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Australian Bureau of Statistics

ENVIRONMENTAL ISSUES

PEOPLE'S VIEWS AND PRACTICES

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CONTENTS

- For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Bob Harrison on Canberra 02 6252 7369.

NOTES

ABOUT THIS PUBLICATION

This publication is the eighth of its type and provides data on environmental behaviour and practices of Australian households and individuals collected in 2002. Respondents were aged 18 years or older. The topics covered included dwelling materials, energy consumption, energy sources and household appliances.

ABOUT THE SURVEY

The data in this publication are derived from a supplement to the Monthly Population Survey. Please refer to Explanatory Notes at the back of this publication for further details about this survey.

DATA COMPARABILITY

A set of changing topics rotate over a period of three years. The topics contained in this publication are comparable with data collected in June 1994 and March 1999. Where applicable those data have been included in this publication to enable comparisons.

Prior to 1997 environment topics were surveyed using a 'personal interview' methodology. From 1997 onwards the 'any responsible adult' methodology was applied. When comparing post-1997 and pre-1997 data readers should be aware that some differences in the data may be explained by the change in methodology rather than real changes over time.

ROUNDING

Where figures have been rounded, discrepancies may occur between sums of the component items and totals. Published percentages are calculated prior to rounding of the figures and therefore some discrepancy may occur between these percentages and those that could be calculated from the rounded figures.

ABBREVIATIONS

ABS	Australian Bureau of Statistics
RSE	relative standard error
SE	standard error

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Australian Statistician

LIST OF TABLES

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CHAPTER 1 INTRODUCTION AND MAIN FINDINGS

INTRODUCTION

This publication presents the results of a household survey conducted in March 2002. The survey collected information on energy sources, aspects of dwelling materials and fixtures that impact on energy use, and energy using household appliances. These are some of the main determinants of energy use, which in turn has implications for greenhouse gas emissions, pollution and resource depletion.

Two key themes emerged from the survey. Firstly, while there was widespread penetration of some energy saving measures, for example insulation, fluorescent lights and use of cold water in washing clothes, there was also an increase in the number and usage of energy using household appliances. For example there were significant rises in the number of airconditioners and the use of dishwashers.

Greenpower and solar energy, which do not contribute to greenhouse gas emissions, were used in very few households. A positive finding with regard to greenhouse gases was the increase in the number of households connected to gas. This is significant as burning gas for cooking, space or hot water heating produces less greenhouse gases than using electricity from coal fired generators for the same purpose..

Secondly, the adoption of energy conservation measures seems to have been motivated mostly by lifestyle reasons and a desire to reduce energy costs, rather than any environmental benefits. Cost was the main factor influencing the use of insulation, greenpower and the replacement of white goods.

Main findings of the survey are presented below. Details are presented in the subsequent Chapters.

MAIN FINDINGS

- There has been a modest increase in the use of insulation, from 52% of dwellings in 1994 to 58% in 2002. The main reason given for insulating was to improve comfort (this reason was given by 84% of people installing insulation), while the main obstacle to installing insulation was cost (as reported by 24% of people without insulation). Saving energy was not high on the list of reasons for installing insulation.
- Close to half of Australian households (49%) applied at least one measure to regulate heat through windows. Outside awnings and/or shutters were the principal form of window protection and were used by over 30% of households.
- Close to 60% of Australian households had at least one room illuminated by standard fluorescent lights. Nationally, this represented a marginal increase from 1999, though there were notable changes in the Australian Capital Territory (where a decline of 7% was recorded) and Tasmania (where an increase of 7% was recorded). Around 23% of Australian households had at least one room illuminated by energy saving lights in 2002.

MAIN FINDINGS *continued*

- Electricity is the main source of energy for Australians, being used in virtually every household (99.4%) in 2002. Electricity was the main energy source for cooking (57%) and hot water systems (61%), but gas remains the main source of energy for space heating (34%).
- Solar energy is primarily used in Australia for heating water and was utilised by 4% of households, but was used in 53% of Northern Territory households and 16% of Western Australian households.
- About two in three hot water systems in Australia (61%) were powered by electricity. Approximately half of these utilised off-peak electricity. New South Wales recorded the highest proportion of households using off-peak electricity to power hot water systems (46%), followed by Queensland (37%) and South Australia (29%).
- The use of power from greenpower schemes was around 3% nationally. The use of greenpower was steady or increased in all states and territories except Tasmania and Western Australia. In Tasmania there was fall of around 27% in the proportion of households reporting using energy from this source (from 88% in 1999 to 62% in 2000). As Tasmania's electricity supply is almost entirely from hydro-electric power, this finding suggests there may be a poor understanding of the definition of greenpower in that state. This lack of understanding may exist in other states too.
- Cost was the major barrier to use of greenpower, with the majority of households (62%) not willing to pay more for the scheme. In 2002, 26% of respondents who were not connected to greenpower were willing to pay more for the scheme, representing a 6% drop in support for greenpower since 1999. Most of these respondents (59%) were willing to pay less than $100 extra per year.
- There has been a significant increase in the number of households with airconditioners from 35% of dwellings in 1994 to 49% in 2002.
- Around 30% of households in Australia had more than one refrigerator in 2002. Close to one third of households reported that their main refrigerator was aged 10 years or more and the majority of those with a second refrigerator (62%) stated it was aged 10 years or more.
- Around 23% of households replaced one or more white good appliance in 2002. Cost, energy rating efficiency and capacity were the three main factors considered by households when buying or replacing appliances. Environmental considerations were ranked eleventh of the twelve categories mentioned in the survey; availability being the last ranked category.
- More Australian households used cold water (68%) than warm water (22%) in washing machines (the remainder used hot water or varied the temperature).
- A suds saving feature in washing machines was reported in 36% of households in 2002. Of these households, around 36% (13% of households with washing machines) reported using this water saving feature in 2002, a level which is almost unchanged since 1994.
- Televisions continued to be the most common non-white good appliance, being present in 99.2% of households. In addition, computers are becoming more popular, with their occurrence increasing from 45% in 1999 to 60% in 2002.

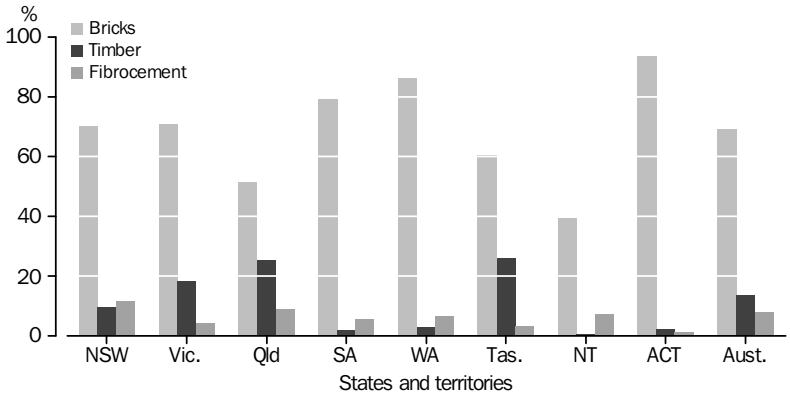
CHAPTER 2 ENERGY CONSERVATION MEASURES

DWELLING MATERIAL

The type of material used in the construction of houses greatly influences the thermal and energy efficiency of a home or dwelling. All building materials have the ability to store heat (thermal mass) and eventually affect the temperature within the dwelling. However, high thermal mass materials such as bricks, solid concrete, stone or earth take a longer time to respond to temperature changes than the low thermal mass materials which include fibrocement and weatherboards.

Graph 2.1 presents three of the most common types of materials used in dwelling construction or renovation in Australia — brick, timber and fibrocement. Around 70% of houses across Australia had their walls constructed in bricks, 14% in timber and 8% in fibrocement.

G2.1 MAIN DWELLING MATERIAL, Outside walls—2002



Two types of brick walls are common in Australia — double brick and brick veneer. As table 2.1 shows, brick veneer was a more popular choice of brick wall among households in Australia and most used in the cooler states: the Australian Capital Territory, Victoria, and Tasmania.

The use of timber was most pronounced in the states of Tasmania and Queensland (26% of dwellings in each state) while fibrocement was reported highest in New South Wales (12%), Queensland (9%) and the Northern Territory (8%).

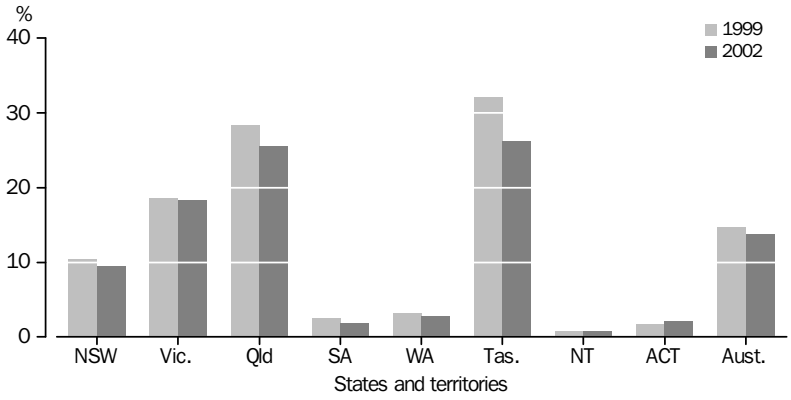
Ranking fourth among the most popular building materials, concrete blocks were most prevalent in the Northern Territory (used in 38% of dwellings). This type of material has a much lower embodied energy, good thermal mass and low insulation values that make it suitable for hot and dry areas. The only other significant users of this type of building material were from Queensland (9% of dwellings).

There was a significant drop (6%) in the proportion of households in Tasmania using wood for the outside walls of their dwellings as shown in graph 2.2. Reduction in wood usage was also noted in Queensland (3%) and New South Wales (1%).

DWELLING MATERIAL

continued

G2.2 TIMBER USAGE, Comparison—1999 and 2002

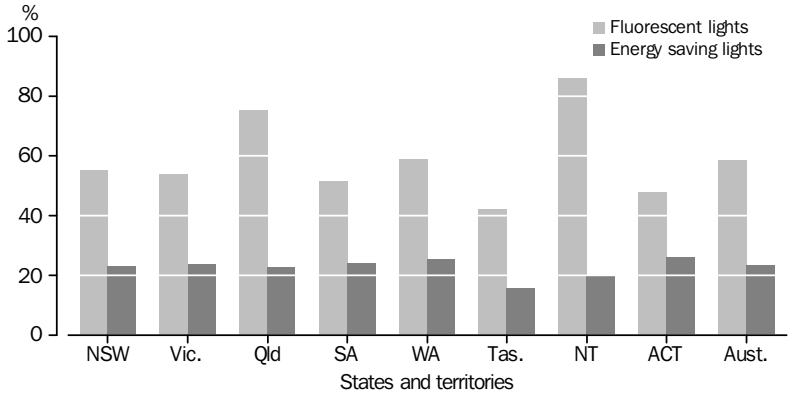


LIGHTING

The amount of electricity used and subsequent costs of lighting are generally affected by the type of lights chosen by a household. One means of conserving energy while maintaining good light quality is through the use of fluorescent lights. Although more expensive to buy, fluorescent lights are considered the most energy efficient form of lighting as they are cheaper to run and last longer (between 8,000 – 16,000 hours), compared with an ordinary incandescent light which lasts up to 1,000 hours only (*Sustainable Energy Development Office, 2002*). Fluorescent lights use only a quarter of the energy used by common incandescent bulbs while producing the same light output. An innovation based on the standard fluorescent lamp was a compact type, otherwise known as an energy saving light, which is designed to fit into a conventional light socket and replace a standard incandescent bulb that is roughly 3 to 4 times its wattage. For example, replacing a 75 watt incandescent light bulb with a 20 watt energy saving light will produce the same light quality and colour rendition (*Australian Greenhouse Office, 2002*).

Graph 2.3 illustrates the extent of usage of standard fluorescent lights and energy saving lights in Australia. Close to 60% of Australian households had at least room illuminated by standard fluorescent lights. Nationally, this represented a marginal increase from 1999, though there were notable changes in the Australian Capital Territory (where a decline of 7% was recorded) and Tasmania (where an increase of 7% was recorded). Usage of fluorescent lights was highest in the Northern Territory (86%) followed by Queensland (75%) and Western Australia (59%).

G2.3 USE OF FLUORESCENT AND ENERGY SAVING LIGHTS —2002

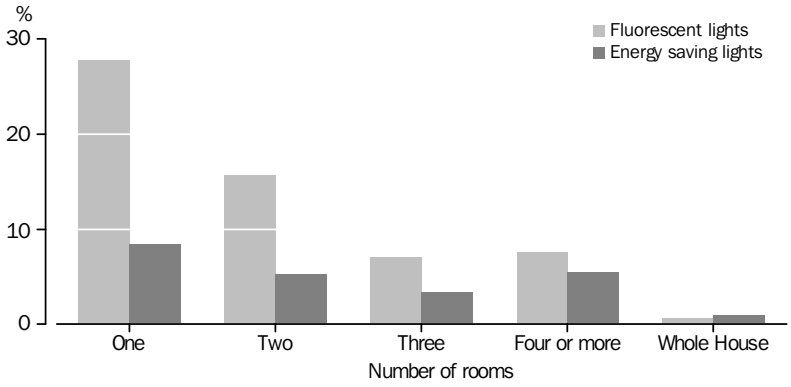


LIGHTING *continued*

Around 23% of Australian households had at least one room illuminated by energy saving lights in 2002. Use of energy saving lights was almost evenly distributed across the states (around 20%), with usage in Tasmania the lowest at 16%.

Application of fluorescent and energy saving lights in a dwelling (number of rooms) is illustrated in graph 2.4. Most of the households that had reported usage of these energy saving measures stated that they had used them in one room. However, the percentage of households who had illuminated their entire house with energy saving lights was about the same as those with standard fluorescent lights. The Australian Capital Territory had the highest proportion of households using energy saving lights in at least two rooms (8%) and three rooms (5%) of the house as shown in table 2.3.

G2.4 FLUORESCENT AND ENERGY SAVING LIGHTS, Number of rooms mainly lit —2002



INSULATION

Space heating and cooling accounts for a substantial proportion of household energy consumption and greenhouse emissions. Adequately insulated ceilings, walls and even floors can greatly reduce energy consumption, and therefore greenhouse emissions (*Australian Greenhouse Office, 2002*).

Insulation generally refers to materials that reduce the movement of heat between the inside and outside of a house. These materials do not absorb heat but rather make it harder for heat to pass through the walls, floor or ceiling during summer while preventing heat loss during winter. They also act as weatherproofing materials eliminating problems such as condensation and some of these materials also have sound proofing qualities.

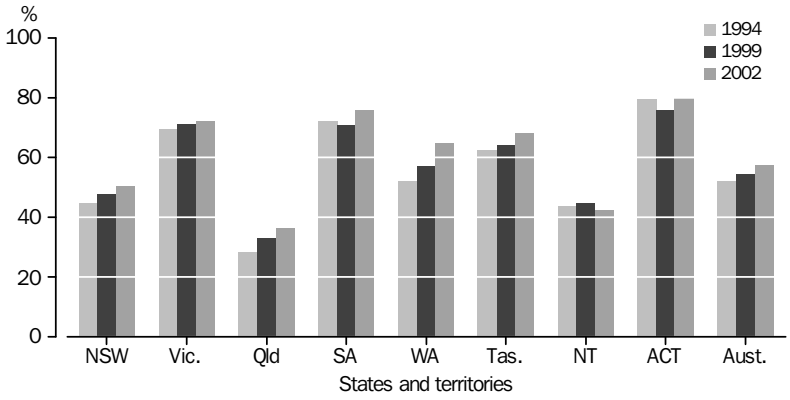
The efficiency of an insulating material is relative to its ability to slow down heat transfer. It is generally measured in thermal resistance values (R-values) and the requirement in every state varies according to the prevailing climate. The higher the R-value of insulation, the more effective it is in reducing the heat flow.

Households with insulation

Graph 2.5 and tables 2.4 and 2.5 give an indication of the extent of insulation of houses by states and by type of dwelling within the 3 periods that the survey was conducted. There has been a modest increase in the use of insulation, from 52% of dwellings in 1994 to 58% in 2002, most significant in Western Australia (from 52% in 1994 to 65% in 2002) and Queensland (from 29% in 1994 to 36% in 2002).

Households with insulation continued

G2.5 HOUSEHOLDS WITH INSULATION —1994, 1999 AND 2002



In the recent survey, the proportion of households with insulation was highest in the cooler climates of the Australian Capital Territory (80%), South Australia (76%) and Victoria (72%).

Reason for installing and not installing insulation

The majority of households (84%) who own and occupy their dwellings and were responsible for insulating their homes stated they did so mainly to achieve comfort all year round (as described in table 2.6). This response was overwhelming in the hotter areas of the Northern Territory, Western Australia and Queensland, as reported by over 90% of the respondents. Cost saving benefits of insulation were considered by only 10% of the respondents, mainly from the Australian Capital Territory (17%), Victoria (16%) and Tasmania (14%). The highest proportion of respondents who had considered energy savings from insulation were also from the Australian Capital Territory (6%) followed by Victoria (4%).

The main obstacle to installing insulation was cost (as reported by 24% of Australian households without insulation) as shown in table 2.7. Across states, however, a mixed set of responses were given by households (owner-occupied) who do not have any form of insulation in their dwelling on why they did not insulate their homes. In Western Australia, Queensland and New South Wales, for example, many households cite high cost of insulation as the main reason that kept them away from installing some form of insulation in their homes. In Tasmania and Victoria, however, most households responded that they had not got around to doing it. In South Australia and Queensland, close to one-fifth of the respondents reported that they do not need to insulate their houses because of the climate. Finally, in the Australian Capital Territory, the majority of households claimed that insulation was not possible mainly due to the nature of construction of their dwellings.

Where insulation is located

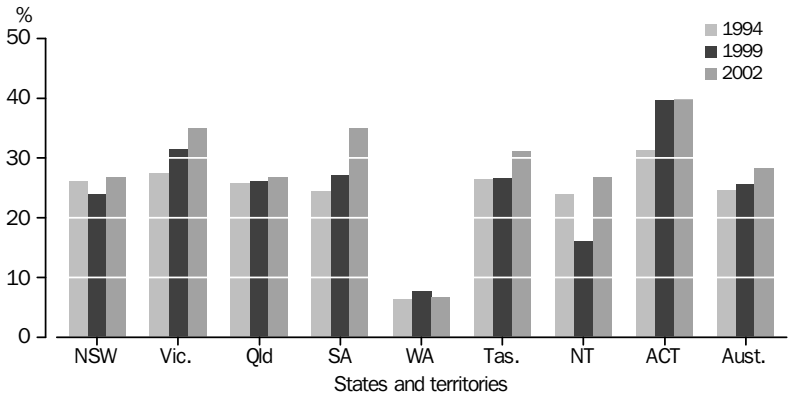
A well and properly insulated home — that is ceiling, wall and floors — will not only contribute to the comfort of a home all year round, but will also cut down cooling and heating bills. This in turn will reduce greenhouse emissions. The majority of insulation in Australia comes in the form of roof or ceiling insulation as described in tables 2.8 and 2.9. This is due to the fact that most of the winter heat loss and summer gain occurs in the roof or ceiling. Roof insulation can save up to 45% on energy consumption from heating and cooling (*Sustainable Energy Development Office, 2002*). Furthermore, roof

Where insulation is located continued

insulation is the easiest and most effective way to insulate a house, compared to wall or floor insulation.

By insulating the walls an additional 15% on energy consumption from heating and cooling can be saved (*Sustainable Energy Development Office, 2002*). Wall insulation was reported present in 28% of houses in Australia and is concentrated mostly in the cooler states, as shown in graph 2.6. This graph also shows that there was a marginal increase in the proportion of houses with wall insulation across states (except Western Australia) since 1994, most significantly in the Australian Capital Territory (9% increase) and Victoria (7% increase).

G2.6 HOUSEHOLDS WITH INSULATED WALLS —1994, 1999 AND 2002



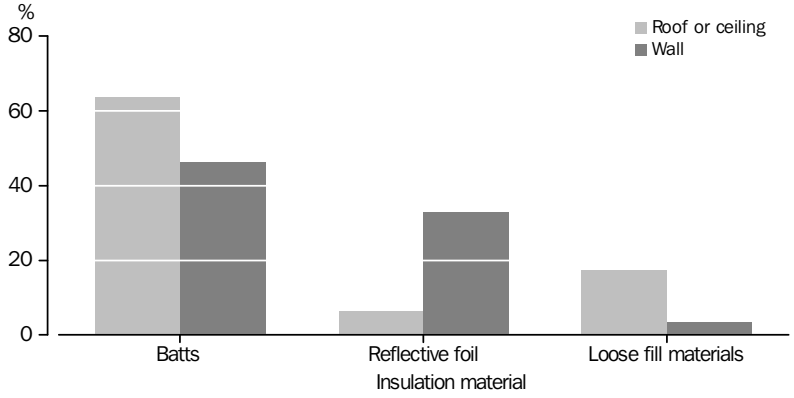
Insulation materials

Insulation materials usually come in four types — batts, rolls, loose fill and rigid foam boards. Each type is made to fit in a different part of the house and comes in a variety of forms. Batts, for example, are suited to fit in between the studs of walls of houses or between the joists of ceilings and floors and are usually made of fibre glass or rockwool. Loose fill materials can be made of fibre glass, rockwool or cellulose and are blown into the attic or walls. Rigid foam boards are commonly applied in confined spaces such as the exterior walls and foundation of houses or buildings.

Graph 2.7 indicates that batt products are the most dominant type of insulating material in Australia. Almost two-thirds (64%) of insulated roofs and half (46%) of the insulated walls in Australia used batts. Loose fill insulation materials were the second most common choice for roof insulation but lagged behind reflective foils in wall insulation, accounting for 17% of roof insulation and merely 3% of wall insulation in Australia.

Insulation materials continued

G2.7 INSULATION MATERIAL, Main type for roofs and walls—2002



Tables 2.10 and 2.11 provide a more detailed description of the main type of materials used in insulating roofs and walls across states of Australia. The March 2002 survey revealed that batts application in roofs was highest in the Australian Capital Territory (80%), and in walls in South Australia (66%). Since 1999, significant increases in batts application in roofs were noted in the Australian Capital Territory (up 10%) and South Australia (up 6%). Increasing usage of batts in wall insulation were most significant in Western Australia, up 18% since 1999, and Tasmania (up 13%).

Loose fill materials application was highest in Western Australia accounting for 30% of the insulated roofs and 5% of the insulated walls. Reflective foil, on the other hand, was most established in the Northern Territory, being the dominant material in wall insulation (55%) and secondary to batts (38%) in roof insulation. Other noted users of reflective foils for insulating walls were in Queensland and Victoria.

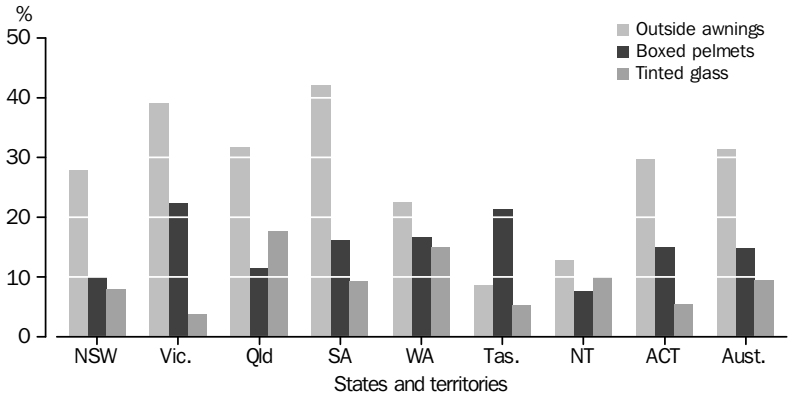
WINDOWS

Window protection and shading reduces the amount of heat loss or gain by a dwelling during winter or summer by 10% to 25% and thereby reduces energy consumption from heating or cooling (*Sustainable Energy Development Office, 2002*). The amount of heat lost or gained through windows is relative to their location, size and to the nature and extent of window treatments applied.

Close to half of Australian households (49%) had applied one measure to reduce heat loss through their windows. Graph 2.8 and table 2.12 indicate that outside awnings and/or shutters were the principal form of window protection applied in over 30% of dwellings in Australia, mainly in South Australia (42% of dwellings) and Victoria (39% of dwellings). Boxed pelmets were applied most in Victoria (22%) and Tasmania (21%) while tinted glass or solar guarding were most applied in the hot climate states of Queensland (18%) and Western Australia (15%).

WINDOWS *continued*

G2.8 WINDOW TREATMENTS, Main type—2002



Louvre type windows ranked fourth among the most popular window application and are applied most in Northern Territory (50% of households) and Queensland (16%). This type of window allows natural cooling by air flow through a home.

