

POLICY AND GOVERNANCE

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hat do Australians say about climate change?

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Abstract

Climate change is an issue that has risen to prominence in the Australian political discourse. What views do Australians hold about climate change, have these views changed over time, and how do they compare to those of the American public? Measurement theory associated with public opinion suggests that caution needs to be taken in analysing the public's views over time. Nevertheless, trend analysis shows that over the last decade a greater number of Australians are concerned about climate change, and that Australians are more likely to be concerned than are Americans. Although the paper provides some initial ideas about why cross-national differences between Australia and America exist, further research is required in this area.

What do Australians say about climate change?

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About the Author

Natalie Collins has recently completed her Executive Masters in Public Administration at the ANU and is a Senior Research Consultant with ORIMA Research. This paper was written for a Masters course on measuring public opinion and does not necessarily represent the views of the ANU's Crawford School or ORIMA Research.

THE POLLS—TRENDS

What do Australians say about climate change?

Introduction

Climate change represents one of the most significant policy challenges for governments around the world. It is a classic ‘wicked’ or intractable policy issue—it is surrounded by uncertainty, it crosses international borders, and no one government can address the issue on its own. Although governments have faced significant policy challenges and tough decisions in the past, for instance, involvement in wars; it could be argued that no policy challenges have been quite like climate change. Two of the key peculiarities of climate change that make it such a challenging issue to tackle are:

The uncertainty—the science is imperfect, yet many scientists agree that the earth is warming; but there is no consensus on the extent of the problem or how quickly action needs to be taken.

The long lag time on indicators to assess the effectiveness of policy responses—unlike wars, where leaders have relatively quick feedback mechanisms to guide future decision making (e.g. through casualties of war), such feedback is not available for decisions made about climate change—the effectiveness of today’s policy responses will not be known for several decades.

The primary aim of this paper is to provide insight into Australians’ views on climate change and to assess whether these views have shifted over time. A

secondary aim of the paper is to assess how public opinion on climate change in Australia compares to that in the USA.¹

The USA was selected as the comparator country for two main reasons: (i) both countries have significant scope to reduce their greenhouse gas emissions—both countries are one of the top five greenhouse gas emitters on a per capita basis (Garnaut 2008); and (ii) up until December 2007, Australia and the USA were the only two major developed countries not to have ratified the Kyoto Protocol.

The paper begins by arguing that there is value in measuring public opinion on climate change, even though there are measurement concerns that need to be taken into account. Trends in Australian public opinion on climate change in four broad areas are then examined: (i) levels of concern about climate change; (ii) support for international action on climate change (including support for the Kyoto Protocol); (iii) support for action on climate change despite economic impacts; and (iv) support for energy efficiency and low carbon emitting energy sources. Where possible, the paper compares the views of Australians and Americans on climate change, and offers suggestions as to why opinion in the two countries is consistent or different. The paper concludes by summarising the key trends in Australian public opinion on climate change and identifying areas of future research.

¹ This paper only examines information from polling conducted up to 31 July 2008 that was publicly available.

Considerations in examining public opinion trends on climate change

Before analysing the available data to identify trends in public opinion, a couple of points of caution in relation to measurement need to be made. Firstly, the construct referred to in this paper as climate change seems to have shifted in a fairly short period of time. In the 1990's public opinion polling often used the term greenhouse effect, whereas much of the polling today uses terms such as global warming and climate change. It is difficult to know whether this shift in nomenclature is part of a clever symbolic strategy by pro-climate change believers to move the public discourse to focus on the enormity of the problem (e.g. by using terms such as global and change), or whether nomenclature has just evolved over time. Although this shift is an important consideration from a measurement perspective, it is beyond the scope of this paper to trace the history and rationale for the changing nomenclature.

A second related measurement concern is that different terms are continually used in polling questions to purportedly measure the same thing. Terms such as climate change and global warming are used interchangeably; so too are the terms carbon emissions and greenhouse gas emissions. In addition, two of the world's leading organisations on climate change do not define climate change in the same way. The United Nations Framework Convention on Climate Change (UNFCCC) focuses on human activity that alters the composition of the atmosphere, whereas the definition used by the Intergovernmental Panel on Climate Change (IPCC) focuses on changes in the properties of the climate that can be measured and persist for extended periods of time (Garnaut 2008). When these slight differences are coupled with climate change already being a difficult issue for people to conceptualise (Lorenzoni & Pidgeon 2006), what actually is the

public being asked to have an opinion on? More importantly, is there any value in examining trends public opinion on climate change?

It is important to briefly consider the pioneering work of Zaller and Feldman (1992) about whether the public actually hold true opinions on any issue. They argue that most people 'do not possess preformed attitudes at a level of specificity demanded in surveys' (Zaller and Feldman 1992:579). Rather, people hold 'a mix of only partially consistent ideas and considerations', and when questioned through surveys, only a sample of these ideas are recalled to memory—in particular those ideas made salient by the questions and recent events (Zaller and Feldman 1992:579). This notion that attitudes are really a constructed judgement (Berinsky 2002) has gained significant momentum in the literature, with the general consensus being that to answer questions optimally, four cognitive processes must occur (see Krosnick 1999):

1. The respondent needs to interpret the question and work out its intent.
2. They need to search their memory for relevant information.
3. This information must be integrated into one judgement.
4. The judgement must then be translated into a response (i.e. they must select a response option being offered by the survey).

When these conditions are not met, respondents provide a less than optimal response.

This scientific approach to attitude measurement poses some questions as to the value of any public opinion research; however, there are other drivers, such as political ones, that mean public opinion polling on tricky and sensitive issues remains of key value to political elites. The public's perceptions matter to

governments, no matter how well constructed these perceptions may be. Governments can play an important role as an educator and information provider to citizens, but it is vital that governments understand the shifts in the public's perceptions on key policy issues (be such perceptions accurate or otherwise). Public perceptions of risks, such as those around climate change, can be just as influential on policy as those risk assessments based on technology and science (Brody, Zahran, Vedlitz & Grover 2008). Furthermore, case study research in Newcastle, Australia suggests that although Australians may be confused about the facts of climate change, this does not stop people linking the concept with causes in their daily life (Bulkeley 2000). It therefore seems that there is much value in examining public opinion on climate change.

