471	827 230	226 085	262 296	21 962	6 500 577

^e Includes the Australian Capital Territory.

Source: ABS (2010o).

TW 3.9b Rural water supply—water consumption by agricultural activity, by state or territory—other water use

Financial year	NSW ^e	VIC	QLD	SA	WA	TAS	NT	Australia
<i>megalitres</i>								
2004–05	259 551	206 456	251 486	127 010	162 274	23 690	31 440	1 061 906
2005–06	262 364	192 653	255 633	78 378	121 241	25 789	15 369	951 428
2006–07	240 062	174 371	243 980	68 723	118 806	24 816	14 477	885 234
2007–08	178 691	138 822	196 442	53 685	85 026	18 795	32 994	704 455
2008–09	198 070	139 351	237 211	74 419	92 310	22 634	21 062	785 056

^e Includes the Australian Capital Territory.

Source: ABS (2010o).

TW 3.9c Rural water supply—water consumption by agricultural activity, by state or territory—total

Financial year	NSW ^e	VIC	QLD	SA	WA	TAS	NT	Australia
<i>megalitres</i>								
2004–05	3 976 108	2 570 220	2 864 890	1 004 828	429 372	255 448	45 638	11 146 502
2005–06	4 796 472	2 641 138	2 580 636	975 575	427 525	229 720	37 725	11 688 792
2006–07	2 845 081	1 823 285	2 084 232	1 034 780	411 992	287 845	34 214	8 521 428
2007–08	1 855 774	1 470 867	2 039 171	933 953	369 904	270 908	48 677	6 989 254
2008–09	2 108 103	1 333 852	2 295 682	901 649	318 395	284 930	43 024	7 285 633

^e Includes the Australian Capital Territory.

Source: ABS (2010o).

TW 3.10a Rural water supply—area of irrigated crops and pastures, by agricultural activity—New South Wales^e

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹³	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
'000 hectares									
2002–03	np	np	^f 173	0	^f 29	30	15	4	34
2003–04	np	np	^f 112	0	^f 43	25	^f 22	^f 5	34
2004–05	590	np	146	np	^f 30	26	^f 17	4	36
2005–06 ¹²	595	101	169	0	29	30	18	5	44
2006–07	445	^f 20	99	np	^f 20	34	15	^f 5	41
2007–08	385.8	2.1	36.7	^g 0.9	15.5	29.6	12.3	^f 3.2	35.8
2008–09	320.7	^f 7.2	70.3	0.0	^f 18.3	24.8	13.5	3.8	^f 41.2

^e Includes the Australian Capital Territory.

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

^{12, 13} See End Notes.

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

Source: ABS (2010o).

TW 3.10b Rural water supply—area of irrigated crops and pastures, by agricultural activity—Victoria

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹³	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
'000 hectares									
2002–03	np	np	0	0	^f 8	^f 39	26	3	35
2003–04	np	np	0	0	^f 7	29	23	3	33
2004–05	np	np	0	0	^f 9	30	25	3	36
2005–06 ¹²	535	1	0	0	6	36	26	3	37
2006–07	330	0	0	0	^g 2	35	22	3	^f 44
2007–08	312.3	0.0	0.0	0.0	^g 7.0	33.5	27.7	^f 3.9	^g 39.2
2008–09	267.5	0.0	0.0	0.0	^g 2.2	35.0	24.7	2.7	^f 36.6

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

^{12, 13} See End Notes.

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

Source: ABS (2010o).

TW 3.10c Rural water supply—area of irrigated crops and pastures, by agricultural activity—Queensland

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed 13	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
'000 hectares									
2002–03	143	0	61	235	^f 11	35	34	3	^f 3
2003–04	154	0	73	237	^f 24	33	35	3	^g 3
2004–05	122	0	^f 124	209	^f 11	31	31	4	^g 4
2005–06 12	np	0	101	205	10	37	31	4	3
2006–07	141	0	35	196	^f 9	37	31	4	^f 1
2007–08	207.3	0.0	21.2	184.0	^f 17.0	35.4	33.7	^f 4.4	^f 1.3
2008–09	185.0	0.0	^f 71.6	191.9	^f 20.7	34.9	29.4	3.9	^g 3.1

12, 13 See End Notes.

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

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

Source: ABS (2010c).

TW 3.10d Rural water supply—area of irrigated crops and pastures, by agricultural activity—South Australia

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed 13	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
'000 hectares									
2002–03	80	0	0	0	^g 3	18	14	^f 1	66
2003–04	87	0	0	0	^f 2	17	14	^g 2	64
2004–05	82	0	0	0	^g 3	19	17	^f 1	61
2005–06 12	95	0	0	0	np	19	15	1	85
2006–07	85	0	0	0	^g 2	19	14	1	78
2007–08	103.5	0.0	0.0	0.0	^f 7.7	16.4	15.5	0.8	77.2
2008–09	np	0.0	0.0	0.0	^g 3.0	18.0	14.5	np	77.7

12, 13 See End Notes.

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

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

Source: ABS (2010c).

TW 3.10e Rural water supply—area of irrigated crops and pastures, by agricultural activity—Western Australia

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
'000 hectares									
2002–03	np	0	0	4	np	^f 10	9	2	^f 10
2003–04	np	0	0	4	np	^f 9	9	^f 2	^g 14
2004–05	np	0	0	np	np	^f 9	7	^f 2	^f 8
2005–06 ¹²	np	0	0	^f 5	np	10	8	2	12
2006–07	np	0	0	4	1	9	8	2	^f 13
2007–08	np	0.0	0.0	2.2	np	10.2	9.4	np	^f 12.7
2008–09	np	0.0	0.0	0.0	1.4	8.5	8.5	1.4	^f 12.5

¹² See End Notes.

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

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

Source: ABS (2010o).

TW 3.10f Rural water supply—area of irrigated crops and pastures, by agricultural activity—Tasmania

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹³	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
'000 hectares									
2002–03	48	0	0	0	16	^f 4	18	0	^f 1
2003–04	49	0	0	0	^f 12	^f 4	19	0	^g 1
2004–05	51	0	0	0	8	^f 4	17	0	^g 1
2005–06 ¹²	56	0	0	0	5	3	15	0	1
2006–07	59	0	0	0	^f 3	3	14	0	^f 1
2007–08	63.1	0.0	0.0	0.0	7.1	2.6	14.2	0.3	1.1
2008–09	np	0.0	0.0	0.0	6.1	^f 3.4	13.0	np	1.1

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

^{12, 13} See End Notes.

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

Source: ABS (2010o).

TW 3.10g Rural water supply—area of irrigated crops and pastures, by agricultural activity—Northern Territory

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed 13	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
'000 hectares									
2002–03	np	0	0	0	np	2	0	0	0
2003–04	np	0	0	0	np	3	0	0	0
2004–05	np	0	0	0	np	2	0	0	0
2005–06 12	np	0	0	0	0	6	np	0	np
2006–07	np	0	0	0	np	5	1	0	0
2007–08	np	0.0	0.0	0.0	np	^f 3.1	^f 1.0	np	^g 0.3
2008–09	^g 1.3	0.0	0.0	0.0	0.0	3.6	0.9	0.1	^f 0.3

f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.
g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.
12, 13 See End Notes.
 np not available for publication but included in totals where applicable, unless otherwise indicated.
 Source: ABS (2010o).

TW 3.10h Rural water supply—area of irrigated crops and pastures, by agricultural activity—Australia

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed 13	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
'000 hectares									
2002–03	1 377	44	234	238	68	138	116	13	150
2003–04	1 411	65	185	241	89	120	121	^f 16	149
2004–05	1 387	51	270	213	63	122	114	14	147
2005–06 12	1 445	102	270	210	55	139	114	15	183
2006–07	1 077	^f 20	134	202	37	141	105	15	178
2007–08	1 095.1	2.1	58.0	187.2	57.7	130.7	113.8	14.2	167.5
2008–09	932.3	^f 7.2	141.9	191.9	51.8	128.0	104.6	12.9	172.3

f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.
12, 13 See End Notes.
 Source: ABS (2010o).

TW 3.1 Ia Rural water supply—volume of irrigation water applied, by agricultural activity—New South Wales^e

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed 8	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	np	np	^f 1 211 732	0	^f 71 683	151 943	68 960	31 404	140 690
2003–04	np	np	^f 792 122	^g 27	^f 154 582	135 723	^f 104 528	^f 38 594	168 133
2004–05	1 626 289	np	964 306	np	^f 94 925	133 561	^f 68 290	^f 20 712	^f 171 629
2005–06 12	1 635 232	1 240 626	1 127 730	1 501	95 887	138 815	74 303	24 776	185 320
2006–07	1 243 753	^f 237 214	673 905	np	^f 53 879	134 564	62 195	^f 26 362	^f 171 025
2007–08	1 061 431	26 664	204 646	^g 3 569	^f 36 704	135 259	48 081	^f 16 270	135 294
2008–09	907 517	^f 101 474	465 833	0	^f 54 100	120 683	61 365	^f 21 883	^f 166 923

e Includes the Australian Capital Territory.

f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

12, 13 See End Notes.

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

Source: ABS (2010o).

TW 3.1 Ib Rural water supply—volume of irrigation water applied, by agricultural activity—Victoria

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed 13	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	np	np	0	0	^f 17 495	172 755	81 928	10 680	205 451
2003–04	np	np	0	0	^f 14 916	173 567	82 777	9 992	179 359
2004–05	np	np	0	0	^f 15 367	159 047	78 746	11 262	^f 198 234
2005–06 12	1 953 857	12 600	0	0	13 808	172 859	91 054	11 216	185 620
2006–07	1 151 782	^g 2 219	0	0	^g 3 268	190 622	73 213	11 529	^f 214 835
2007–08	887 000	0	0	0	^g 21 407	162 430	85 970	^f 13 289	^f 152 661
2008–09	775 214	0	0	0	^g 4 621	159 302	84 726	11 376	^f 152 588

f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

12, 13 See End Notes.

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

Source: ABS (2010o).

TW 3.11c Rural water supply—volume of irrigation water applied, by agricultural activity—Queensland

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed 13	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	410 463	0	^f 313 770	^f 1 212 802	^f 32 542	125 713	110 904	14 052	^f 8 291
2003–04	502 288	0	^f 456 802	1 141 173	^f 62 444	128 163	97 564	15 030	^f 9 599
2004–05	361 713	0	^f 855 009	1 109 917	^f 30 026	115 003	102 833	16 123	^f 7 860
2005–06 12	437 840	0	606 761	988 643	29 022	125 564	90 756	23 664	15 107
2006–07	437 901	0	193 757	931 468	^f 23 826	133 057	86 940	14 501	^f 5 644
2007–08	600 316	0	104 796	834 414	^f 44 434	106 655	^f 112 980	16 110	^f 4 700
2008–09	558 124	0	414 170	761 086	^f 50 288	119 060	93 440	15 808	^f 15 906

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

12, 13 See End Notes.

Source: ABS (2010o).

TW 3.11d Rural water supply—volume of irrigation water applied, by agricultural activity—South Australia

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed 13	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	444 602	0	0	0	^g 6 848	145 665	76 256	^g 6 835	217 496
2003–04	490 300	0	0	0	^g 5 575	123 033	89 474	^g 20 413	^f 228 156
2004–05	435 268	0	0	0	^g 9 373	143 808	79 905	^g 5 515	^f 200 821
2005–06 12	445 578	0	0	0	5 743	131 923	79 429	^g 5 201	227 885
2006–07	509 119	0	0	0	^f 3 202	130 052	85 945	^f 3 534	224 606
2007–08	414 272	0	0	0	^f 52 980	94 390	88 244	2 450	^g 203 349
2008–09	400 783	0	0	0	^g 9 094	131 280	88 606	np	^g 188 369

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

12, 13 See End Notes.

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

Source: ABS (2010o).

TW 3.11e Rural water supply—volume of irrigation water applied, by agricultural activity—Western Australia

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	np	0	0	80 298	np	^f 46 154	64 369	13 491	^f 12 215
2003–04	np	0	0	69 043	np	^f 47 720	61 663	10 320	^g 17 284
2004–05	np	0	0	np	np	^f 39 124	51 610	11 427	^f 8 982
2005–06 ¹²	np	0	0	^f 66 455	^f 11 685	40 239	50 204	14 556	16 386
2006–07	np	0	0	45 708	16 748	40 838	57 686	14 135	^f 17 892
2007–08	np	0	0	25 214	^f 15 218	48 062	47 527	12 541	^f 17 239
2008–09	np	0	0	0	10 536	47 936	56 300	12 565	^f 16 060

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

¹² See End Notes.

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

Source: ABS (2010o).