2.1 MAIN BUILDING MATERIAL OF DWELLINGS—Outside walls

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
MARCH 2002									
Number ('000)									
Brick									
Brick veneer	1 004.0	1 084.5	637.2	218.4	52.7	85.6	5.2	92.0	3 179.5
Double brick	731.1	216.6	97.5	267.9	598.7	29.4	16.4	23.7	1 981.4
Total	1 735.1	1 301.1	734.7	486.2	651.4	115.0	21.7	115.7	5 160.9
Stone	*8.1	*5.9	—	39.4	*5.5	*2.0	—	—	60.9
Timber	234.5	336.6	364.4	11.5	21.2	49.7	*0.4	*2.6	1 020.9
Fibrocement	286.0	74.7	127.1	33.6	51.5	5.9	*4.1	*1.2	584.2
Concrete/besser block	53.1	58.0	124.8	14.8	*5.7	8.7	17.4	*1.5	284.1
Steel/aluminium	52.8	19.9	40.9	*2.9	*2.9	*3.2	9.1	—	131.7
Aerated concrete	*2.1	*1.7	*2.2	*1.0	—	*0.4	—	*0.2	*7.7
Other	84.2	33.0	31.0	16.3	9.9	5.0	*1.4	*1.2	181.9
Not known	16.1	*6.5	*4.6	7.0	*5.4	—	*0.6	*1.0	41.4
Total dwellings	*2 472.1*	*1 837.4*	*1 429.8*	*612.8*	*753.6*	*190.0*	*54.7*	*123.5*	*7 473.7*
Proportion (%)									
Brick									
Brick veneer	40.6	59.0	44.6	35.6	7.0	45.0	9.5	74.5	42.5
Double brick	29.6	11.8	6.8	43.7	79.4	15.5	30.1	19.2	26.5
Total	70.2	70.8	51.4	79.4	86.4	60.5	39.6	93.7	69.1
Stone	*0.3	*0.3	—	6.4	*0.7	*1.1	—	—	0.8
Timber	9.5	18.3	25.5	1.9	2.8	26.2	*0.7	*2.1	13.7
Fibrocement	11.6	4.1	8.9	5.5	6.8	3.1	*7.5	*1.0	7.8
Concrete/besser block	2.1	3.2	8.7	2.4	*0.8	4.6	31.8	*1.2	3.8
Steel/aluminium	2.1	1.1	2.9	*0.5	*0.4	*1.7	16.7	—	1.8
Aerated concrete	*0.1	*0.1	*0.2	*0.2	—	*0.2	—	*0.2	*0.1
Other	3.4	1.8	2.2	2.7	1.3	2.6	*2.5	*0.9	2.4
Not known	0.7	*0.4	*0.3	1.1	*0.7	—	*1.1	*0.9	0.6
MARCH 1999									
Proportion (%)									
Brick									
Brick veneer	38.2	58.3	41.0	33.3	8.8	38.7	10.6	72.3	40.6
Double brick	30.7	13.3	7.3	44.9	75.6	17.6	24.9	21.1	27.2
Total	68.9	71.6	48.3	78.2	84.4	56.3	35.5	93.4	67.8
Stone	0.2	0.2	0.2	7.8	0.5	1.1	—	—	0.9
Timber	10.5	18.6	28.3	2.5	3.2	32.1	0.7	1.6	14.7
Fibro cement	13.0	3.5	9.5	4.2	8.6	2.0	8.4	1.1	8.3
Concrete/besser block	1.1	2.0	7.7	4.1	0.9	3.9	40.0	2.3	3.2
Steel/aluminium	2.8	1.3	2.5	0.8	0.4	1.9	12.4	0.5	2.0
Aerated concrete	0.1	0.2	0.3	—	0.1	0.1	0.4	0.2	0.2
Other	2.9	2.1	2.6	1.5	1.7	2.6	1.8	0.3	2.3
Not known	0.4	0.5	0.5	0.8	0.3	—	0.7	0.5	0.5

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

2.2 USE OF FLUORESCENT LIGHTS(a)—Number of rooms mainly lit

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(b)	*ACT*	*Aust.*
					MARCH 2002				
Number ('000)									
None	1 107.4	843.4	354.1	295.8	310.0	109.7	7.6	64.3	3 092.3
One	622.3	548.1	393.9	167.1	245.7	47.2	16.3	32.8	2 073.5
Two	381.1	253.6	285.3	86.1	110.4	19.5	11.0	15.5	1 162.5
Three	176.8	97.9	151.4	35.8	45.5	7.1	6.1	5.7	526.3
Four	79.6	37.5	91.2	11.4	19.8	*3.3	*3.1	*2.4	248.2
More than four	89.0	48.7	130.0	14.8	21.0	*3.2	9.5	*2.6	318.8
Whole House	15.9	*8.1	23.8	*1.7	*1.2	—	*1.1	*0.2	52.1
Total dwellings	*2 472.1*	*1 837.4*	*1 429.8*	*612.8*	*753.6*	*190.0*	*54.7*	*123.5*	*7 473.7*
Proportion (%)									
None	44.8	45.9	24.8	48.3	41.1	57.7	13.9	52.1	41.4
One	25.2	29.8	27.5	27.3	32.6	24.9	29.9	26.6	27.7
Two	15.4	13.8	20.0	14.1	14.6	10.3	20.0	12.6	15.6
Three	7.2	5.3	10.6	5.8	6.0	3.7	11.2	4.6	7.0
Four	3.2	2.0	6.4	1.9	2.6	*1.7	*5.6	*1.9	3.3
More than four	3.6	2.7	9.1	2.4	2.8	*1.7	17.4	*2.1	4.3
Whole House	0.6	*0.4	1.7	*0.3	*0.2	—	*1.9	*0.2	0.7
					MARCH 1999				
Proportion (%)									
None	43.3	44.0	23.9	44.7	41.1	51.0	14.6	45.1	39.8
One	26.4	32.8	25.7	31.5	33.9	26.4	36.3	27.0	29.1
Two	16.4	13.1	20.3	13.0	14.9	11.6	15.9	15.0	15.7
Three	7.2	4.9	10.9	5.2	5.0	6.0	11.4	6.2	6.9
Four	2.9	2.3	6.3	2.5	2.2	1.9	6.3	3.1	3.3
More than four	3.8	3.0	12.8	3.1	2.8	3.1	15.4	3.6	5.2

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) In 1999, respondents were only asked about fluorescent lights, but in 2002, respondents were asked about fluorescent lights and energy saving lights.

(b) Northern Territory data refers to mainly urban areas only.

2.3 USE OF ENERGY SAVING LIGHTS—Number of rooms mainly lit

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
					MARCH 2002				
Number ('000)									
None	1 897.6	1 399.6	1 103.1	465.2	562.7	159.8	43.8	91.1	5 723.0
One	175.3	179.6	127.7	54.1	67.9	12.8	*3.3	10.1	630.8
Two	125.8	91.6	70.8	44.0	46.1	8.0	*2.4	9.4	398.0
Three	91.0	50.6	46.2	21.1	28.9	4.0	*2.1	6.6	250.5
Four	53.6	41.1	24.1	5.3	13.0	*2.0	*0.4	*2.5	141.9
More than four	96.6	60.5	44.6	19.5	28.8	*3.4	*2.6	*3.4	259.3
Whole house	32.3	14.3	13.3	3.6	*6.1	*0.2	—	*0.4	70.1
Total dwellings	*2 472.1*	*1 837.4*	*1 429.8*	*612.8*	*753.6*	*190.0*	*54.7*	*123.5*	*7 473.7*
Proportion (%)									
None	76.8	76.2	77.2	75.9	74.7	84.1	80.2	73.8	76.6
One	7.1	9.8	8.9	8.8	9.0	6.7	*6.1	8.1	8.4
Two	5.1	5.0	5.0	7.2	6.1	4.2	*4.3	7.6	5.3
Three	3.7	2.8	3.2	3.4	3.8	2.1	*3.8	5.4	3.4
Four	2.2	2.2	1.7	0.9	1.7	*1.0	*0.8	*2.0	1.9
More than four	3.9	3.3	3.1	3.2	3.8	*1.8	*4.8	*2.7	3.5
Whole house	1.3	0.8	0.9	0.6	*0.8	*0.1	—	*0.3	0.9

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

2.4 USE OF INSULATION

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
				MARCH 2002					
Number ('000)									
With insulation	1 249.1	1 325.5	518.3	463.8	486.3	129.6	23.1	99.3	4 295.1
Without insulation	691.8	222.4	640.7	78.6	172.7	40.2	15.0	9.7	1 871.1
Don't know	531.2	289.5	270.8	70.3	94.6	20.1	16.6	14.4	1 307.5
Total dwellings	*2 472.1*	*1 837.4*	*1 429.8*	*612.8*	*753.6*	*190.0*	*54.7*	*123.5*	*7 473.7*
Proportion (%)									
With insulation	50.5	72.1	36.2	75.7	64.5	68.2	42.3	80.4	57.5
Without insulation	28.0	12.1	44.8	12.8	22.9	21.2	27.4	7.9	25.0
Don't know	21.5	15.8	18.9	11.5	12.6	10.6	30.3	11.7	17.5
				MARCH 1999					
Proportion (%)									
With insulation	47.6	71.3	33.0	70.8	57.3	64.1	44.8	75.8	54.5
Without insulation	31.6	12.4	48.6	12.5	29.0	22.3	31.6	9.4	27.6
Don't know	20.9	16.3	18.4	16.7	13.7	13.6	23.6	14.8	17.9
				JUNE 1994					
Proportion (%)									
With insulation	44.5	69.5	28.5	72.2	52.0	62.7	43.9	79.5	52.1
Without insulation	39.4	17.0	53.6	15.7	36.7	28.8	28.4	9.7	33.1
Don't know	16.1	13.5	17.9	12.0	11.3	8.5	27.6	10.8	14.7

(a) Northern territory data refers to mainly urban areas only.

2.5 USE OF INSULATION—By type of dwellings

	Separate house	*Semi - detached*	*Flat/unit/apartment*	*Other dwelling*	*All dwellings*
			MARCH 2002		
Number ('000)					
With insulation	3 814.0	301.5	160.0	19.5	4 295.1
Without insulation	1 330.5	191.8	333.9	15.0	1 871.1
Don't know	657.6	220.6	419.8	*9.5	1 307.5
Total dwellings	*5 802.0*	*713.9*	*913.7*	*44.0*	*7 473.7*
Proportion (%)					
With insulation	65.7	42.2	17.5	44.4	57.5
Without insulation	22.9	26.9	36.5	34.1	25.0
Don't know	11.3	30.9	45.9	*21.5	17.5
			MARCH 1999		
Proportion (%)					
With insulation	62.3	37.4	14.8	37.6	54.5
Without insulation	26.1	28.5	36.1	41.0	27.6
Don't know	11.6	34.1	49.1	21.3	17.9
			JUNE 1994		
Proportion (%)					
With insulation	58.6	37.6	16.4	40.1	52.1
Without insulation	31.5	33.3	44.1	43.0	33.1
Don't know	10.0	29.1	39.5	16.9	14.7

* estimate has a relative standard error greater than 25% and should be used with caution

2.6 DWELLINGS WITH INSULATION(a)—Reason for installing

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(b)	*ACT*	*Aust.*
MARCH 2002									
Number ('000)									
Achieve comfort	545.5	466.9	268.5	184.5	233.4	52.3	5.6	31.3	1 788.0
Cost/save on energy bills	51.2	100.9	12.8	18.3	14.9	9.0	*0.5	6.9	214.5
Use less energy	*12.0	27.1	*5.9	*6.2	*3.3	*1.7	—	*2.5	58.7
Other	22.4	26.9	11.3	*2.8	*5.3	*2.2	—	*0.2	71.2
Total reasons for installing insulation	*631.1*	*621.9*	*298.5*	*211.8*	*256.9*	*65.3*	*6.1*	*40.8*	*2 132.4*
Proportion (%)									
Achieve comfort	86.4	75.1	90.0	87.1	90.8	80.2	92.0	76.6	83.8
Cost/save on energy bills	8.1	16.2	4.3	8.6	5.8	13.8	*8.0	16.9	10.1
Use less energy	*1.9	4.4	*2.0	*2.9	*1.3	*2.7	—	*6.0	2.8
Other	3.5	4.3	3.8	*1.3	*2.1	*3.4	—	*0.5	3.3
MARCH 1999									
Proportion (%)									
Achieve comfort	88.8	80.2	94.0	87.7	92.3	82.1	66.5	77.6	86.5
Cost/save on energy bill	6.9	13.2	3.4	8.6	3.6	11.8	6.6	14.2	8.5
Use less energy	1.8	3.0	0.6	2.3	2.2	3.8	—	5.4	2.2
Other	2.6	3.6	2.0	1.3	1.9	2.4	26.9	2.7	2.7
JUNE 1994									
Proportion (%)									
Achieve comfort	81.2	66.0	86.1	78.6	86.2	76.2	94.3	63.5	76.4
Cost/save on energy bills	12.2	25.6	4.5	16.2	10.3	17.1	3.0	21.6	16.3
Use less energy	4.1	6.7	3.8	4.1	1.6	5.9	—	12.9	4.9
Other	2.6	1.8	5.6	1.1	2.0	0.8	2.6	2.1	2.4

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Covers dwellings that were owner-occupied and respondents who were responsible for installing insulation.

(b) Northern Territory data refers to mainly urban areas only.

2.7 DWELLINGS WITHOUT INSULATION(a)—Reason for not installing

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(b)	*ACT*	*Aust.*
MARCH 2002									
Number ('000)									
Cost	93.4	24.0	124.0	8.6	36.6	5.5	*0.9	*0.8	293.7
Not interested	70.0	21.5	60.5	7.6	17.0	6.3	*0.7	*0.6	184.2
Not needed (climate)	67.5	10.3	82.9	8.4	*5.0	*2.1	*1.2	—	177.4
Haven't got around to it	88.8	28.0	71.2	6.6	21.5	6.7	*0.4	*0.6	223.8
Dwelling construction (not possible)	66.6	16.5	40.1	*3.4	7.1	*3.0	*0.9	*1.3	138.8
Not responsible	*1.4	*0.7	*1.6	*0.7	—	*0.4	*0.3	*0.2	*5.3
Other	67.4	22.6	57.1	8.1	20.5	*2.9	*3.1	*0.4	182.2
Total reasons for not installing insulation	*455.1*	*123.6*	*437.4*	*43.3*	*107.7*	*26.9*	*7.6*	*3.9*	*1 205.4*
Proportion (%)									
Cost	20.5	19.4	28.3	19.8	34.0	20.4	*12.1	*20.1	24.4
Not interested	15.4	17.4	13.8	17.5	15.8	23.4	*9.7	*14.1	15.3
Not needed (climate)	14.8	8.4	19.0	19.3	*4.6	*8.0	*15.6	—	14.7
Haven't got around to it	19.5	22.6	16.3	15.2	20.0	24.8	*5.8	*16.2	18.6
Dwelling construction (not possible)	14.6	13.3	9.2	*7.7	6.6	*11.3	*11.6	*32.3	11.5
Not responsible	*0.3	*0.5	*0.4	*1.6	—	*1.3	*3.9	*6.2	*0.4
Other	14.8	18.3	13.1	18.8	19.0	*10.8	*41.4	*11.2	15.1
MARCH 1999									
Proportion (%)									
Cost	23.9	24.1	31.0	22.9	31.9	29.0	13.8	32.4	27.2
Not interested	16.9	16.5	20.1	19.9	14.8	19.6	21.2	6.8	17.9
Not needed (climate)	19.9	7.1	17.2	11.3	11.5	10.5	33.3	—	16.3
Haven't got around to it	20.5	26.0	12.6	23.5	21.5	27.3	21.9	23.5	18.6
Dwelling construction (not possible)	9.3	9.9	7.9	8.0	8.9	5.2	5.4	17.4	8.7
Not responsible	0.5	0.5	0.3	1.6	—	—	—	—	0.4
Other	9.1	15.9	11.0	12.8	11.5	8.4	4.4	19.9	10.8
JUNE 1994									
Proportion (%)									
Cost	30.6	37.9	31.7	30.1	42.8	37.1	16.6	42.3	33.2
Not interested	21.6	20.0	17.6	11.0	12.7	19.2	22.4	20.2	18.8
Not needed (climate)	13.2	4.6	29.2	17.5	14.6	5.8	29.6	—	17.3
Haven't got around to it	15.2	20.7	7.7	23.6	10.4	20.0	6.6	31.3	13.4
Dwelling construction (not possible)	9.2	7.6	5.7	5.9	5.0	6.5	20.8	6.1	7.3
Not responsible	1.5	1.0	1.8	2.2	1.5	0.9	—	—	1.5
Other	8.7	8.2	6.3	9.8	13.1	10.5	4.1	—	8.4

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Covers dwellings that were owner-occupied only.

(b) Northern Territory data refers to mainly urban areas only.

2.8 DWELLINGS WITH INSULATION(a)—Where located

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(b)	*ACT*	*Aust.*
MARCH 2002									
Number ('000)									
Roof/ceiling	1 075.6	1 153.3	432.8	383.5	423.3	107.4	15.3	83.0	3 674.3
Walls	292.9	409.5	123.0	135.2	28.9	34.3	*4.2	33.6	1 061.7
Floor	*8.3	*8.1	*3.2	*1.0	*0.8	*1.5	—	*2.5	25.4
Other	*1.4	*3.0	—	—	0.4	—	—	*0.2	*5.0
Total dwellings with insulation(c)	*1 095.0*	*1 169.3*	*457.8*	*386.0*	*426.6*	*110.0*	*15.8*	*83.8*	*3 744.3*
Proportion (%)									
Roof/ceiling	98.2	98.6	94.5	99.3	99.2	97.6	97.1	99.0	98.1
Walls	26.8	35.0	26.9	35.0	6.8	31.2	*26.7	40.1	28.4
Floor	*0.8	*0.7	*0.7	*0.3	*0.2	*1.4	—	*3.0	0.7
Other	*0.1	*0.3	—	—	0.1	—	—	*0.2	*0.1
MARCH 1999									
Proportion (%)									
Roof/ceiling	97.4	98.7	93.3	98.4	99.3	97.2	98.3	98.8	97.7
Wall	24.0	31.5	26.1	27.3	7.7	26.6	16.1	39.8	25.7
Floor	—	—	1.0	—	—	—	—	—	—
Other	0.1	—	0.5	0.2	—	0.1	—	—	0.1
JUNE 1994									
Proportion (%)									
Roof/ceiling	96.6	98.6	91.8	97.3	99.1	96.9	98.0	97.0	97.1
Walls	26.1	27.5	25.8	24.5	6.4	26.5	23.9	31.3	24.6
Floor	0.7	0.8	0.7	0.3	—	1.0	1.9	1.3	0.6
Other	0.3	0.1	0.4	0.4	0.6	0.3	—	0.4	0.3

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Covers dwellings that were owner-occupied only.

(b) Northern Territory data refers to mainly urban areas only.

(c) Totals do not equal the sum of items in each column as more than one application of insulation may be specified.

2.9 DWELLINGS WITH INSULATION(a)—Where located, by type of dwelling

	Separate house	*Semi - detached*	*Flat/unit/apartment*	*Other dwelling*	*All dwellings*
			MARCH 2002		
Number ('000)					
Roof/ceiling	3 392.6	200.1	70.8	10.8	3 674.3
Wall	1 012.7	27.4	15.2	*6.4	1 061.7
Floor	23.8	—	*1.3	*0.4	25.4
Other	*5.0	—	—	—	*5.0
Total dwellings with insulation(b)	*3 457.8*	*200.6*	*74.5*	*11.3*	*3 744.3*
Proportion (%)					
Roof/ceiling	98.1	99.7	95.0	95.3	98.1
Wall	29.3	13.7	20.4	*56.3	28.4
Floor	0.7	—	*1.7	*3.1	*0.7
Other	*0.1	—	—	—	0.1
			MARCH 1999		
Proportion (%)					
Roof/ceiling	97.8	98.3	94.8	87.6	97.7
Wall	26.8	12.9	16.1	42.6	25.7
Floor	0.6	—	1.6	—	0.6
Other	0.1	0.4	0.5	—	0.1
			JUNE 1994		
Proportion (%)					
Roof/ceiling	97.3	97.7	92.5	94.1	97.1
Walls	25.4	13.4	15.8	69.4	24.6
Floor	0.6	0.4	1.4	—	0.6
Other	0.2	0.6	1.1	—	0.3

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Covers dwellings that were owner-occupied only.

(b) Totals do not equal the sum of items in each column as more than one application of insulation may be specified.

2.10 ROOF INSULATION—Main type

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
MARCH 2002									
Number ('000)									
Batts-fibreglass/wool/poly	744.4	725.8	229.2	274.7	224.3	69.1	8.0	66.2	2 341.8
Sisalation/reflective foil	79.0	29.7	79.8	7.2	28.0	*2.1	5.9	*0.6	232.2
Loose fill									
Cellulose fibre	79.6	81.3	37.4	20.6	87.7	14.3	—	*3.0	323.9
Rock wool	22.4	85.8	9.9	19.0	19.8	4.2	*0.2	5.2	166.6
Other/unknown	22.4	60.7	17.3	13.4	19.2	7.4	—	*1.8	142.2
Foam/plastic	10.9	10.8	*6.7	*0.3	*2.2	*1.1	—	*0.2	32.2
Polystyrene sheets	*0.7	*1.1	*1.6	*0.3	*0.8	—	—	—	*4.6
Insulated cladding	*1.4	*0.6	*2.9	*0.4	*1.6	*0.4	*0.2	—	*7.5
Other	*7.9	*8.3	*9.0	*1.1	*1.2	*0.8	—	—	28.2
Not known	106.9	149.2	39.0	46.5	38.6	7.9	*1.0	6.0	394.9
Total dwellings with roof insulation	*1 075.6*	*1 153.3*	*432.8*	*383.5*	*423.3*	*107.4*	*15.3*	*83.0*	*3 674.3*
Proportion (%)									
Batts-fibreglass/wool/poly	69.2	62.9	53.0	71.6	53.0	64.4	52.3	79.8	63.7
Sisalation/reflective foil	7.3	2.6	18.4	1.9	6.6	*1.9	38.3	*0.7	6.3
Loose fill									
Cellulose fibre	7.4	7.1	8.6	5.4	20.7	13.3	—	*3.6	8.8
Rock wool	2.1	7.4	2.3	5.0	4.7	4.0	*1.6	6.3	4.5
Other/unknown	2.1	5.3	4.0	3.5	4.5	6.9	—	*2.2	3.9
Foam/plastic	1.0	0.9	*1.6	*0.1	*0.5	*1.0	—	*0.2	0.9
Polystyrene sheets	*0.1	*0.1	*0.4	*0.1	*0.2	—	—	—	*0.1
Insulated cladding	*0.1	*—	*0.7	*0.1	*0.4	*0.4	*1.6	—	*0.2
Other	*0.7	*0.7	*2.1	*0.3	*0.3	*0.7	—	—	0.8
Not known	9.9	12.9	9.0	12.1	9.1	7.4	*6.2	7.2	10.7
MARCH 1999									
Proportion (%)									
Batts-fibreglass/wool/poly	69.8	60.8	53.6	65.6	48.6	63.2	45.5	70.3	62.1
Sisalation/reflective foil	6.6	2.1	19.5	2.1	7.4	3.4	38.6	1.7	6.1
Loose fill									
Cellulose fibre	5.3	7.2	6.7	4.9	21.5	10.6	—	4.8	7.9
Rock wool	2.9	7.1	2.2	5.4	3.9	6.8	1.8	7.6	4.8
Other/unknown	2.9	5.6	3.4	2.1	6.2	3.8	—	2.7	4.1
Foam/plastic	0.3	0.9	0.9	0.4	0.6	0.3	1.8	—	0.6
Polystyrene sheets	0.3	—	1.6	0.3	0.2	0.2	0.8	—	0.3
Insulated cladding	0.3	—	0.3	0.1	—	—	0.9	—	0.1
Other	0.9	0.7	1.1	0.5	0.4	0.5	2.8	1.0	0.7
Not known	10.7	15.6	10.8	18.8	11.2	11.3	7.8	11.8	13.3