Public opinion on climate change

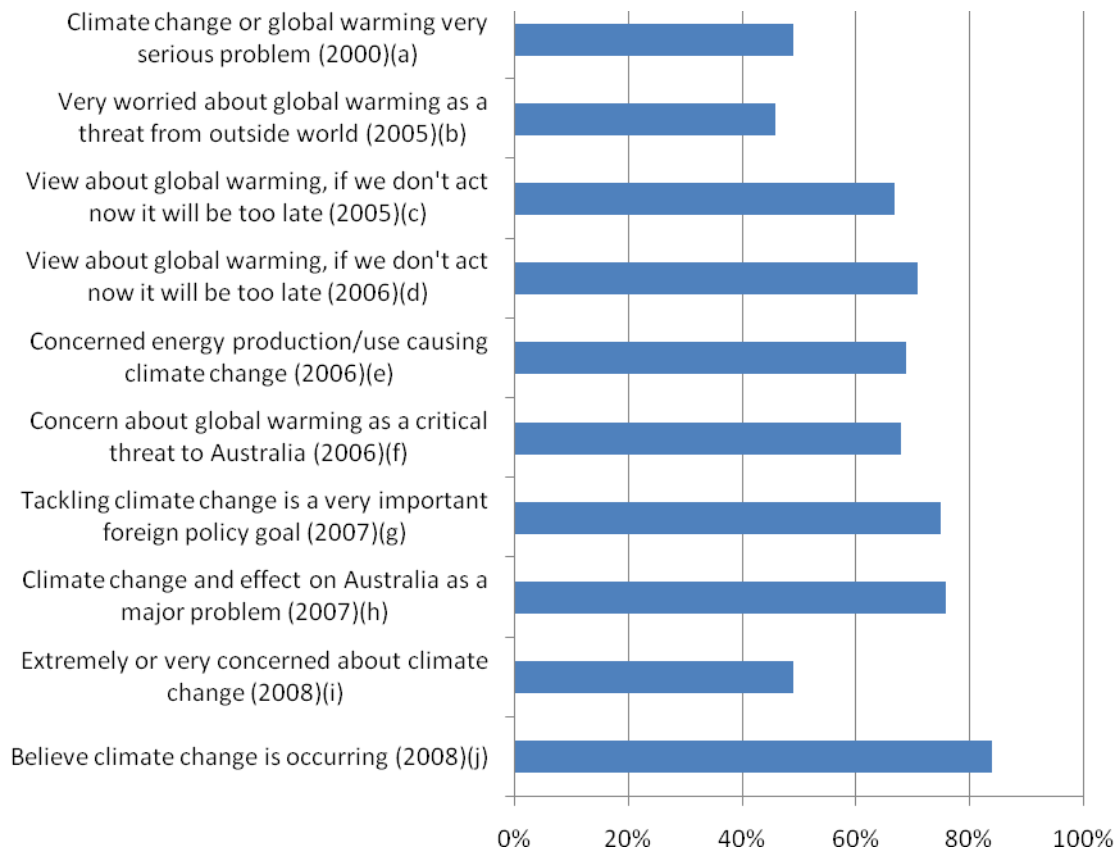
Dozens of Australian public polling results were examined to assess whether Australians' views on climate change have shifted over time. Despite the plethora of historical polling data on climate change publicly available in the USA (Nisbet & Myers 2007); in Australia, much of the polling data available relates to the last few years. Notwithstanding the focus in recent years of examining public perceptions of climate change in Australia, enough data are available in some areas to enable comparisons of Australian public opinion over the last decade. The focus of the paper is on Australian public opinion, but where possible, Australians' views are compared with those held by Americans.

Level of concern about climate change

A 2007 report by The Climate Institute *Climate of the Nation: Australians Attitudes to Climate Change and its Solutions* indicates that there is growing concern among Australians about climate change. Polling data examined as part of this study also generally supports this claim (Figure 1). However, a 2008 poll by The Climate Institute suggests that concern about climate change among Australians may be waning somewhat. This anomaly may in part be due to the response options included in Figure 1—concern increases to 89% when the proportion of Australians who are ‘concerned’ are included with those who are ‘extremely’ and ‘very’ concerned (Table 16).² Nevertheless, the general trend shown in Figure 1 is that in 2008 more Australians are concerned about climate change than they were almost a decade ago—rising from five out of ten Australians being concerned in 2000 to more than eight out of ten in 2008.

² Those indicating that they were ‘concerned’ were not included in Figure 1, as it was decided that this would be inconsistent with the approach taken for other questions (e.g. respondents who indicated they were ‘somewhat’ concerned or ‘fairly’ worried were not included in Figure 1).

Figure 1: Australians' concern about climate change, 2000 to 2008



Sources: (a) 2000 GlobeScan (in Leiserowitz 2007), Table 1; (b) 2005 Lowy Institute, Table 2; (c) & (d) 2005 and 2006 Roy Morgan, Table 5; (e) 2006 BBC, in conjunction with PIPA and GlobeScan, Table 6; (f) 2006 Lowy Institute, Table 7a; (g) 2007 Lowy Institute, Table 10; (h) 2007 NEWS POLL and the Australian, Table 11; (i) 2008 The Climate Institute, Table 16; (j) 2008 NEWS POLL and the Australian, Table 17.

General concern about climate change among Australians does, however, vary depending on the structure of the question and the possible response options. As discussed above, when Australian public opinion is measured using response options dedicated to that statement, quite high levels of concern are reported. When opinion on climate change is contextualised and only one of several issues respondents can select as important, lower proportions of Australians report that they are concerned about climate change.