TW 3.11f Rural water supply—volume of irrigation water applied, by agricultural activity—Tasmania

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹³	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	118 275	0	0	0	33 745	^f 9 542	44 516	^f 1 161	^f 1 702
2003–04	137 851	0	0	0	28 678	^f 8 273	51 872	775	^g 1 575
2004–05	144 546	0	0	0	17 140	^f 10 173	51 782	^f 1 029	^g 1 600
2005–06 ¹²	np	0	0	0	10 528	4 950	42 931	1 543	1 167
2006–07	183 371	0	0	0	^f 7 942	6 670	45 420	1 455	^f 2 492
2007–08	np	0	0	0	np	6 218	43 816	np	^f 1 356
2008–09	np	0	0	0	16 044	^f 9 448	44 658	np	^f 1 177

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

^{12, 13} See End Notes.

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

Source: ABS (2010o).

TW 3.11g Rural water supply—volume of irrigation water applied, by agricultural activity—Northern Territory

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed 13	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	np	0	0	0	np	8 121	752	298	2 950
2003–04	np	0	0	0	np	9 333	1 117	259	2 977
2004–05	np	0	0	0	np	7 422	1 226	200	2 819
2005–06 12	np	0	0	0	0	15 257	np	531	np
2006–07	np	0	0	0	np	12 639	2 490	583	2 097
2007–08	np	0	0	0	np	^f 6 910	^f 4 031	np	^g 2 191
2008–09	5 513	0	0	0	0	9 825	3 998	397	^f 2 229

f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.
g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.
12, 13 See End Notes.
 np not available for publication but included in totals where applicable, unless otherwise indicated.
 Source: ABS (2010o).

TW 3.11h Rural water supply—volume of irrigation water applied, by agricultural activity—Australia

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed 13	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres</i>									
2002–03	5 022 631	615 375	^f 1 525 502	^f 1 293 099	172 184	659 893	447 684	77 920	588 794
2003–04	5 070 729	813 812	1 248 924	1 210 243	^f 268 343	625 812	488 994	^g 95 384	607 083
2004–05	4 539 687	618 964	1 819 316	1 171 933	177 339	608 138	434 391	66 267	591 945
2005–06 12	4 720 613	1 253 227	1 734 951	1 056 598	166 673	629 639	431 417	81 666	633 183
2006–07	3 627 630	^f 239 432	867 662	977 611	108 939	648 443	413 889	72 099	638 590
2007–08	3 260 070	26 664	309 442	863 198	185 394	559 924	430 649	62 257	516 790
2008–09	2 915 937	^f 101 474	880 003	761 086	144 683	597 535	433 093	65 425	543 252

f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.
12, 13 See End Notes.
 Source: ABS (2010o).

TW 3.12a Rural water supply—application rate for irrigation water, by agricultural activity—New South Wales^e

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹³	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	np	np	7.0	0.0	2.5	5.1	4.6	7.0	4.2
2003–04	np	np	7.1	0.2	3.6	5.5	4.8	7.3	4.9
2004–05	2.8	np	6.6	np	^f 3.2	5.2	4.0	5.1	4.7
2005–06 ¹²	2.7	12.3	6.7	3.4	3.3	4.7	4.1	5.3	4.3
2006–07	2.8	12.2	6.8	np	2.7	4.0	4.1	5.5	4.2
2007–08	2.8	12.9	5.6	^g 3.9	2.4	4.6	3.9	5.2	3.8
2008–09	2.8	14.1	6.6	0.0	3.0	4.9	4.6	5.7	4.1

^e Includes the Australian Capital Territory.

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

^{12, 13} See End Notes.

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

Source: ABS (2010o).

TW 3.12b Rural water supply—application rate for irrigation water, by agricultural activity—Victoria

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹³	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	np	np	0.0	0.0	2.2	4.5	3.2	4.2	5.8
2003–04	np	np	0.0	0.0	2.3	5.9	3.6	3.3	5.5
2004–05	np	np	0.0	0.0	^f 1.7	5.3	3.1	3.6	5.5
2005–06 ¹²	3.7	12.6	0.0	0.0	2.4	4.9	3.5	3.7	5.0
2006–07	3.5	np	0.0	0.0	1.6	5.5	3.3	3.8	4.9
2007–08	2.8	0.0	0.0	0.0	3.1	4.9	3.1	3.4	3.9
2008–09	2.9	0.0	0.0	0.0	^f 2.1	4.6	3.4	4.2	4.2

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^{12, 13} See End Notes.

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

Source: ABS (2010o).

TW 3.12c Rural water supply—application rate for irrigation water, by agricultural activity—Queensland

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹³	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	2.9	0.0	5.1	5.2	2.9	3.6	3.3	4.1	3.1
2003–04	3.3	0.0	6.3	4.8	2.6	3.9	2.8	4.6	2.9
2004–05	3.0	0.0	6.9	5.3	¹² 2.6	3.7	3.3	4.3	¹² 2.2
2005–06 ¹²	np	0.0	6.0	4.8	2.9	3.4	2.9	5.5	4.9
2006–07	3.1	0.0	5.5	4.7	¹² 2.5	3.6	2.8	4.0	¹⁴ 4.7
2007–08	2.9	0.0	4.9	4.5	2.6	3.0	3.4	¹³ 3.7	¹³ 3.7
2008–09	3.0	0.0	5.8	4.0	2.4	3.4	3.2	4.0	5.2

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

^{12, 13} See End Notes.

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

Source: ABS (2010o).

TW 3.12d Rural water supply—application rate for irrigation water, by agricultural activity—South Australia

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹³	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	5.6	0.0	0.0	0.0	2.5	8.1	5.4	6.5	3.3
2003–04	5.6	0.0	0.0	0.0	2.5	7.1	6.4	9.4	3.6
2004–05	5.3	0.0	0.0	0.0	3.0	7.7	4.7	5.4	3.3
2005–06 ¹²	4.7	0.0	0.0	0.0	np	7.0	5.3	5.0	2.7
2006–07	6.0	0.0	0.0	0.0	¹³ 1.6	6.9	6.1	4.3	2.9
2007–08	4.0	0.0	0.0	0.0	6.9	5.7	5.7	3.2	2.6
2008–09	np	0.0	0.0	0.0	¹³ 3.0	7.3	6.1	np	2.4

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

^{12, 13} See End Notes.

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

Source: ABS (2010o).

TW 3.12e Rural water supply—application rate for irrigation water, by agricultural activity—Western Australia

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	np	0.0	0.0	20.3	np	4.9	7.2	8.3	1.2
2003–04	np	0.0	0.0	16.0	np	5.2	6.9	6.4	1.3
2004–05	np	0.0	0.0	np	np	4.1	7.4	^f 6.7	^f 1.2
2005–06 ^f 12	np	0.0	0.0	^f 13.9	np	4.2	6.3	7.5	1.3
2006–07	np	0.0	0.0	13.1	14.0	4.7	7.2	7.9	^f 1.4
2007–08	np	0.0	0.0	11.3	np	4.7	5.1	np	^f 1.4
2008–09	np	0.0	0.0	0.0	7.4	5.7	6.7	8.7	1.3

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.
¹² See End Notes.
 np not available for publication but included in totals where applicable, unless otherwise indicated.
 Source: ABS (2010o).

TW 3.12f Rural water supply—application rate for irrigation water, by agricultural activity—Tasmania

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed ¹³	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	2.5	0.0	0.0	0.0	2.1	2.4	2.5	3.6	2.0
2003–04	2.8	0.0	0.0	0.0	2.4	2.1	2.7	2.5	1.6
2004–05	2.8	0.0	0.0	0.0	2.2	^f 2.3	3.0	3.6	1.3
2005–06 ^f 12	np	0.0	0.0	0.0	2.1	1.7	2.9	3.9	1.1
2006–07	3.1	0.0	0.0	0.0	^f 2.7	2.4	3.2	4.2	^f 2.1
2007–08	np	0.0	0.0	0.0	np	2.4	3.1	np	1.3
2008–09	np	0.0	0.0	0.0	2.6	2.8	3.4	np	1.1

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.
^{12, 13} See End Notes.
 np not available for publication but included in totals where applicable, unless otherwise indicated.
 Source: ABS (2010o).

TW 3.12g Rural water supply—application rate for irrigation water, by agricultural activity—Northern Territory

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed 13	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	np	0.0	0.0	0.0	np	3.5	3.3	6.5	9.3
2003–04	np	0.0	0.0	0.0	np	3.5	2.6	4.1	7.9
2004–05	np	0.0	0.0	0.0	np	3.0	3.7	2.9	7.7
2005–06 12	np	0.0	0.0	0.0	0.0	2.6	np	5.7	np
2006–07	np	0.0	0.0	0.0	np	2.8	3.6	6.5	8.2
2007–08	np	0.0	0.0	0.0	np	2.2	4.0	np	7.0
2008–09	4.3	0.0	0.0	0.0	0.0	2.7	4.2	4.4	8.4

f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.
 12, 13 See End Notes.
 np not available for publication but included in totals where applicable, unless otherwise indicated.
 Source: ABS (2010o).

TW 3.12h Rural water supply—application rate for irrigation water, by agricultural activity—Australia

Financial year	Pasture, cereal and other crops for grazing, hay, silage, grain or seed 13	Rice	Cotton	Sugar cane	Other broadacre crops	Fruit trees, nut trees, plantation or berry fruits	Vegetables for human consumption or seed	Nurseries, cut flowers and cultivated turf	Grapevines
<i>megalitres per hectare</i>									
2002–03	3.6	14.1	6.5	5.4	2.5	4.8	3.9	5.8	3.9
2003–04	3.6	12.4	6.7	5.0	3.0	5.2	4.0	6.1	4.1
2004–05	3.3	12.1	6.7	5.5	2.8	5.0	3.8	4.7	4.0
2005–06 12	3.3	12.3	6.4	5.0	3.0	4.5	3.8	5.3	3.5
2006–07	3.4	12.2	6.5	4.9	2.9	4.6	3.9	5.0	3.6
2007–08	3.0	12.9	5.3	4.6	3.2	4.3	3.8	4.4	3.1
2008–09	3.1	14.1	6.2	4.0	2.8	4.7	4.1	5.1	3.2

12, 13 See End Notes.
 Source: ABS (2010o).

TW 3.13a Rural water supply—area irrigated, by irrigation method— New South Wales^e

Financial year	Surface	Drip or trickle		Sprinkler					Other
		Above ground	Sub-surface	Microspray	Portable irrigators	Hose irrigators	Large mobile machines	Solid set	
'000 hectares									
2002–03	691	31	15	15	45	54	55	15	2
2003–04	659	48	15	13	31	51	58	10	1
2004–05	678	43	11	10	32	31	63	12	8
2005–06 12									
2006–07	421	42	8	13	25	34	68	8	8
2007–08									
2008–09	308	45	15	11	23	37	52	4	29

^e Includes the Australian Capital Territory.

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

¹² See End Notes.

Note: Data are not readily available for missing years.

Source: ABS (2010o).

TW 3.13b Rural water supply—area irrigated, by irrigation method—Victoria

Financial year	Surface	Drip or trickle		Sprinkler					Other
		Above ground	Sub-surface	Microspray	Portable irrigators	Hose irrigators	Large mobile machines	Solid set	
'000 hectares									
2002–03	386	42	3	18	28	32	40	32	5
2003–04	433	32	7	18	21	26	41	24	2
2004–05	442	46	6	18	16	23	36	26	1
2005–06 ¹²									
2006–07	250	50	7	20	14	22	28	21	np
2007–08									
2008–09	197	49	6	22	15	20	43	17	20

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

¹² See End Notes.

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

Note: Data are not readily available for missing years.

Source: ABS (2010o).

TW 3.13c Rural water supply—area irrigated, by irrigation method—Queensland

Financial year	Surface	Drip or trickle		Sprinkler					Other
		Above ground	Sub-surface	Microspray	Portable irrigators	Hose irrigators	Large mobile machines	Solid set	
'000 hectares									
2002–03	208	£29	£13	24	£35	154	£50	£18	£5
2003–04	245	28	£16	24	£39	158	£51	13	£2
2004–05	274	£29	£11	20	£25	122	£48	£14	£2
2005–06 12									
2006–07	193	25	£10	24	£19	110	£43	£12	£2
2007–08									
2008–09	263	22	11	28	£25	£119	£62	£16	£22

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

¹² See End Notes.

Note: Data are not readily available for missing years.

Source: ABS (2010o).

TW 3.13d Rural water supply—area irrigated, by irrigation method—South Australia

Financial year	Surface	Drip or trickle		Sprinkler					Other
		Above ground	Sub-surface	Microspray	Portable irrigators	Hose irrigators	Large mobile machines	Solid set	
'000 hectares									
2002–03	£35	55	0	17	£4	£5	44	£20	£1
2003–04	£34	56	£1	17	£3	£4	50	15	£1
2004–05	£33	56	£1	17	£4	£5	45	£14	0
2005–06 ¹²									
2006–07	£28	75	£2	15	£2	£5	57	£13	0
2007–08									
2008–09	£17	80	£2	£14	£1	£7	60	£7	£12

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

¹² See End Notes.