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

2.11 WALL INSULATION—Main type

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
MARCH 2002									
Number ('000)									
Batts-fibreglass/wool/poly	157.3	162.4	27.0	89.8	14.6	19.0	1.7	19.6	491.4
Sisalation/reflective foil	68.6	172.7	66.0	15.2	8.4	11.3	2.3	4.4	348.8
Loose Fill									
Cellulose fibre	*3.5	*3.4	*2.7	*1.7	*0.8	*0.4	—	*0.9	13.2
Rock wool	*8.0	*3.7	*1.6	*2.8	*0.4	*0.2	0.2	*1.0	18.0
Other/unknown	—	*3.0	*1.7	*0.7	*0.3	—	—	—	*5.7
Foam/plastic	*5.1	*6.4	*3.4	*0.3	*0.4	*0.4	—	*0.6	16.6
Polystyrene sheets	*2.9	*5.8	*1.8	*0.3	*0.8	0.4	—	1.1	13.2
Insulated cladding	*10.7	*1.7	*4.4	*0.8	—	*0.6	—	*0.2	18.4
Other	*4.2	*4.5	*1.1	*1.1	*0.8	—	—	—	11.7
Not known	32.6	45.9	13.2	22.6	*2.5	*2.1	—	5.7	124.7
Total dwellings with wall insulation	*292.9*	*409.5*	*123.0*	*135.2*	*28.9*	*34.3*	*4.2*	*33.6*	*1 061.7*
Proportion (%)									
Batts-fibreglass/wool/poly	53.7	39.6	22.0	66.4	50.4	55.5	39.3	58.5	46.3
Sisalation/reflective foil	23.4	42.2	53.7	11.2	29.0	32.9	55.0	13.1	32.9
Loose Fill									
Cellulose fibre	*1.2	*0.8	*2.2	*1.2	*2.6	1.0	—	*2.8	1.2
Rock wool	*2.7	*0.9	*1.3	*2.1	*1.4	*0.5	5.8	*3.0	1.7
Other/unknown	—	*0.7	*1.4	*0.5	*1.1	—	—	—	*0.5
Foam/plastic	*1.8	*1.6	*2.8	*0.2	*1.4	*1.1	—	*1.6	1.6
Polystyrene sheets	*1.0	*1.4	*1.5	*0.2	*2.7	*1.1	—	3.3	1.2
Insulated cladding	*3.7	*0.4	*3.5	*0.6	—	*1.8	—	*0.6	1.7
Other	1.4	*1.1	*0.9	*0.8	*2.7	—	—	—	1.1
Not known	11.1	11.2	10.8	16.7	*8.7	*6.2	—	17.0	11.7
MARCH 1999									
Proportion (%)									
Batts-fibreglass/wool/poly	52.2	36.6	23.6	63.5	32.6	41.7	30.6	56.3	43.3
Sisalation/reflective foil	28.7	41.9	56.5	7.9	38.0	41.0	37.6	10.2	34.7
Loose Fill									
Cellulose fibre	0.3	1.2	0.4	1.8	2.6	1.9	—	1.1	1.0
Rock wool	1.3	2.0	1.0	3.5	—	1.2	5.6	5.4	1.9
Other/unknown	—	1.1	—	0.5	3.8	—	—	2.5	0.7
Foam/plastic	1.3	1.6	3.5	0.9	2.5	0.6	5.1	1.8	1.7
Polystyrene sheets	1.8	0.4	4.6	1.5	2.9	1.2	—	1.0	1.5
Insulated cladding	2.2	0.4	1.9	0.6	—	1.3	—	1.2	1.2
Other	0.3	0.1	1.4	0.3	—	0.6	5.1	0.6	0.4
Not known	11.8	14.6	7.1	19.5	17.6	10.6	16.0	20.0	13.7

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

2.12 WINDOW TREATMENTS—Main type

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
MARCH 2002									
Number ('000)									
Outside awnings	690.0	716.2	454.8	257.7	170.0	16.4	7.0	36.8	2 349.0
Boxed pelmets	245.2	410.6	163.5	99.4	124.7	40.4	4.1	18.6	1 106.7
Tinted glass	198.7	70.6	253.5	56.9	113.5	10.2	5.5	6.7	715.7
Double glazing	70.7	61.6	24.7	13.0	13.5	7.1	*0.4	5.5	196.5
Louvre windows(b)	96.7	144.2	224.6	43.4	33.1	9.5	27.3	*1.8	580.5
None of the above	1 463.6	811.2	650.9	267.6	415.2	125.0	19.0	69.4	3 821.9
Total dwellings(c)	*2 472.1*	*1 837.4*	*1 429.8*	*612.8*	*753.6*	*190.0*	*54.7*	*123.5*	*7 473.7*
Proportion (%)									
Outside awnings	27.9	39.0	31.8	42.0	22.6	8.7	12.8	29.8	31.4
Boxed pelmets	9.9	22.3	11.4	16.2	16.6	21.3	7.6	15.1	14.8
Tinted glass	8.0	3.8	17.7	9.3	15.1	5.4	10.1	5.5	9.6
Double glazing	2.9	3.4	1.7	2.1	1.8	3.8	*0.7	4.5	2.6
Louvre windows	3.9	7.8	15.7	7.1	4.4	5.0	49.9	*1.4	7.8
None of the above	59.2	44.2	45.5	43.7	55.1	65.8	34.7	56.2	51.1
MARCH 1999									
Proportion (%)									
Outside awnings	27.4	39.8	30.4	39.9	24.1	7.7	15.6	30.4	31.2
Boxed pelmets	22.7	33.0	24.7	26.2	23.8	28.2	13.2	24.0	26.1
Tinted glass	6.3	3.5	15.2	8.8	15.8	4.4	15.7	5.9	8.4
Double glazing	1.7	2.2	2.1	1.8	2.5	3.3	0.8	3.8	2.1
None of the above	53.9	40.1	45.0	43.2	50.7	63.2	62.8	51.8	47.9
JUNE 1994									
Proportion (%)									
Outside awnings	23.8	34.5	28.5	37.6	21.3	7.6	22.0	24.3	27.8
Boxed pelmets	17.0	26.9	13.2	21.6	17.6	25.3	10.8	20.7	19.5
Tinted glass	5.6	3.0	13.9	8.1	13.9	2.7	17.5	4.5	7.4
Double glazing	1.2	1.3	0.6	0.7	1.3	1.4	1.4	1.1	1.1
None of the above	61.0	48.3	54.4	46.2	56.8	67.1	57.6	58.7	55.0

* estimate has a relative standard error greater than 25% and should be used with caution

(a) Northern Territory data refers to mainly urban areas only.

(b) Asked in 2002 only.

(c) Totals do not equal the sum of items in each column as more than one form of window treatment may be specified.

CHAPTER 3 ENERGY AND GREENPOWER

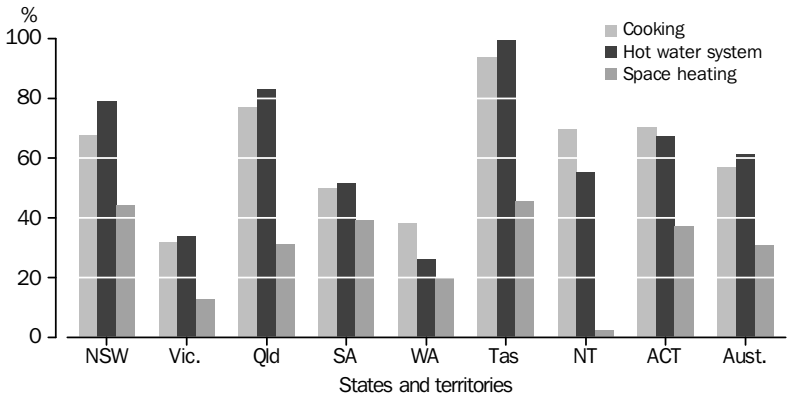
ENERGY SOURCE

Electricity

Electricity is the main source of energy for Australians, being used in virtually every household (99.4%) in 2002. As can be seen in tables 3.1 to 3.5, electricity was the main energy source for cooking (57%) and hot water systems (61%). Gas remains the main source of energy for space heating (34%).

Graph 3.1 describes the extent of usage of electricity across states in Australia. It shows that Tasmanians relied heavily on electricity for cooking (94%) and heating water (100%). Victoria was the state least dependent on electricity (32% for cooking and 34% heating water) relying more on gas than electricity.

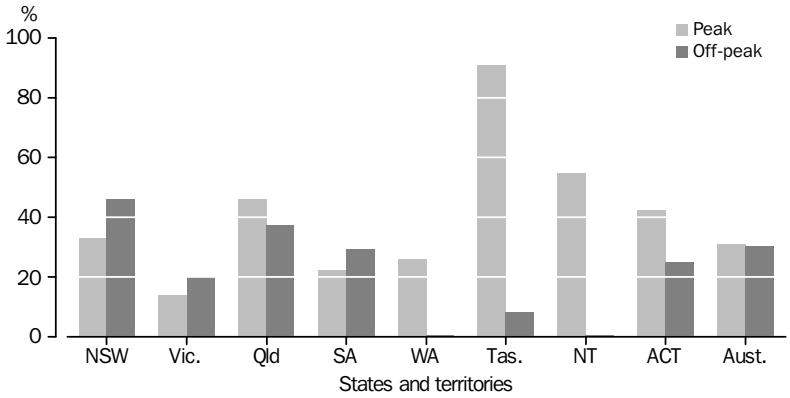
G3.1 ENERGY USE, Electricity—2002



About two in three hot water systems in Australia (61%) were powered by electricity, and mostly by peak electricity. In Tasmania, 91% of hot water systems were powered by peak electricity, 55% in the Northern Territory and 46% in Queensland, as shown in graph 3.2. New South Wales has the highest proportion of dwellings (46%) in which off-peak electricity is used to power hot water systems followed by Queensland (37%) and South Australia (29%). Dwellings in Western Australia and the Northern Territory used off-peak electricity the least (less than 1% of households) for powering their hot water systems.

Electricity continued

G3.2 MAIN TYPE OF ELECTRICITY, Hot water system—2002



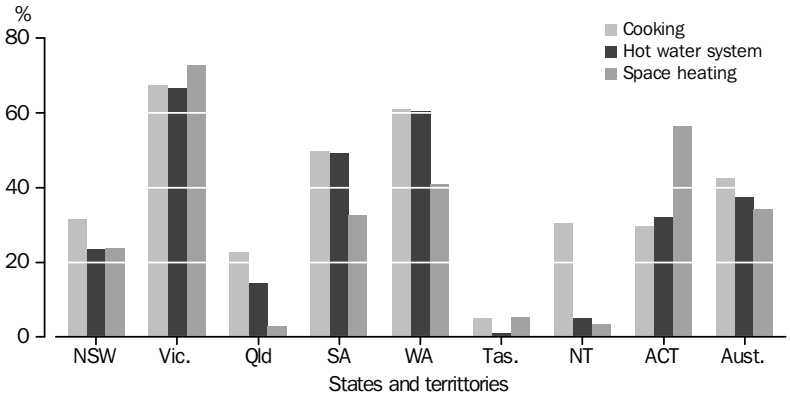
While electricity is the primary source of energy for cooking and heating water in Australia, for space or room heating it was second to gas. Nevertheless, households in dwellings in Tasmania, New South Wales, South Australia and Australian Capital Territory depended heavily on electricity for space heating.

Gas

Gas is the second most important source of energy for Australian households, and is used in more than half (57%) of dwellings, particularly in Victoria (88%) and Western Australia (80%). Gas is used for cooking in 42% of Australian dwellings, for heating water (38% of dwellings), and for space heating (34% of dwellings).

Graph 3.3 shows that Victoria had the highest proportion of dwellings in which gas is used, with 73% of Victorian households using it for space heating and 67% for cooking and heating water. Tasmania had the lowest levels of gas usage, with 5% of its households using it for cooking, 1% for heating water and 5% for space heating.

G3.3 ENERGY USE, Gas—2002

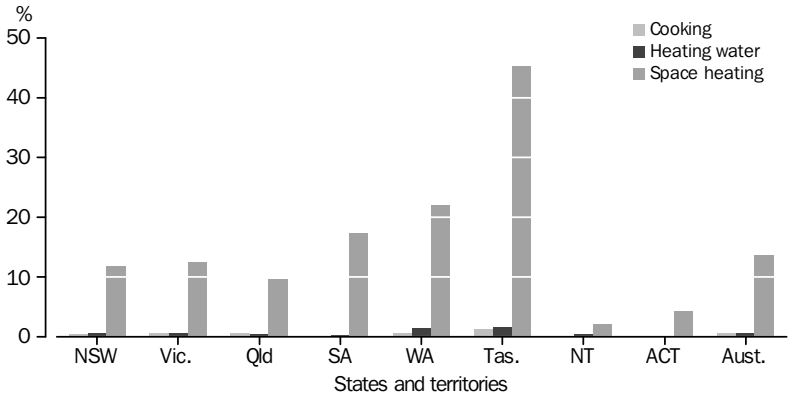


Wood

Across Australia, wood was used mainly for space heating as illustrated in graph 3.4. Close to half (45%) of the dwellings in Tasmania and one quarter of homes (22%) in Western Australia were heated with wood. Other significant users of wood were South Australia (17%), Victoria (12%) and New South Wales (12%). Between 1994 and 2002, the number of homes dependent on wood for room heating in Australia had marginally declined, from 18% to 14%.

Wood continued

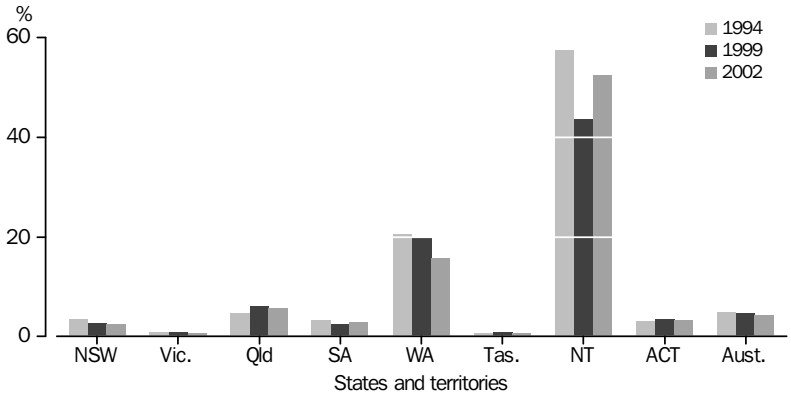
G3.4 ENERGY USE, Wood—2002



Solar Energy

Solar energy is primarily used in Australia for heating water and was utilised by 4% of households. The Northern Territory has the largest proportion of households using solar energy with more than half of its households (53%) using it to heat water (graph 3.5). Western Australia has the second largest proportion of households using solar energy to heat water (16%), although in 1994, 21% of households in that state used solar energy for this purpose. Around 92% of solar water heaters were boosted by electricity.

G3.5 ENERGY USE, Solar energy—1994, 1999 and 2002



GREENPOWER

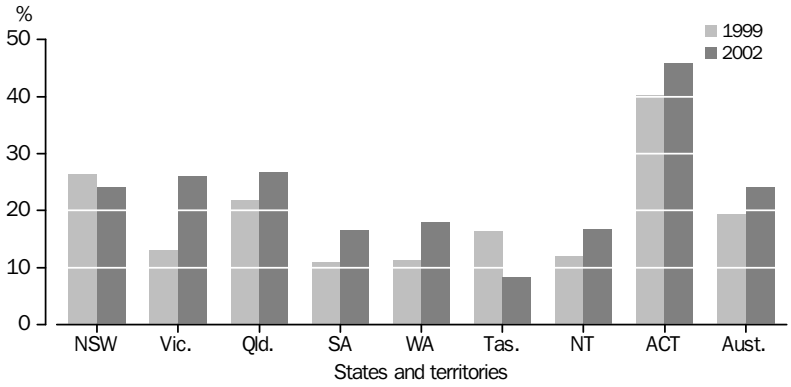
Greenpower generally refers to electricity generated from any renewable resource energy like solar, wind, biomass and hydro-electricity. In most states, electricity consumers are given the option to purchase electricity at a higher rate than normal with the understanding that an amount of power equivalent to their consumption is supplied from an approved greenpower source.

Households in less than 3% of dwellings reported that their electricity had been supplied by greenpower (table 3.6), a slight fall in the proportion of households that reported using greenpower in 1999. Increases in greenpower connection were noted in the Australian Capital Territory (3%), Victoria, the Northern Territory and South Australia (less than 1% each). In Tasmania, there was a fall of around 27% in the proportion of households using energy from this source (from 88% in 1999 to 61% in 2002). As Tasmania's electricity supply is almost entirely from hydro-electric power, this finding suggests that there may be poor understanding of the definition of greenpower in that state. This perception may exist in other states.

Households not connected to greenpower

Graph 3.6 indicates the awareness of electricity generated from a renewable energy resource among households in dwellings not connected to this type of energy or greenpower. Of households in dwellings not connected to greenpower, almost one-quarter (24%) reported that they were aware of the scheme, a 5% increase from that of the 1999 survey. The rest claimed either they were not aware of such a scheme (74%) or they did not know (2%). The Australian Capital Territory, as in 1999, had the highest proportion (46%) of households who were aware of greenpower. In Tasmania, the majority of the households who were in dwellings not connected to greenpower reported that they were not aware at all of the scheme (88%).

G3.6 HOUSEHOLDS IN DWELLINGS NOT CONNECTED TO GREENPOWER, Awareness of scheme —1999 and 2002

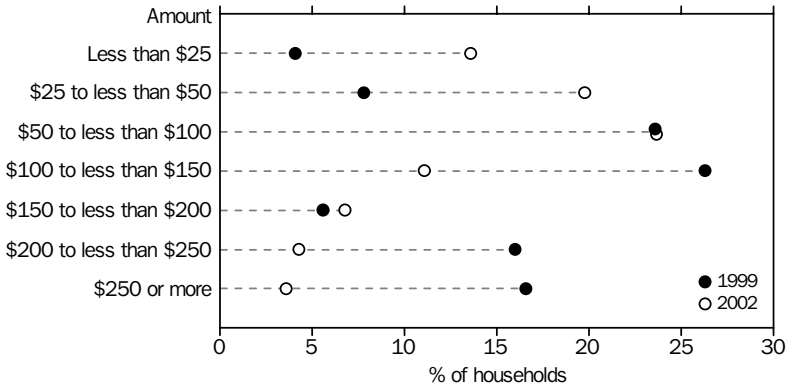


When householders were asked if they were willing to pay more for electricity generated from greenpower, most of the respondents (62%) stated they were not willing to pay more, a significant drop (6%) in support for greenpower since 1999. Refusal to pay more was most pronounced in Tasmania (72% households), which represented a 15% increase from 1999. The Australian Capital Territory and Western Australia had the highest proportion of households (34% and 30% respectively) that were willing to pay more for greenpower.

Graph 3.7 illustrates a distinct drop in the level of support of households not connected to greenpower but willing to pay extra for the scheme between 1999 and 2002. More than half (55%) of these households were prepared to pay between $50 and $150 in 1999; in 2002, the proportion of households in this group was reduced to only one-third (35%). The largest decrease was in the group of households that were willing to pay between $100 to $150 (17% decline). The proportion of households prepared to pay less than $50 for electricity generated by greenpower in a year increased from 15% in 1999 to 33% in 2002, and those willing to pay $150 to less than $200 increased slightly by 2%.

Households not connected to greenpower continued

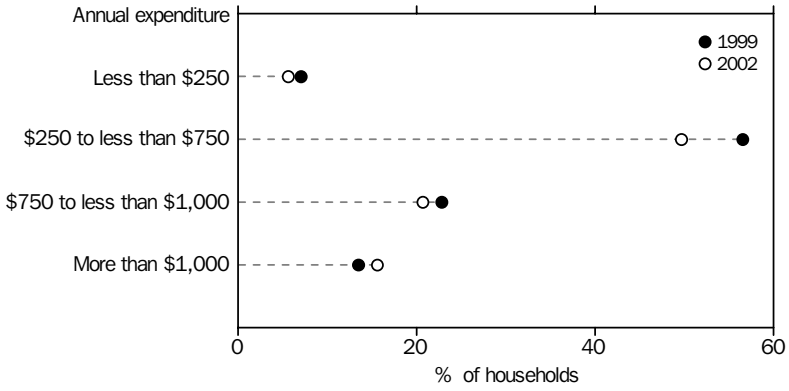
G3.7 HOUSEHOLDS WILLING TO BE CONNECTED TO GREENPOWER, Extra amount willing to pay per annum —1999 and 2002



A more detailed comparison by state is presented in table 3.9. Significant changes were seen in Tasmania where the proportion of households that were prepared to pay between $100 to $150 for greenpower reduced from 50% to 16%, while those willing to pay $50 or less increased from 7% to 17%. In the Australian Capital Territory, about 40% of households were willing to pay $50 or less for greenpower.

Graph 3.8 and table 3.10 show the annual expenditure level on electricity of households willing to provide support for greenpower. About half of the respondents who would like to support greenpower spent between $250 and $750 on electricity in one year, one-fifth spent between $750 to less than $1,000 and a further 16% spent more than $1,000.

G3.8 HOUSEHOLDS WILLING TO PAY MORE FOR GREENPOWER, Electricity costs —1999 and 2002



In Tasmania, almost half of the respondents who would like to support greenpower spent over $1,000 on electricity in the last 12 months, and a further 28% spent between $750 to less than $1,000. One third of respondents from the Northern Territory spent over $1,000 for electricity in the last 12 months.

3.1 SOURCES OF ENERGY IN DWELLINGS

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
					MARCH 2002				
Number ('000)									
Electricity	2 463.4	1 812.5	1 427.5	612.0	747.1	189.6	54.7	123.5	7 430.3
Gas	1 130.1	1 617.3	413.4	394.7	602.4	23.8	18.8	78.8	4 279.3
Wood	372.5	370.6	153.2	132.3	197.0	98.0	*1.5	11.7	1 336.7
Coal/coke	*1.4	*1.2	—	*0.7	—	—	—	—	*3.2
Solar	68.6	17.2	88.1	19.0	121.5	*1.7	28.7	5.1	349.8
Photo voltaic	*2.1	*1.7	—	—	*1.5	—	—	—	*5.3
Other	54.0	17.5	29.1	24.8	17.1	8.8	*0.4	*2.5	154.2
Total(b)	*2 472.1*	*1 837.4*	*1 429.8*	*612.8*	*753.6*	*190.0*	*54.7*	*123.5*	*7 473.7*
Proportion (%)									
Electricity	99.6	98.6	99.8	99.9	99.1	99.8	100.0	100.0	99.4
Gas	45.7	88.0	28.9	64.4	79.9	12.5	34.4	63.8	57.3
Wood	15.1	20.2	10.7	21.6	26.1	51.6	*2.7	9.4	17.9
Coal/coke	*0.1	*0.1	—	*0.1	—	—	—	—	—
Solar	2.8	0.9	6.2	3.1	16.1	*0.9	52.5	4.1	4.7
Photo voltaic	*0.1	*0.1	—	—	*0.2	—	—	—	*0.1
Other	2.2	1.0	2.0	4.0	2.3	4.6	*0.7	*2.0	2.1

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

(b) Totals do not equal the sum of items in each column as more than one source of energy may be specified.

3.2 SOURCES OF ENERGY IN DWELLINGS—By area of usual residence

	Capital cities	*Balance of states*	*Territories*	*Australia*
	MARCH 2002			
Number ('000)				
Electricity	4 614.2	2 637.9	178.2	7 430.3
Gas	2 996.9	1 184.9	97.6	4 279.3
Wood	559.1	764.5	13.1	1 336.7
Coal/coke	*1.4	*1.8	—	*3.2
Solar	168.8	147.2	33.8	349.8
Photo voltaic	*2.4	*2.9	—	*5.3
Other	84.4	66.9	*2.9	154.2
Total dwellings(a)	*4 641.7*	*2 653.8*	*178.2*	*7 473.7*
Proportion (%)				
Electricity	99.4	99.4	100.0	99.4
Gas	64.6	44.6	54.8	57.3
Wood	12.0	28.8	7.4	17.9
Coal/coke	*—	*0.1	—	*—
Solar	3.6	5.5	19.0	4.7
Photo voltaic	0.1	*0.1	—	*0.1
Other	1.8	2.5	*1.6	2.1

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Totals do not equal the sum of items in each column as more than one source of energy may be specified.