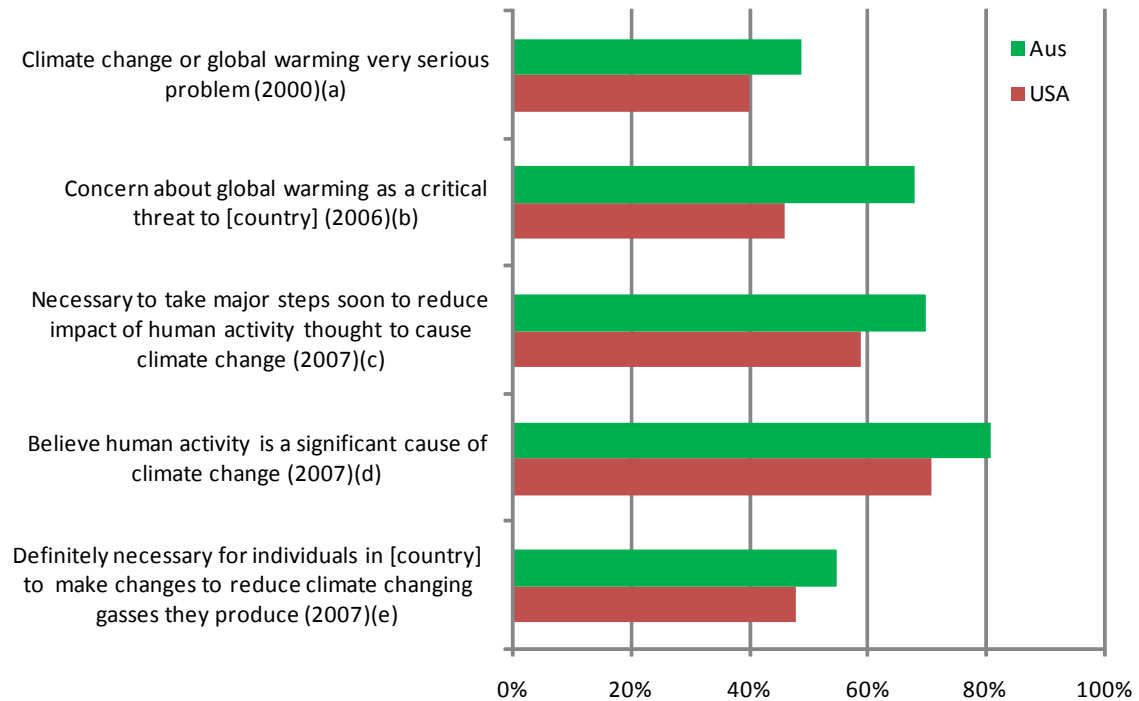
Morgan polls conducted in 2005 show that only 4% of Australians thought that climate change was the most important problem facing the world; but when asked about the most important environmental issues facing the world, concern about global warming increased to 56% (Tables 3 and 4). This increase was not as marked when the same questions were asked in an Australian context. Only 2% of Australians thought that climate change was the most important problem facing Australia, and 26% believed that global warming was an important environmental issue facing Australia (Tables 3 and 4). Just under half (43%) of Australians reported water management (including drought) as the most important environmental issue facing Australia (Table 4)—which, it could be argued is linked to climate change.

More recent polls by Nielsen (2006) and the Lowy Institute (2007) suggest that climate change is a concern for the Australian public, even when it is considered alongside other issues. When asked about their major concerns over the next six months, in the first half of 2007, climate change and health rated as the top two concerns for Australians (18% and 17% respectively) (Table 8). Furthermore, when asked about the most important goal for Australia in the coming years, tackling climate change and improving standards in education were selected as the most important goals (28% each) (Table 9).

These polling results indicate that there is generally increasing levels of concern about climate change among the Australian public, but how does this compare to public concern in the USA? When concern about climate change is measured using identical questions, across a range of measures Australians appear to be

more concerned about climate change than Americans, and historically this has been the case (Figure 2).

Figure 2: Concern about climate change—Australia and USA, 2000, 2006 & 2007



Sources: (a) 2000 GlobeScan (in Leiserowitz 2007), Table 1; (b) 2006 Lowy Institute, Table 7a and 2007 CCGA/WPO, Table 7b; (c) September 2007 BBC, in conjunction with PIPA and GlobeScan, Table 12; (d) September 2007 BBC, in conjunction with PIPA and GlobeScan, Table 14; (e) November 2007 BBC, in conjunction with PIPA and GlobeScan, Table 15.

Until 2007, both the Australian and United States governments could be described as climate change sceptics. A lack of action on climate change by the Australian Government is surprising, given the variety of evidence suggesting that public opinion influences government action (Gilens 2005). Climate change was an issue the public was leading, but the Government did not follow. Although the Howard Government commissioned work on an emissions trading system (Department of the Prime Minister and Cabinet 2007); it was not until the 2007 election campaign

that climate change was elevated by both major parties as a key policy issue for Australia.

This elevation of climate change onto the political agenda in 2007 may in part explain why Australians were more concerned about climate change than Americans in 2007. However, it could not account for differences in public opinion between the two nations in 2000 and 2006. Other possible factors that may account for the differences include how much the public understands climate change, the influence of the media, personal perceptions of changing climatic conditions (including drought and government imposed water restrictions) and public trust in government—these are briefly considered below.

Similar proportions of Australians and Americans (54% and 59% respectively) report that they have read or heard a great deal about climate change (Table 13). This suggests that public understanding is unlikely to account for differences in opinion. However, to what extent this self reported measure accurately reflects the public's understanding of climate change and its consequent impact on public opinion is difficult to assess. It may be that more objective measures of public understanding need to be used to assess differences in Australian's and American's understanding of climate change—especially as self-reported and objective measures of understanding on some issues can be uncorrelated (Kellstedt, Zahran & Vedlitz 2008). Furthermore, the type of messages in what people read or hear about climate change (e.g. pro or anti climate change messages pushed by lobby groups) may also account for some of the differences in opinion.

Since Iyengar, Peters and Kinder's (1982) landmark study on the media's role in setting agendas and focussing the public's attention on particular issues, many other researchers have performed and summarised studies about media influences on public opinion (see for example: Kinder 1998; Chong & Druckman 2007a; Chong & Druckman 2007b). In examining the effects of competing frames in shaping public opinion, Chong and Druckman (2007b) found that framing effects depend more on the strength of the frame rather than the frequency. It may be that there has been a stronger media framing effect on the negative impact of climate change occurring in Australia compared to the USA. Given the severe drought occurring in Australia, for example, in the media there is no shortage of photos and video coverage of dry barren land and dead farm animals. A study by Brody *et al* (2008) found that cumulative human fatalities can focus the public's perception on the negative impacts of climate change. It may be possible that cumulative animal deaths also influence the public's concern about climate change, and partly explain why Australians are more concerned than Americans.