Note: Data are not readily available for missing years.

Source: ABS (2010o).

TW 3.13e Rural water supply—area irrigated, by irrigation method—Western Australia

Financial year	Surface	Drip or trickle		Sprinkler				Solid set	Other
		Above ground	Sub-surface	Microspray	Portable irrigators	Hose irrigators	Large mobile machines		
'000 hectares									
2002–03	17	17	1	5	1	np	1	4	np
2003–04	16	20	1	4	np	np	4	5	0
2004–05	14	14	1	4	np	3	np	3	0
2005–06 12									
2006–07	17	18	1	4	np	1	4	4	np
2007–08									
2008–09	14	17	1	5	1	0	6	4	4

f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

12 See End Notes.

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

Note: Data are not readily available for missing years.

Source: ABS (2010o).

TW 3.13f Rural water supply—area irrigated, by irrigation method—Tasmania

Financial year	Surface	Drip or trickle		Sprinkler				Other	
		Above ground	Sub-surface	Microspray	Portable irrigators	Hose irrigators	Large mobile machines		Solid set
'000 hectares									
2002–03	16	15	0	11	110	44	19	12	81
2003–04	np	14	0	11	13	41	24	12	np
2004–05	np	14	0	11	12	34	27	12	np
2005–06 12									
2006–07	np	14	0	11	13	30	28	1	0
2007–08									
2008–09	84	3	0	12	16	30	29	2	8

f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

12 See End Notes.

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

Note: Data are not readily available for missing years.

Source: ABS (2010o).

TW 3.13g Rural water supply—area irrigated, by irrigation method—Northern Territory

Financial year	Surface	Drip or trickle		Sprinkler					Other
		Above ground	Sub-surface	Microspray	Portable irrigators	Hose irrigators	Large mobile machines	Solid set	
'000 hectares									
2002–03	0	l	0	2	0	np	l	0	np
2003–04	np	l	l	2	np	np	0	0	np
2004–05	np	l	0	2	np	0	np	0	np
2005–06 ¹²									
2006–07	np	l	^f l	3	np	0	0	0	np
2007–08									
2008–09	^g l	l	0	3	0	0	^f l	0	0

f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

12 See End Notes.

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

Note: Data are not readily available for missing years.

Source: ABS (2010o).

TW 3.13h Rural water supply—area irrigated, by irrigation method—Australia

Financial year	Surface	Drip or trickle		Sprinkler					Other
		Above ground	Sub-surface	Microspray	Portable irrigators	Hose irrigators	Large mobile machines	Solid set	
'000 hectares									
2002–03	1 344	180	23	80	123	289	209	91	14
2003–04	1 393	189	31	80	109	281	229	68	7
2004–05	1 147	194	31	71	90	219	220	71	5
2005–06 7									
2006–07	915	214	29	81	74	202	229	59	4
2007–08									
2008–09	804	217	26	85	81	214	253	51	95

f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

12 See End Notes.

Note: Data are not readily available for missing years.

Source: ABS (2010o).

TW 3.14a Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—New South Wales^e

Financial year	Dairy Farming	Livestock, pasture, grains & other ¹³	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	218.8	402.4	346.4	848.0	^f 0.3	251.3	180.8	109.5	222.0
2001–02	287.2	569.7	323.1	^g 918.1	0.0	281.0	175.7	^f 116.3	271.3
2002–03	^f 263.6	np	np	^f 658.7	0.0	329.8	156.4	^f 107.1	196.9
2003–04	249.1	np	np	^f 383.7	0.3	301.7	227.3	^f 133.2	287.8
2004–05	268.0	np	np	^f 514.4	np	328.3	^f 215.7	142.5	255.2
2005–06	276.0	np	270.9	548.0	^f 1.1	350.0	310.3	291.3	246.9
2006–07	264.0	np	^f 54.3	371.9	np	417.4	350.4	303.8	217.7
2007–08	298.7	np	7.3	142.8	^g 1.3	368.8	346.2	^f 220.0	324.0
2008–09	386.5	399.4	^f 34.5	309.6	0.0	333.9	252.1	^f 241.8	223.2

^e Includes the Australian Capital Territory.

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

¹³ See End Notes.

np not available for publication but included in the totals.

Source: ABS (2010f).

TW 3.14b Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Victoria

Financial year	Dairy Farming	Livestock, pasture, grains & other ¹³	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	945.7	409.9	3.8	0.0	0.0	381.0	398.8	142.6	319.6
2001–02	¹ 143.3	460.8	^g 3.7	0.0	0.0	419.2	376.1	164.4	368.1
2002–03	844.8	np	np	0.0	0.0	475.2	330.7	144.7	306.2
2003–04	932.8	np	np	0.0	0.0	514.4	350.0	188.5	346.4
2004–05	¹ 115.5	np	np	0.0	0.0	^f 577.8	375.6	208.1	356.3
2005–06	¹ 134.7	np	2.8	0.0	0.0	611.3	505.8	315.1	320.5
2006–07	938.8	np	np	0.0	0.0	^f 741.9	570.9	^f 369.8	^f 272.6
2007–08	¹ 363.8	np	0.0	0.0	0.0	636.6	662.2	^f 396.9	374.3
2008–09	¹ 159.1	np	0.0	0.0	0.0	719.2	543.4	^f 250.1	355.4

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

¹³ See End Notes.

np not available for publication but included in the totals.

Source: ABS (2010f).

TW 3.14c Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Queensland

Financial year	Dairy Farming	Livestock, pasture, grains & other ¹³	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	138.3	292.5	np	np	301.5	411.6	486.7	156.4	13.0
2001–02	147.6	321.1	0.0	^f 364.4	465.6	528.7	475.8	109.6	^f 20.1
2002–03	^f 125.7	334.4	0.0	^f 175.6	398.6	481.8	502.4	105.6	^f 13.3
2003–04	^f 141.1	492.9	0.0	^f 274.4	398.0	530.3	695.6	137.2	^f 16.0
2004–05	^f 110.4	358.0	0.0	^f 393.7	455.0	548.9	554.3	153.8	^f 18.4
2005–06	131.2	np	0.0	321.8	490.3	643.7	815.0	265.5	29.6
2006–07	130.5	np	0.0	114.0	570.9	1129.7	935.3	247.6	^f 44.7
2007–08	^f 143.6	np	0.0	65.4	446.7	^f 802.1	904.3	^f 308.0	30.9
2008–09	^f 193.9	370.3	0.0	310.7	537.1	734.8	831.1	254.1	^f 23.3

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

¹³ See End Notes.

np Not available for publication but included in the totals.

Source: ABS (2010f).

TW 3.14d Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Western Australia

Financial year	Dairy Farming	Livestock, pasture, grains & other	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	36.3	np	np	np	6.6	100.0	169.4	73.8	81.2
2001–02	^f 35.4	np	0.0	np	5.9	101.1	160.0	65.6	^f 61.5
2002–03	np	np	0.0	0.0	8.3	105.2	159.8	62.2	^f 81.9
2003–04	np	np	0.0	0.0	7.2	119.6	177.2	72.8	^g 114.8
2004–05	np	np	0.0	0.0	np	^f 128.6	155.8	^f 86.1	^f 95.5
2005–06	48.7	np	0.0	0.0	^f 5.6	150.3	244.5	172.4	79.1
2006–07	np	np	np	np	np	153.8	234.6	166.4	^f 90.8
2007–08	64.4	np	0.0	0.0	3.6	161.5	315.0	np	110.7
2008–09	0.0	np	0.0	0.0	0.0	194.3	297.3	155.1	78.6

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

np not available for publication but included in the totals.

Source: ABS (2010f).

TW 3.14e Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—South Australia

Financial year	Dairy Farming	Livestock, pasture, grains & other 13	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	137.4	90.2	0.0	0.0	0.0	236.2	251.2	35.9	663.9
2001–02	138.8	119.4	0.0	0.0	0.0	240.1	251.7	35.7	639.8
2002–03	^f 139.4	129.6	0.0	0.0	0.0	216.5	232.3	^f 34.4	527.1
2003–04	144.4	143.9	0.0	0.0	0.0	238.8	246.4	37.5	696.1
2004–05	^f 140.6	121.3	0.0	0.0	0.0	277.5	280.8	40.4	614.5
2005–06	154.5	np	0.0	0.0	0.0	304.7	374.9	70.9	556.3
2006–07	^f 152.6	np	0.0	0.0	0.0	361.8	404.7	58.0	398.3
2007–08	^f 195.0	np	0.0	0.0	0.0	224.3	519.1	60.1	728.8
2008–09	^f 184.9	np	0.0	0.0	0.0	307.3	455.9	^f 40.5	502.9

^f 13 Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

See End Notes.

np Not available for publication but included in the totals.

Source: ABS (2010f).

TW 3.14f Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Tasmania

Financial year	Dairy Farming	Livestock, pasture, grains & other 13	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	77.0	74.0	0.0	0.0	0.0	^f 44.5	137.3	11.5	7.2
2001–02	135.6	89.9	0.0	0.0	0.0	^f 48.8	152.8	9.5	^f 5.5
2002–03	81.7	109.5	0.0	0.0	0.0	^f 54.0	149.9	10.4	8.3
2003–04	109.2	105.9	0.0	0.0	0.0	^f 51.4	158.0	12.3	^g 15.0
2004–05	126.8	108.2	0.0	0.0	0.0	^f 56.3	155.0	13.1	^g 13.3
2005–06	132.7	np	0.0	0.0	0.0	41.4	188.9	39.3	10.2
2006–07	162.5	np	0.0	0.0	0.0	56.5	167.6	33.3	10.5
2007–08	^f 223.3	np	0.0	0.0	0.0	64.1	210.6	np	22.5
2008–09	254.2	np	0.0	0.0	0.0	^f 74.5	217.3	^f 27.3	^f 13.7

^f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.

^g Estimate has a relative standard error of 25 per cent to 50 per cent and should be used with caution.

See End Notes.

np not available for publication but included in the totals.

Source: ABS (2010f).

TW 3.14g Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Northern Territory

Financial year	Dairy Farming	Livestock, pasture, grains & other	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	np	np	np	0.0	0.0	np	1.4	3.3	np
2001–02	np	np	0.0	0.0	0.0	np	1.2	np	np
2002–03	np	np	0.0	0.0	0.0	np	1.1	np	np
2003–04	np	np	0.0	0.0	0.0	np	2.2	3.5	5.7
2004–05	np	np	0.0	0.0	0.0	np	np	4.0	8.1
2005–06	np	np	0.0	0.0	0.0	35.7	np	^f 8.5	np
2006–07	np	np	0.0	0.0	0.0	52.0	np	6.1	np
2007–08	0.0	np	0.0	0.0	0.0	^f 34.4	14.3	np	5.4
2008–09	np	np	0.0	0.0	0.0	np	np	10.3	^f 3.2

f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.
 np not available for publication but included in the totals.

Source: ABS (2010f).

TW 3.14h Gross value of irrigated agricultural production, by agricultural activity, experimental estimates—Australia

Financial year	Dairy Farming	Livestock, pasture, grains & other ¹³	Rice	Cotton	Sugar	Fruit	Vegetables	Nurseries, cut flowers & turf	Grapes
\$ million									
2000–01	1 553.9	1 300.0	350.3	1 220.5	308.3	1 454.6	1 625.5	536.5	1 319.6
2001–02	1 891.2	1 591.1	326.8	1 283.1	471.5	1 644.1	1 593.2	505.3	1 384.1
2002–03	1 505.5	1 598.1	152.5	^f 834.3	406.9	1 682.6	1 532.7	467.9	1 142.7
2003–04	1 627.4	1 858.6	179.8	658.1	405.5	1 779.2	1 856.8	588.0	1 482.2
2004–05	1 802.5	1 596.2	100.6	^f 908.1	459.9	1 948.8	1 741.3	651.0	1 361.9
2005–06	1 877.7	np	273.7	869.8	496.9	2 137.2	2 453.2	1 165.9	1 251.5
2006–07	1 697.1	np	^f 55.0	485.8	583.1	2 913.2	2 677.9	1 187.4	1 040.5
2007–08	2 288.8	np	7.3	208.1	451.6	2 291.9	2 971.9	1 171.8	1 597.2
2008–09	2 273.8	1 289.3	^f 34.5	620.3	537.1	2 389.6	2 624.9	982.8	1 200.4

f Estimate has a relative standard error of 10 per cent to less than 25 per cent and should be used with caution.
¹³ See End Notes.

np not available for publication but included in the totals.

Source: ABS (2010f).