3.3 MAIN SOURCE OF ENERGY USED IN COOKING

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
					MARCH 2002				
Number ('000)									
Electricity	1 680.0	590.6	1 099.5	307.7	289.4	177.9	38.0	86.9	4 270.0
Gas	782.0	1 236.5	323.4	304.4	460.2	9.5	16.6	36.5	3 169.1
Wood	*10.1	10.3	*6.8	*0.7	*4.1	*2.5	—	—	34.6
Total dwellings	*2 472.1*	*1 837.4*	*1 429.8*	*612.8*	*753.6*	*190.0*	*54.7*	*123.5*	*7 473.7*
Proportion (%)									
Electricity	68.0	32.1	76.9	50.2	38.4	93.6	69.6	70.4	57.1
Gas	31.6	67.3	22.6	49.7	61.1	5.0	30.4	29.6	42.4
Wood	*0.4	0.6	*0.5	*0.1	*0.5	*1.3	—	—	0.5
					MARCH 1999				
Proportion (%)									
Electricity	71.3	32.1	78.0	51.8	38.7	91.8	69.7	72.6	58.6
Gas	27.9	66.4	21.5	47.6	60.4	5.9	29.9	26.7	40.5
Wood	0.7	1.0	0.5	0.3	0.7	2.2	0.4	0.2	0.7
Other	0.1	0.5	0.1	0.2	0.2	—	—	0.5	0.2

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

3.4 MAIN SOURCE OF ENERGY USED IN HEATING WATER

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
MARCH 2002									
Number ('000)									
Electricity									
Peak	817.1	254.9	656.5	137.3	195.8	173.0	29.9	52.2	2 316.7
Off-peak	1 135.3	372.0	533.6	179.3	*3.7	16.1	*0.4	31.0	2 271.3
Total	1 952.4	627.0	1 190.1	316.5	199.4	189.1	30.3	83.2	4 588.0
Gas	578.4	1 225.0	205.3	301.2	455.7	*2.1	*2.8	39.6	2 810.1
Solar									
Electric booster	57.0	*7.9	76.4	16.6	112.8	*0.8	24.8	4.1	300.2
Gas booster	*2.2	*1.7	*0.5	*0.6	*1.2	—	*0.9	—	*7.1
Unknown booster	*0.7	*1.7	*3.7	*0.8	*4.8	*0.4	*3.0	—	15.1
Total	59.9	11.4	80.7	17.9	118.7	*1.1	28.7	4.1	322.4
Wood	11.6	11.1	*6.3	*1.8	10.7	*3.3	*0.2	—	44.9
Oil	*0.7	—	—	*0.3	*0.8	—	—	—	*1.9
Coal/coke	—	0.6	—	—	—	—	—	—	*0.6
Other	*5.9	*2.3	*5.2	*0.6	*0.8	*0.6	—	—	15.3
Not known	54.1	19.9	29.6	*4.6	7.2	*0.3	*0.3	*1.5	117.6
Total dwellings	*2 472.1*	*1 837.4*	*1 429.8*	*612.8*	*753.6*	*190.0*	*54.7*	*123.5*	*7 473.7*
Proportion (%)									
Electricity									
Peak	33.1	13.9	45.9	22.4	26.0	91.0	54.7	42.3	31.0
Off-peak	45.9	20.2	37.3	29.3	*0.5	8.5	*0.7	25.1	30.4
Total	79.0	34.1	83.2	51.7	26.5	99.5	55.3	67.4	61.4
Gas	23.4	66.7	14.4	49.2	60.5	*1.1	*5.2	32.1	37.6
Solar									
Electric booster	2.3	*0.4	5.3	2.7	15.0	*0.4	45.3	3.3	4.0
Gas booster	*0.1	*0.1	*—	*0.1	*0.2	—	*1.6	—	*0.1
Unknown booster	*—	*0.1	*0.3	*0.1	*0.6	*0.2	*5.6	—	0.2
Total	2.4	0.6	5.6	2.9	15.7	*0.6	52.5	3.3	4.3
Wood	0.5	0.6	*0.4	*0.3	1.4	*1.7	*0.4	—	0.6
Oil	—	—	—	*0.1	*0.1	—	—	—	*—
Coal/coke	—	—	—	—	—	—	—	—	*—
Other	*0.2	*0.1	*0.4	*0.1	*0.1	*0.3	—	—	0.2
Not known	2.2	1.1	2.1	*0.7	1.0	*0.2	*0.5	*1.2	1.6
MARCH 1999									
Proportion (%)									
Electricity	75.9	34.1	80.6	50.8	24.7	96.5	55.5	69.4	59.6
Gas	20.8	64.6	13.4	47.1	56.3	1.4	2.4	29.2	35.4
Solar									
Electric booster	2.5	0.6	5.6	2.5	18.5	0.7	38.3	3.0	4.4
Gas booster	—	0.2	0.1	—	0.4	—	0.4	0.1	0.1
Unknown booster	0.2	0.1	0.3	0.1	0.7	0.2	5.0	0.3	0.3
Total	2.7	0.9	6.0	2.6	19.6	0.9	43.7	3.4	4.8
Wood	0.7	1.4	0.6	0.5	2.2	2.3	—	—	1.0
Oil	0.1	—	—	—	0.1	—	—	—	—
Coal/Coke	—	—	—	—	—	—	—	—	—
Other	0.1	0.1	0.4	0.1	—	0.2	0.4	—	0.2
Not known	0.8	0.3	0.4	0.5	0.5	0.2	—	0.1	0.5

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

3.4 MAIN SOURCE OF ENERGY USED IN HEATING WATER *continued*

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
					JUNE 1994				
Proportion (%)									
Electricity	77.7	38.0	82.0	48.9	36.6	95.9	44.9	79.1	62.3
Gas	19.8	61.0	13.5	48.8	47.7	0.9	2.3	20.1	33.6
Solar	3.5	0.8	4.8	3.3	20.5	0.6	57.5	3.1	4.9
Other	1.9	1.9	1.9	0.6	5.8	3.7	4.3	0.2	2.2

(a) Northern Territory data refers to mainly urban areas only.

3.5 MAIN SOURCE OF ENERGY USED IN SPACE HEATING

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
MARCH 2002									
Number ('000)									
Electricity	1 098.8	236.4	447.9	241.0	150.7	86.9	*1.3	46.1	2 309.2
Gas	585.1	1 335.9	43.4	200.1	309.2	10.1	*1.7	69.5	2 555.0
Wood	291.9	228.5	138.5	106.7	166.3	85.8	*1.2	5.3	1 024.2
Coal or coke	*0.7	*0.6	—	—	—	—	—	—	*1.3
Oil	40.0	*9.3	*9.4	16.5	10.0	5.1	*0.4	*2.1	92.6
Solar	—	*0.6	—	—	*0.4	—	—	—	*1.0
Other/varies	*4.5	*7.0	12.9	*3.5	*3.5	*0.2	—	—	31.6
Total dwellings	*2 472.1*	*1 837.4*	*1 429.8*	*612.8*	*753.6*	*190.0*	*54.7*	*123.5*	*7 473.7*
Proportion (%)									
Electricity	44.4	12.9	31.3	39.3	20.0	45.7	*2.4	37.4	30.9
Gas	23.7	72.7	3.0	32.7	41.0	5.3	*3.2	56.3	34.2
Wood	11.8	12.4	9.7	17.4	22.1	45.2	*2.2	4.3	13.7
Coal or coke	*—	*—	—	—	—	—	—	—	*—
Oil	1.6	*0.5	*0.7	2.7	1.3	2.7	*0.7	*1.7	1.2
Solar	—	*—	—	—	*0.1	—	—	—	*—
Other/varies	*0.2	*0.4	0.9	*0.6	*0.5	*0.1	—	—	0.4
MARCH 1999									
Proportion (%)									
Electricity	42.2	11.9	24.3	38.4	16.6	33.1	3.8	38.5	28.0
Gas	21.9	71.5	2.6	32.3	39.0	6.0	3.4	50.7	32.9
Wood	14.7	13.8	9.7	17.7	24.7	56.2	3.4	5.7	15.7
Coal or coke	0.1	—	—	0.1	—	—	—	—	—
Oil	2.7	1.0	1.8	3.9	2.2	3.3	—	3.3	2.2
Solar	—	—	—	—	—	—	—	0.2	—
Other/varies	0.6	0.3	1.3	0.4	0.6	0.4	—	0.6	0.6
JUNE 1994									
Proportion (%)									
Electricity	46.3	12.5	26.6	36.0	17.1	28.8	8.8	37.8	29.7
Gas	19.7	71.0	3.0	33.3	32.1	5.2	5.4	46.1	31.9
Wood	17.1	14.0	10.1	19.0	31.6	60.5	1.2	10.2	17.6
Oil	3.5	1.3	3.7	4.2	3.9	4.8	1.5	4.5	3.1
Solar	0.1	—	—	0.1	0.1	0.1	0.4	—	0.1
Other/varies	1.7	0.6	2.0	1.4	2.0	0.5	0.9	0.9	1.4

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

3.6 GREENPOWER—Connection

	NSW	Vic.	Qld	SA	WA	Tas.(a)	NT(b)	ACT	Aust.
MARCH 2002									
Number ('000)									
Connected	25.1	17.5	20.9	*2.9	7.7	116.4	*0.5	4.4	195.5
Not connected	2 259.4	1 693.3	1 345.4	588.3	714.1	63.0	53.7	111.9	6 829.0
Not known	187.5	126.5	63.5	21.6	31.8	10.6	*0.5	7.2	449.1
Total dwellings	*2 472.1*	*1 837.4*	*1 429.8*	*612.8*	*753.6*	*190.0*	*54.7*	*123.5*	*7 473.7*
Proportion (%)									
Connected	1.0	1.0	1.5	*0.5	1.0	61.3	*0.9	3.6	2.6
Not connected	91.4	92.2	94.1	96.0	94.8	33.2	98.2	90.6	91.4
Not known	7.6	6.9	4.4	3.5	4.2	5.6	*0.9	5.8	6.0
MARCH 1999									
Proportion (%)									
Connected	1.0	0.4	1.4	0.3	1.5	88.0	0.4	0.7	3.2
Not connected	88.7	91.4	89.5	93.1	92.9	6.8	89.9	94.2	88.3
Not known	10.2	8.2	9.1	6.7	5.6	5.1	9.7	5.1	8.5

* estimate has a relative standard error greater than 25% and should be used with caution

(a) As Tasmania's electricity is almost entirely from hydro- electric power, this data suggests that there may be a poor understanding of the definition of greenpower in the state.

(b) Northern Territory data refers to mainly urban areas only.

3.7 DWELLINGS NOT CONNECTED TO GREENPOWER—Awareness of schemes

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*(a)	*NT*(b)	*ACT*	*Aust.*
					MARCH 2002				
Number ('000)									
Aware of	546.1	440.7	361.4	97.9	127.9	5.3	9.0	51.4	1 639.8
Not aware of	1 663.7	1 213.0	962.0	482.1	577.8	55.6	43.2	58.9	5 056.2
Don't know	49.6	39.6	21.9	8.3	8.3	*2.2	*1.5	*1.6	133.1
Total dwellings not connected	*2 259.4*	*1 693.3*	*1 345.4*	*588.3*	*714.1*	*63.0*	*53.7*	*111.9*	*6 829.0*
Proportion (%)									
Aware of	24.2	26.0	26.9	16.6	17.9	8.4	16.8	45.9	24.0
Not aware of	73.6	71.6	71.5	81.9	80.9	88.2	80.4	52.6	74.0
Don't know	2.2	2.3	1.6	1.4	1.2	*3.5	*2.8	*1.4	1.9
					MARCH 1999				
Proportion (%)									
Aware of	26.5	13.1	21.9	11.1	11.3	16.5	12.0	40.3	19.4
Not aware of	70.8	85.7	76.4	87.9	87.9	80.6	87.2	59.1	78.9
Don't know	2.7	1.1	1.7	1.0	0.8	3.0	0.8	0.6	1.7

* estimate has a relative standard error greater than 25% and should be used with caution

(a) As Tasmania's electricity is almost entirely from hydro-electric power, this data suggests that there may be a poor understanding of the definition of greenpower in the state.

(b) Northern Territory data refers to mainly urban areas only.

3.8 DWELLINGS NOT CONNECTED TO GREENPOWER—Willingness to pay more

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*(a)	*NT*(b)	*ACT*	*Aust.*
MARCH 2002									
Number ('000)									
Willing/depends	574.2	434.1	338.6	140.8	215.1	9.3	13.5	37.5	1 763.1
Not willing	1 369.1	1 071.6	882.2	366.4	423.5	45.1	33.1	66.8	4 257.7
Don't know	316.1	187.6	124.6	81.1	75.5	8.6	7.1	7.5	808.2
Total dwellings not connected	*2 259.4*	*1 693.3*	*1 345.4*	*588.3*	*714.1*	*63.0*	*53.7*	*111.9*	*6 829.0*
Proportion (%)									
Willing/depends	25.4	25.6	25.2	23.9	30.1	14.8	25.1	33.6	25.8
Not willing	60.6	63.3	65.6	62.3	59.3	71.6	61.7	59.7	62.3
Don't know	14.0	11.1	9.3	13.8	10.6	13.6	13.2	6.7	11.8
MARCH 1999									
Proportion (%)									
Willing	23.0	22.6	27.8	22.8	26.3	20.5	25.1	31.3	24.3
Not willing	56.9	56.7	53.1	55.2	55.7	57.1	59.8	55.7	55.9
Should not	5.3	4.2	5.2	4.2	3.1	3.1	9.0	2.4	4.7
Don't know	14.8	16.4	13.8	17.9	14.8	19.3	6.0	10.6	15.2

(a) As Tasmania's electricity is almost entirely from hydro-electric power, this data suggests that there may be a poor understanding of the definition of greenpower in the state.

(b) Northern Territory data refers to mainly urban areas only.

3.9 DWELLINGS WILLING TO PAY MORE TO CONNECT TO GREENPOWER(a)—Amount extra willing to pay per annum

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(b)	*ACT*	*Aust.*
				MARCH 2002					
Number ('000)									
Less than $25	74.7	64.0	52.1	15.7	24.0	*1.3	*1.9	5.6	239.0
$25 to less than $50	104.3	88.2	77.7	26.3	40.8	*0.4	*1.6	9.4	348.6
$50 to less than $100	138.5	108.0	80.2	31.0	46.2	*2.2	*2.8	9.4	418.5
$100 to less than $150	52.9	45.6	35.5	16.6	35.5	*1.5	*2.0	6.0	195.5
$150 to less than $200	41.6	26.8	21.3	10.5	14.7	*1.0	*2.3	*2.2	120.5
$200 to less than $250	23.1	18.9	11.6	*6.3	13.7	0.2	*0.7	*0.6	75.1
$250 or more	17.8	11.7	14.8	*6.3	10.1	*0.6	*1.1	*1.2	63.6
Not known	121.2	70.9	45.3	28.1	30.1	*2.3	*1.2	*3.2	302.3
Total dwellings not connected but willing to pay more	*574.2*	*434.1*	*338.6*	*140.8*	*215.1*	*9.3*	*13.5*	*37.5*	*1 763.1*
Proportion (%)									
Less than $25	13.0	14.7	15.4	11.2	11.1	*13.5	*13.8	14.8	13.6
$25 to less than $50	18.2	20.3	23.0	18.7	19.0	*3.8	*11.6	24.9	19.8
$50 to less than $100	24.1	24.9	23.7	22.0	21.5	*23.9	*20.9	25.1	23.7
$100 to less than $150	9.2	10.5	10.5	11.8	16.5	*16.3	*14.5	16.0	11.1
$150 to less than $200	7.2	6.2	6.3	7.5	6.9	*10.2	*17.0	*6.0	6.8
$200 to less than $250	4.0	4.4	3.4	*4.5	6.4	*2.0	*5.2	*1.5	4.3
$250 or more	3.1	2.7	4.4	*4.5	4.7	*6.0	*7.8	*3.2	3.6
Not known	21.1	16.3	13.4	19.9	14.0	*24.2	*9.2	*8.5	17.1
				MARCH 1999					
Proportion (%)									
Less than $25	6.7	3.7	7.4	3.8	6.0	7.1	1.8	4.1	5.7
$25 to less than $50	7.9	9.1	11.3	9.1	9.0	—	3.8	7.8	9.1
$50 to less than $100	24.5	30.3	28.4	25.1	28.8	21.3	14.2	23.6	27.1
$100 to less than $150	27.8	27.7	26.9	31.2	25.9	49.6	33.5	26.3	27.7
$150 to less than $200	5.3	3.3	4.5	3.5	5.9	7.1	6.2	5.6	4.6
$200 to less than $250	13.9	17.5	11.4	17.1	10.3	—	28.4	16.0	14.2
$250 or more	13.9	8.5	10.0	10.2	14.1	15.0	12.1	16.6	11.6

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) These were the respondents not connected to greenpower but indicated willingess to pay more for greenpower in table 3.8.

(b) Northern Territory data refers to mainly urban areas only.

3.10 DWELLINGS WILLING TO PAY EXTRA TO CONNECT TO GREENPOWER(a)—Electricity expenditures(b)

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(c)	*ACT*	*Aust.*
				MARCH 2002					
Number ('000)									
Less than $250	28.3	24.8	17.3	*6.5	18.8	*0.4	*1.4	*2.8	100.4
$250 to less than $500	142.6	114.6	83.8	33.9	54.9	—	*1.9	7.4	439.1
$500 to less than $750	138.1	108.3	92.2	33.6	50.7	*1.3	*1.7	10.5	436.5
$750 to less than $1,000	112.2	91.4	70.2	31.7	44.0	*2.6	*2.7	9.4	364.2
$1,000 or more	94.0	56.7	56.8	23.6	31.3	4.6	*4.8	4.4	276.1
Not known	58.9	38.3	18.2	11.5	15.3	*0.4	*1.0	*3.1	146.8
Total dwellings not connected but willing to pay more	*574.2*	*434.1*	*338.6*	*140.8*	*215.1*	*9.3*	*13.5*	*37.5*	*1 763.1*
Proportion (%)									
Less than $250	4.9	5.7	5.1	*4.6	8.8	*4.3	*10.7	*7.5	5.7
$250 to less than $500	24.8	26.4	24.7	24.1	25.5	—	*14.1	19.6	24.9
$500 to less than $750	24.0	25.0	27.2	23.8	23.6	*14.0	*12.7	28.0	24.8
$750 to less than $1,000	19.5	21.1	20.7	22.5	20.5	*28.1	*19.8	25.0	20.7
$1,000 or more	16.4	13.1	16.8	16.8	14.5	49.3	*35.4	11.7	15.7
Not known	10.3	8.8	5.4	8.2	7.1	*4.3	*7.4	*8.1	8.3
				MARCH 1999					
Proportion (%)									
Less than $250	7.6	3.9	9.2	4.6	10.8	—	1.8	6.6	7.1
$250 to less than $500	33.4	34.5	30.6	30.8	34.1	20.3	9.1	27.7	32.6
$500 to less than $750	22.4	24.2	27.0	23.2	24.4	28.7	18.1	16.5	24.0
$750 to less than $1,000	24.3	27.2	19.7	22.2	14.8	21.6	30.9	29.5	22.9
$1,000 or more	12.3	10.3	13.6	19.1	15.9	29.4	40.0	19.8	13.5

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) These were the respondents who were not connected to greenpower but indicated willingness to pay more for greeenpower in table 3.8.

(b) 12 months prior to the survey.

(c) Northerrn Territory data refers to mainly urban areas only.

CHAPTER 4 HOUSEHOLD APPLIANCES

HOUSEHOLD APPLIANCES

Almost all dwellings in Australia have at least one refrigerator (99.9%) with around 30% of them having more than one. Virtually all dwellings had a washing machine (95%), more than half of them had a clothes dryer (55%), half had an airconditioner (49%), and more than one-third had separate freezer (38%) and/or dishwasher (35%) as shown in graph 4.1 and table 4.1. Since 1994, an increasing proportion of dwellings have almost all types of household appliances in Australia, except that the proportion of dwellings having separate freezers has declined from 45% in 1994 to 38% in 2002. The most significant rise was in the possession of airconditioners, from 33% in 1994 to 49% in 2002. Other notable increases were in the proportion of dwellings with dishwashers (10% increase) and clothes dryers (4% increase) during this period.

G4.1 WHITE GOOD APPLIANCES IN DWELLINGS —1994, 1999 AND 2002

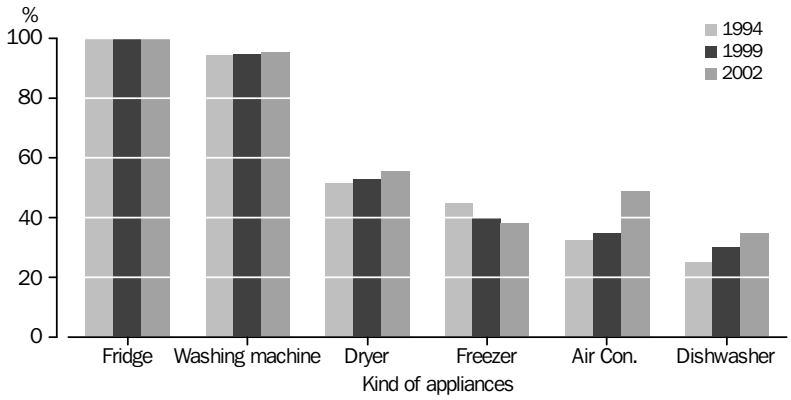


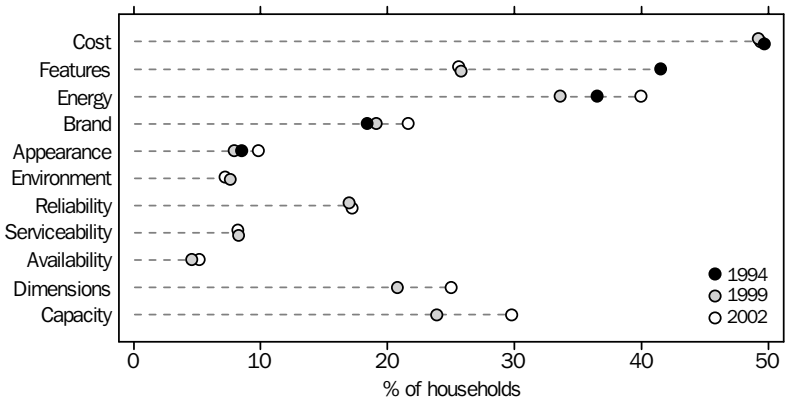
Table 4.2 shows the high incidence for refrigerators and washing machines as they were the top two appliances bought or replaced 12 months prior to the survey. Around 23% of households bought or replaced one or more white good appliance in 2002.

Graph 4.2 shows that cost, energy rating efficiency and capacity were the three main factors considered by households across Australia in buying or replacing white good appliances in the 12 months prior to the survey (49%, 40% and 30% respectively). Through the years, more emphasis has been placed on energy rating in buying appliances. Environmental consideration was hardly a factor in buying appliances as it ranked eleventh of the twelve categories in the survey; availability being the last.

HOUSEHOLD APPLIANCES

continued

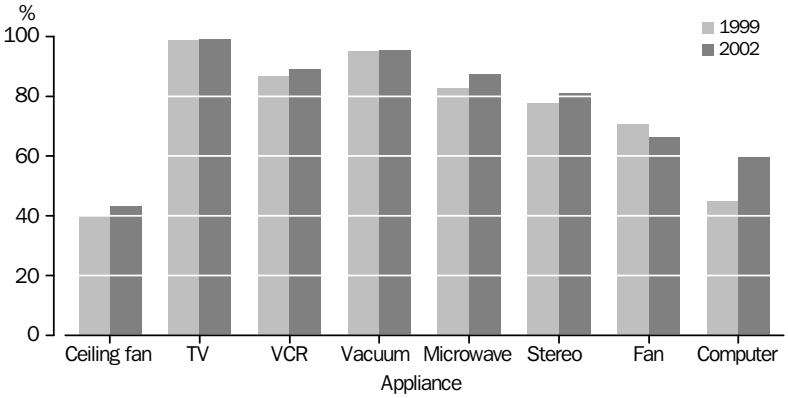
G4.2 WHITE GOODS, Factors considered in buying—1994, 1999 and 2002



All of the top three factors mentioned above were rated highest amongst households in the Northern Territory, however reliability was also considered an important factor, increasing from 13% in 1999 to 34% in 2002 (table 4.3). Victorians put more emphasis on energy rating efficiency than the other states, with this response increasing from 38% of households in 1994 to 46% in 2002. Environmental considerations were rated highest (11%) in Tasmania and lowest (3%) in the Northern Territory.

Graph 4.3 and table 4.4, on the other hand, describe the major non-white good appliances present in dwellings. Televisions and vacuum cleaners were reported present in almost all dwellings, 89% had video recorders and 87% had microwaves. Except for portable fans, there was a steady increase in the household holdings of almost all non-white goods of appliances between 1999 and 2002.

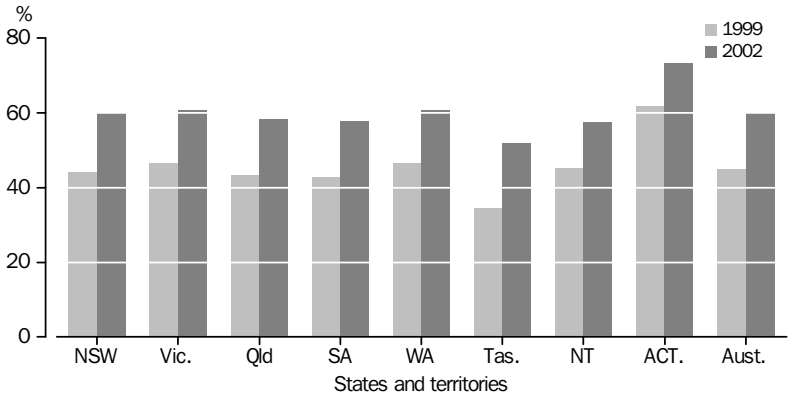
G4.3 NON-WHITE GOOD APPLIANCES, Holdings—1999 and 2002



Computers are fast becoming a more popular non-white good appliance with their occurrence increasing from 45% in 1999 to 60% in 2002. Tasmania recorded the most significant increase in possession of computers, from 35% in 1999 to 52% in 2002 as shown in graph 4.4.

HOUSEHOLD APPLIANCES
continued

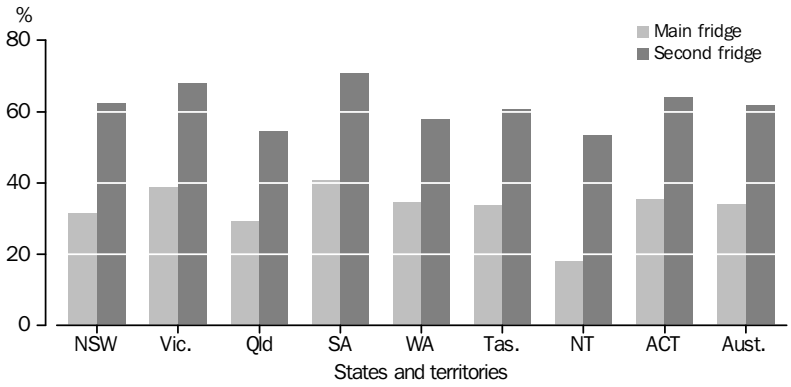
G4.4 HOUSEHOLDS WITH COMPUTERS —1999 AND 2002



Refrigerators

Around 30% of households in Australia have and use more than one refrigerator in their homes, 3% of which reported they had three or more (table 4.5). Northern Territory, Western Australia and Queensland were the states with the highest proportion of households having used more than one refrigerator in dwellings (43%, 34% and 34% respectively). These states also recorded the most significant increases between 1994 and 2002 (11%, 8% and 8%, respectively).