If a person experiences phenomenon that they perceive to be associated with climate change, for example, drought (including government imposed water restrictions), floods or hurricanes, they may be more likely to be concerned about climate change. However, Brody *et al* (2008) found that living in an area where temperatures are increasing is not related to people's likelihood to be concerned about the risk of climate change. This finding may be because temperature was measured by actual change in average temperatures using meteorology data, and people's perceptions of climatic change were not examined. It may be that people have not actually perceived a change in climatic conditions, so it would not be expected that their risk perceptions of climate change would increase. Further

research is needed on both objective (e.g. meteorological data) and subjective (e.g. perceived changes in temperature) measures of changing climatic conditions to see how (and if) these influence public opinion on climate change.

A final factor that may be important in understanding differences between Australia and the USA is the public's trust in government. Lorenzoni and Pidgeon (2006) cite a study by O'Connor and colleagues (1999), which suggests that greater support for climate change policies in Bulgaria was due to Bulgarians having greater trust in government institutions than their American counterparts. If trust in government is related to levels of concern about climate change, this may explain some of the difference in opinion between Australia and the USA. Survey results from 2004 suggest that there are higher levels of trust in Australia (40%) than in the USA (31%) (Donovan, Denmark & Bowler 2007). As Australians are more trusting of government than Americans, this may help to explain why Australians are more concerned about climate change and more likely to support climate change policies.³ However, it is unlikely that this factor accounts for much of the difference in opinion on climate change, given that the Australian Government did not take visible steps to address climate change until 2007.

It is likely that many, if not all, of these factors collectively contribute to differences in public opinion in Australia and the USA. Research focused on how these and other factors interact to influence public opinion in various countries would assist in understanding cross-country differences.

³ This is not to say that higher levels of trust in government cause greater concern for climate change, rather to say that a relationship might exist.

Support for international action on climate change (including support for the Kyoto Protocol)

The Australian public are fairly supportive of international action on climate change. In two out of three areas American public opinion is largely consistent with that in Australia. In 1998, 60% of Australians (57% of Americans) believed that poorer countries should be required to take significant action along with richer countries to reduce human impacts on climate change (Table 18). By 2007, there was increased support by Australians and Americans for both wealthy and less wealthy countries to reduce their emissions of climate changing gases—84% of Australians (70% of Americans) thought this should occur if wealthy countries helped less wealthy countries by providing financial assistance and technology (Table 20), and 71% of Australians (75% of Americans) believed that this should occur as total emissions from less wealthy countries are substantial and growing (Table 21).

It also appears that the Australian public want its government to lead the world on climate change action. In 2007, 48% of Australians ‘strongly agreed’ that Australia should be a world leader in finding solutions to climate change, and the figure increases to 81% when those who ‘agreed’ are included (Table 22). A similar proportion (79%) ‘disagreed’ or ‘strongly disagreed’ that Australia should wait to see what the rest of the world does on climate change (Table 22). In 2008, one third of Australians ‘strongly supported’ Australia leading the rest of the world by introducing stronger policies to reduce emissions, while a further 40% of Australians ‘supported’ this approach (Table 23). There were also relatively high

levels of support for Australia to achieve real reductions in greenhouse pollution by 2012 (35% 'strongly supported' this approach and 43% 'supported' it) (Table 23).

Given the high level of support among the Australian public for the Government to lead the way internationally on climate change, it is not surprising that the public is supportive of the Kyoto Protocol. A week prior to the Kyoto conference in 1997, the majority of Australians (79%) supported Australia signing an international agreement that resulted in mandatory emissions cuts (The Australia Institute 1998). Support was also high (68%) for signing such an agreement even if it involved economic costs to Australia (The Australia Institute 1998). However, Kyoto did not result in a legally-binding international agreement, and in 2001, 57% of Australians believed that the United Nations should be given power to impose legally-binding actions on governments to protect the Earth's climate (compared to 40% of Americans) (Table 19).

In December 2007, the Australian Government ratified the Kyoto Protocol, and a 2008 poll showed that 64% of Australians supported this action (Table 24). Nevertheless, another poll taken in 2008, shows the Australian public still want more from the Government. Eight out of ten (78%) Australians believed that Australia stills need to take further action to deal with climate change, while less than two in ten Australians believe Australia has done all it can to respond to climate change at the moment (Table 25).

Public support for action on climate change despite economic impacts

Yet again, public opinion in Australia in this area is strong, although levels of support appear to be declining. In 2006, just over two-thirds (68%) of Australians believed that global warming was a serious problem and that significant steps needed to be taken now even if it involved significant costs—this compares to only 43% of Americans who believed this was the case (Table 28). In 2007, 58% of Australians believed that we should move quickly to deal with climate change even if it leads to the loss of some jobs (Table 32). In 2008, 38% of Australians opposed Australia delaying action on climate change if jobs are at risk (Table 33). As question wording and response options have not been consistent over the three years, it is difficult to conclude that there is definitely declining levels of public support for action on climate change, even if it costs jobs. However, as the Australian Government indicates to the public it is prepared to take steps to address climate change and that jobs will be lost, for example, in the coal industry, it may be that overwhelming public support for action has been tempered by the reality that friends and/or family may lose their job.