CHAPTER 4

Health and emissions

TW 4.1 Water quality—percentage of population in zones where compliance with microbiological standards was achieved, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
2005–06	98.4	99.8	81.4	100.0	100.0		100.0	100.0
2006–07	98.9	99.8	81.5	100.0	100.0		100.0	100.0
2007–08	99.6	100.0	81.0	100.0	100.0		100.0	100.0
2008–09	100.0	100.0	88.1	100.0	100.0		100.0	100.0

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 4.2a Water quality—number of urban zones where microbiological compliance was achieved, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
2005–06	90	452	91	8	42		5	4
2006–07	93	470	91	8	42		7	4
2007–08	90	473	91	8	42	50	9	4
2008–09	90	473	91	8	42		9	4

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 4.2b Water quality—number of urban zones where microbiological compliance was measured, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
2005–06	105	467	93	8	42		7	4
2006–07	105	474	93	8	42		7	4
2007–08	102	475	93	8	42	85	9	4
2008–09	102	475	93	8	42		9	4

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 4.2c Water quality—percentage of urban zones where microbiological compliance achieved, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS I	NT	ACT
2005–06	85.7	96.8	97.8	100.0	100.0		71.4	100.0
2006–07	88.6	99.2	97.8	100.0	100.0		100.0	100.0
2007–08	88.2	99.6	97.8	100.0	100.0	58.8	100.0	100.0
2008–09	88.2	99.6	97.8	100.0	100.0		100.0	100.0

I See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 4.3a Water quality—number of urban zones where chemical compliance was achieved, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
2005–06	87	414	98	8	42		4	4
2006–07	83	418	98	7	42		4	4
2007–08	89	423	96	7	42		2	4
2008–09	89	423	96	7	42		2	4

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 4.3b Water quality—number of urban zones where chemical compliance was measured, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
2005–06	105	451	104	8	42		7	4
2006–07	104	464	104	8	42		7	4
2007–08	100	469	104	8	42		9	4
2008–09	100	469	104	8	42		9	4

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 4.3c Percentage of urban zones where chemical compliance achieved, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
2005–06	82.9	91.8	94.2	100.0	100.0		57.1	100.0
2006–07	79.8	90.1	94.2	87.5	100.0		57.1	100.0
2007–08	89.0	90.2	92.3	87.5	100.0		22.2	100.0
2008–09	89.0	90.2	92.3	87.5	100.0		22.2	100.0

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 4.4 Environmental pollution—sewer overflows to the environment per 100 kilometres of main, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS ¹	NT	ACT
2005–06	60.2	14.1	11.5	12.9	8.5		5.3	77.0
2006–07	65.5	16.0	10.8	18.5	10.3		5.1	82.0
2007–08	47.2	14.1	10.6	22.3	9.3	3.2	5.1	80.0
2008–09 ^h	0.6	0.4	0.4	0.5	0.5		0.7	9.0

^h Prior to 2008–09, data are provided for all sewer overflows to the environment. From 2008–09 onwards, statistics relate only to sewer overflows reported to the environmental regulator.

¹ See End Notes.

Note: Data are not readily available for missing years.

Source: OTER (2009), BITRE estimates based on NWC et al. (2010b).

TW 4.5a Urban water supply emissions—greenhouse gas (carbon dioxide equivalent) emissions from urban water supply, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>tonnes of CO₂ equivalent</i>								
2005–06	324 207	163 243	156 474	133 748	218 648		14 873	14 819
2006–07	304 573	161 420	135 767	192 187	225 326		15 594	19 471
2007–08	286 088	176 277	119 669	219 391	326 490		15 755	24 393
2008–09	256 483	195 074	99 221	240 942	287 938		16 378	26 898

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 4.5b Urban water supply emissions—greenhouse gas (carbon dioxide equivalent) emissions from sewerage, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>tonnes of CO₂ equivalent</i>								
2005–06	370 584	273 000	197 466	51 627	131 118		2 596	12 926
2006–07	386 914	285 570	165 543	79 484	136 143		2 142	16 985
2007–08	386 511	272 087	187 902	93 137	145 105		2 077	21 432
2008–09	489 341	273 797	241 341	89 768	155 109		1 919	34 425

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 4.5c Urban water supply emissions—greenhouse gas (carbon dioxide equivalent) emissions from other activities, by state/territory

Financial year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>tonnes of CO₂ equivalent</i>								
2005–06	694 791	436 243	353 939	185 375	349 766		17 469	27 745
2006–07	691 487	446 990	301 310	271 671	361 469		17 736	36 456
2007–08	672 599	448 364	307 571	312 528	471 595		17 832	45 825
2008–09	745 824	468 871	340 562	330 710	443 047		18 297	61 323

Note: Data are not readily available for missing years.

Source: BITRE estimates based on NWC et al. (2010b).

TW 4.6 Rural water supply emissions—greenhouse gas (carbon dioxide equivalent) emissions from rural water supply, by state/territory

Financial year	NSW	VIC	QLD	SA	WA
	<i>tonnes of CO₂ equivalent</i>				
2006–07	6 773	29 324	59 178	18 828	0
2007–08	6 692	29 386	38 212	15 343	595
2008–09	6 080	29 631	37 126	13 717	355

Source: BITRE estimates based on NWC et al. (2010a).

TW 4.7a Energy emissions—wastewater handling greenhouse gas (carbon dioxide equivalent) net emissions, by state or territory—from industrial wastewater

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT
<i>gigagrams of CO₂ equivalent</i>							
1990	531.9	542.1	409.1	193.6	140.2	60.9	3.1
1991	524.0	535.2	399.1	189.3	137.6	59.1	3.1
1992	509.0	520.7	385.5	183.1	133.5	56.9	3.0
1993	489.9	501.5	370.0	175.9	128.4	54.5	2.9
1994	476.8	489.0	357.1	170.1	124.6	52.4	2.9
1995	449.4	461.3	334.7	159.6	117.2	49.0	2.7
1996	390.5	401.8	287.8	137.6	101.5	42.0	2.4
1997	370.3	383.6	264.1	127.3	95.2	37.9	2.3
1998	345.5	358.1	245.7	118.5	88.8	35.2	2.2
1999	330.1	342.8	232.7	112.5	84.6	33.2	2.1
2000	316.2	328.2	223.6	108.0	81.1	31.9	2.0
2001	346.3	357.8	250.6	120.4	89.5	36.2	2.1
2002	329.3	341.0	235.3	113.4	84.7	33.8	2.1
2003	299.1	310.6	210.6	101.9	76.6	30.0	1.9
2004	300.6	312.3	211.3	102.3	77.0	30.1	1.9
2005	265.3	276.5	183.4	89.1	67.6	25.9	1.7
2006	244.7	256.0	166.1	81.1	62.0	23.3	1.6
2007	275.8	287.6	190.5	92.6	70.2	26.9	1.8
2008	271.3	282.9	186.8	90.9	69.0	26.4	1.7

Source: DCCCE (2010).

TW 4.7b Water emissions—wastewater handling greenhouse gas (carbon dioxide equivalent) net emissions, by state or territory—from domestic and commercial wastewater, sewerage population

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>gigagrams of CO₂ equivalent</i>								
1990	405.2	643.6	266.3	113.5	89.0	32.7	10.5	24.0
1991	410.2	666.7	278.9	116.6	93.7	33.1	11.1	24.5
1992	415.9	687.9	291.8	119.6	98.3	33.4	11.6	25.0
1993	420.6	707.8	305.8	122.2	102.8	33.6	12.6	25.5
1994	424.8	725.6	320.9	124.6	107.5	33.7	13.2	25.8
1995	429.8	744.9	335.8	126.9	112.6	33.7	14.0	26.0
1996	436.2	767.3	351.5	129.2	118.2	33.8	14.8	26.3
1997	442.5	790.0	366.0	131.8	123.9	33.8	15.5	26.6
1998	447.9	812.4	379.5	134.5	129.3	33.7	16.2	26.6
1999	452.3	820.7	384.6	134.3	131.1	33.5	16.1	26.6
2000	456.8	830.2	377.4	134.7	132.6	33.4	16.2	26.8
2001	461.7	849.0	384.0	134.9	134.2	33.3	16.2	26.9
2002	466.5	864.0	389.7	134.6	135.7	33.3	16.0	27.0
2003	471.1	882.1	405.8	135.8	138.3	33.6	15.9	27.4
2004	472.6	892.1	415.4	136.0	140.0	33.8	16.0	27.8
2005	477.4	906.4	426.7	136.9	142.2	34.0	16.3	28.0
2006	483.1	923.2	438.5	138.2	145.1	34.1	16.6	28.3
2007	492.0	943.9	451.4	139.8	148.8	34.3	16.9	28.8
2008	516.6	978.8	459.3	141.2	149.8	34.5	17.2	29.1

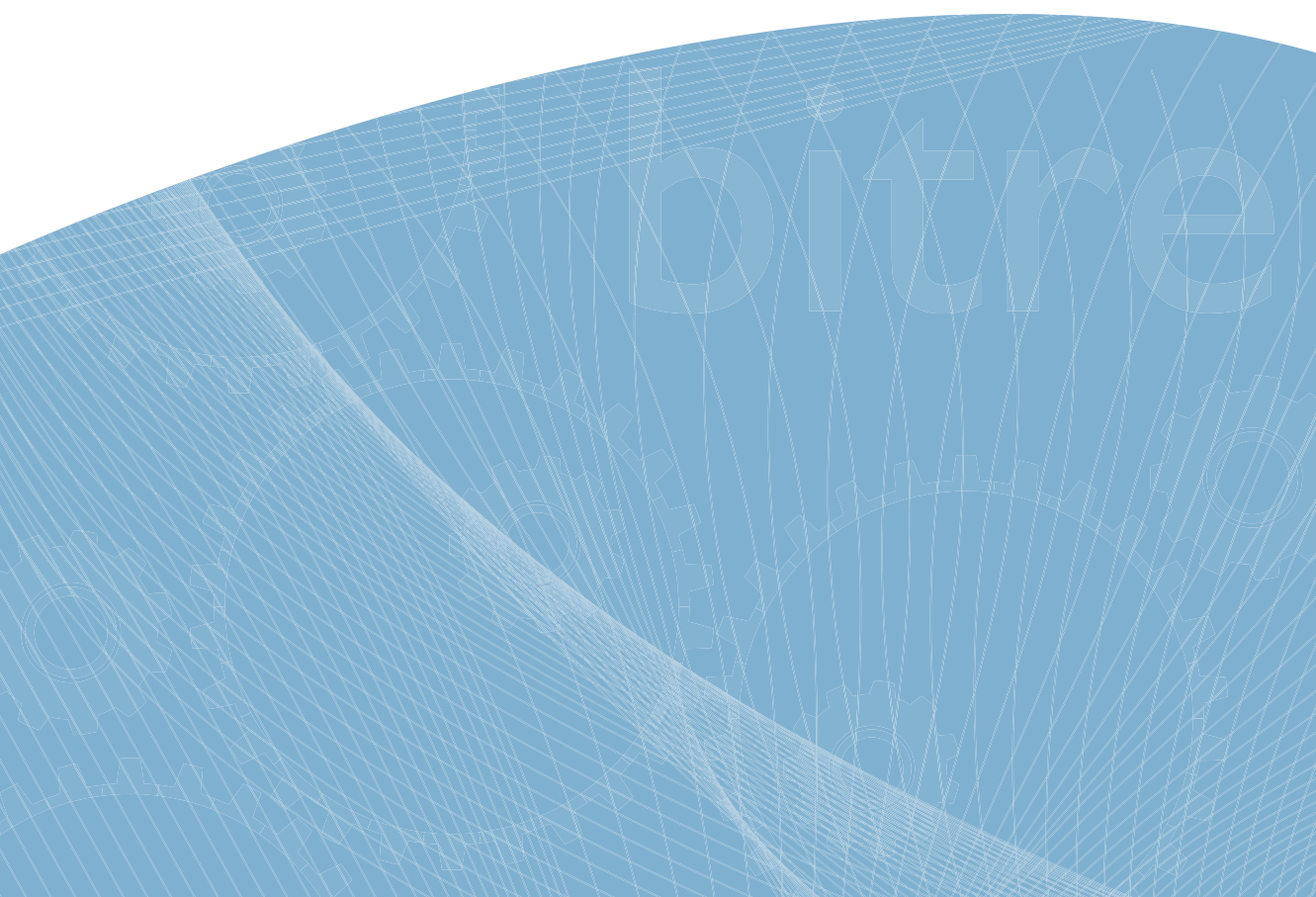
Source: DCCCE (2010).