G4.5 REFRIGERATORS AGED 10 YEARS OR MORE, Main and second fridge —2002



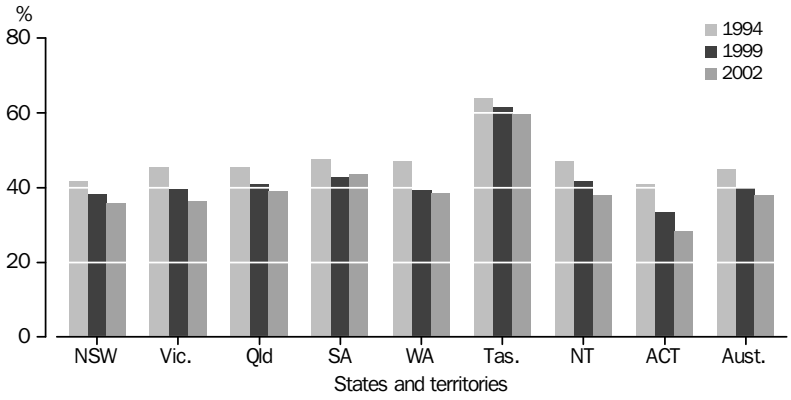
Graph 4.5 and table 4.6 indicate that close to one-third of the households with refrigerators reported that their main refrigerator was aged 10 years or older, mostly in South Australia (41%), Victoria (39%) and the Australian Capital Territory (35%). Newer refrigerators (aged 5 years or less) were most likely be found in the warmer climates of Northern Territory (50%) and Queensland (43%). For those households with more than one refrigerator, the majority reported that their second refrigerators (62%) were also aged 10 years or older, as shown in table 4.7.

Separate freezers

Around one in three dwellings across Australia had at least one separate freezer but this proportion has considerably declined from 45% in 1994 to 38% in 2002. In Tasmania, around 6 out of 10 households had a separate freezer, the highest proportion among the states. The Australian Capital Territory had the smallest proportion of households having separate freezers with the proportion dropping from 41% in 1994 to 28% in 2002. Tasmania remained the state with the highest holdings/usage of two or more separate freezers (6%) despite a reduction of 3% from the 1994 survey (table 4.8).

Separate freezers continued

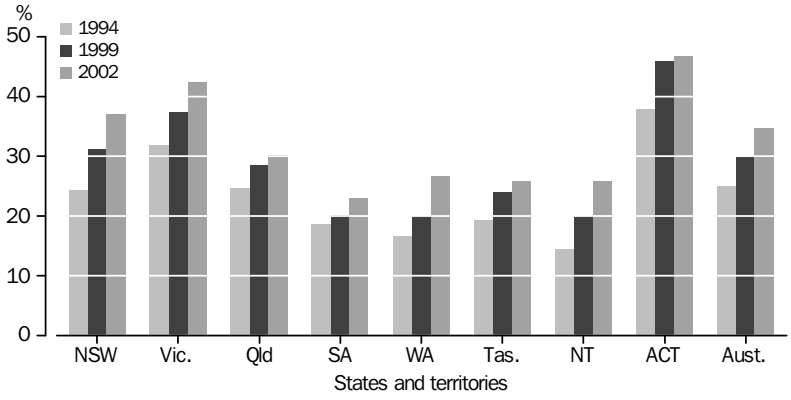
G4.6 SEPARATE FREEZERS, Holdings—1994, 1999 and 2002



Dishwashers

Dishwashers were reported present and used in 35% of dwellings in Australia; highest in the Australian Capital Territory (47% of dwellings) and Victoria (42% of dwellings), and least in South Australia (23% of dwellings) as illustrated in graph 4.7 and table 4.9. The majority of households in dwellings with dishwashers consisted of parents with children (50%). Single households were the least likely to have dishwashers (table 4.10).

G4.7 DISHWASHERS, Holdings —1994, 1999 and 2002

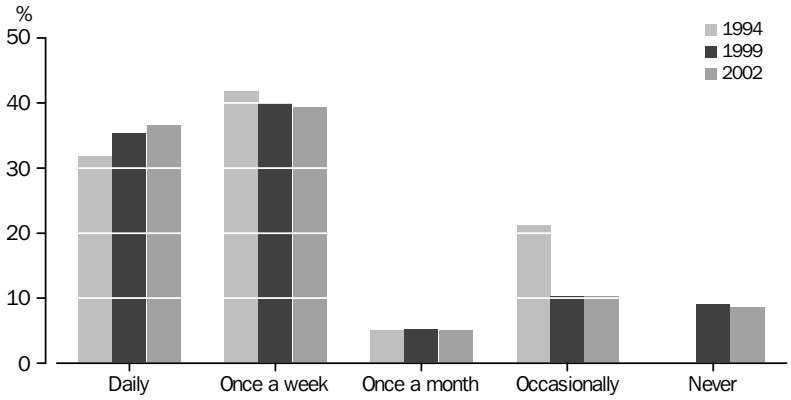


Between 1994 and 2002, there has been a significant increase (10%) in the number of dwellings with dishwashers in Australia. Significant increases were noted in New South Wales (13%), Victoria (11%) and Northern Territory (11%).

Graph 4.8 and table 4.10 provide a comparison of the frequency of use of dishwashers among households in Australia from 1994 to 2002. As in the previous surveys, the majority of households had used the dishwashers either once a week (39%) or daily (37%). About 10% of respondents stated that they had used them very rarely or on an occasional basis while about 9% claimed that they had not used them at all in the 12 months prior to the survey. Households in the Northern Territory used their dishwashers more frequently than any other households with 47% of households having used them on a daily basis in 2002.

Dishwashers continued

G4.8 DISHWASHERS, Usage —1994, 1999 and 2002

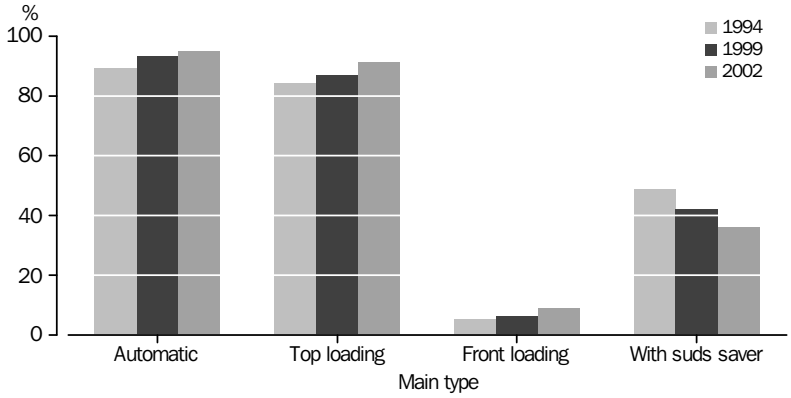


Since 1994, more households have reported using dishwashers on a daily basis, from 32% in 1994 to 37% in 2002; the highest increase in Australian Capital Territory (15%) and Northern Territory (8%), as shown in table 4.10.

Washing machines

Almost all households in Australia reported they had washing machines; 95% of them were automatic, 91% top loading and only 36% with suds saver as shown in graph 4.9 and table 4.11. Suds saver is an innovation on washing machines that allows the reuse of most of the water from the wash fill of the previous load. The highest proportion of dwellings having non-automatic washing machines were reported in South Australia (12%) and Tasmania (9%).

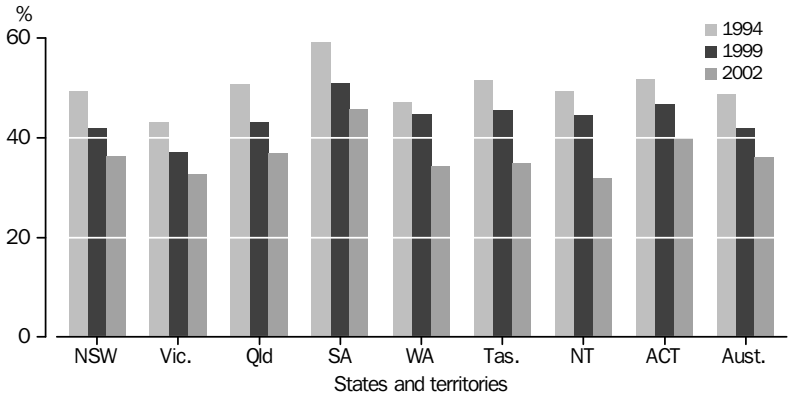
G4.9 WASHING MACHINES, Main type —1994, 1999 and 2002



As more Australians choose automatic top loading washing machines, less households choose ones with suds saver. Since 1994, the proportion of dwellings with a suds saving washing machine has dropped by 13%; most significant in Tasmania and the Northern Territory where a 17% drop was recorded. South Australia, as in the previous surveys, had the highest proportion of dwellings with suds saving aided washing machines, but this level has declined from almost 60% in 1994 to 46% in 2002.

Washing machines
continued

G4.10 WASHING MACHINES WITH SUDS SAVER —1994, 1999 AND 2002



The proportion of households who do not know whether their washing machine has this water saving feature has almost doubled, from 8% in 1994 to 14% in 2002. In the recent survey, the highest proportion of households who fell under this category were in New South Wales (16%) and Victoria (15%). New South Wales also recorded the highest increase (8%) in this category from the period 1994 to 2002.

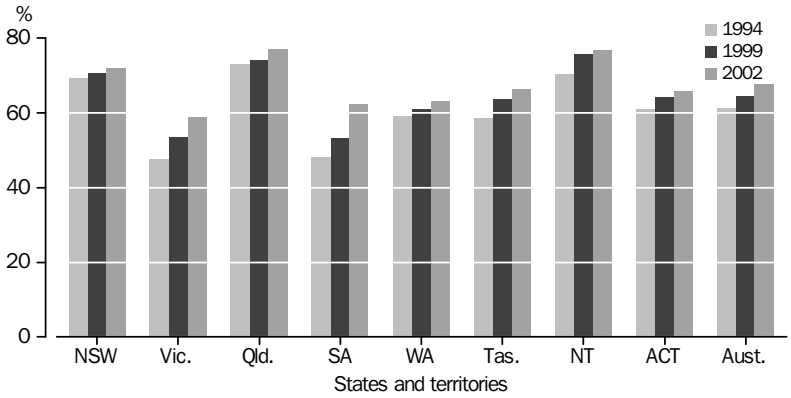
Of the households who reported that their washing machines have suds savers, just over one-third of them (36%) had affirmed usage of this feature, mainly in the households of South Australia and Western Australia (table 4.12). While increases in usage have been noted in Victoria, Queensland and Western Australia between 1994 and 2002, a sharp decline was noted in areas of New South Wales, South Australia, Tasmania and the Northern Territory. Suds saver usage in the Australian Capital Territory has remained constant.

The type of water (cold, warm or hot) used by households is outlined in table 4.13. Generally, households in Australia prefer to use cold water in washing machines. In the recent survey, two-thirds of the respondents (68%) had reported they usually use cold water in washing machines while only one-fifth (22%) used warm water. Only 3% of the respondents stated that they had used hot water in washing machines while 7% had used varying temperatures. Warm water was used most in Victoria and Western Australia (28% and 27% respectively) while washing with hot water was highest in South Australia (6%).

Cold water usage in washing machines is gradually becoming a habit in Australia as can be seen in graph 4.11. Between 1994 and 2002, about 7% of households had shifted from using warm or hot water, or varied temperatures in washing machines to using cold water. In South Australia, a change of around 14% in preference of cold water usage was reported and about 11% in Victoria.

Washing machines continued

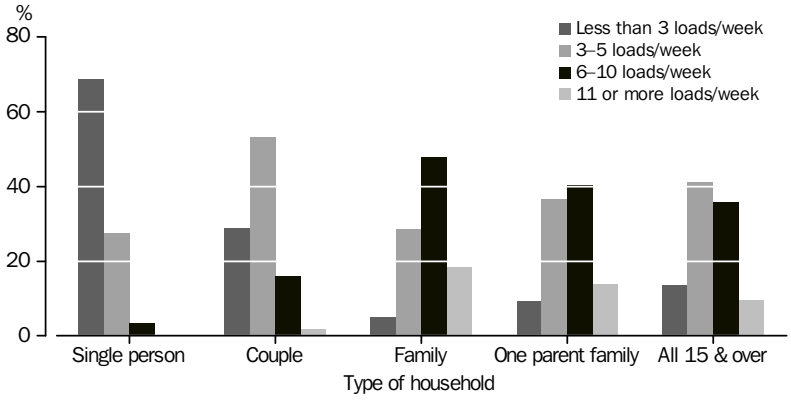
G4.11 WASHING MACHINES, Use of cold water —1994, 1999 and 2002



In terms of loading, most households in Australia (38%) averaged 3 – 5 washing machine loads per week . About 28% of households loaded less than 3 times per week, 26% loaded 6 – 10 times a week and about 8% used the machine for 11 or more loads per week.

Households comprised of parents and children (family) had used washing machines more frequently than any other type of household as shown in graph 4.12 and table 4.14. About 48% of family households had used the machine at 6 loads or more per week and a further 18% had used it at 11 loads or more per week. The same trend applied with single parent family households where 40% had averaged 6 – 10 loads per week and further 14% had averaged 11 loads or more per week. More conservative users of washing machines were single person households, the majority of which (69%) had less than 3 loads per week on average. Households comprised of a couple only were most likely to do 3 – 5 loads per week average.

G4.12 USE OF WASHING MACHINES, By household type—2002



Clothes dryer

Over half of the dwellings in Australia have clothes dryers but one-third of them claimed that their usage relied heavily on the type of weather or season. Another third reported that they had used the clothes dryer very rarely or on an occasional basis only. Graph 4.13 shows the frequency of use of clothes dryers.

Clothes dryer continued

G4.13 CLOTHES DRYER, Frequency of use—1994, 1999 and 2002

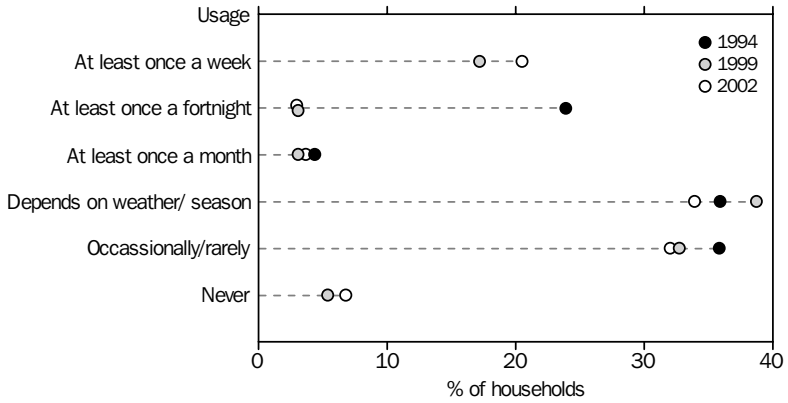


Table 4.15 shows that the Australian Capital Territory and New South Wales recorded the highest proportion of dwellings with a clothes dryer (61% and 60% respectively), the Northern Territory the least (37%). In terms of usage, around 20% of the respondents reported that they used their dryers at least once a week and this was highest in New South Wales (23%). Around 7% claimed they had never used their clothes dryer at all.

Airconditioners

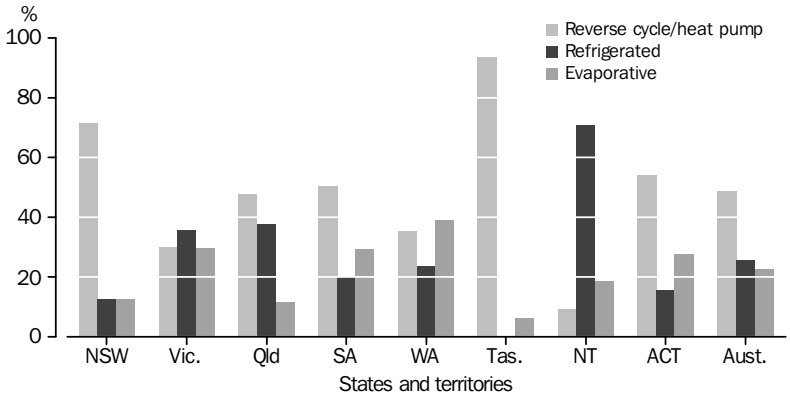
Close to half of Australian dwellings had an airconditioner in 2002, a 16% rise from the 1994 survey (table 4.16). The demand for air conditioners was most felt in the warmer state of the Northern Territory where almost 89% of the dwellings had an airconditioner, a 13% rise from 1994. Other significant increases were noted in Western Australia and Queensland (24% and 21%, respectively since 1994). In Tasmania only 10% dwellings had an airconditioner and this percentage had risen by almost 8% from 1994.

The majority of households with air conditioners in Australia, except Northern Territory, had one unit in their dwellings. In the Northern Territory, nearly two-thirds of the households (62%) with air conditioners reported that they had two or more units in their dwelling, half of which had three or more units.

Graph 4.14 and table 4.17 describe the main types of air conditioners dominant across Australia. Generally, reverse cycle was the most dominant type of airconditioner; used by nearly one-quarter (24%) of the nation's dwellings and in half of those dwellings which had an airconditioner. It has been the most extensive type in use by almost all of Tasmania, about 71% of dwellings in New South Wales and close to half of dwellings in Queensland, South Australia and the Australian Capital Territory. The majority of households in dwellings using reverse cycle air conditioners for heating also stated that they used the same as their main airconditioner (table 4.18).

Airconditioners continued

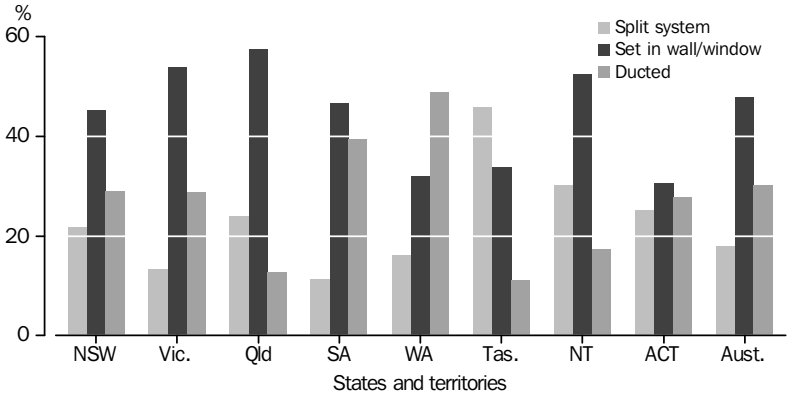
G4.14 AIRCONDITIONERS IN DWELLINGS, Main type—2002



In the Northern Territory and Victoria, however, the most dominant type was the refrigerated unit (71% and 36% of dwellings which had an airconditioner, respectively). The evaporative type was most prevalent in Western Australia.

Graph 4.15 and table 4.19 provide an overview of where air conditioners are located in dwellings across Australia. Nearly half of dwellings with air conditioners in Australia reported that they were mounted through the external walls or windows of dwellings, 30% ducted, and about 18% reported the split system (fixed units with separate indoor and outdoor sections). In Western Australia, most of the cooling systems were either ducted (50%) or set in the walls (32%). In Tasmania, however, most air conditioners were of the split type. The Australian Capital Territory recorded the highest proportion of households using portable air conditioners in 2002.

G4.15 AIRCONDITIONERS, Where located—2002



Heaters

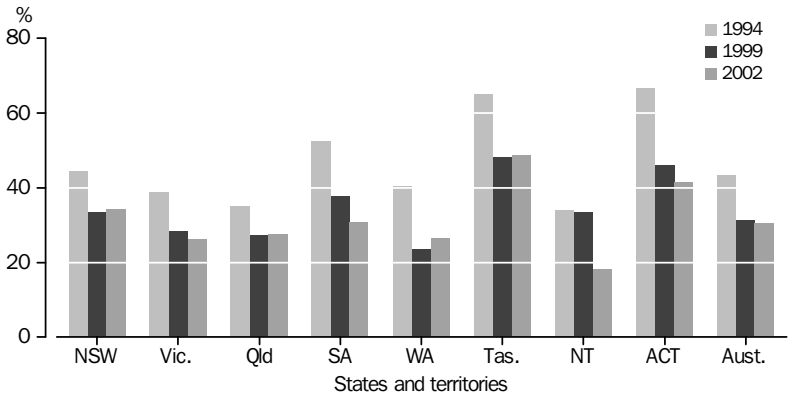
Eight in ten dwellings across Australia had some form of heater in 2002. In the Australian Capital Territory, Victoria, Tasmania and South Australia, heaters were a standard appliance in a dwelling, and almost non-existent in the Northern Territory (table 4.20).

Of those dwellings with heaters, almost one-third of them have more than one heater in their homes. Graph 4.16 and table 4.20 show a decrease in proportion of households having used more than one heater in their dwelling. This decline is most pronounced in the Australian Capital Territory and South Australia where a significant drop of 25% and 22% respectively was noted between 1994 and 2002. In the Northern Territory, where

Heaters continued

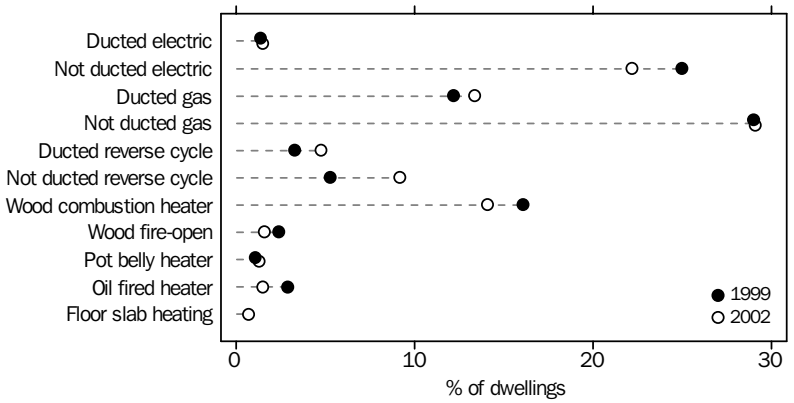
households are least likely to have two or more heaters, this percentage declined from 34% to 18%.

G4.16 HOUSEHOLDS WITH TWO OR MORE HEATERS —1994,1999 AND 2002



As in 1999, not ducted gas, not ducted electric and wood combustion heaters were the three most prominent types of heaters in Australia, though there was a notable decline in percentages for the latter two types between 1999 and 2002 (graph 4.17 and table 4.21). The survey revealed that more households chose reverse cycle type heaters with their percentage increasing by 4% for the not ducted type and almost 2% for the ducted over the period 1999 to 2002.

G4.17 HEATERS, Main type—1999 and 2002

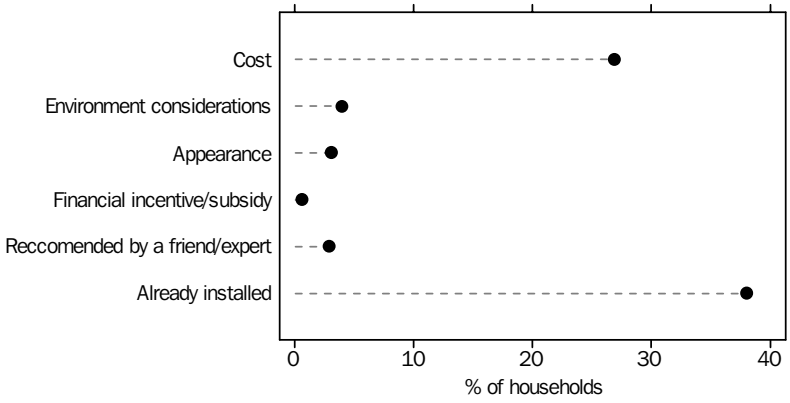


Across states, however, various preferences on the choice of main heaters were reported as can be seen in table 4.21. In Western Australia, Victoria, South Australia and the Northern Territory the most dominant type of heaters in households were the not ducted gas type heater while in New South Wales and Queensland the not ducted electric type was most widely used. Wood combustion heaters were rated highest in Tasmania (56%) while reverse cycle type of heaters were used most in South Australia (19%). Ducted gas type heaters, on the other hand, were in use most in Victoria and were also the main type of heaters in the Australian Capital Territory.

Heaters continued

Graph 4.18 outlines the main reasons considered in choosing the type of heater. Around 38% of the respondents claimed they never had the chance to choose their heaters as they were already installed prior to their occupation of the dwelling. For households responsible for choosing/installing the type of heater in dwellings, cost was the main reason. Environmental considerations were hardly a factor in choosing the type of heaters (4%).