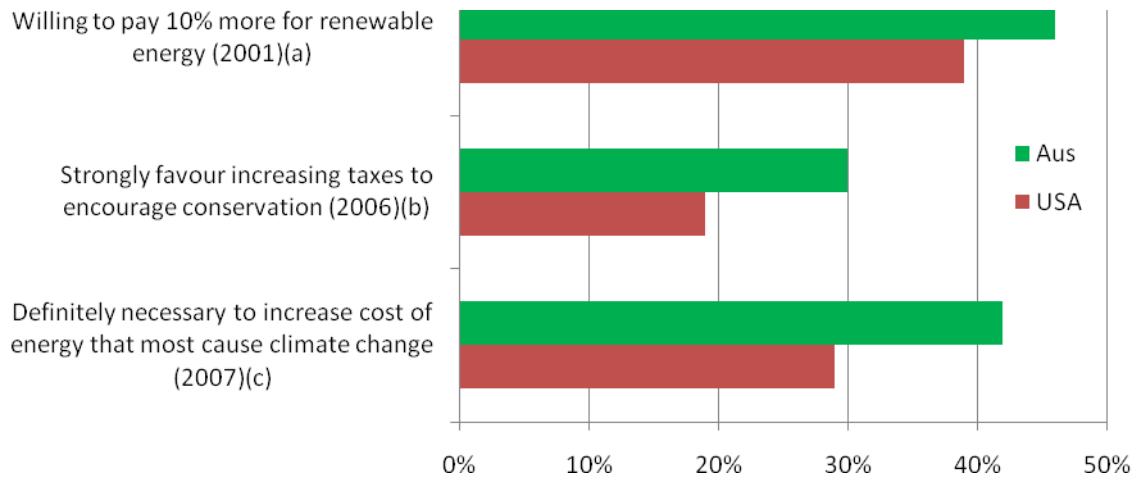
The trend for willingness to pay more for action on climate change seems to have stabilised in the last two years. In 2001, almost half (46%) of Australians were willing to pay an extra 10% to have household electricity supplied by a renewable source (Table 26). In 2007, when a similar question was asked, 20% of Australians indicated they were willing to pay 'a lot more', and 57% were willing to pay 'a little more' to use renewable energy (Table 30). Marginal seat polling in 2007 showed that almost half of respondents were willing to pay up to an extra \$20 per week for clean energy (32% were prepared to pay \$10 per week more and 16% were willing to pay \$20 per week more) (Table 31). The latest 2008

polling results show that 56% of Australians are in favour of paying more for energy sources under an emissions trading scheme (Table 35). This proportion is only slightly below the 61% of Australians, who in 2008 believed that a carbon emissions trading scheme in Australia could help slow global warming (Table 34).

Given the broad support for an emissions trading scheme, it is not surprising that there is also support in Australia for increasing costs to individuals to conserve energy. A 2006 poll showed that 30% of Australians 'strongly favoured' and 39% 'somewhat favoured' increasing energy taxes to encourage conservation (Table 27). There was even higher support among Australians in 2007, where 42% believed it was 'definitely necessary' to increase the cost of energy that most cause climate change (38% believed that it was 'probably necessary') (Table 29).

Compared to Americans, Australians appear to be much more willing to pay more for action on climate change. Figure 3 shows public opinion results for the two countries and that opinion on this issue was closest between the two countries back in 2001. This lack of willingness to pay by the American public may in part be due to their overall lower levels of concern about climate change as an issue. It may also be related to perceptions about the country's economic conditions at the time, for example, if people think the economic outlook is good, then they may be willing to pay more for action on climate change.

Figure 3: Willingness to pay more for action on climate change—Australia and USA, 2001, 2006 and 2007



Sources: (a) 2001 GlobeScan (in Leiserowitz 2007), Table 26; (b) July 2006 BBC, in conjunction with PIPA and GlobeScan, Table 27; (c) November 2007 BBC, in conjunction with PIPA and GlobeScan, Table 29.

Public support for energy efficiency and low carbon emitting energy

There are high levels of support among Australians for improving energy efficiency and for using most types of renewable energy. In 2006, 74% of Australians ‘strongly favoured’ the use of tax incentives to encourage the development and use of alternative energy sources (e.g. solar or wind) (Table 36). A slightly smaller proportion (59%) ‘strongly favoured’ a requirement that auto makers increase fuel efficiency, even if this meant the price of cars would go up (Table 36).

Once again, there were differences in the views of Australians compared to Americans. Americans were less likely to favour either of the approaches mentioned above (59% ‘strongly favoured’ tax incentives and 50% ‘strongly favoured’ more fuel efficient cars) (Table 36). Americans (29%) were, however,

more likely than Australians (19%) to 'strongly favour' building new nuclear power plants to reduce reliance on oil and coal (Table 36). Most of these differences may in part reflect Australians' greater concern for climate change, while the difference on nuclear power may be due to a greater trust in this power source by Americans who already rely on nuclear power for energy.

Australians' views on the use of nuclear energy had not changed in 2007. When they were asked about how convincing the case was to use various methods to reduce carbon emissions, 65% believed that there was a 'very convincing' case for renewable energy to be used and only 19% believed this to be the case for nuclear energy (Table 37). There was also a high degree of support for Australia to lead the way in the use of renewable (or clean) energy, with 48% of Australians 'strongly agreeing' and a further 35% 'agreeing' that this should occur (Table 38).

A 2008 poll also found that Australians are supportive of several potential measures the Government could adopt to reduce climate change in Australia over the next 12 months. Half (49%) of Australians would 'strongly support' Government measures to ensure that new electricity generation comes from clean or renewable energy, and a further 39% would 'support' such measures (Table 39). There were also high levels of support for Government measures that would make homes more energy efficient (48% 'strongly supported' and 42% 'supported') and measures that would reduce emissions from cars (41% 'strongly supported' and 46% 'supported') (Table 39).

Conclusion

When it comes to what Australians say about climate change, some clear messages emerge. Over the last decade there has been increased concern among the Australian public, with eight out of ten Australians now concerned about climate change (see Figure 1). Furthermore, climate change now rates in Australians' minds as a top policy issue alongside traditional issues of education and health. This high level of concern in Australia is unmatched in the USA and this may be due to several factors, including public understanding of climate change, media influences, personal perceptions of changing climatic conditions and trust in government.

Australians are very supportive of international action on climate change and want the Australian Government to take a lead role in this area—this high level of support for action at an international level has existed for the last decade, since the Kyoto conference in 1997.

Going somewhat against the trend of increasing support in other areas, support among Australians for action on climate change if it involves economic costs has declined somewhat in the last few years. However, in 2008 over half of Australians are willing to pay more for energy through a carbon emissions trading scheme (Table 35). Australians are very supportive of measures to improve energy efficiency and to use low carbon emitting energy sources. The most preferred approach by Australians is the use of renewable or clean energy, and there are low levels of support for the use of nuclear energy.

Although this paper provides some initial ideas about why public opinion on climate change in Australia and the USA is different, further research in this area is needed. A better understanding of why citizens in different countries have different levels of concern about climate change may be an important factor in explaining why governments are (or are not) prepared to take action on climate change.

Appendix

Abbreviations

BBC: BBC World Service

CCGA: Chicago Council on Global Affairs

PIPA: Program on International Policy Attitudes

USA: United States of America

WPO: World Public Opinion

Public opinion data

Note: all polling results are based on nationally representative samples unless otherwise specified in the tables.