TW 4.7c Water emissions—wastewater handling greenhouse gas (carbon dioxide equivalent) net emissions, by state or territory—from domestic and commercial wastewater, unsewered population

Calendar year	NSW	VIC	QLD	SA	WA	TAS	NT	ACT
<i>gigagrams of CO₂ equivalent</i>								
1990	13.4	49.8	26.9	12.1	26.7	4.7	2.6	
1991	12.9	46.0	24.1	10.8	24.3	4.8	2.3	
1992	12.4	42.1	21.1	9.5	21.8	4.8	2.0	
1993	11.8	37.9	18.0	8.0	19.2	4.9	1.7	
1994	11.3	33.6	14.8	6.6	16.5	4.9	1.4	
1995	10.7	29.4	11.4	5.2	13.8	4.9	1.1	
1996	10.1	25.2	7.8	3.7	11.1	4.9	0.7	
1997	9.6	20.9	4.0	2.3	8.2	4.9	0.4	
1998	8.9	16.5		0.8	5.2	4.9		
1999	8.9	16.4		1.3	5.2	4.9	0.3	
2000	9.2	16.3	6.9	1.4	5.4	4.9	0.3	
2001	9.4	13.8	6.6	1.4	5.4	4.9	0.4	
2002	9.8	12.5	7.8	1.9	5.5	4.9	0.5	
2003	9.9	12.7	7.8	2.0	5.6	4.9	0.6	
2004	9.6	12.7	8.0	2.2	5.8	5.0	0.6	
2005	9.7	12.8	8.2	2.2	5.9	5.0	0.6	
2006	9.8	13.0	8.4	2.2	6.0	5.1	0.6	
2007	9.9	13.3	8.6	2.2	6.2	5.1	0.6	
2008	10.0	13.5	8.8	2.2	6.3	5.1	0.6	

Note: For years where data are missing, emissions are either not estimated, included elsewhere or are not occurring.
Source: DCCEE (2010).

End notes and definitions



End notes and definitions

This publication presents annual estimates of activity related to major Australian economic infrastructure (transport, energy, communication and water infrastructure). These estimates were compiled from a range of sources. Where possible, statistics are presented on a financial year basis (year ended 30 June). Throughout this publication, End Notes are numbered consecutively within each Part.

Part I Infrastructure and the economy

Industry statistics provided in this publication are based on the Australian and New Zealand Standard Industrial Classification (ANZSIC) (ABS 2008a). Industry classification is allocated to businesses based on each business' predominant activity. As such, there is a distinct difference between industry statistics and activity statistics. For example, road transport gross value added is a measure of the economic production of Australian businesses for which the provision of road transport services is the major activity. Road transportation services provided by businesses classified to other industries (e.g. delivery services provided by the retail industry) are not included in these estimates and conversely, non-transportation activities undertaken by businesses classified to the road transport industry are included in these estimates.

Table I 1.1

Gross value added is 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 sector.

1. Changes to current price production measures may be due to either price or volume changes. Chain volume measures are provided to allow analysis of variations in production volumes; however, component chain volume measures do not sum to a total in the way original current price components do. To minimise this lack of additivity on the most recent estimates, the ABS used the reference year (2008–09) as the base year.
2. Gross value added at basic values represents the amounts received by producers, including the value of any subsidies on products, but before any taxes on products. The difference between the sum over all industries of gross value added at basic prices and GDP at market (or purchasers') prices is the value of taxes less subsidies on products.
3. The rail, pipeline and other transport industry includes water transport.

Table I 1.2

Table I 1.2 provides estimates for total employment by major infrastructure industries in August each year, including both full-time and part-time employment.

4. From 1986, the definition of employed persons was changed to include persons who worked without pay between 1 and 14 hours per week in a family business or on a farm (i.e. contributing family workers).

Table I 1.3

Average weekly earnings statistics provide an estimate of the average weekly income of wage and salary earners in key infrastructure industries. The estimates reflect the overall level of earnings of employees and the changes in the composition of the infrastructure industries' workforce (e.g. changes to the proportions of full-time, part-time and casual employees and changes to the proportions of occupations over time).

ABS compiles average weekly earnings statistics on a quarterly basis in the Survey of Average Weekly Earnings and on a biennial basis in more detail in the Survey of Employee Earnings and Hours. The *Australian Infrastructure Statistics Yearbook* provides data sourced from the Survey of Employee Earnings and Hours as the Survey of Average Weekly Earnings does not provide adequate industry detail.

- 5. Estimates of average weekly earnings in Table I 1.3 exclude amounts salary sacrificed (the collection of salary sacrifice amounts are a relatively recent addition to the survey). Average weekly earnings represent gross earnings (before tax, superannuation and other items are deducted).
- 6. The industry classification used in compiling average weekly earnings statistics changed in 2008. Earlier industry estimates were based on the 1993 version of ANZSIC, while the 2008 estimate was compiled based on an updated (2006) version of ANZSIC. Caution should be exercised when comparing 2008 data with earlier years.

Estimates are compiled from a sample survey of employers and are subject to sampling variability. That is, they may differ from the estimates that would have been produced if the information had been obtained from all employers. A measure of sampling error is calculated (standard error), which indicates the degree to which an estimate may vary from the value which would have been obtained from a census of all employers. There are about two chances in three that a sample estimate differs from the true value by less than one standard error and about nineteen chances in twenty that the difference will be less than two standard errors.

An example of the use of a relative standard error (standard error expressed as a percentage of the estimate) is as follows. If the estimate for average earnings is \$500 with a relative standard error of 1 per cent then there would be about two chances in three that a full enumeration would have given an estimate in the range \$495 to \$505 and about nineteen chances in twenty that it would be in the range \$490 to \$510.

Table I 1.3 includes a number of estimates that are subject to high relative standard errors (greater than 25 per cent).

Table I 1.4

The indexes provided in Table I 1.4 relate to the prices received by businesses classified to major infrastructure industries. For the transport industry, indexes are only available for freight transport and storage services. Indexes for prices received by businesses providing passenger transport services are not currently available from the ABS.

Index numbers for financial years are simple averages of the four relevant quarterly index numbers.

Table I 1.5

State and territory population estimates are classified by capital city and rest of state on the last day of the financial year (30 June). Population estimates are based on census counts for census years, and are derived and updated by adding estimates of natural increase and net overseas migration. After each census, population estimates are revised to remove intercensal discrepancies. At the time of publication, Australian population statistics by state/territory had been revised to incorporate the results of the 2006 Census.

7. ACT capital city data include Queanbeyan (NSW) for the period 1971 to 1990. The rest of state estimate for ACT is shown as na for this period.
8. Excludes Jervis Bay Territory from June 1994.
9. Data for 1991 to 1995 are based on 2001 Australian Standard Geographical Classification boundaries.
10. Data for 1995–96 onwards are based on 2006 Australian Standard Geographical Classification boundaries.
11. Rest of state estimates are calculated by subtracting the capital city population from the corresponding state/territory total population.

Table I 1.6

Table I 1.6 provides a number of measures of economic activity that may influence Australian infrastructure activity. Goods exports and goods imports figures provide measures of the flow of physical goods into and out of Australia, over the full financial year. The consumer price index provides a measure of annual changes in the price of consumer goods for the June quarter of each financial year; while exchange rate and interest rate data were measured in respect of the last day of the financial year (30 June).

12. The exchange rate data provided represent the \$US value of one Australian dollar.
13. The interest rate provided is the 90 day bank accepted bill rate at the close of trading at the end of the financial year (30 June).

Table I 2.1

Table I 2.1 provides estimates of engineering construction work done on major economic infrastructure by both private and public sector organisations. Estimates exclude the cost of land; the cost of repair and maintenance activity; the construction of buildings; the value of transfers of existing assets; the value of installed machinery and equipment not integral to the structure; and expenses for relocation of utility services.

Statistics are provided for the sector providing engineering construction services and the sector that is expected to own the project at the time of completion. Thus, statistics for work done by the private sector for the public sector summarise the work done by private sector engineering construction companies on projects that are owned by the public sector at the time of completion. When a project is undertaken as a Private Public Partnership (PPP) or similar arrangement, it is classified according to the expected ownership of the project at completion. PPPs may be classified as private sector even if ownership eventually resides with the public sector.

ABS provides both current price and chain volume measures for the value of engineering construction work done by the private sector for the private sector; by the private sector for the public sector; and by the public sector. Deflators for these chain volume measures were calculated by BITRE and applied to estimates for transport construction to create approximate volume adjusted estimates for transport engineering construction.

Part T Transport infrastructure

Table T 1.1

Table T 1.1 provides estimates of engineering construction work done on transport infrastructure, providing transport detail to the data provided in Table I 2.1. Estimates for the construction of airport runways are included in the roads and bridges measure.

Table T 1.2

BITRE regularly prepares estimates of road expenditure sourced from unpublished ABS Government Finance Statistics (GFS) and internal Department of Infrastructure and Transport data. There have been a number of methodological changes in the compilation of estimates over time, with the most significant being the ABS adoption of accrual-based accounting for GFS in 1998–99. In addition, data are subject to revision as non-road related expenditures are identified. Estimates include private road related expenditure from 1998–99 onwards.

Data provided are estimates of expenditure on roads by each level of government from their own sources rather than the total expenditure on roads by that level of government. Commonwealth and state estimates of expenditure may include grants to other levels of government for expenditure on roads.

Estimates are presented at constant 2008–09 prices calculated using the BITRE Road Construction and Maintenance Price Index.

Tables T 1.3–T 1.4

Annual summaries of road length data classified by road surface were available from the *ABS Year Book* (ABS 2005) for a number of years up to the June 2004 reference point. The way roads were classified to surface type changed across states and over time. Annual summaries of these changes were provided in each *ABS Year Book*. Tables T 1.3 and T 1.4 present the ABS data in time series format, with the addition of estimates for 2005 to 2009, compiled from a BITRE survey of state road authorities.

Road length data were not available for Queensland, the Northern Territory and the Australian Capital Territory for 2005 and 2006. New South Wales figures from 1983 to 1988 were recorded as at 31 December of the previous year.

1. Excludes roads designated but not trafficable. Excludes Lord Howe Island, forestry controlled roads or crown roads.
2. Excludes roads coming under the responsibility of the Department of Conservation and Natural Resources.

3. Between 2004 and 2006, improved collection methodologies were introduced for the classification of Queensland road types. This introduced a break in the series.
4. Excludes approximately 25 300 kilometres of forestry roads.
5. From June 1988, forestry roads were reclassified from 'cleared only' to 'gravel'.
6. Excludes roads managed by local government bodies, roads on Aboriginal land, and park roads. There have been some roads transferred to local government jurisdiction since the series commenced. Approximately 1000 kilometres of roads were transferred to NT Government jurisdiction as 'Aboriginal Strategic Roads' from 1 July 1997.
7. 2009 estimates for roads constructed and maintained by local government in Victoria and South Australia were not available at time of publication. Local government estimates for 2008 were substituted.

Table T 1.5

Table T 1.5 includes a mix of indexes from ABS and BITRE sources. ABS Producer Price Indexes (ABS 2011d) for Australian road and bridge construction commence in September 1997 (base of index 1998–99 = 100), with state data only available from September 1998 for New South Wales, Victoria, Queensland, South Australia and Western Australia. The ABS does not publish road and bridge construction indexes for Tasmania, the Northern Territory or the Australian Capital Territory. The ABS Producer Price Index series is provided quarterly. Estimates provided in Table T 1.5 are a mean of the four relevant quarters.

Where available, BITRE estimates (base of index 1993–94 = 100) compiled in 1996 (BTCE 1996) have been included in the table for New South Wales, Queensland and South Australia for years up to 1994–95. Current BITRE estimates (BITRE 2011) for Australia as a whole have been provided as an alternative measure to the ABS index for Australian road and bridge construction (base of the BITRE index was converted to 1998–99 = 100 to allow comparison).

Domestic freight transport

Tonne kilometres (TKM) is a measure of freight task. It is measured as the number of tonnes moved by a vehicle multiplied by the distance the load travelled in kilometres. Individual trips are aggregated to provide estimates for total TKM by mode.

Road Freight

The aggregate road freight estimates in this chapter are modelled by BITRE based on estimates from the Survey of Motor Vehicle Use (SMVU) (ABS 2008b). The SMVU is not designed for time series usage, with the sample design and survey methodology changing several times since the survey commenced in 1963. In addition, the survey was only conducted annually between 1998 and 2007 (the survey was undertaken approximately triennially between 1971 and 1995, and biennially since 2007 although experimental estimates were modelled for 2008).

BITRE modelling modifies SMVU estimates to enable time series analysis by adjusting estimates to a common reference period, interpolating data for years when the survey was not conducted and imposing consistency requirements between SMVU and related data from other sources. An analysis of data discrepancies was undertaken in a joint ABS/BITRE project and published in an ABS research paper, *Survey of Motor Vehicle Use—An investigation into coherence* (ABS

2006a). A detailed description of BITRE modelling techniques for freight data is provided in *Freight Measurement and Modelling* (BITRE 2006a).

Rail Freight

From 2001 to 2003, the ABS published estimates of Australian rail freight in *Freight Movements, Australia* (ABS 2002) and *Rail Freight Movements, Australia, Summary* (ABS 2004). These data have been used in BITRE modelling to estimate the tonne kilometres moved by rail for 1970–71 through to 2001–02. Estimates of total tonnes moved by rail and tonne kilometres moved for 2002–03 to 2006–07 were based on the results of the 2007 Australian Rail Survey as published in the *Australian Rail Industry Report 2007* (ARA 2008). The Australasian Railway Association Inc commissioned the Apelbaum Consulting Group to prepare the report. The *Australian Rail Industry Report 2007* provides measures of bulk and non-bulk freight based on definitions that differ from BITRE models and, therefore, are only included in estimates of total rail freight in this publication. Estimates for state rail freight are derived from the Australian estimates using BITRE models (BITRE 2006a).