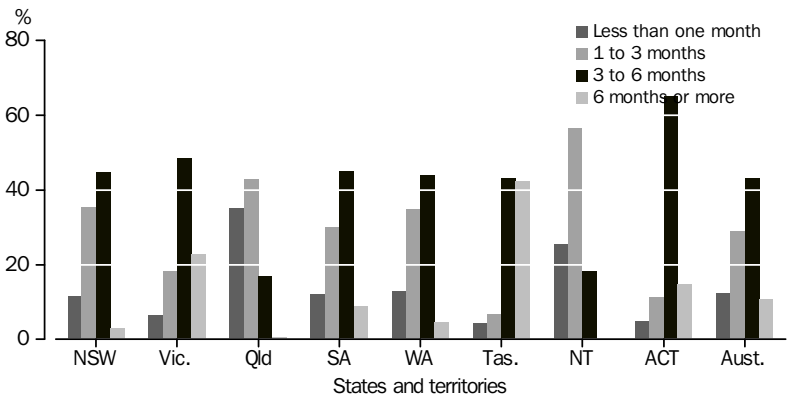
G4.18 HEATERS, Factors considered in choosing—2002



As can be seen in table 4.22, the proportion of households who considered 'environment' in choosing the type of heater was highest in Tasmania, although this factor was still rated very low at 9%. In the Australian Capital Territory, the advice of a friend or expert was given more emphasis than considering the environmental aspect of the heater while in Queensland, appearance of heater was more considered than the environment. In the Northern Territory, environmental considerations were never a factor at all in choosing.

The frequency of use of heaters is relatively dependent on the prevailing climate. Graph 4.19 and table 4.23 indicate that households in states with cool and temperate climates like Tasmania, Victoria and the Australian Capital Territory were most likely to have used heaters more frequently than in the warmer states such as Northern Territory and Queensland.

G4.19 HEATERS, Number of months used—2002



Most households in Australia had used their heaters for about 3 to 6 months in the last year. Many households in Tasmania (42%), Victoria (23%) and the Australian Capital Territory (15%), however, had extended the use of heaters beyond 6 months. In the Northern Territory and Queensland, the majority of households used heaters for 3 months or less. The majority of households (63%) who heat their homes with reverse cycle air conditioners had used this type of heater for 3 months or less as can be seen in table 4.24.

4.1 WHITE GOODS IN DWELLINGS

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
MARCH 2002									
Number ('000)									
Refrigerator	2 466.7	1 834.3	1 429.8	612.2	753.6	189.5	54.7	123.3	7 464.0
Washing machine	2 333.5	1 748.0	1 369.6	585.4	722.0	184.8	51.9	119.6	7 114.9
Clothes dryer	1 493.2	1 013.0	753.0	315.7	364.7	104.1	20.0	75.8	4 139.5
Separate freezer	890.2	664.6	558.9	267.2	289.2	113.2	20.7	34.8	2 838.9
Airconditioner	1 074.7	972.4	551.1	487.9	444.4	19.5	48.8	35.7	3 634.6
Dishwasher	917.6	779.3	433.6	141.0	201.1	49.3	14.2	57.8	2 594.0
Total dwellings(b)	*2 472.1*	*1 837.4*	*1 429.8*	*612.8*	*753.6*	*190.0*	*54.7*	*123.5*	*7 473.7*
Proportion (%)									
Refrigerator	99.8	99.8	100.0	99.9	100.0	99.8	100.0	99.8	99.9
Washing machine	94.4	95.1	95.8	95.5	95.8	97.3	94.9	96.9	95.2
Clothes dryer	60.4	55.1	52.7	51.5	48.4	54.8	36.6	61.4	55.4
Separate freezer	36.0	36.2	39.1	43.6	38.4	59.6	37.9	28.2	38.0
Airconditioner	43.5	52.9	38.5	79.6	59.0	10.3	89.3	28.9	48.6
Dishwasher	37.1	42.4	30.3	23.0	26.7	25.9	25.9	46.8	34.7
MARCH 1999									
Proportion (%)									
Refrigerator	99.6	99.8	99.7	99.9	99.7	99.4	100.0	99.8	99.7
Washing machine	93.7	95.3	95.9	94.7	93.8	97.2	95.0	95.7	94.7
Clothes dryer	55.6	54.9	52.5	48.4	45.1	56.1	32.7	56.2	53.0
Separate freezer	38.2	39.6	40.9	42.8	39.4	61.7	41.5	33.5	40.1
Airconditioner	27.6	43.5	24.8	54.3	45.4	2.5	83.6	19.9	34.7
Dishwasher	31.2	37.4	28.6	20.2	20.0	24.1	20.0	46.0	30.1
JUNE 1994									
Proportion (%)									
Refrigerator	99.6	99.9	99.7	99.6	99.6	99.7	100.0	99.9	99.7
Washing machine	92.6	95.0	95.0	94.5	94.6	97.2	88.0	96.8	94.2
Clothes dryer	52.7	57.3	49.4	49.1	41.4	54.6	23.3	54.2	51.7
Separate freezer	41.7	45.4	45.4	47.6	47.1	63.8	47.1	41.0	44.9
Airconditioner	30.8	36.9	17.6	61.5	35.5	2.4	76.4	16.7	32.5
Dishwasher	24.5	31.9	24.7	18.6	16.6	19.4	14.5	38.0	25.1

(a) Northern Territory data refers to mainly urban areas only.

(b) Totals do not equal the sum of items in each column as more than one appliance may be specified.

4.2 DWELLINGS IN WHICH HOUSEHOLDS BOUGHT/REPLACED WHITE GOODS(a)

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(b)	*ACT*	*Aust.*
				MARCH 2002					
Number ('000)									
Refrigerator	231.9	159.7	165.2	50.9	65.0	17.0	6.9	11.6	708.3
Separate freezer	38.9	25.2	30.1	14.8	12.7	5.2	*1.3	*1.6	129.8
Dishwasher	69.9	63.5	43.1	11.6	21.6	4.8	*0.9	5.1	220.6
Heater	90.8	35.4	42.3	15.6	22.6	9.3	—	*3.8	219.8
Washing machine	213.7	156.0	150.1	63.8	79.3	14.6	5.9	11.6	695.0
Clothes dryer	80.9	53.1	35.3	14.3	20.7	*3.4	*0.2	*2.5	210.4
None of the above	1 925.1	1 452.9	1 065.4	474.0	586.3	147.8	42.4	93.8	5 787.6
Total dwellings	*2 472.1*	*1 837.4*	*1 429.8*	*612.8*	*753.6*	*190.0*	*54.7*	*123.5*	*7 473.7*
Proportion (%)									
Refrigerator	9.4	8.7	11.6	8.3	8.6	9.0	12.7	9.4	9.5
Separate freezer	1.6	1.4	2.1	2.4	1.7	2.7	*2.4	*1.3	1.7
Dishwasher	2.8	3.5	3.0	1.9	2.9	2.6	*1.6	4.1	3.0
Heater	3.7	1.9	3.0	2.6	3.0	4.9	—	*3.1	2.9
Washing machine	8.6	8.5	10.5	10.4	10.5	7.7	10.8	9.4	9.3
Clothes dryer	3.3	2.9	2.5	2.3	2.7	*1.8	*0.4	*2.0	2.8
None of the above	77.9	79.1	74.5	77.3	77.8	77.8	77.6	76.0	77.4
				MARCH 1999					
Proportion (%)									
Refrigerator	6.3	5.7	6.8	6.3	7.3	5.2	12.5	8.9	6.4
Separate freezer	0.6	1.0	1.2	0.9	1.4	1.6	1.2	0.6	1.0
Dishwasher	1.6	1.6	1.3	0.9	1.2	0.5	0.7	1.9	1.4
Heater	6.0	4.9	3.3	5.5	6.4	7.5	0.8	7.6	5.2
Washing machine	5.0	5.1	5.6	5.1	4.9	6.3	2.3	4.6	5.2
None of the above	76.6	77.3	77.5	77.1	73.7	78.5	67.0	72.5	76.6

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) 12 months prior to the conduct of the survey.

(b) Northern Territory data refers to mainly urban only.

4.3 WHITE GOODS—Factors considered in replacing and buying

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
MARCH 2002									
Number ('000)									
Cost	253.1	192.3	168.9	64.8	75.4	17.6	6.9	13.4	792.5
Features	105.2	98.2	98.2	42.9	42.0	11.0	*3.0	9.4	410.0
Energy	195.8	167.5	137.6	55.5	53.9	13.4	5.7	12.0	641.5
Brand	111.6	86.0	81.3	24.5	28.2	5.8	3.1	5.8	346.4
Appearance	51.0	45.7	23.3	10.9	17.0	4.4	*1.9	*2.8	157.0
Environment	38.0	26.0	22.4	11.5	11.2	4.3	*0.3	*1.9	115.7
Reliability	72.7	87.8	60.0	20.9	19.7	5.6	*3.6	4.9	275.2
Serviceability	43.1	40.2	23.8	10.5	8.1	*3.1	*0.8	*1.9	131.4
Availability	25.5	23.3	16.8	6.6	6.1	*3.4	*1.4	*0.9	84.0
Dimensions	141.6	112.0	75.3	24.6	29.7	8.5	*1.7	7.8	401.2
Capacity	133.2	113.2	118.3	45.0	46.2	10.3	*4.0	7.9	478.1
Other	55.7	39.9	36.0	13.4	21.5	4.4	*0.4	*2.4	173.7
None	11.7	*4.7	*6.7	*2.4	*4.3	*1.6	—	*0.6	31.9
Not known	*7.2	3.3	*2.1	*2.6	*1.1	*0.4	—	*0.2	16.9
Total dwellings in which households bought/replaced white goods(b)	*507.7*	*367.6*	*352.6*	*136.0*	*160.5*	*40.1*	*10.5*	*28.1*	*1 603.1*
Proportion (%)									
Cost	49.9	52.3	47.9	47.6	47.0	43.9	65.7	47.7	49.4
Features	20.7	26.7	27.9	31.5	26.2	27.4	*28.6	33.5	25.6
Energy	38.6	45.6	39.0	40.8	33.6	33.4	54.3	42.7	40.0
Brand	22.0	23.4	23.1	18.0	17.6	14.5	29.5	20.6	21.6
Appearance	10.0	12.4	6.6	8.0	10.6	11.0	*18.1	*10.0	9.8
Environment	7.5	7.1	6.4	8.5	7.0	10.7	*2.9	*6.8	7.2
Reliability	14.3	23.9	17.0	15.4	12.3	14.0	34.3	17.4	17.2
Serviceability	8.5	10.9	6.7	7.7	5.0	*7.7	*7.6	*6.8	8.2
Availability	5.0	6.3	4.8	4.9	3.8	*8.5	*13.3	3.2	5.2
Dimensions	27.9	30.5	21.4	18.1	18.5	21.2	*16.2	27.8	25.0
Capacity	26.2	30.8	33.6	33.1	28.8	25.7	*38.1	28.1	29.8
Other	11.0	10.9	10.2	9.9	13.4	11.0	*3.8	*8.5	10.8
None	2.3	*1.3	*1.9	*1.8	*2.7	*4.0	—	*2.1	2.0
Not known	*1.4	*0.9	*0.6	*1.9	*0.7	*1.0	—	*0.7	1.1
MARCH 1999									
Proportion (%)									
Cost	52.3	46.6	51.0	43.5	46.9	45.3	50.8	51.3	49.2
Features	25.3	25.6	28.6	24.3	22.2	31.9	20.0	34.2	25.8
Energy	32.9	32.0	36.1	34.4	32.3	25.1	45.5	49.0	33.6
Brand	20.2	18.0	21.6	15.6	17.2	15.5	18.1	18.4	19.1
Appearance	7.5	10.9	6.7	5.0	6.4	10.8	11.5	7.1	7.9
Environment	8.1	5.4	8.4	8.3	8.5	7.0	4.7	8.9	7.6
Reliability	16.6	20.0	17.0	13.0	14.6	20.0	12.9	17.3	17.0
Serviceability	9.1	8.6	8.7	8.0	5.1	9.8	5.5	4.0	8.3
Availability	4.9	3.5	5.7	3.6	5.1	4.3	5.8	2.1	4.6
Dimensions	23.0	20.8	19.9	16.3	19.1	23.0	26.4	15.8	20.8
Capacity	23.9	23.6	25.3	15.4	27.0	25.6	33.4	24.0	23.9
Other	9.6	11.5	9.8	10.9	10.1	14.4	8.3	13.5	10.4
None	2.5	3.1	2.7	2.7	3.6	3.6	2.2	0.7	2.8
Not known	4.8	4.8	2.0	7.8	6.3	1.4	6.8	1.4	4.6

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

(b) Totals do not equal the sum of items in each column as more than one factor may be specified.

4.3 WHITE GOODS—Factors considered in replacing and buying *continued*

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
	JUNE 1994								
Proportion (%)									
Cost	51.7	44.8	53.6	49.3	46.8	47.7	56.9	53.6	49.7
Features	39.1	41.3	45.5	43.3	39.2	42.0	42.1	50.4	41.5
Energy	39.2	37.7	31.3	37.7	32.6	35.7	27.2	47.2	36.5
Brand	19.7	18.1	20.5	16.9	13.9	16.4	13.2	16.3	18.4
Appearance	10.0	9.4	5.4	8.7	6.0	11.8	10.9	7.6	8.5
Other	23.2	23.3	18.4	20.3	27.6	19.2	23.9	23.1	22.4

(a) Northern Territory data refers to mainly urban areas only.

4.4 NON-WHITE GOODS IN DWELLINGS

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
					MARCH 2002				
Number ('000)									
Ceiling fan	927.7	701.7	837.8	298.1	337.6	57.2	47.6	29.4	3 237.1
Television	2 454.8	1 825.2	1 413.3	609.0	748.7	189.5	53.2	122.4	7 416.1
Video recorder	2 197.3	1 655.6	1 251.1	544.9	677.2	168.7	45.6	116.0	6 656.4
Vacuum cleaner	2 356.3	1 780.5	1 341.0	585.1	718.3	185.5	46.9	121.5	7 135.0
Microwave	2 193.1	1 591.3	1 233.8	523.7	658.4	161.5	45.5	113.6	6 521.0
Stereo system	2 007.3	1 461.5	1 160.9	488.1	632.5	152.9	45.9	108.7	6 057.8
Portable fan	1 660.7	1 140.1	1 090.8	373.2	483.0	101.1	29.0	89.8	4 967.8
Computer	1 484.4	1 116.5	832.3	354.1	458.1	98.3	31.5	90.5	4 465.7
None of the above	*2.3	*0.6	*2.9	*0.4	—	—	—	—	*6.1
Total dwellings(b)	*2 472.1*	*1 837.4*	*1 429.8*	*612.8*	*753.6*	*190.0*	*54.7*	*123.5*	*7 473.7*
Proportion (%)									
Ceiling fan	37.5	38.2	58.6	48.6	44.8	30.1	87.0	23.8	43.3
Television	99.3	99.3	98.9	99.4	99.4	99.8	97.2	99.1	99.2
Video recorder	88.9	90.1	87.5	88.9	89.9	88.8	83.5	93.9	89.1
Vacuum cleaner	95.3	96.9	93.8	95.5	95.3	97.6	85.7	98.4	95.5
Microwave	88.7	86.6	86.3	85.5	87.4	85.0	83.2	92.0	87.3
Stereo system	81.2	79.5	81.2	79.7	83.9	80.5	83.8	88.0	81.1
Portable fan	67.2	62.1	76.3	60.9	64.1	53.2	53.1	72.7	66.5
Computer	60.0	60.8	58.2	57.8	60.8	51.7	57.5	73.3	59.8
None of the above	*0.1	*—	*0.2	*0.1	—	—	—	—	*0.1
					MARCH 1999				
Proportion (%)									
Ceiling fan	34.7	34.7	57.2	45.3	41.8	23.8	91.3	22.6	40.4
Television	98.9	99.2	98.6	99.6	98.1	98.9	96.9	98.5	98.9
Video recorder	86.9	87.2	85.7	86.6	87.8	85.5	89.6	88.7	86.8
Vacuum cleaner	95.4	96.7	93.4	95.1	94.5	96.4	89.1	95.9	95.2
Microwave	84.6	82.2	81.7	81.1	83.1	80.7	79.9	86.6	82.9
Stereo system	77.9	76.9	78.1	75.5	80.2	77.1	86.2	85.9	77.9
Portable fan	69.7	69.3	78.8	67.4	71.5	50.9	54.2	73.2	70.7
Computer	44.1	46.6	43.3	42.9	46.5	34.5	45.3	61.9	44.8
None of the above	0.1	0.1	0.1	—	—	—	—	—	0.1

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

(b) Totals do not equal the sum of items in each column as more than one item may be specified.

4.5 REFRIGERATORS—Numbers in use

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
MARCH 2002									
Number ('000)									
One	1 759.6	1 360.3	946.6	421.5	497.4	150.3	31.1	93.0	5 259.8
Two	632.9	440.0	432.0	169.7	224.6	36.8	21.4	26.2	1 983.6
Three or more	74.2	34.1	51.1	21.0	31.6	*2.5	*2.1	*4.0	220.7
None	*5.4	*3.0	—	*0.6	—	*0.4	—	*0.2	*9.7
Total dwellings	*2 472.1*	*1 837.4*	*1 429.8*	*612.8*	*753.6*	*190.0*	*54.7*	*123.5*	*7 473.7*
Proportion (%)									
One	71.2	74.0	66.2	68.8	66.0	79.1	56.9	75.3	70.4
Two	25.6	23.9	30.2	27.7	29.8	19.4	39.2	21.2	26.5
Three or more	3.0	1.9	3.6	3.4	4.2	*1.3	*3.9	*3.3	*3.0
None	*0.2	*0.2	—	*0.1	—	*0.2	—	*0.2	0.1
MARCH 1999									
Proportion (%)									
One	71.0	75.3	63.7	72.7	69.4	79.0	66.2	71.7	70.8
Two	25.5	22.6	32.5	24.6	27.1	18.7	27.4	26.4	26.0
Three or more	3.0	2.0	3.5	2.6	3.2	1.7	6.4	1.7	2.8
None	0.4	0.2	0.3	0.1	0.3	0.6	—	0.2	0.3
JUNE 1994									
Proportion (%)									
One	77.1	79.0	68.4	76.7	73.8	82.3	67.7	79.5	75.8
Two	20.4	19.1	29.1	21.2	23.4	16.3	31.0	19.3	21.9
Three or more	2.1	1.9	2.2	1.7	2.4	1.0	1.3	1.1	2.0
None	0.4	0.1	0.3	0.4	0.4	0.3	—	0.1	0.3

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

4.6 DWELLINGS WITH REFRIGERATORS—Age of main refrigerator

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
					MARCH 2002				
Number ('000)									
Less than 1 year	199.8	136.1	141.2	39.3	54.0	12.3	5.6	9.7	597.9
1 to less than 5 years	811.6	514.9	471.4	161.6	215.8	53.0	21.6	36.1	2 286.0
5 to less than 10 years	645.3	441.4	370.0	153.8	207.9	51.9	15.4	31.9	1 917.6
10 or more years	774.3	715.8	420.8	250.7	261.4	63.9	9.9	43.6	2 540.4
Don't know	35.6	26.3	26.4	6.8	14.4	8.3	*2.2	*2.0	122.1
Total dwellings with refrigerators	*2 466.7*	*1 834.3*	*1 429.8*	*612.2*	*753.6*	*189.5*	*54.7*	*123.3*	*7 464.0*
Proportion (%)									
Less than 1 year	8.1	7.4	9.9	6.4	7.2	6.5	10.2	7.8	8.0
1 to less than 5 years	32.9	28.1	33.0	26.4	28.6	28.0	39.4	29.3	30.6
5 to less than 10 years	26.2	24.1	25.9	25.1	27.6	27.4	28.1	25.9	25.7
10 or more years	31.4	39.0	29.4	40.9	34.7	33.7	18.2	35.4	34.0
Don't know	1.4	1.4	1.8	1.1	1.9	4.4	*4.0	*1.6	1.6
					MARCH 1999				
Proportion (%)									
Less than 1 year	7.0	5.2	7.1	6.0	8.2	5.1	18.1	8.7	6.7
1 to less than 5 years	27.5	22.6	30.0	21.8	27.4	24.1	39.4	23.0	26.2
5 to less than 10 years	25.1	23.4	28.2	22.0	25.9	27.5	24.1	24.0	25.1
10 or more years	38.0	46.9	32.7	47.4	36.6	39.7	17.1	41.9	39.8
Don't know	2.5	1.9	2.1	2.8	2.0	3.6	1.3	2.3	2.3
					JUNE 1994				
Proportion (%)									
Less than 1 year	7.1	6.4	7.2	5.4	6.9	7.2	8.4	9.1	6.8
1 to less than 5 years	27.3	23.8	28.8	23.5	26.8	24.7	36.8	23.0	26.2
5 to less than 10 years	30.2	27.1	30.6	27.0	33.4	30.4	31.9	30.0	29.5
10 or more years	34.2	42.0	31.3	43.0	30.6	36.3	20.1	36.3	36.1
Don't know	1.2	0.7	2.0	1.1	2.3	1.4	2.8	1.5	1.4

* estimate has a relative standard error greater than 25% and should be used with caution

(a) Northern Territory data refers to mainly urban areas only.

4.7 DWELLINGS WITH TWO OR MORE REFRIGERATORS(a)—Age of second refrigerator

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(b)	*ACT*	*Aust.*
	MARCH 2002								
Number ('000)									
1 year to less than 5 years	106.9	62.1	93.2	21.4	47.5	5.4	*4.3	4.9	345.8
5 years to less than 10 years	143.8	77.6	113.7	30.0	54.9	8.3	*5.1	5.3	438.8
10 years or more	440.1	322.4	262.5	134.8	147.9	23.8	12.6	19.4	1 363.5
Not known	16.3	12.0	13.7	*4.4	5.8	*1.7	*1.7	*0.6	56.1
Total dwellings with two or more refrigerators	*707.0*	*474.1*	*483.1*	*190.7*	*256.2*	*39.3*	*23.6*	*30.3*	*2 204.3*
Proportion (%)									
1 year to less than 5 years	15.1	13.1	19.3	11.2	18.6	13.8	*18.1	16.3	15.7
5 years to less than 10 years	20.3	16.4	23.5	15.8	21.4	21.2	*21.4	17.5	19.9
10 years or more	62.2	68.0	54.3	70.7	57.7	60.7	53.3	64.2	61.9
Not known	2.3	2.5	2.8	*2.3	2.3	*4.3	*7.1	*1.9	2.5

* estimate has a relative standard error greater than 25% and should be used with caution

(a) These were the respondents who indicated they have two or more refrigerators in table 4.5.

(b) Northern Territory data refers to mainly urban areas only.

4.8 SEPARATE FREEZERS(a)—Numbers in use

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(b)	*ACT*	*Aust.*
MARCH 2002									
Number ('000)									
One	836.5	630.1	504.9	241.1	267.7	101.5	19.1	33.8	2 634.6
Two	49.5	30.7	48.5	24.2	18.8	10.1	*1.6	*0.9	184.4
Three or more	*4.3	*3.9	*5.5	*1.9	*2.7	*1.6	—	—	20.0
None	1 581.8	1 172.8	870.8	345.6	464.3	76.8	34.0	88.7	4 634.7
Total dwellings	*2 472.1*	*1 837.4*	*1 429.8*	*612.8*	*753.6*	*190.0*	*54.7*	*123.5*	*7 473.7*
Proportion (%)									
One	33.8	34.3	35.3	39.3	35.5	53.4	34.9	27.4	35.3
Two	2.0	1.7	3.4	3.9	2.5	5.3	*3.0	*0.8	2.5
Three or more	*0.2	*0.2	*0.4	*0.3	*0.4	*0.9	—	—	0.3
None	64.0	63.8	60.9	56.4	61.6	40.4	62.1	71.8	62.0
MARCH 1999									
Proportion (%)									
One	35.5	36.7	36.6	38.4	36.1	54.1	39.6	32.5	36.8
Two	2.4	2.8	4.2	4.0	3.0	7.2	1.5	0.7	3.1
Three or more	0.3	0.1	0.2	0.4	0.3	0.4	0.4	0.3	0.2
None	61.8	60.4	59.1	57.2	60.6	38.3	58.5	66.5	59.9
JUNE 1994									
Proportion (%)									
One	38.7	41.8	41.2	43.1	43.0	54.8	41.2	39.4	41.2
Two	2.6	3.2	3.7	3.9	3.9	8.0	5.5	1.6	3.4
Three or more	0.3	0.3	0.5	0.6	0.1	1.0	0.4	—	0.4
None	58.3	54.6	54.6	52.4	52.9	36.2	52.9	59.0	55.1

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) This excludes the freezer compartments of refrigerators reported in table 4.5.

(b) Northern Territory data refers to mainly urban areas only.