Levels of Concern about climate change

Table 1. How serious a problem do you consider climate change or global warming, due to the greenhouse effect?

	Australia (%)	USA (%)
Very serious	49	40
Somewhat serious	37	34

Source: 2000 GlobeScan (in Leiserowitz 2007), exact sample sizes not reported

Table 2. How worried are you about the following potential threats from the outside world?

	Very worried (%)	Fairly worried (%)
Unfriendly countries developing nuclear weapons	51	20
Global warming	46	24
International terrorism	41	22
International disease epidemics	36	25
Islamic fundamentalism	36	21
US foreign policies	32	25
World population growth	23	23
Illegal immigration and refugees	23	21
Failing countries in our region	17	29
China's growing power	16	19

Source: 2005 Lowy Institute, n=1000

Table 3. “Firstly, what do you think is the most important problem facing the world today?” and “What do you think is the most important problem facing Australia today?”

	The world (%)	Australia (%)
Water conservation	1	8
Global warming	4	2
Famine	–	–
Other environmental issues	7	4
Total Environmental Issues	12	15
Total Terrorism, Wars, Security, Safety	52	21
Total Economic Issues	16	14
Total Religious, Religious Fundamentalism	2	1
Total Energy Crisis, Depletion of Fossil Fuels, Petrol Prices	2	8
Total Health Issues	2	6
Total Social Issues	3	4
Total Government, Politics, Political System, Human Issues	2	12
Other	8	14
Can't say	1	5

Source: 2005 Roy Morgan, Australians aged 14 years and over, n=663

Table 4. “Next about Global Environmental issues. What do you believe are the important Environmental issues facing the World today? Which Others? Any Others?” and “Next about Australian Environmental issues. What do you believe are the important Environmental issues facing Australia today? Which Others? Any Others?”

	The world (%)	Australia (%)
Global warming	35	13
Greenhouse effect, greenhouse gases	15	7
Climate change	5	3
Ozone layer	5	2
Melting of polar ice caps	3	*
Extinction, loss of species	2	2
Reduction in habitable land	1	2
Introduction of non-native species	–	1
El Nino	*	*
Total Global warming issues	56	26
Total Depletion of Resources	18	12
Total Pollution	27	22
Total Waste Management Issues	7	7
Total Water Management Issues (including drought)	12	43
Total Natural Disasters	7	13
Total Over Population/Urbanisation	4	3
Other	9	10
Can't say	8	9

Note: Respondents could nominate more than one issue, * denotes less than 1%.

Source: 2005 Roy Morgan, Australians aged 14 years and over, n=663

Table 5. Which of the following is closest to your view about global warming?

	2005 (Nov) (%)	2006 (Apr) (%)
Concerns are exaggerated	13	12
If we don't act now, it will be too late	67	71
It is already too late	15	14
Can't say	5	3

Source: 2005 and 2006 Roy Morgan, Australians aged 14 years and over, n=663 (2005) and n=669 (2006) (respondents aged less than 18 years were not asked this question)

Table 6. Please tell me if you are very concerned, somewhat concerned, not very concerned or not at all concerned about each of the following possibilities related to energy issues. *That the way the world produces and uses energy is causing environmental problems including climate change.*

	Very concerned (%)	Somewhat concerned (%)	Not very concerned (%)	Not at all concerned (%)	Don't know/ no answer (%)
Australia	69	25	5	1	*
USA	53	29	10	8	1

Source: 2006 BBC, in conjunction with PIPA and GlobeScan, n=1007 (Australia) and n=1002 (USA)

Table 7a. Below is a list of possible threats to the vital interest of Australia in the next 10 years. For each one, please say whether you see this as a critical threat, an important but not critical threat, or not an important threat at all.

	Critical threat (%)	Important, but not critical threat (%)	Not an important threat at all (%)	Don't know (%)
The development of China as a world power	25	52	22	1
Islamic fundamentalism	60	29	9	2
The possibility of unfriendly countries becoming nuclear powers	70	24	6	0
International terrorism	73	22	5	0
Large numbers of immigrants and refugees coming into Australia	31	44	24	1
Economic competition from low wage countries	34	49	16	0
Global warming	68	26	5	1
AIDS, avian flu and other potential epidemics	58	36	6	0
Failing countries in our region	31	52	14	3
Disruption in energy supply	51	41	8	1
A confrontation between mainland China and Taiwan	33	44	18	5
Instability and conflict on the Korean Peninsula	34	45	16	5
Economic competition from Asian countries	33	52	14	1

Source: 2006 Lowy Institute, n=1000

Table 7b. Based on question in Table 7a in USA.

	Critical threat (%)	Important, but not critical threat (%)	Not an important threat at all (%)	Don't know (%)
Global warming	46	39	13	3

Source: 2007 CCGA/WPO, n=1227

Table 8. Australians' major concerns over the next six months

	2nd Half 2006 (%)	1st Half 2007 (%)
Global warming	13	18
Health	19	17
The economy	13	13
Job security	14	12
Terrorism	8	8
Crime	5	7
Political stability	2	5
War	3	3
Immigration	3	2
Other concern	14	10
None	7	5

Source: 2006 Nielsen (internet survey), n=500

Table 9. In the coming years, which one of the following goals should be:

	... most important to Australia? (%)	... second most important? (%)
Improving standards in education	28	27
Tackling climate change	28	19
Improving the delivery of health care	21	30
Ensuring economic growth	17	15
Fighting international terrorism	5	8
Other	1	1

Source: 2007 Lowy Institute, n=1003

Table 10. Thinking about what Australian foreign policy should be trying to achieve, I am going to read a list of goals, and ask you to tell me how important each one is for Australia. Please say whether you think each issue is very important, fairly important, not very important or not at all important.

Goals	Very important (%)	Fairly important (%)	Not very important (%)	Not at all important (%)
Protecting the jobs of Australian workers	75	20	4	1
Tacking climate change	75	19	5	1
Combating international terrorism	65	26	7	2
Protecting Australian citizens abroad	63	30	5	1
Helping to prevent nuclear proliferation	61	27	9	2
Strengthening the Australian economy	60	35	4	1
Controlling illegal immigration	55	31	10	3
Strengthening the United Nations	46	38	13	3
Helping to stabilise weak nations in our region	46	45	7	2
Promoting democracy in other countries	29	41	24	6

Source: 2007 Lowy Institute, n=1003

Table 11. Thinking about climate change. Do you personally think climate change, and its effect on Australia, is a major problem, a minor problem, or not a problem?