8. For the 2007–08 financial year, BITRE expanded the scope of direct collection activities to include businesses for which rail transport was not their primary activity (eg: large mining companies). Previously this information had been estimated using data from other sources. 2007–08 estimates should not be compared with earlier data.

Air Freight

For some time, estimates have only been available in respect of Australia's international air freight tonnage (Table T 6.2). BITRE recently commenced data collection of domestic air freight statistics (Table T 2.1 and Table T 6.3). Air freight statistics are compiled from surveys undertaken by the Aviation Statistics Unit of BITRE.

Sea freight

As an island nation, Australia's international freight task relies heavily on shipping in terms of tonnage moved, with all of Australia's international trade in bulk commodities transported by sea. Specific bulk shipping statistics are not readily available. However, BITRE estimates bulk sea freight under the assumption that all non-liner freight transport is for bulk commodities (non-liner cargo consists of all dry and liquid bulk cargo, but also comprises cargo not shipped on regular liner services such as charters, dedicated car carriers and passenger ships).

Tables T 2.1–T 2.5

Measures of domestic freight moved by mode are provided in terms of tonnes moved and tonne kilometres, where data are available. State and territory estimates of road freight relate to the state or territory of vehicle registration, or in the case of sea freight, the state or territory of loading.

Passenger transport

Passenger kilometres (PKM) is a measure of total passenger travel. It is the number of kilometres travelled by a vehicle multiplied by the number of occupants in the vehicle. Individual trips are aggregated to provide estimates for total PKM.

Tables T 3.1–T 3.2

BITRE modelling uses data from a range of sources to provide a consistent time series of Australian passenger travel (PKM). Estimates of air passenger travel (Table T 3.1) differ from survey results for revenue passenger travel on domestic airlines (Table T 6.3) as Table T 3.1 is derived from a statistical model that creates estimates for all motorised modes of passenger transport. Vehicles not classified to passenger cars, buses, rail or air are included in 'other transport mode' (Table T 3.1).

9. The other transport mode represents primarily non-business use of light commercial vehicles (with contributions from motorcycles, non-business use of trucks and ferries).

For intercapital city passenger travel, estimates of the land based component include travel between origin and principle destination, while the aviation component includes all travel between city pairs.

Table T 3.3

These estimates were made for *Estimating Urban Traffic Congestion Cost Trends for Australian Cities* (BTRE 2007) and have been updated using BITRE models. Estimates of passenger kilometres travelled in commercial vehicles primarily represent non-business use of light commercial vehicles. Data for cars, light commercial vehicles and motorcycles were drawn from successive Surveys of Motor Vehicle Use. Data on rail, light rail and buses up to 2000 were drawn from quarterly surveys of state authorities, stored on BITRE transport indicators database.

Table T 3.4

Method of travel to work statistics are compiled every five years as part of the Population Census conducted by the ABS. These statistics show the method used to travel to work on the day of the Census by the entire Australian working population, attributed to the state or territory where each worker spent Census night.

10. Public transport and other method refers to the total number of persons who used more than one method of travel for the day which included bus or trains.

Road

Vehicle kilometres travelled (VKT) is a measure of the total distance travelled by vehicles in a year.

Map T 4.1

A map of the National road network is provided. Auslink was Australia's national land transport plan, linking cities, regions and communities.

Table T 4.1

Intercapital road distances are calculated from capital city GPO to capital city GPO using the shortest route as provided by whereis.com.au.

Tables T 4.2–T 4.5

Estimates for motor vehicle usage are modelled by BITRE, primarily from data compiled by the SMVU (ABS 2008b). In addition to the SMVU, modelling of passenger transport also incorporates fuel use statistics from the monthly Australian Petroleum Statistics (RET 2010). *Freight Measurement and Modelling* (BTRE 2006a) provides an outline of modelling techniques used for freight estimation, while *Greenhouse Gas Emissions From Transport* (BTRE 2002 and 2006b) provide an outline of modelling techniques used for passenger estimation.

Table T 4.6

The Australian motor vehicle producer price index reflects movements in the prices received by manufacturers for new motor vehicles. The motor vehicle retail price index reflects the prices consumers pay for new and used motor vehicles and vehicle hire and lease expenses (non-holiday). The other indexes in this table reflect changes in the prices consumers pay for a range of motor vehicle goods and services

Tables T 4.7–T 4.8

The ABS Motor Vehicle Census (ABS 2011c) is a census of all vehicles registered for use on public roads, excluding vehicles registered as vintage or historical cars, military vehicles and consular vehicles (in New South Wales, vintage or historical cars cannot be separately identified and are included in census results). The census date is 31 March each year, although this has varied in previous years (care should be taken when comparing movements over years). From 1991 onwards, data are not strictly comparable with previous surveys due to revisions to Australian Design Rules, which had an impact on the way vehicles were classified in ABS statistics:

- The classification of rigid trucks is restricted to only vehicles with a gross weight of 3.5 tonnes or more. Vehicles that had previously been classified as rigid trucks with a gross weight of less than 3.5 tonnes are classified as light commercial vehicles under the new standards.
- The classification of buses is restricted to only vehicles with seating for 10 passengers (including driver) or more. Vehicles that had previously been classified as buses with seating for less than 10 passengers are classified as passenger vehicles under the new standards.

Data from the Motor Vehicle Census are not available with a state disaggregation prior to 1982.

Tables T 4.9–T 4.10

Data for new motor vehicle sales are sourced from the Federal Chamber of Automotive Industries and presented in Sales of New Motor Vehicles, Australia (ABS 2010m). The scope of these statistics is different to motor vehicle registrations data (Tables T 4.7–T 4.8) as it may include defence force vehicles, consular vehicles and vehicles that are intended for off-road use that are not registered for use on public roads. New motor vehicle sales statistics do not include sales of new motor cycles.

Rail

Table T 5.1

Intercapital rail distances can vary significantly depending on whether the distances are measured between freight terminals or passenger terminals and on the route chosen. The freight and passenger terminals used in compiling Table T 5.1 are provided below:

Sydney:

- Chullora South Junction (for the Chullora freight terminal).
- Sydney Central Railway Station (for regional and interstate passengers).

Melbourne:

- Tottenham Junction (for Tottenham yard, Dynon terminals and the Port of Melbourne).
- Southern Cross Railway Station (Spencer Street) for regional and interstate passengers.

Brisbane:

- Acacia Ridge freight terminal.
- Roma Street Railway Station for regional and interstate passengers.

Adelaide:

- Dry Creek South freight yards.
- Adelaide—Parklands Terminal (Keswick) for interstate passengers.

Perth:

- Forrestfield freight yards.
- East Perth for regional and interstate passengers.

Darwin:

- East Arm Wharf.
- Darwin Train Station, Berrimah, for interstate passengers.

Canberra:

- Railway lands adjacent to railway corridor, Queanbeyan—Canberra (Fyshwick).
- Canberra Railway Station, Kingston.

Where more than one route exists between capital cities, the route chosen is the one that is typically used by the given train type. Some city pairs do not have point-to-point services so routes have been assumed. The following routes have been used:

Cootamundra/Parkes route for:

- Sydney–Adelaide/Perth/Darwin freight
- Brisbane–Perth/Darwin freight
- Canberra–Perth/Darwin freight

Lithgow/Parkes route for:

- Sydney–Adelaide/Perth/Darwin passenger
- Brisbane–Adelaide/Perth/Darwin passenger

Melbourne route for:

- Brisbane–Adelaide freight
- Canberra–Adelaide

For the Brisbane–Melbourne passenger terminal calculations, the distance is calculated via North Strathfield and Granville, bypassing Sydney Central.

Aviation

Table T 6.1

Intercapital air distances are provided in terms of greater circle distances. These are distances that take into account the curvature of the earth.

Tables T 6.2–T 6.3

11. Revenue passengers are fare paying passengers.
12. Number of international revenue passengers divided by number of available seats.
13. Revenue passenger kilometres are calculated by multiplying the number of revenue passengers travelling on each flight stage by the distance in kilometres between the airports. Modelled estimates of air passenger travel (Table T 3.1) differ from survey results for domestic airline revenue passenger travel.
14. Domestic revenue passenger kilometres divided by available seat kilometres.

Table T 6.4

15. Regular Public Transport (RPT) operations only. RPT is aircraft transport available to the public and operated to fixed schedules and between specified fixed terminals.

Table T 6.5

Airline on time measures are provided in terms of on time departures (flights that depart within 15 minutes of the scheduled departure time), on time arrivals (flights that arrive within 15 minutes of the scheduled arrival time) and cancellations (flights cancelled or rescheduled within seven days of the scheduled departure time).

16. Participating airlines are Jetstar, Qantas, QantasLink, Regional Express, Skywest, Tiger Airways and Virgin Blue.
17. Series commenced November 2003. Jetstar commenced reporting from May 2004, Macair from July 2005 and Tiger Airways from April 2008. MacAir ceased reporting from December 2008 onwards.

Table T 6.6

Airfare indexes provided are the annual average of monthly indexes compiled by BITRE.

Table T 6.7

Estimates of airport charges for domestic and regional aircraft types now include terminal charges, based on the use of the common user terminals at each airport.

Airport charges are shown inclusive of GST, but exclude confidential agreements between airports and airlines and also exclude volume based discounts.

18. Presented in September quarter 2010 dollars. Calculated on a return passenger basis (one arrival and one departure) for price schedules as at 31 July each year.
19. Represented by airport charges for a Boeing 747–438. Sydney and Brisbane international airport charges have been adjusted to exclude transit and transfer passengers.
20. Represented by airport charges for a Boeing 737–800.
21. Represented by airport charges for a SAAB340B.

Shipping

Deadweight tonnage (DWT) is the measure of weight that a vessel can carry, including cargo, bunkers, water and stores, expressed in tonnes.

Table T 7.1

The main source of information on intercapital sea distances was *The Ports of Australia* (Australian Chamber of Shipping 1993). Where optional routes are available, the shorter distance was used.

Tables T 7.2–T 7.3

Tables T 7.2 and T 7.3 provide estimates of the number of ships that visit major ports or states and the number of vessel visits a port or state receive during a financial year.

Table T 7.4

Data for international sea freight was compiled by BITRE from ABS international cargo statistics that were provided to the ABS by Australian Customs. The classification of cargo to bulk or non-bulk categories was an approximation based on the ship type. Liners were assumed to be non-bulk carriers and non-liners were assumed to be bulk carriers.

Liners carry mostly containerised, roll-on roll-off, and general cargo. They operate on a fixed schedule between specified ports and accept cargo from all sources. Non-liner cargo includes all dry and liquid bulk cargo as well as cargo not carried on regular liner services.

22. For 2008–09, bulk and non-bulk categories were not available from ABS International cargo statistics.

Tables T 7.5–T 7.7

Tables T 7.5, T 7.6 and T 7.7 provide estimates of the tonnes of cargo loaded or discharged from ships at Australian ports. Domestic cargo is recorded in these estimates at both the port of loading and the port of discharge, while international cargo is recorded only at the Australian port of loading or discharge.

23. International Trade cargo statistics are no longer available, so merchandise trade data have been used and backcast to 2005–06 for comparative purposes. Merchandise trade data have a different scope to the previously used cargo statistics with one of the differences being the inclusion of exports' ship and aircraft stores. The timing of the data supply has also changed to now include fully revised data.

Table T 7.9

Table T 7.9 provides the number of ships operating out of Australian ports for at least part of the financial year that are owned or operated by Australian entities. In any financial year, there may be ships managed by Australian registered companies that operate internationally without calling into Australian ports.

Tables T 7.10–T 7.11

A list of the major Australian registered trading vessels (greater than 2000 dwt) engaged in Australian coastal and international trade is provided in Tables T 7.10 and T 7.11. Vessels are classified to coastal or international trade based on their primary activity. Some predominantly international trading vessels occasionally engage in coastal trade and some predominantly coastal trading vessels occasionally engage in international trade.

Safety

Fatalities include injuries resulting in death within 30 days of the accident where death is attributable to injuries sustained during the accident.

Serious injuries are defined as injuries that require hospitalisation.

Table T 8.1

Table T 8.1 provides a cross-modal comparison of fatality accidents and fatalities. Road statistics are compiled by BITRE, rail and aviation statistics are compiled by the Australian Transport Safety Bureau (ATSB), while marine data are provided by the National Marine Safety Committee. Data are not currently available for the number of rail fatality accidents.