4.9 DISHWASHERS, Presence—by household type

	One person	*Couple only*	*Couple, dependent child(ren)*	*One parent, dependent child(ren)*	*Households with members aged 15 years and over*	*All other households*	*All dwellings*
MARCH 2002							
Number ('000)							
With	292.8	754.7	761.0	84.8	478.8	221.9	2 594.0
Without	1 539.3	1 079.8	834.0	314.1	592.2	520.2	4 879.7
Total dweliings	*1 832.1*	*1 834.5*	*1 595.0*	*398.9*	*1 071.0*	*742.1*	*7 473.7*
Proportion (%)							
With	16.0	41.1	47.7	21.3	44.7	29.9	34.7
Without	84.0	58.9	52.3	78.7	55.3	70.1	65.3
MARCH 1999							
Proportion (%)							
With	12.5	35.8	16.2	23.5	42.2	41.6	30.1
Without	87.5	64.2	83.8	76.5	57.8	58.4	69.9
JUNE 1994							
Proportion (%)							
With	9.9	24.9	36.9	15.7	34.5	18.9	25.1
Without	90.1	75.1	63.1	84.3	65.5	81.1	74.9

4.10 DWELLINGS WITH DISHWASHERS—Frequency of use

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
MARCH 2002									
Number ('000)									
Daily	337.2	270.4	182.5	42.5	65.4	22.1	6.7	26.3	953.0
At least once a week	359.3	319.3	146.7	67.4	84.6	16.8	*3.1	21.6	1 018.9
At least once a month	48.7	40.6	23.5	*4.9	10.7	*1.7	*0.4	*1.9	132.4
Occasionally/rarely	92.1	79.6	47.7	14.7	20.9	4.9	*2.7	*3.8	266.2
Never	80.3	69.3	33.3	11.6	19.6	*3.8	*1.3	4.3	223.5
Total dwellings with dishwasher	*917.6*	*779.3*	*433.6*	*141.0*	*201.1*	*49.3*	*14.2*	*57.8*	*2 594.0*
Proportion (%)									
Daily	36.7	34.7	42.1	30.2	32.5	44.8	47.1	45.4	36.7
At least once a week	39.2	41.0	33.8	47.8	42.0	34.2	*22.0	37.4	39.3
At least once a month	5.3	5.2	5.4	*3.5	5.3	*3.5	*2.5	*3.2	5.1
Occasionally/rarely	10.0	10.2	11.0	10.4	10.4	9.9	*18.9	*6.6	10.3
Never	8.8	8.9	7.7	8.2	9.7	*7.8	*9.5	7.4	8.6
% dwellings with dishwasher	*37.1*	*42.4*	*30.3*	*23.0*	*26.7*	*25.9*	*25.9*	*46.8*	*34.7*
MARCH 1999									
Proportion (%)									
Daily	35.4	31.0	44.8	30.7	32.8	36.0	46.6	38.6	35.4
At least once a week	40.1	41.6	34.6	45.8	39.2	40.5	38.3	43.6	39.9
At least once a month	5.3	6.3	3.6	4.1	6.9	3.5	3.6	4.7	5.3
Occasionally/rarely	10.9	10.6	8.9	10.6	10.3	10.8	2.0	8.1	10.3
Never	8.3	10.5	8.1	8.8	10.8	9.3	9.5	5.0	9.1
% dwellings with dishwasher	*31.2*	*37.4*	*28.6*	*20.2*	*20.0*	*24.1*	*20.0*	*46.0*	*30.1*
JUNE 1994									
Proportion (%)									
Daily	30.0	33.2	36.9	25.8	25.4	38.8	38.9	30.6	31.9
At least once a week	44.1	42.8	35.5	42.2	42.2	34.4	30.0	50.0	41.8
At least once a month	4.3	5.5	5.6	5.3	5.0	4.1	2.4	5.7	5.1
Occasionally/rarely	21.6	18.4	22.0	26.7	27.4	22.8	28.6	13.7	21.2
% dwellings with dishwasher	*24.5*	*31.9*	*24.7*	*18.6*	*16.6*	*19.4*	*14.5*	*38.0*	*25.1*

* estimate has a relative standard error greater than 25% and should be used with caution

(a) Northern Territory data refers to mainly urban areas only.

4.11 WASHING MACHINES—Main type

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
				MARCH 2002					
Number ('000)									
Automatic									
Top loading									
With suds saver	761.7	502.8	467.2	223.0	225.1	56.3	16.2	45.6	2 297.8
Without suds saver	958.0	791.6	588.4	189.9	319.3	85.7	28.4	48.6	3 009.8
Don't know	326.6	226.6	150.8	38.9	79.6	17.2	5.4	10.8	856.0
Total	2 046.3	1 520.9	1 206.4	451.8	624.0	159.2	50.0	105.0	6 163.7
Front loading									
With suds saver	46.6	51.8	11.9	13.2	10.8	*2.3	*0.2	*1.6	138.5
Without suds saver	107.5	89.3	64.3	44.6	43.4	5.4	*0.8	8.6	363.9
Don't know	35.0	33.9	14.3	6.0	7.8	*1.6	*0.2	*2.4	101.3
Total	189.2	175.0	90.5	63.7	62.1	9.3	*1.2	12.6	603.6
Total automatic									
With suds saver	808.4	554.5	479.1	236.1	235.9	58.6	16.4	47.2	2 436.3
Without suds saver	1 065.5	880.9	652.7	234.5	362.7	91.1	29.2	57.2	3 373.7
Don't know	361.6	260.5	165.1	44.9	87.4	18.8	5.6	13.2	957.3
Total	2 235.5	1 695.9	1 297.0	515.6	686.1	168.4	51.3	117.6	6 767.3
Not automatic	98.0	52.1	72.7	69.9	35.9	16.4	0.6	2.0	347.6
Total dwellings with washing machines	*2 333.5*	*1 748.0*	*1 369.6*	*585.4*	*722.0*	*184.8*	*51.9*	*119.6*	*7 114.9*
Proportion (%)									
Automatic									
Top loading									
With suds saver	34.1	29.6	36.0	43.3	32.8	33.4	31.7	38.7	34.0
Without suds saver	42.9	46.7	45.4	36.8	46.5	50.9	55.4	41.3	44.5
Don't' know	14.6	13.4	11.6	7.6	11.6	10.2	10.5	9.2	12.6
% dwellings with top loading	*91.5*	*89.7*	*93.0*	*87.6*	*90.9*	*94.5*	*97.6*	*89.3*	*91.1*
Front loading									
With suds saver	2.1	3.1	0.9	2.6	1.6	*1.4	*0.4	*1.4	2.0
Without suds saver	4.8	5.3	5.0	8.7	6.3	3.2	*1.5	7.3	5.4
Don't know	1.6	2.0	1.1	1.2	1.1	*1.0	*0.5	*2.0	1.5
% dwellings with front loading	8.5	10.3	7.0	12.4	9.1	5.5	*2.4	10.7	8.9
Total automatic									
With suds saver	36.2	32.7	36.9	45.8	34.4	34.8	32.0	40.1	36.0
Without suds saver	47.7	51.9	50.3	45.5	52.9	54.1	57.0	48.6	49.9
Don't know	16.2	15.4	12.7	8.7	12.7	11.2	11.0	11.3	14.1
% dwellings with automatic washing machines	*95.8*	*97.0*	*94.7*	*88.1*	*95.0*	*91.1*	*98.8*	*98.3*	*95.1*
Not automatic									
% dwellings with not automatic washing machines	*4.2*	*3.0*	*5.3*	*11.9*	*5.0*	*8.9*	*1.2*	*1.7*	*4.9*

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

4.11 WASHING MACHINES—Main type *continued*

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
MARCH 1999									
Proportion (%)									
Automatic									
Top loading									
With suds saver	40.2	35.2	41.3	48.7	42.7	45.2	44.1	45.0	40.3
Without suds saver	40.7	44.4	41.8	33.1	40.7	42.0	44.7	36.2	41.3
Don't know	12.6	12.7	11.2	8.3	9.2	8.8	8.2	8.5	11.5
% dwellings with top loading	*88.5*	*88.6*	*87.1*	*75.0*	*85.1*	*85.8*	*95.0*	*88.6*	*86.8*
Front loading									
With suds saver	1.5	1.9	1.8	2.3	2.1	0.4	0.4	1.9	1.7
Without suds saver	3.5	4.4	3.4	6.3	4.2	2.8	2.7	7.4	4.0
Don't know	1.4	1.4	0.6	1.4	1.0	0.7	—	1.0	1.2
% dwellings with front loading	*6.1*	*7.4*	*5.3*	*8.3*	*6.7*	*3.6*	*2.8*	*10.1*	*6.5*
Total automatic									
With suds saver	41.7	37.1	43.1	51.0	44.8	45.6	44.5	46.9	42.0
Without suds saver	44.2	48.8	45.2	39.4	44.9	44.9	47.4	43.6	45.3
Don't know	14.0	14.1	11.8	9.7	10.3	9.5	8.2	9.5	12.7
% dwellings with automatic washing machines	*94.6*	*96.0*	*92.4*	*83.3*	*91.8*	*89.3*	*97.8*	*98.8*	*93.2*
Not automatic									
% dwellings with not automatic washing machines	*5.4*	*4.0*	*7.6*	*16.7*	*8.2*	*10.7*	*2.2*	*1.2*	*6.8*
JUNE 1994									
Proportion (%)									
Automatic									
Top loading									
With suds saver	47.7	41.9	49.7	58.2	46.0	51.1	47.4	49.5	47.3
Without suds saver	39.2	43.2	39.4	32.3	42.6	40.6	40.4	35.7	40.0
Don't know	6.9	9.1	6.6	3.3	6.1	4.6	6.7	5.1	7.0
% dwellings with top loading	*85.7*	*87.7*	*82.4*	*75.8*	*82.1*	*83.1*	*89.7*	*87.7*	*84.4*
Front loading									
With suds saver	1.6	1.5	1.1	1.2	1.2	0.5	1.8	2.2	1.4
Without suds saver	3.6	3.7	2.8	4.7	3.7	3.1	3.6	6.5	3.6
Don't know	1.0	0.6	0.4	0.3	0.4	0.2	—	0.9	0.7
% dwellings with front loading	*5.7*	*5.4*	*3.7*	*5.1*	*4.6*	*3.3*	*5.2*	*9.4*	*5.1*
Total automatic									
With suds saver	49.3	43.4	50.8	59.4	47.2	51.6	49.2	51.6	48.7
Without suds saver	42.8	46.8	42.2	37.0	46.3	43.7	44.0	42.2	43.6
Don't know	7.9	9.8	6.9	3.6	6.5	4.8	6.7	6.1	7.6
% dwellings with automatic washing machines	*91.4*	*93.1*	*86.1*	*80.9*	*86.7*	*86.3*	*94.8*	*97.1*	*89.5*
Not automatic									
% dwellings with not automatic washing machines	*8.6*	*6.9*	*13.9*	*19.1*	*13.3*	*13.7*	*5.2*	*2.9*	*10.5*

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

4.12 USE OF SUDS SAVER

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
MARCH 2002									
Number ('000)									
Suds saver used	301.6	210.2	145.8	98.3	96.9	15.2	*2.5	15.2	885.7
Suds saver not used	506.7	344.3	333.3	137.8	139.1	43.4	13.9	32.0	1 550.6
Total dwelling with suds saver in washing machines(b)	*808.4*	*554.5*	*479.1*	*236.1*	*235.9*	*58.6*	*16.4*	*47.2*	*2 436.3*
Proportion (%)									
Suds saver used	37.3	37.9	30.4	41.6	41.1	25.9	*15.1	32.2	36.4
Suds saver not used	62.7	62.1	69.6	58.4	58.9	74.1	84.9	67.8	63.6
MARCH 1999									
Proportion (%)									
Suds saver used	32.2	31.7	28.6	47.4	36.7	29.7	20.7	32.8	33.1
Suds saver not used	67.8	68.3	71.4	52.6	63.3	70.3	79.3	67.2	66.9
JUNE 1994									
Proportion (%)									
Suds saver used	40.1	27.4	30.2	49.5	38.5	31.5	30.6	32.2	35.7
Suds saver not used	59.9	72.6	69.8	50.5	61.5	68.5	69.4	67.8	64.3

* estimate has a relative standard error greater than 25% and should be used with caution

(a) Northern Territory data refers to mainly urban areas only.

(b) These were the respondents who indicated presence of suds saver in their washing machines in table 4.11.

4.13 DWELLINGS WITH WASHING MACHINES—Loads per week and water temperature

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
MARCH 2002									
Number ('000)									
Number of loads per week									
Less than 3 loads	665.3	499.2	342.3	188.2	225.9	49.6	12.3	34.7	2 017.4
3–5 loads	883.9	684.5	508.4	229.1	273.4	64.0	19.4	46.9	2 709.5
6–10 loads	588.2	434.3	406.2	131.5	177.9	47.3	15.0	32.8	1 833.2
More than 10 loads	196.1	130.1	112.7	36.7	44.7	23.9	*5.3	5.2	554.8
Water temperature									
Cold	1 677.0	1 028.0	1 055.4	364.4	455.9	122.6	39.9	78.5	4 821.6
Warm	446.1	486.9	218.9	143.5	196.4	46.0	8.0	29.2	1 575.0
Hot	48.4	73.0	29.1	33.2	24.6	6.2	*2.2	*1.9	218.6
Varies	162.0	160.1	66.3	44.4	45.0	10.0	*1.8	10.0	499.7
Total dwellings with washing machines	*2 333.5*	*1 748.0*	*1 369.6*	*585.4*	*722.0*	*184.8*	*51.9*	*119.6*	*7 114.9*
Proportion (%)									
Number of loads per week									
Less than 3 loads	28.5	28.6	25.0	32.1	31.3	26.8	23.7	29.0	28.4
3–5 loads	37.9	39.2	37.1	39.1	37.9	34.6	37.3	39.2	38.1
6–10 loads	25.2	24.8	29.7	22.5	24.6	25.6	28.8	27.4	25.8
More than 10 loads	8.4	7.4	8.2	6.3	6.2	13.0	*10.2	4.4	7.8
Water temperature									
Cold	71.9	58.8	77.1	62.2	63.1	66.3	76.8	65.6	67.8
Warm	19.1	27.9	16.0	24.5	27.2	24.9	15.5	24.4	22.1
Hot	2.1	4.2	2.1	5.7	3.4	3.3	*4.2	*1.6	3.1
Varies	6.9	9.2	4.8	7.6	6.2	5.4	*3.6	8.4	7.0
MARCH 1999									
Proportion (%)									
Number of loads per week									
Less than 3 loads	27.5	27.1	23.8	31.2	30.2	23.5	19.0	28.3	27.1
3–5 loads	36.4	37.2	34.9	36.0	36.2	33.1	35.8	37.6	36.2
6–10 loads	27.0	26.9	30.6	26.6	26.8	28.1	36.0	26.7	27.7
More than 10 loads	9.1	8.8	10.6	6.2	6.8	15.3	9.2	7.4	9.0
Water temperature									
Cold	70.6	53.6	73.9	53.2	61.0	63.7	75.7	64.2	64.4
Warm	20.5	31.6	19.2	31.3	26.8	26.0	17.3	25.1	24.7
Hot	3.3	5.1	2.9	8.0	5.3	3.9	2.1	3.5	4.3
Varies	5.6	9.6	4.0	7.4	6.9	6.4	4.9	7.2	6.6
JUNE 1994									
Proportion (%)									
Number of loads per week									
Less than 3 loads	29.4	30.9	23.2	31.7	31.7	25.5	17.9	27.3	28.9
3–5 loads	32.1	32.1	33.0	36.3	35.3	32.6	37.6	36.9	33.1
6–10 loads	27.0	26.4	30.1	23.7	25.2	28.5	34.5	26.7	27.0
More than 10 loads	11.5	10.5	13.7	8.3	7.9	13.4	10.0	9.1	11.0
Water temperature									
Cold	69.4	47.5	73.0	48.1	59.1	58.6	70.3	61.1	61.2
Warm	21.8	38.2	20.3	37.0	27.8	32.4	21.5	30.5	28.0
Hot	4.4	7.0	3.0	8.7	7.6	4.8	3.8	2.5	5.5
Varies	4.4	7.3	3.7	6.2	5.4	4.2	4.4	5.8	5.3

* estimate has a relative standard error greater than 25% and should be used with caution

(a) Northern Territory data refers to mainly urban areas only.

4.14 DWELLINGS WITH WASHING MACHINES—Loads per week, by household type ...

	One person only	*Couple only*	*Couple, dependent child(ren)*	*One parent, dependent child(ren)*	*Households with members aged 15 years and over*	*All other households*	*All households*
			MARCH 2002				
Number ('000)							
Less than 3 loads	1 101.3	518.7	81.8	35.5	144.2	136.1	2 017.4
3–5 loads	440.2	957.4	454.0	140.0	435.5	282.5	2 709.5
6–10 loads	56.9	286.4	757.1	154.2	377.5	201.0	1 833.2
11 or more loads	*4.0	30.7	292.3	53.3	100.9	73.7	554.8
Total dwellings with washing machines	*1 602.3*	*1 793.1*	*1 585.2*	*382.9*	*1 058.1*	*693.2*	*7 114.9*
Proportion (%)							
Less than 3 loads	68.7	28.9	5.2	9.3	13.6	19.6	28.4
3–5 loads	27.5	53.4	28.6	36.6	41.2	40.8	38.1
6–10 loads	3.6	16.0	47.8	40.3	35.7	29.0	25.8
11 or more loads	*0.2	1.7	18.4	13.9	9.5	10.6	7.8
			MARCH 1999				
Proportion (%)							
Less than 3 loads	68.4	29.0	4.8	10.8	16.3	12.4	27.1
3–5 loads	26.9	51.0	25.1	35.8	43.4	38.3	36.2
6–10 loads	4.3	18.2	47.6	40.8	31.4	38.8	27.7
11 or more loads	0.4	1.8	22.5	12.6	9.0	10.5	9.0
			JUNE 1994				
Proportion (%)							
Less than 3 loads	75.2	32.9	5.2	10.6	17.1	23.0	28.9
3–5 loads	21.0	48.3	23.0	31.1	37.7	39.2	33.1
6–10 loads	3.5	17.1	45.9	39.4	34.3	27.6	27.0
11 or more loads	0.2	1.7	25.9	18.9	10.9	10.2	11.0

* estimate has a relative standard error greater than 25% and should be used with caution

4.15 DWELLINGS WITH CLOTHES DRYERS—Frequency of use

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
MARCH 2002									
Number ('000)									
At least once a week	347.7	216.1	149.1	49.1	54.0	16.8	*4.1	12.1	848.9
At least once a fortnight	47.6	38.1	23.3	4.2	6.6	*2.8	*1.1	*2.3	126.1
At least once a month	69.3	38.7	28.3	7.5	*4.7	3.9	*0.2	*2.0	154.7
Depends on weather	551.2	296.5	243.3	96.8	141.1	34.4	7.3	31.5	1 402.0
Occasionally/rarely	396.4	340.8	264.4	124.6	129.7	39.8	*4.4	24.3	1 324.3
Never	81.0	82.7	44.6	33.5	28.6	6.5	*2.9	*3.7	283.4
Total dwellings with clothes dryer	*1 493.2*	*1 013.0*	*753.0*	*315.7*	*364.7*	*104.1*	*20.0*	*75.8*	*4 139.5*
Proportion (%)									
At least once a week	23.3	21.3	19.8	15.5	14.8	16.1	*20.3	15.9	20.5
At least once a fortnight	3.2	3.8	3.1	1.3	1.8	*2.7	*5.6	*3.0	3.0
At least once a month	4.6	3.8	3.8	2.4	*1.3	3.7	*1.2	*2.6	3.7
Depends on weather	36.9	29.3	32.3	30.7	38.7	33.0	36.3	41.6	33.9
Occasionally/rarely	26.5	33.6	35.1	39.5	35.6	38.2	*22.2	32.0	32.0
Never	5.4	8.2	5.9	10.6	7.8	6.3	*14.5	*4.8	6.8
MARCH 1999									
Proportion (%)									
At least once a week	16.9	17.6	21.9	13.9	11.7	15.6	17.8	11.0	17.2
At least once a fortnight	3.7	3.0	3.4	1.4	2.5	2.9	5.0	2.5	3.1
At least once a month	3.7	3.0	3.4	1.4	2.5	2.9	5.0	2.5	3.1
Depends on weather	39.3	37.4	37.5	40.2	41.5	31.8	42.1	45.1	38.7
Occasionally/rarely	32.0	32.5	29.8	35.6	37.6	41.0	23.2	32.5	32.7
Never	4.4	7.6	4.2	6.7	4.6	6.4	6.1	4.8	5.4
JUNE 1994									
Proportion (%)									
At least once a fortnight	21.3	30.5	22.4	20.6	16.6	29.6	14.4	25.5	23.9
At least once a month	5.3	4.8	3.3	3.2	2.3	3.8	2.9	7.2	4.4
Depends on weather	38.1	30.0	39.7	39.2	39.1	27.3	43.0	32.2	35.9
Occasionally/rarely	35.3	34.7	34.7	37.0	42.1	39.3	39.7	35.1	35.8

* estimate has a relative standard error greater than 25% and should be used with caution

(a) Northern Territory data refers to mainly urban areas only.

4.16 AIRCONDITIONERS, Numbers in use

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas*	*NT*(a)	*ACT*	*Aust.*
MARCH 2002									
Number ('000)									
One	909.8	856.0	365.7	418.4	368.3	18.1	18.8	32.3	2 987.4
Two	129.7	95.9	123.0	59.3	55.9	*1.5	14.5	*3.0	482.7
Three or more	35.2	20.5	62.3	10.2	20.2	—	15.5	*0.4	164.4
Total dwellings with airconditioner	*1 074.7*	*972.4*	*551.1*	*487.9*	*444.4*	*19.5*	*48.8*	*35.7*	*3 634.6*
Proportion (%)									
One	84.7	88.0	66.4	85.8	82.9	92.5	38.6	90.5	82.2
Two	12.1	9.9	22.3	12.1	12.6	*7.5	29.7	*8.4	13.3
Three or more	3.3	2.1	11.3	2.1	4.5	—	31.8	*1.1	4.5
% dwellings with airconditioner	*43.5*	*52.9*	*38.5*	*79.6*	*59.0*	*10.3*	*89.3*	*28.9*	*48.6*
MARCH 1999									
Proportion (%)									
One	84.6	87.3	65.3	82.9	83.5	96.0	39.8	92.4	81.8
Two	12.6	11.0	20.5	15.3	12.4	4.0	29.1	5.8	13.7
Three or more	2.8	1.7	14.2	1.8	4.1	—	31.0	1.8	4.5
% dwellings with airconditioner	*27.6*	*43.5*	*24.8*	*54.3*	*45.4*	*2.5*	*83.6*	*19.9*	*34.7*
JUNE 1994									
Proportion (%)									
One	86.1	88.0	68.7	83.7	83.0	100.0	55.7	90.7	83.8
Two	10.8	10.1	19.3	13.9	10.9	—	26.9	7.0	12.2
Three or more	3.1	1.8	12.0	2.4	6.1	—	17.5	2.3	4.0
% dwellings with airconditioner	*30.8*	*36.9*	*17.6*	*61.5*	*35.5*	*2.4*	*76.4*	*16.7*	*32.5*

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

4.17 DWELLINGS WITH AIRCONDITIONERS—Main type

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
MARCH 2002									
Number ('000)									
Reverse cycle/heat pump	767.4	295.1	262.6	246.6	158.1	18.3	*4.5	19.4	1 771.9
Refrigerated	134.4	346.8	207.5	96.5	105.3	—	34.6	5.7	930.8
Evaporative	135.4	289.2	64.9	142.6	173.9	*1.3	9.0	9.9	826.1
Not known	37.6	41.3	16.0	*2.2	7.2	—	*0.8	*0.8	105.8
Total dwellings with airconditioner	*1 074.7*	*972.4*	*551.1*	*487.9*	*444.4*	*19.5*	*48.8*	*35.7*	*3 634.6*
Proportion (%)									
Reverse cycle/heat pump	71.4	30.3	47.7	50.5	35.6	93.6	*9.2	54.3	48.8
Refrigerated	12.5	35.7	37.7	19.8	23.7	—	70.8	15.9	25.6
Evaporative	12.6	29.7	11.8	29.2	39.1	*6.4	18.5	27.6	22.7
Not known	3.5	4.3	2.9	*0.4	1.6	—	*1.5	*2.1	2.9
MARCH 1999									
Proportion (%)									
Reverse cycle/heat pump	59.4	30.3	23.5	35.4	23.9	53.7	4.3	56.4	36.8
Refrigerated	16.6	40.8	49.7	27.6	27.2	19.0	77.2	12.2	32.3
Evaporative	20.8	24.3	20.5	36.0	47.8	15.4	17.6	28.7	27.4
Not known	3.1	4.6	6.2	1.1	1.2	11.8	0.9	2.7	3.4
JUNE 1994									
Proportion (%)									
Reverse cycle/heat pump	67.5	41.6	36.6	52.9	33.2	51.5	15.0	50.7	50.0
Refrigerated	14.2	36.7	39.1	23.4	33.3	8.9	63.3	13.6	27.4
Evaporative	16.1	16.8	18.9	23.1	30.3	31.2	20.0	34.6	19.5
Not known	2.2	4.8	5.4	0.6	3.1	8.4	1.7	1.1	3.1

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

4.18 DWELLINGS USING REVERSE CYCLE AIRCONDITIONERS AS MAIN HEATERS—Whether also used as main airconditioner

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
MARCH 2002									
Number ('000)									
Main heater and cooler	404.4	40.4	154.9	137.9	72.2	13.1	0.6	8.7	832.2
Not main heater and cooler	*2.2	*2.3	*2.9	*3.6	*1.1	—	—	—	12.2
Total dwellings using reverse cycle airconditioner as main heater	*406.6*	*42.7*	*157.7*	*141.5*	*73.3*	*13.1*	*0.6*	*8.7*	*844.4*
Proportion (%)									
Main heater and cooler	99.4	94.6	98.2	97.4	98.4	100.0	100.0	100.0	98.6
Not main heater and cooler	*0.6	*5.4	*1.8	*2.6	*1.6	—	—	—	1.4
% dwellings using reverse cycle airconditioner as main heater	*16.4*	*2.3*	*11.0*	*23.1*	*9.7*	*6.9*	*1.2*	*7.1*	*11.3*

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Terrirtory data refers to mainly urban areas only.