	Major problem (%)	Minor problem (%)	TOTAL problem (%)	Not a problem (%)	Uncommitted (%)
Total	76	17	93	5	2

Source: 2007 NEWSPOLL and the Australian, n=1205

Table 12. As you may know there is some discussion these days about whether it is necessary to take steps to reduce the impact of human activities that are thought to cause global warming or climate change. Would you say that you believe that:

	Australia (%)	USA (%)
It is necessary to take major steps starting very soon	70	59
It is necessary to take modest steps over the coming years	25	33
It is not necessary to take any steps	3	6

Source: September 2007 BBC, in conjunction with PIPA and GlobeScan, n=1000 (Australia) and n=1000 (USA)

Table 13. How much have you heard or read about global warming or climate change?

	Australia (%)	USA (%)
A great deal	54	59
Some	36	30
Not very much	9	8
Nothing at all	2	2

Source: September 2007 BBC, in conjunction with PIPA and GlobeScan, n=1000 (Australia) and n=1000 (USA)

Table 14. As you may know there has been an increase in the temperature of the earth, sometimes called global warming or climate change. Do you believe that human activity, including industry and transportation, is or is not a significant cause of climate change?

	Australia (%)	USA (%)
Human activity IS a significant cause	81	71
Human activity IS NOT a significant cause	16	24

Source: September 2007 BBC, in conjunction with PIPA and GlobeScan, n=1000 (Australia) and n=1000 (USA)

Table 15. Please tell me if you think each of the following will definitely be necessary, probably be necessary, probably not be necessary, or definitely not be necessary in order to address the problem of climate change or global warming?
For individuals in [country] to make changes in their life style and behaviour in order to reduce the amount of climate changing gasses they produce.

	Definitely necessary (%)	Probably necessary (%)	Probably not necessary (%)	Definitely not necessary (%)
Australia	55	32	7	5
USA	48	31	10	9

Source: November 2007 BBC, in conjunction with PIPA and GlobeScan, n=1000 (Australia) and n=1000 (USA)

Table 16. Level of concern about climate change.

Extremely concerned	17%
Very concerned	32%
Concerned	40%
Not very concerned	9%
Not at all concerned	3%

Source: 2008 The Climate Institute, n=1215

Table 17: Thinking now about climate change. Do you personally believe or not believe that climate change is currently occurring?

	Yes/Believe (%)	No/Not believe (%)	Uncommitted (%)
Total	84	12	4

Source: July 2008 NEWS POLL and the Australian, n=1200

Support for international action on climate change (including support for the Kyoto Protocol)

Table 18. Air emissions from richer countries have had the most impact on the Earth's climate, however, emissions are growing more quickly in poorer countries with large populations. As a result, there is a debate about when these poorer countries should join richer countries in taking significant action to reduce human impacts on climate. Do you think that poorer countries should...?

	Australia (%)	USA (%)
Be required to take significant action immediately along with richer countries	60	57
Be required to take significant action only after richer countries lead with action	26	33
Not be required to take significant action on climate change	4	6
Other/ don't know	10	4

Source: 1998 GlobeScan (in Leiserowitz 2007), exact sample sizes not reported

Table 19. After ten years of international negotiations, national governments have set action targets, but have been unable to reach a legally-binding agreement to reduce human impacts on the Earth's climate. Which one of the following statements best reflects your view of this?

	Australia (%)	USA (%)
There are good reasons for the negotiations taking this long	8	15
This isn't good enough; national governments should take the problem and the negotiations more seriously and quickly reach a binding agreement	30	39
The situation is not acceptable; the United Nations should be given the power to impose legally-binding actions on national governments to protect the Earth's climate	57	40
None / no agreement necessary	1	4
Don't know	4	2

Source: 2001 GlobeScan (in Leiserowitz 2007), exact sample sizes not reported

Table 20. Would you support or oppose the following deal: wealthy countries agree to provide less wealthy countries with financial assistance and technology, while less wealthy countries agree to limit their emissions of climate changing gasses along with wealthy countries?

	Australia (%)	USA (%)
Support	84	70
Oppose	12	21

Source: September 2007 BBC, in conjunction with PIPA and GlobeScan, n=1000 (Australia) and n=1000 (USA)

Table 21. Which of the following points of view is closer to your own?

	Australia (%)	USA (%)
Because total emissions from less wealthy countries are substantial and growing, these countries SHOULD limit their emissions of climate changing gasses along with wealthy countries.	71	75
Because countries that are less wealthy produce relatively low emissions per person they should NOT be expected to limit their emissions of climate changing gasses along with wealthy countries.	23	18

Source: September 2007 BBC, in conjunction with PIPA and GlobeScan, n=1000 (Australia) and n=1000 (USA)

Table 22. How much do you agree or disagree with the following statements about climate change?

	Strongly agree (%)	Agree (%)	No real opinion (%)	Disagree (%)	Strongly disagree (%)
Our governments should make Australia a world leader in finding solutions to climate change	48	33	15	3	1
Our governments should wait and see what the rest of the world does to deal with climate change	2	7	11	46	33

Source: 2007 Australian Research Group (2007 The Climate Institute), exact sample sizes not reported

Table 23. In the international negotiations on climate change, how much support would you give to the following positions that Australia could take?

	Strongly support (%)	Support (%)	No real opinion/don't know (%)	Oppose (%)	Strongly oppose (%)
Reverse Australia's current growing levels of greenhouse pollution to achieve real reductions by 2012	35	43	18	3	1
Lead the rest of the world by introducing stronger policies to reduce greenhouse pollution in Australia	33	40	19	5	2

Source: 2008 AUSPOLL, n=1215

Table 24. One of the Prime Minister's first acts was to ratify the Kyoto Protocol on climate change. How strongly do you support or oppose Australia's ratification of the Kyoto Protocol?

Strongly support	33%
Support	31%
No real opinion	29%
Oppose	4%
Strongly oppose	3%

Source: 2008 AUSPOLL, n=1215

Table 25. Personal response to Kyoto Ratification.