Cross-modal comparisons should be undertaken with caution as level crossing accidents between trains and road vehicles are included in the estimates of both modes from 2001 (level crossing deaths were not included in rail fatality statistics prior to 2001). In addition, suicides are excluded from aviation casualty estimates and road estimates but included in rail estimates from 2001.

Tables T 8.2–T 8.9

Fatality rates and serious injury rates are presented for each mode using population data provided in Table I 1.5 and passenger kilometre data provided in Table T 3.1.

24. Between 1989 and 1997, statistics for serious injuries resulting from road accidents were based on statistics compiled from police accident reports. Comparable national statistics are no longer available from these sources.
25. From 2000–01, serious injury statistics for roads are compiled on a financial year basis (year ended 30 June) from hospital records provided to the Australian Institute of Health and Welfare and maintained on their National Hospital Morbidity Database.

Tables T 8.10–T 8.12

Rail safety statistics are sourced from the state rail regulators and are based on operators/owners occurrence reports as reported in the ATSB National Rail Occurrence Data collection.

26. ACT rail fatalities are recorded under NSW.

Tables T 8.13–T 8.16

Aviation accident statistics include all occurrences associated with the operation of an aircraft which take place between the time any person boards the aircraft with the intention of flight until disembarking, in which a person is injured as a result of:

- being in the aircraft, or
- direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
- direct exposure to jet blast.

For aviation safety statistics, injuries include serious and minor injuries.

Casualties are excluded when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew.

Energy and the environment

Tables T 9.1–T 9.2

Australian petroleum sales data include reporting companies' own use of petroleum products, but excludes refinery fuel.

27. Includes all LPG production and trade.
28. All diesel imports are included in automotive diesel.

Table T 9.3

Annual average retail petrol prices are calculated as a simple average of quarterly prices for unleaded petrol collected by the ABS as part of CPI compilation processes.

Tables T 9.4–T 9.8

Emission estimates that are provided in terms of carbon dioxide equivalent emissions in Tables T 9.4 and T 9.5 include directly radiative gases only (carbon dioxide, methane and nitrous oxide). The estimates of carbon dioxide equivalent emissions do not include the indirect effects of gases such as carbon monoxide, nitrogen oxides and non-methane volatile organic compounds. Emission estimates are available in Tables I 1.7 to I 1.9 for carbon dioxide, methane and nitrous oxide without conversion to carbon dioxide equivalent.

Greenhouse gas emissions presented in *Australian Infrastructure Statistics Yearbook 2010* represent emissions from end-use activity only. That is, they do not include emissions from 'upstream' activity (primarily fuel refining). Greenhouse gas emission estimates provided in *Australian Transport Statistics Yearbook 2009* were presented on a 'full fuel cycle' basis (inclusive of 'upstream' emissions).

Estimates for maritime and aviation emissions only include domestic transport (coastal shipping and domestic aviation).

A discussion of the modelling techniques used is available in *Greenhouse Gas Emissions From Australian Transport* (BTRE 2006b).

Part E Energy infrastructure

Table E 1.1

Table E 1.1 provides estimates of engineering construction work done on energy infrastructure, providing energy detail to the data provided in Table I 2.1. The ABS definition of pipelines used in this table includes oil and gas pipelines, urban supply mains for gas, pipelines for refined petroleum products, chemicals, etc. Pipelines used for water supply are included in the category 'water storage and supply' (see Table W 1.1).

Table E 1.2, E 1.3 and E 3.6

Early statistics (up to 1993–94) presented in these tables were sourced from a Historical Data Disk produced by ESAA. ESAA also provided data from 1997–98, however data for 1994–95 to 1996–97 were not available. From 1997–98, measures of ACT activity were included with NSW and were not available separately.

Table E 1.4

Table E 1.4 provides reliability measures of electricity supply. In general, data have not been normalised to exclude distribution outages beyond the reasonable control of the network operator. However, adjustments have been made to estimates for Queensland in 2005–06 to take into account the impact of Cyclone Larry, and estimates for New South Wales in 2006–07 to take into account extreme storm activity in that year.

Raw inputs to energy supply

Table E 2.1

Australia's economic demonstrated mineral energy resources are estimated by Geoscience Australia using a methodology based on the McKelvey resource classification system. It classifies identified mineral resources according to two parameters: the degree of geological assurance and the degree of economic feasibility of exploitation.

The degree of geological assurance is determined by the results of geological testing. A demonstrated resource is considered to exist where the tonnage, density, shape, physical characteristics, grade and mineral content of a deposit can be estimated with a reasonable level of confidence. Overlaying the measure of geological assurance is the economic feasibility of the extraction or production of the mineral. A demonstrated mineral energy resource is determined to be economic when 'profitable extraction or production under defined investment assumptions has been established, analytically demonstrated, or assumed with reasonable certainty'.¹

Table E 2.2 and E 2.3

These tables show the input fuels used to generate electricity (Table E 2.2) and gas (Table E 2.3) measured in terms of energy units (petajoules) and physical measures (units vary depending on input fuel type). ABARES presents energy use statistics in terms of energy units only; BITRE has converted these measures to physical units using conversion factors provided in *Energy in Australia* (ABARES 2010c).

Energy production and usage

The majority of statistics provided in this chapter are sourced from the ABARES Australian energy statistics (AES) database, as published on the ABARES website. The AES uses a methodology which balances energy consumption estimates with production and trade estimates. As such, data from AES are internally consistent, but may differ slightly from individual source datasets.

Energy consumption estimates are provided as a net concept. That is, intermediate consumption of energy (energy used to produce energy products) is not included in estimates of total energy consumed (further explanation is provided in *Energy update*, ABARES 2010b).

Where separate estimates for ACT are not provided in state/territory tables, ACT estimates are included with NSW estimates. Estimates of energy consumption by industry are compiled based on a modified form of the 1993 version of the Australia and New Zealand Standard Industry Classification (ANZSIC). The ANZSIC was updated in 2006, however the industry classification used for energy consumption estimates has not been updated to avoid breaks in time series and consequential breaches of confidentialised data.

For several detailed energy consumption tables, there are time series that are not published to preserve the confidentiality of individual responses. Where this has occurred, suppressed estimates have been included in totals.

¹ GA (2010).

Table E 3.10

In converting black coal consumption estimates from energy units (petajoules) to physical units (kilotonnes), a number of assumptions had to be made relating to the grade of coal used in each state/territory and industry. The energy content of solid fuels in Australia for some states and some categories of fuel are provided in *Energy in Australia* (ABARES 2010c). Where the energy content of a fuel type is not available for a particular state, assumptions were made based on energy content of fuels used by similar industries or in nearby states.

For NSW, BITRE assumes that the representative grade of coal used by the food, beverages and tobacco industry is washed thermal coal, the grade of coal used by other manufacturing industries (including the suppressed industries: cement, lime, plaster and concrete; iron and steel; and basic non-ferrous metals manufacturing industries) is steelworks grade coal, and the coastal shipping bunkers and other industries use unwashed thermal coal. The electricity generation industry in NSW uses a grade of black coal specific to that industry.

For VIC, BITRE assumes that the representative grade of coal used by all manufacturing industries has the same energy content as NSW washed thermal coal. In addition, BITRE assumes that non-manufacturing industries use the same grade of coal as NSW non-manufacturing industries (unwashed thermal coal).

The electricity generation industry in QLD uses a grade of black coal specific to that industry and that state. For all other industries in QLD, BITRE assumes that the representative grade of coal is other non-export grade

For SA, BITRE assumes that the representative grade of coal used by all manufacturing industries has the same energy content as NSW washed thermal coal. In addition, BITRE assumes that non-manufacturing industries use the same grade of coal as NSW non-manufacturing industries (unwashed thermal coal).

For WA and TAS, *Energy in Australia* (ABARES 2010c) only provides one conversion factor for each state (thermal coal).

Table E 3.13

State and territory based estimates of petroleum fuel consumption by the petroleum refining and basic chemicals manufacturing industries are not separately available for publication, but have been included in the other manufacturing industry. Estimates for the petroleum refining and basic chemical manufacturing industries are available at the national level.

1. Estimates of Australian petroleum fuel consumption includes all petroleum fuels, but excludes petroleum-based lubricants and greases.

Table E 3.14

Annual world crude oil prices are presented as the average of quarterly prices compiled by ABARES from posted or official selling prices with Rotterdam spot prices for Middle East and North Sea crudes.

2. Middle East crude, 32 American Petroleum Institute (API) gravity.
3. North Sea crude, 38 API gravity.
4. North American crude, 40 API gravity.

5. Australian crude, 42 API gravity.
6. Malaysia tapis blend, 44 API gravity.

API gravity is an international standard measure of crude oil density, with higher API gravities signifying lighter oils. Light crude oil has an API gravity higher than 30.

Energy safety and emissions

Table E 4.1

There are few datasets available that provide quality estimates of health-related issues for the production or use of energy in Australia. Annual estimates of hospital admissions due to exposure to electricity, radiation, or extreme temperature/pressure have been provided in Table E 4.1. Further disaggregation of these estimates to measure admissions solely due to exposure to electricity is not possible.

Table E 4.2 and Table E 4.3

Greenhouse gas emissions provided elsewhere in the Yearbook are presented as direct or 'Scope 1' (National Greenhouse Gas Inventory terminology) emissions. This excludes upstream or indirect emissions from the conversion of energy to its final form. The National Greenhouse Gas Inventory defines 'Scope 2' emissions as 'indirect greenhouse gas emissions from the generation of purchased electricity'.

The sum of all estimates of the direct (Scope 1) greenhouse gas emissions for the electricity generation industry that are presented in Tables E 4.2 and E 4.3 are equal to the sum of Scope 2 emissions for all industries.

Part C Communications infrastructure

Table C 1.1

Table C 1.1 provides estimates of engineering construction work done on telecommunications infrastructure, drawing together telecommunications data provided in Table I 2.1.

Table C 1.2

Table C 1.2 provides a number of broad indicators of capital investment by selected communications industries using the national accounts concepts gross fixed capital expenditure, net capital expenditure, and depreciation and amortisation.

Gross fixed capital expenditure represents the total value of producers' acquisitions less disposals of fixed assets during a financial year, where fixed assets are assets used repeatedly in processes of production for more than one year (e.g. vehicles, machinery, capitalised computer software, computers, electronics, houses, buildings and structures, mining exploration expenditure, etc).

Net capital expenditure represents the value of total capital expenditure less disposal of assets, while depreciation and amortisation represent the notional reduction in value (consumption) of an asset over the life of the asset, apportioned to the reference time period (depreciation

usually refers to the reduction in value of tangible assets and amortisation usually refers to the reduction in value of intangible assets).

Investment in information technology

Table C 2.1 to Table C 2.3

These tables provide a statistical summary of investment in information technology assets by businesses classified to the information media and telecommunications industry, with assets classified by broad technology.

1. Gross fixed capital formation is a measure of total expenditure on new and second-hand fixed assets, less sales of fixed assets, which occur during the reference period.
2. Consumption of fixed capital represents the reduction in the value of fixed assets resulting from physical deterioration, obsolescence or accidental damage that occurs over the reference period.
3. Information technology net capital stock is a measure of the total value of all information technology capital assets held at the end of the reference period. The change in net capital stock from the end of one financial year to the next is equivalent to gross fixed capital formation (Table C 2.1) less consumption of fixed capital (Table C 2.2).

Subscribers and providers

Table C 3.1 to Table C 3.2

Statistics on communications subscribers and providers are classified according to the technology or medium used. For telecommunications, Table C 3.1 provides estimates of the number of public payphones, fixed voice telephones and terrestrial mobile phones (excludes satellite mobile phones), while Table C 3.2 provides some recent estimates of GSM and 3G terrestrial mobile subscribers.

4. GSM (Global System for Mobile communications) is a digital technology with good call security, but relatively poor range. GSM mobile phones are most popular in metropolitan areas.
5. 3G (third generation digital mobile phone technology) networks allow information to be transferred many times faster than on previous networks. 3G was initially introduced to Australia in April 2003 and was adopted by the major networks in 2005.

Table C 3.3 to Table C 3.4

Table C 3.3 provides a summary of internet subscribers by download speed and type of subscriber, while Table C 3.4 provides a summary of internet subscribers by type of access connection. In earlier years, statistics for both tables reflect information gathered from a complete census of all internet service providers, but for the December 2009 collection, information was gathered from a survey of only the internet service providers with more than 1 000 active subscribers.

Price and activity

Table C 4.1

The numbers presented in Table C 4.1 are an annual average of the quarterly telecommunication services index that contributes to the consumer price index estimation process. Indexes are available for capital cities only.

Table C 4.4

Table C 4.4 provides estimates of businesses undertaking internet commerce activity as a percentage of all businesses, including businesses with no internet connection.

Communications security

There is no known source for statistics on physical injuries associated with communications infrastructure. The Yearbook provides statistics on the number of telephone numbers listed on the ACMA Do Not Call register (covering unsolicited telemarketing calls and marketing faxes) and the number of 000 and 112 calls forwarded to emergency service organisations.