4.19 DWELLINGS WITH AIRCONDITIONER—Where located

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*(a)	*ACT*	*Aust.*
MARCH 2002									
Number ('000)									
Split system	233.6	128.1	132.4	54.9	71.7	8.9	14.8	9.0	653.4
Set in wall/window	486.5	523.1	316.6	227.9	141.6	6.6	25.6	10.9	1 738.9
Ducted	311.7	278.7	70.8	193.1	217.7	*2.2	8.4	9.9	1 092.5
Portable	42.9	42.5	31.4	11.9	13.4	*1.8	—	5.8	149.8
Total dwellings with airconditioners	*1 074.7*	*972.4*	*551.1*	*487.9*	*444.4*	*19.5*	*48.8*	*35.7*	*3 634.6*
Proportion (%)									
Split system	21.7	13.2	24.0	11.3	16.1	45.9	30.3	25.2	18.0
Set in wall/window	45.3	53.8	57.4	46.7	31.9	33.7	52.4	30.6	47.8
Ducted	29.0	28.7	12.8	39.6	49.0	*11.1	17.3	27.8	30.1
Portable	4.0	4.4	5.7	2.4	3.0	*9.4	—	16.4	4.1
MARCH 1999									
Proportion (%)									
Set in wall/window	75.8	76.2	83.2	68.1	54.4	68.1	71.3	64.1	73.0
Ducted	19.0	17.3	9.6	27.7	41.8	8.6	27.7	21.4	21.4
Portable	5.3	6.5	7.2	4.2	3.8	23.4	0.9	14.5	5.6
JUNE 1994									
Proportion (%)									
Set in wall/window	71.9	79.2	78.7	70.1	63.4	39.5	77.5	53.6	73.3
Ducted	20.3	12.5	6.6	25.3	30.0	21.0	21.4	17.2	18.6
Portable	7.8	8.3	14.6	4.5	6.5	39.5	1.1	29.2	8.0

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

4.20 HEATERS—Numbers in use

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
MARCH 2002									
Number ('000)									
One	1 332.8	1 341.2	471.7	393.6	470.7	96.5	3.8	72.1	4 182.5
Two	485.8	375.0	139.1	138.6	133.9	58.0	*0.2	32.0	1 362.6
Three or more	202.3	102.1	41.2	35.5	35.5	33.6	*0.6	19.0	469.9
Total dwellings with heaters	*2 021.0*	*1 818.3*	*652.1*	*567.8*	*640.1*	*188.0*	*4.6*	*123.1*	*6 014.9*
Proportion (%)									
One	66.0	73.8	72.3	69.3	73.5	51.3	82.1	58.6	69.5
Two	24.0	20.6	21.3	24.4	20.9	30.8	*4.3	26.0	22.7
Three or more	10.0	5.6	6.3	6.3	5.5	17.9	*13.7	15.4	7.8
% dwellings with heaters	*81.8*	*99.0*	*45.6*	*92.7*	*84.9*	*99.0*	*8.4*	*99.7*	*80.5*
MARCH 1999									
Proportion (%)									
One	66.8	71.8	72.7	62.3	76.5	52.0	66.7	54.0	68.7
Two	25.3	22.9	19.9	29.1	19.8	30.0	29.1	28.1	24.1
Three or more	7.9	5.3	7.4	8.6	3.7	18.0	4.2	17.9	7.2
% dwellings with heaters	*82.2*	*98.8*	*39.9*	*92.8*	*83.2*	*98.9*	*10.5*	*99.0*	*79.6*
JUNE 1994									
Proportion (%)									
One	55.6	61.2	64.9	47.6	59.6	34.9	66.1	33.2	56.7
Two	29.6	26.4	24.3	31.4	29.2	31.2	26.9	26.6	28.3
Three or more	14.7	12.4	10.7	20.9	11.2	33.9	7.0	40.2	15.0
% dwellings with heaters	*88.3*	*99.4*	*45.4*	*94.1*	*86.8*	*99.8*	*18.3*	*99.6*	*83.8*

* estimate has a relative standard error greater than 25% and should be used with caution

(a) Northern Territory data refers to mainly urban areas only.

4.21 DWELLINGS WITH HEATER—Main type

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
				MARCH 2002					
Number ('000)									
Electric									
Ducted electric	43.8	31.0	*1.2	*3.6	*2.8	*2.8	—	*3.2	88.4
Not ducted electric	633.2	146.2	287.9	94.9	73.0	66.3	*0.7	32.5	1 334.6
Gas									
Ducted gas	78.4	650.2	*1.7	18.1	16.0	*1.4	*0.3	37.5	803.6
Not ducted gas	506.7	685.7	41.7	182.0	293.2	8.7	*1.4	32.0	1 751.4
Reverse Cycle									
Ducted reverse cycle	162.7	9.8	32.8	48.4	31.1	*1.4	—	4.4	290.5
Not ducted reverse cycle	243.9	32.9	125.0	93.1	42.2	11.7	*0.6	4.4	553.8
Wood									
Wood combustion heater	250.2	197.5	95.4	92.1	128.6	80.2	*0.6	5.3	850.1
Wood fire-open	29.6	23.6	19.5	8.0	10.1	*3.8	*0.6	—	95.1
Pot belly heater	*12.8	*8.0	23.6	6.6	27.6	*1.8	—	—	80.4
Oil fired heater	40.0	*9.3	*9.4	16.5	10.0	5.1	*0.4	*2.1	92.6
Floor slab heating	15.2	16.5	*1.1	*1.0	*1.6	4.7	—	*1.8	41.9
Other	*4.5	*7.7	12.9	*3.5	*3.9	*0.2	—	—	32.6
Total dwellings with heater	*2 021.0*	*1 818.3*	*652.1*	*567.8*	*640.1*	*188.0*	**4.6*	*123.1*	*6 014.9*
Proportion (%)									
Electric									
Ducted electric	2.2	1.7	*0.2	*0.6	*0.4	*1.5	—	*2.6	1.5
Not ducted electric	31.3	8.0	44.2	16.7	11.4	35.3	*14.8	26.4	22.2
Gas									
Ducted gas	3.9	35.8	*0.3	3.2	2.5	*0.7	*6.3	30.5	13.4
Not ducted gas	25.1	37.7	6.4	32.1	45.8	4.6	*31.2	26.0	29.1
Reverse Cycle									
Ducted reverse cycle	8.1	0.5	5.0	8.5	4.9	*0.7	—	3.5	4.8
Not ducted reverse cycle	12.1	1.8	19.2	16.4	6.6	6.2	*13.7	3.5	9.2
Wood									
Wood combustion heater	12.4	10.9	14.6	16.2	20.1	42.6	*13.8	4.3	14.1
Wood fire-open	1.5	1.3	3.0	1.4	1.6	*2.0	*12.2	—	1.6
Pot belly heater	*0.6	*0.4	3.6	1.2	4.3	*1.0	—	—	1.3
Oil fired heater	2.0	*0.5	*1.4	2.9	1.6	2.7	*8.0	*1.7	1.5
Floor slab heating	0.8	0.9	*0.2	*0.2	*0.3	2.5	—	*1.4	0.7
Other	*0.2	*0.4	2.0	*0.6	*0.6	*0.1	—	—	0.5

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

4.21 DWELLINGS WITH HEATER—Main type *continued*

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
				MARCH 1999					
Proportion (%)									
Electric									
Ducted electric	1.9	1.3	0.9	1.0	0.7	1.5	—	2.4	1.4
Not ducted electric	36.4	9.3	48.5	20.2	14.3	28.4	20.0	30.8	25.0
Gas									
Ducted gas	3.9	31.5	0.7	2.2	3.7	1.0	—	28.7	12.2
Not ducted gas	23.0	40.1	5.8	32.4	42.8	5.1	32.7	22.8	29.0
Reverse Cycle									
Ducted reverse cycle	5.0	1.2	2.5	6.7	2.2	1.1	10.9	3.4	3.3
Not ducted reverse cycle	7.4	0.8	9.1	12.7	2.9	2.2	3.6	2.3	5.3
Wood									
Wood combustion heater	14.6	12.4	15.9	15.8	23.3	51.4	21.8	5.0	16.1
Wood fire-open	2.5	1.4	5.1	2.6	2.1	4.1	3.6	0.5	2.4
Pot belly heater	0.9	0.1	2.8	1.1	3.7	1.2	7.3	0.3	1.1
Oil fired heater	3.5	1.0	4.7	4.3	2.9	3.4	—	3.3	2.9
Other	1.1	0.9	3.9	0.9	1.4	0.6	—	0.3	1.3

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

4.22 DWELLINGS WITH HEATERS—Factors considered in choosing

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
				MARCH 2002					
Number ('000)									
Cost	611.9	385.0	191.2	165.3	197.9	36.1	*0.8	31.4	1 619.7
Environmental considerations	86.8	60.9	26.2	16.2	31.5	16.0	—	*3.2	240.8
Appearance	73.3	26.5	38.9	15.6	24.7	6.6	*0.2	*1.4	187.3
Financial incentive/subsidy	15.2	*5.7	*3.3	*5.0	*4.5	*0.8	—	*0.6	35.1
Recommended by friend/expert	59.6	53.4	23.9	13.0	16.5	4.5	—	4.3	175.3
Already installed	551.2	1 021.9	116.6	223.9	209.1	87.8	3.3	69.0	2 282.7
Other	622.9	264.8	252.0	128.7	155.8	36.3	0.3	13.2	1 474.0
Total dwellings with heaters	*2 021.0*	*1 818.3*	*652.1*	*567.8*	*640.1*	*188.0*	*4.6*	*123.1*	*6 014.9*
Proportion (%)									
Cost	30.3	21.2	29.3	29.1	30.9	19.2	*17.5	25.5	26.9
Environmental considerations	4.3	3.4	4.0	2.9	4.9	8.5	—	*2.6	4.0
Appearance	3.6	1.5	6.0	2.8	3.9	3.5	*5.3	*1.1	3.1
Financial incentive/subsidy	0.8	*0.3	*0.5	*0.9	*0.7	*0.4	—	*0.5	0.6
Recommended by friend/expert	2.9	2.9	3.7	2.3	2.6	2.4	—	3.5	2.9
Already installed	27.3	56.2	17.9	39.4	32.7	46.7	70.9	56.1	38.0
Other	30.8	14.6	38.6	22.7	24.3	19.3	6.3	10.7	24.5

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

4.23 HEATERS—Months of use in the last 12 months

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
				MARCH 2002					
Number ('000)									
Less than one month	231.9	116.6	228.9	68.6	82.6	8.4	*1.2	6.1	744.2
1 to 3 months	715.9	333.6	278.7	170.4	222.6	12.3	*2.6	13.7	1 749.7
3 to 6 months	902.6	881.4	109.4	256.0	279.7	80.9	*0.8	80.0	2 590.9
6 months or more	61.2	413.9	*3.4	50.5	28.8	79.1	—	18.0	654.9
Not known	109.4	72.7	31.7	22.3	26.5	7.4	—	5.4	275.3
Total dwellings with heaters	*2 021.0*	*1 818.3*	*652.1*	*567.8*	*640.1*	*188.0*	**4.6*	*123.1*	*6 014.9*
Proportion (%)									
Less than one month	11.5	6.4	35.1	12.1	12.9	4.4	*25.4	4.9	12.4
1 to 3 months	35.4	18.3	42.7	30.0	34.8	6.5	*56.5	11.1	29.1
3 to 6 months	44.7	48.5	16.8	45.1	43.7	43.0	*18.0	65.0	43.1
6 months or more	3.0	22.8	*0.5	8.9	4.5	42.1	—	14.6	10.9
Not known	5.4	4.0	4.9	3.9	4.1	3.9	—	4.4	4.6

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

4.24 REVERSE CYCLE AIRCONDITIONERS AS HEATERS—Months of use in the last 12 months

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
				MARCH 2002					
Number ('000)									
Less than one month	83.6	5.8	79.3	31.3	21.4	*0.6	*0.4	*0.9	223.3
1 to less than 3 months	160.4	11.0	52.9	49.7	31.4	*1.0	*0.3	*1.4	308.1
3 months to less than 6 months	135.1	15.3	13.6	47.7	17.5	5.7	—	4.2	239.1
6 months or more	*5.1	*8.8	*0.5	*5.5	*1.5	5.1	—	*2.2	28.7
Don't know	22.4	*1.7	11.4	7.3	1.6	*0.6	—	—	45.1
Total dwellings using reverse cycle airconditioners as heaters	*406.6*	*42.7*	*157.7*	*141.5*	*73.3*	*13.1*	*0.6*	*8.7*	*844.4*
Proportion (%)									
Less than one month	20.6	13.6	50.3	22.1	29.1	*4.6	*58.1	*10.0	26.4
1 to less than 3 months	39.4	25.9	33.5	35.1	42.8	*7.8	*41.9	*16.6	36.5
3 months to less than 6 months	33.2	35.9	8.6	33.7	23.8	43.9	—	48.3	28.3
6 months or more	*1.3	*20.6	*0.3	*3.9	*2.1	39.2	—	*25.1	3.4
Don't know	5.5	*4.1	7.2	5.2	2.2	*4.5	—	—	5.3
% of dwellings using reverse cycle airconditioners as heaters	*16.4*	*2.3*	*11.0*	*23.1*	*9.7*	*6.9*	*1.2*	*7.1*	*11.3*

* estimate has a relative standard error greater than 25% and should be used with caution

— nil or rounded to zero (including null cells)

(a) Northern Territory data refers to mainly urban areas only.

EXPLANATORY NOTES

INTRODUCTION

1 This publication presents results from a supplementary survey run in association with the March 2002 Monthly Population Survey.

METHODOLOGY

Monthly Population Survey

2 The Monthly Population Survey is based on a multi-stage area sample of private dwellings (approximately 37,000 houses, flats, etc.) and a list sample of non-private dwellings (hotels, motels, etc.). The proportion of Australian dwellings selected this way is approximately 0.5%. For this survey, half the private dwelling sample (i.e. 18,500 dwellings) was used. Information was obtained by interviews with responsible adult members of selected households, who answered questions on behalf of the person whose next birthday was closest to the date of the interview. The information obtained related to the week before the interview (i.e. the reference week).

SCOPE

3 The survey covers rural and urban areas across all states and territories of Australia, however the Northern Territory data refers to mainly urban areas. Also excluded were some 175,000 persons living in remote and sparsely settled parts of Australia. The exclusion of these persons will have only a minor impact on any aggregate estimates that are produced for individual states and territories, with the exception of the Northern Territory where such persons account for over 20% of the population.

4 Persons aged 18 years and over who were usual residents of private dwellings were included in the surveys except:

- members of the Australian permanent defence forces;
- certain diplomatic personnel of overseas governments, customarily excluded from censuses and surveys;
- overseas residents in Australia;
- members of non-Australian defence forces (and their dependents) stationed in Australia; and
- residents of other non-private dwellings such as hospitals, motels and gaols.

COVERAGE

5 Coverage rules were applied which aimed to ensure that each person was associated with only one dwelling, and hence had only one chance of selection in each survey.

DATA COMPARABILITY

6 A set of changing topics rotate over a period of three years. The topics contained in this publication compare with data collected in March 1999 and June 1994. Where applicable, the data have been included in this publication for comparison purposes.

7 An important point to note is that the environment topics were surveyed using a 'personal interview' methodology before 1997. From 1997 onwards the 'any responsible adult' methodology was applied. When comparing post-1997 and pre-1997 data readers should be aware that some differences in the data may be explained by the change in methodology rather than real changes over time.

RELIABILITY OF ESTIMATES

8 Two types of error are possible in an estimate based on a sample survey:

- Non-sampling error which arises from inaccuracies in collecting, recording and processing the data. The most significant of these errors are:

RELIABILITY OF ESTIMATES *continued*

- misreporting of data items
- deficiencies in coverage
- non-response
- processing errors

Every effort is made to minimise these errors by the careful design of questionnaires, intensive training and supervision of interviewers and efficient data processing procedures.

- Sampling error which occurs because a sample, rather than the entire population is surveyed. One measure of the likely difference resulting from not including all persons in the survey is given by the standard error (please consult the Technical Notes).

RELATED PUBLICATIONS

9 Users may also wish to refer to the following publication:
Environmental Issues: People's Views and Practices
(cat. no. 4602.0)— 1992, 1994, 1996, 1998, 1999 , 2000 and 2001 issues.
Energy and Greenhouse Gas Emission Accounts
(cat. no. 4604.0) — 2001 issue

10 Further key references on energy efficiency and conservation can be made through the following websites:
Sustainable Energy Development Office of Western Australia
(*http://www.sedo.energy.wa.gov.au*)
Sustainable Energy Development Authority of New South Wales' live energy smart web page *(http://www.seda.gov.au*), and
The Australian Greenhouse Office
(*http://www.energy.rating@greenhouse.gov.au*)

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

INTRODUCTION

1 Since the estimates in this publication are based on information obtained from occupants of a sample of dwellings, they are subject to sampling variability. That is, they may differ from those estimates that would have been produced if all dwellings had been included in the survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included. There are about 2 chances in 3 (67%) that a sample estimate will differ by less than one SE from the number that would have been obtained if all dwellings had been included, and about 19 chances in 20 (95%) that the difference will be less than two SEs. Another measure of the likely difference is the relative standard error (RSE), which is obtained by expressing the SE as a percentage of the estimate.

2 Due to space limitations, it is impractical to print the SE of each estimate in the publication. Instead, a table of SEs is provided to enable readers to determine the SE for an estimate from the size of that estimate (see table T1). Each SE table is derived from a mathematical model, referred to as the 'SE model', which is created using the data collected in this survey. It should be noted that the SE model only gives an approximate value for the SE for any particular estimate, since there is some minor variation among SEs for different estimates of the same size.

CALCULATION OF STANDARD ERROR

3 An example of the calculation and the use of SEs in relation to estimates of households is as follows. Table 4.10 shows that the estimated number of dwellings in Victoria which have a dishwasher was 779,300. Since this estimate is between 500,000 and 1,000,000, table T1 shows that the SE for Victoria will lie between 16,200 and 20,650 and can be approximated by interpolation using the following general formula:

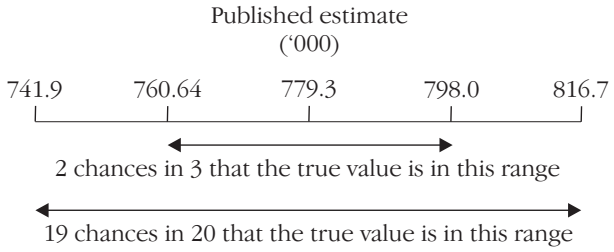
$$SE = lower\ SE + \left[\left(\frac{size\ of\ est. - lower\ est.}{upper\ est. - lower\ est.}\right) \times (upper\ SE - lower\ SE)\right]$$

$$= 16,200 + \left[\left(\frac{779,304 - 500,000}{1,000,000 - 500,000}\right) \times (20,650 - 16,200)\right]$$

$$= 18,686$$

4 Therefore, there are about 2 chances in 3 that the value that would have been produced if all dwellings had been included in the survey will fall within the range 760,600 to 798,000 and about 19 chances in 20 that the value will fall within the range 741,900 to 816,700. This example is illustrated in the diagram below.

CALCULATION OF STANDARD ERROR *continued*



5 In general, the size of the SE increases as the size of the estimate increases. Conversely, the RSE decreases as the size of the estimate increases. Very small estimates are thus subject to such high RSEs so that their value for most practical purposes is unreliable. In the tables in this publication, only estimates with RSEs of 25% or less are considered reliable for most purposes. Estimates with RSEs greater than 25% are preceded by an asterisk (e.g. *3.4) to indicate they are subject to high SEs and should be used with caution.

PROPORTIONS AND PERCENTAGES

6 Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and the denominator. A formula to approximate the RSE of a proportion is given below. This formula is only valid when x is a subset of y.

$$RSE\left(\frac{x}{y}\right) = \sqrt{[\,RSE\,(x)\,]^2 - [\,RSE\,(y)\,]^2}$$

7 For example, in table 4.8, the estimate for the total number of dwellings in Victoria is 1,837,400. The estimated number of dwellings in Victoria which have a dishwasher was 779,300 (table 4.10), so the proportion of dwellings in Victoria which have dishwashers is 779,300 / 1,837,400 or 42.4%. The SE of the total number of dwellings in Victoria may be calculated by interpolation as 24,900 . To convert this to an RSE we express the SE as a percentage of the estimate, or 24,900 / 1,837,400 = 1.4%. The SE for the number of dwellings in Victoria which have a dishwasher was calculated above as 18,700 (rounded to the nearest 100), which converted to an RSE is 18,700 / 779,300 = 2.4%. Applying the above formula, the RSE of the proportion is

$$RSE = \sqrt{(2.4)^2 - (1.4)^2} = 1.9\%$$

giving a SE for the proportion (42.4%) of 0.8 percentage points (=42.4 x 0.019).

8 Therefore, there are about 2 chances in 3 that the proportion of dwellings in Victoria which have dishwashers is between 41.6% and 43.2% and 19 chances in 20 that the proportion is within the range 40.8% to 44%.

DIFFERENCES

9 Published estimates may also be used to calculate the difference between two survey estimates (of numbers or percentages). Such an estimate is subject to sampling error. The sampling error of the difference between two estimates depends on their SEs and the relationship (correlation) between them. An approximate SE of the difference between two estimates (x–y) may be calculated by the following formula:

$$SE\,(x - y) = \sqrt{[\,SE\,(x)\,]^2 + [\,SE\,(y)\,]^2}$$

10 While this formula will only be exact for differences between separate and uncorrelated characteristics or sub populations, it is expected to provide a good approximation for all differences likely to be of interest in this publication.

NON-SAMPLING ERROR

11 The imprecision due to sampling variability, which is measured by the SE, should not be confused with inaccuracies that may occur because of imperfect reporting by respondents, errors made in collection such as in recording and coding data, and errors made in processing the data. Inaccuracies of this kind are referred to as non-sampling error, and they may occur in any enumeration, whether it be a full count or a sample. It is not possible to quantify non-sampling error, but every effort is made to reduce it to a minimum. This is done by careful design of questionnaires, intensive training and supervision of interviewers, and efficient operating procedures.

T1 STANDARD ERRORS FOR HOUSEHOLD LEVEL ESTIMATES

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Australia*
Size of estimate	no.	no.	no.	no.	no.	no.	no.	no.	no.
100	150	90	120	90	90	50	70	60	150
200	250	160	200	160	160	100	130	120	240
300	330	230	270	210	220	150	190	170	310
500	470	340	380	310	320	240	300	260	430
700	580	430	480	400	410	310	380	330	530
1,000	740	560	610	510	520	400	500	430	660
1,500	960	740	800	670	690	530	660	560	850
2,000	1 140	900	950	810	830	650	780	670	1 010
2,500	1 300	1 050	1 100	950	950	750	900	750	1 150
3,000	1 450	1 200	1 250	1 050	1 050	850	1 000	850	1 300
3,500	1 600	1 300	1 350	1 150	1 150	900	1 050	900	1 400
4,000	1 750	1 400	1 450	1 250	1 250	1 000	1 150	1 000	1 500
5,000	2 000	1 650	1 650	1 400	1 450	1 100	1 250	1 100	1 700
7,000	2 400	2 000	2 000	1 700	1 750	1 300	1 450	1 300	2 050
10,000	2 900	2 500	2 450	2 050	2 100	1 550	1 650	1 500	2 500
15,000	3 600	3 150	3 100	2 500	2 600	1 850	1 900	1 750	3 150
20,000	4 200	3 650	3 600	2 900	3 050	2 050	2 050	1 900	3 650
30,000	5 150	4 550	4 400	3 500	3 650	2 350	2 250	2 100	4 500
40,000	5 950	5 300	5 100	3 950	4 200	2 600	2 350	2 250	5 250
50,000	6 650	5 950	5 700	4 350	4 600	2 750	2 400	2 350	5 850
100,000	9 150	8 300	7 800	5 700	6 150	3 150	2 500	2 600	8 250
150,000	10 950	9 950	9 350	6 600	7 150	3 350	2 450	2 650	10 000
200,000	12 350	11 250	10 550	7 250	7 900	3 450	2 400	2 700	11 450
300,000	14 550	13 300	12 400	8 200	9 000	3 550	2 300	2 650	13 800
500,000	17 750	16 200	15 100	9 400	10 500	3 550	2 050	2 550	17 350
1,000,000	22 850	20 650	19 300	11 000	12 600	3 350	1 650	2 250	23 300
2,000,000	28 800	25 700	24 150	12 450	14 600	3 000	1 250	1 900	30 950
5,000,000	37 900	33 000	31 400	14 000	17 000	2 350	800	1 400	44 050
10,000,000	45 500	38 600	37 300	14 700	18 400	1 850	500	1 000	56 650

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