Part W Water infrastructure

Table W 1.1

Table W 1.1 provides estimates of engineering construction work done on water infrastructure, providing water detail to the data provided in Table I 2.1. Pipelines used for water supply and sewerage and drainage are included in this Table, however the ABS definition of pipelines used in Table E 1.1 includes oil and gas pipelines, urban supply mains for gas, pipelines for refined petroleum products, chemicals, etc.

Table W 1.2

Current value of water infrastructure assets are measured as the written down replacement costs of fixed water assets. This concept represents the 'current cost of replacing the service potential of fixed water and sewerage business assets based on current technology'²

1. BITRE estimates for urban water supply are sourced from utility reports in the *National Performance Report* published by NWC et al. (2010b). BITRE aggregates reports only for those utilities with more than 10 000 connections. For the majority of states there are relatively few water utilities with less than 10 000 customers; however, Tasmania were the exception to this rule, with most Tasmanian utilities falling below this threshold. This is currently changing with utilities amalgamating into three large water providers. A trial set of estimates were compiled for Tasmania on the new basis in 2007–08, with new data to be provided from 2009–10.
2. A definition of 'large dams' is provided by the Australian National Committee on Large Dams (ANCOLD): The dam wall must be more than 15 m in height, or more than 10 m in height, but with:

² NWC (2009b).

- a crest of at least 500 m in length,
- a capacity of at least 1 million cubic metres,
- a maximum flood discharge dealt with by the dam of at least 2000 cubic metres per second, or
- unusual design.

Table W 1.5

Water and sewerage infrastructure capital expenditure includes all capital expenditure on new works, renewals or replacements, other expenditure that would otherwise be referred to as capital and recycling water assets.

Table W 1.6

Water treatment plants providing full treatment generally use multiple processes to achieve high quality water. In addition to filtration and disinfection, plants may also undertake processes for taste and odour reduction.

Table W 1.7

The length of urban water mains includes all transfer, distribution, and reticulation mains, but excludes connections between mains and property meter, mains delivering recycled water for non-urban use (e.g. agriculture re-use), disused pipe lengths, privately owned mains, mains associated with source works (e.g. borefield mains), interconnecting mains between schemes or sources, and on-site mains within water facilities.

Table W 1.9

This table provides estimates of the average number of water main breaks, bursts and leaks. Estimates exclude breaks in mains to meter connections and above-ground seepage that can be repaired without shutting down the main.

Table W 1.10

Estimates of the number of sewerage treatment plants include all primary, secondary and tertiary level treatment plants.

Table W 1.11

The length of sewerage mains and channels includes all trunk, pressure and reticulation mains, but excludes connections between mains and properties, and conduits carrying treated effluent downstream from treatment plants.

Table W 1.13

The definition of recycled water treatment plants used in Table W 1.13 includes sewerage treatment plants where the majority of treated water output has undergone additional treatment beyond tertiary standard for discharge to meet the requirements of the recycled water customer.

Table W 1.14

This table provides estimates of the average number of breaks or chokes to sewer mains, where a break is any failure of a sewer main leading to an interruption to service and a choke is a confirmed partial or total blockage.

Table W 1.15

A regulated river normally has a dam or weir structure that regulates or diverts the flow of water to storages or supply networks.

Table W 1.16

Two measures are provided for the value of rural supply and drainage networks. Table W 1.16a provides a measure of the current cost of replacing assets (excluding administration, buildings, furniture fittings, equipment, vehicles and corporate service networks), while Table W 1.16b adjusts the measure of the current cost of replacing assets to account for accumulated depreciation based on the age and remaining life of the assets.

Water inputs

Table W 2.1

The total volume of rainwater available each year is a function of the area averaged annual state and territory rainfall and the land area of each state/territory.

3. Includes mainland area and island area. Total Australian island area is 32,163 square kilometres.
4. NSW figures include estimates for New South Wales, the Australian Capital Territory and Jervis Bay territory.

Table W 2.2

Surface water sources include dams, rivers or irrigation channels.

Table W 2.3

The volume of water sourced from groundwater excludes water sourced from groundwater supplies that have been artificially recharged using sources of water already counted elsewhere, such as:

- rivers;
- desalination plants; and
- sewage treatment plants.

Other forms of artificial groundwater recharge (e.g. storm water) that have not already been counted are included.

Table W 2.5

The volume of water sourced from recycling includes all recycled water from direct or indirect reuse. This measure includes only recycled water used as a substitute for potable water.

Table W 2.6

The volume of residential sewage, non-residential sewage and non-trade waste includes volumes collected in the sewerage system due to stormwater, illegal connection inflow and infiltration to the sewerage system. Estimates of the volume of trade waste include liquid waste generated from any industry, business, trade or manufacturing process and stormwater collected in the trade waste system.

Table W 2.7

The consumer price index for water and sewerage services provides a measure of annual changes in the price to consumers of water and sewerage services.

Table W 2.9

The measure of treated waste water intake by the rural water supply network (Table W 2.9c) complements the measure of urban water sourced from recycling (Table W 2.5) as it represents the volume of recycled water that is not used as a substitute for potable water:

- 5. Entitlement trading includes, but is not limited to, water access entitlements. Water access entitlements are 'a perpetual or ongoing entitlement to exclusive access to a share of water from a specified consumptive pool as defined in the relevant water plan'³.
- 6. Water allocations are 'the specific volume of water allocated to water access entitlements in a given season, defined according to rules established in the relevant water plan'³

Water supply and use

Table W 3.2 and Table W 3.5

Table W 3.2 provides estimates of the number of properties connected to the urban supply network, while Table W 3.5 provides estimates of the number of properties connected to urban sewerage services. To be included, properties must be connected to the networks as a separate entity. Properties that are connected but are non-rateable or non-metered are included, while properties that are rateable, but not connected are excluded. Strata title flats or units are counted as separate properties, but a site with no more than 10 per cent of its properties as non-strata title units may be counted as one property.

- 7. The volume of water supplied for other uses includes estimates of water used for fire fighting, mains flushing, losses due to faulty meters, leakage and any other consumption.
- 8. Recycled water would generally be provided via a third (non-potable, non-sewerage) pipe system.
- 9. Includes recycled water supplied to golf courses, heavy industry and commercial areas.
- 10. Recycled water used to irrigate forestry, pastures for livestock and other agricultural products.
- 11. Recycled water used on-site at water treatment plants that is external to the treatment process.

³ NWC (2010)

Table W 3.8 and Table W 3.9

Table W 3.8 provides an estimate of the volume of water supplied to customer service points by rural water service providers, while Table W 3.9 provides an estimate of the volume of water consumed by agricultural activity. Conceptually, the majority of the difference between the estimates in the two tables represents rural water extracted from sources other than the major rural water service providers.

12. The register of all farms in scope of the statistical collection prior to 2005–06 was maintained internally by ABS. From 2005–06 on, the register of all farms was derived from the Australian Business Register, maintained by the Australian Taxation Office.
13. This series groups several agricultural activities into the one measure. Relative standard errors were calculated for component series, but are not available for the new measure.

Table W 3.12

The application rate for irrigation water is calculated by dividing the total volume of irrigation water applied by the area of pasture or crop that is being irrigated.

Table W 3.14

The gross value of irrigated agricultural production (GVIAP) is the value placed on recorded production of agricultural commodities produced with the assistance of irrigation at wholesale market prices (prices realised in the market place). GVIAP is not a measure of the value that irrigation adds to production.

Health and emissions

Urban supply water quality standards are either specified in the utility's licence or franchise agreement, set by the state health regulatory agency or government, or in the absence of a formal agreement, the compliance of utilities is measured against the Australian Drinking Water Guidelines (2004).

Water supply zones are generally a discrete area of similar water quality. Zones may be based on the area served by one treatment plant or an area that is easily described by its boundaries or system characteristics.

14. Prior to 2008–09, data are provided for all sewer overflows to the environment. From 2008–09 onwards, statistics relate only to sewer overflows reported to the environmental regulator.

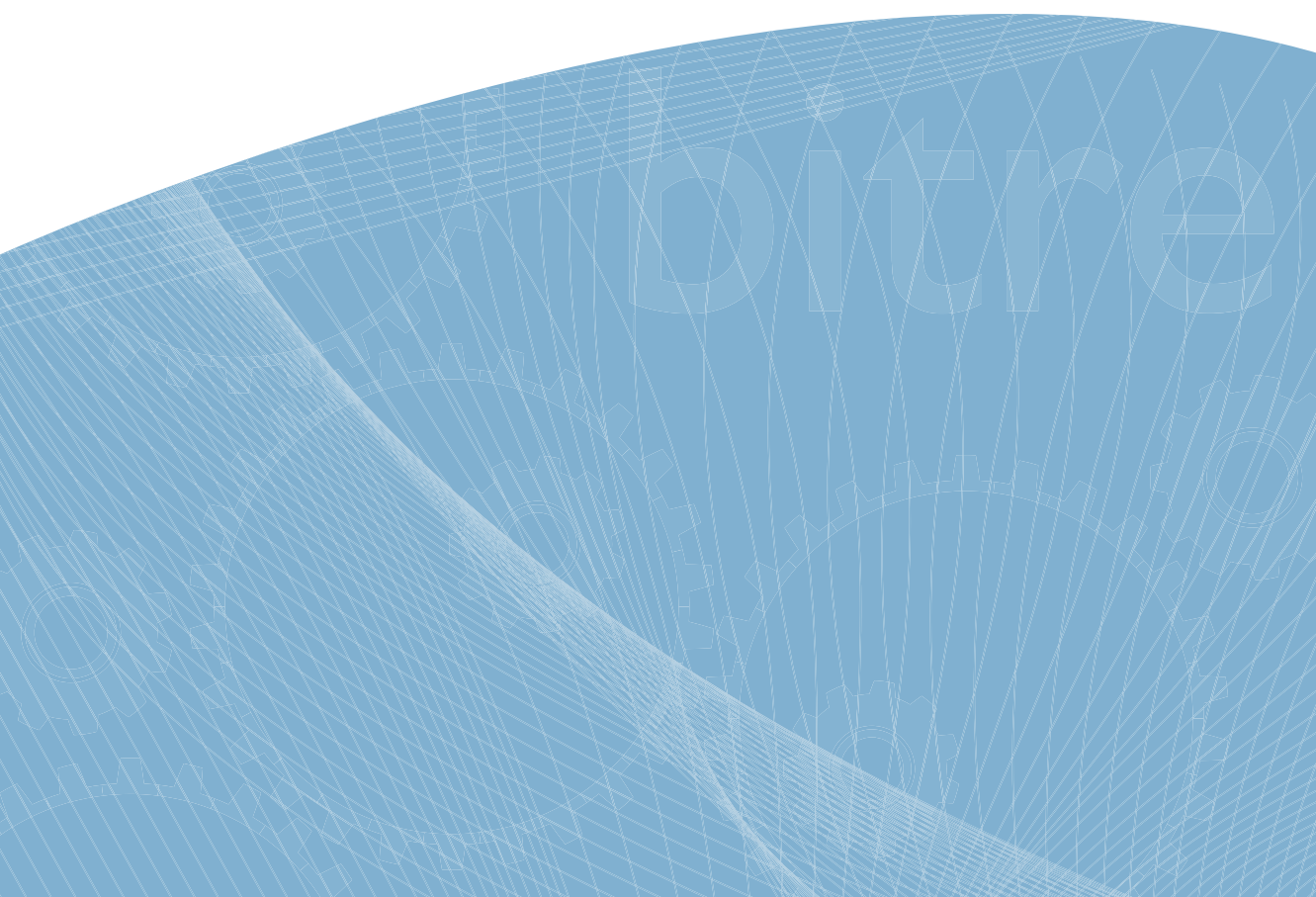
Table W 4.5, Table W 4.6 and Table W 4.7

Greenhouse gas emissions of transport, energy, communication or water activities can either be measured in terms of the direct emissions of the activity or all greenhouse gas emissions resulting from the activity (direct emissions plus upstream emissions, in particular the emissions resulting from the generation of purchased electricity). To avoid double counting, the preferred Yearbook greenhouse gas measures are for direct emissions only, with Table E 4.2 electricity generation emissions, representing all upstream emissions for the economy. In National Greenhouse Gas Inventory terminology, direct emissions represent 'scope 1' emissions, while emissions from the generation of purchased electricity represent 'scope 2' emissions.

As direct emissions statistics are not available for water supply networks, Table W 4.5 and Table W 4.6 provide estimates of greenhouse gas emissions from water supply and sewerage networks that include both end-use emissions and upstream emissions from the generation of purchased electricity. These estimates are not comparable with greenhouse gas emission estimates for other major forms of infrastructure presented in Parts T, E and C of the Yearbook, which present direct emissions only.

Table W 4.7 provides estimates of scope I greenhouse gas emissions from wastewater handling sourced from the National Greenhouse Gas Inventory.

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