	Strongly agree (%)	Agree (%)	No real opinion (%)	Disagree (%)	Strongly disagree (%)
We still need to take further urgent action to deal with climate change	32	46	17	4	1
We have done everything we need to respond to climate change at the present time	3	14	23	46	14

Source: 2008 The Climate Institute, n=1215

Public support for action on climate change despite economic impacts

Table 26. Would you be willing to pay 10% more for household electricity to have it supplied by solar energy, wind power or some other renewable source?

	Strongly agree (%)	Somewhat agree (%)	Somewhat disagree (%)	Strongly disagree (%)	Don't know/ no answer (%)
Australia	46	35	9	7	2
USA	39	31	14	14	1

Source: 2001 GlobeScan (in Leiserowitz 2007), exact sample sizes not reported

Table 27. Please tell me if you strongly favour, somewhat favour, somewhat oppose or strongly oppose each of the following. *Increasing energy taxes to encourage conservation.*

	Strongly favour (%)	Somewhat favour (%)	Somewhat oppose (%)	Strongly oppose (%)	Don't know/ no answer (%)
Australia	30	39	18	12	1
USA	19	28	22	29	2

Source: July 2006 BBC, in conjunction with PIPA and GlobeScan, n=1007 (Australia) and n=1002 (USA)

Table 28. There is a controversy over what the countries of the world, including [survey country], should do about the problem of global warming. I'm going to read you three statements. Please tell me which statement comes closest to your own point of view.

	Australia (%)	USA (%)
Until we are sure that global warming is really a problem, we should not take any steps that would have economic costs	7	17
The problem of global warming should be addressed, but its effects will be gradual, so we can deal with the problem gradually by taking steps that are low in cost	24	37
Global warming is a serious and pressing problem. We should begin taking steps now even if this involves significant costs	68	43
Don't know	1	3

Source: 2006 Lowy Institute, WPO/CCGA 2007, n=1007 (Australia) and n=1227 (USA)

Table 29. Please tell me if you think each of the following will definitely be necessary, probably be necessary, probably not be necessary, or definitely not be necessary in order to address the problem of climate change or global warming? *To increase the cost of the types of energy that most cause climate change, such as coal and oil/petrol, in order to encourage individuals and industry to use less.*

	Definitely necessary (%)	Probably necessary (%)	Probably not necessary (%)	Definitely not necessary (%)
Australia	42	38	10	7
USA	29	36	17	15

Source: November 2007 BBC, in conjunction with PIPA and GlobeScan, n=1000 (Australia) and n=1000 (USA)

Table 30. Now about reducing greenhouse gas emissions to help address climate change. Would you personally be prepared to pay more, or not pay more, to use renewable or other alternative sources of energy if it would help reduce greenhouse gas emissions?

	Pay a lot more (%)	Pay a little more (%)	TOTAL pay more (%)	Not pay more (%)	Uncommitted (%)
Total	20	57	77	18	5

Source: 2007 NEWSPOLL and the Australian, n=1205

Table 31. How much extra would you pay for clean energy?

Not prepared to pay extra	28%
Prepared to pay an extra \$10 per month	32%
Prepared to pay an extra \$20 per month	16%
Prepared to pay an extra \$30 per month	6%
Prepared to pay an extra \$40 per month	3%
Prepared to pay an extra \$50 per month	4%

Source: 2008 The Climate Institute (online marginal seats polling in November 2007), n=984

Table 32. Which of the following best describes your view?

We should move slowly to deal with climate change and be very careful to protect jobs	31%
We should move quickly to deal with climate change even if it leads to the loss of some jobs	58%
Don't know	11%

Source: 2007 Australian Research Group (2007 The Climate Institute), exact sample size not reported

Table 33. In the international negotiations on climate change, how much support would you give to the following positions that Australia could take?

	Strongly support (%)	Support (%)	No real opinion/don't know (%)	Oppose (%)	Strongly oppose (%)
Delay action on climate change if jobs are at risk	5	24	34	29	9

Source: 2008 AUSPOLL, n=1215

Table 34. Thinking now about the environment, in particular, the idea of a carbon emissions trading scheme. This aims to limit total carbon emissions by giving businesses a permit to release up to a certain amount of emissions. Do you believe a carbon emissions trading scheme in Australia could help slow global warming?

	Yes (%)	No (%)	Uncommitted (%)
Total	61	25	14

Source: June 2008 NEWSPOLL and the Australian, n=1201

Table 35. Under a carbon emissions trading scheme, the price of energy sources, such as petrol, electricity and gas may become more expensive. Would you personally be in favour or against paying more for energy sources, such as petrol, electricity and gas if it would help to slow global warming?

	In favour (%)	Against (%)	Uncommitted (%)
Total	56	39	5

Source: June 2008 NEWSPOLL and the Australian, n=1201

Public support for energy efficiency and low carbon emitting energy sources

Table 36. Please tell me if you strongly favour, somewhat favour, somewhat oppose or strongly oppose each of the following.

	Strongly favour (%)	Somewhat favour (%)	Somewhat oppose (%)	Strongly oppose (%)	Don't know/ no answer (%)
<i>Building new nuclear power plants, to reduce reliance on oil and coal.</i>					
Australia	19	34	20	24	3
USA	29	34	15	18	4
<i>Creating tax incentives to encourage the development and use of alternative energy sources, such as solar or wind power.</i>					
Australia	74	18	5	2	1
USA	59	26	6	6	2
<i>Requiring auto makers to increase fuel efficiency, even if this means the price of cars would go up.</i>					
Australia	59	29	6	5	1
USA	50	27	10	11	1

Source: July 2006 BBC, in conjunction with PIPA and GlobeScan, n=1007 (Australia) and n=1002 (USA)

Table 37. On the issue of climate change, scientists have warned that we need to reduce the amount of carbon emitted while producing energy. People are now debating which methods should be followed to pursue these reductions. Thinking about the next 25 years in Australia, please say how convincing you find the case for each of the following methods:

How convincing the case for:	Very (%)	Fairly (%)	Not very (%)	Not at all (%)	Don't know (%)
Renewable energy like wind, solar and geothermal	65	27	5	2	1
More efficient power-plants, machinery and vehicles	44	39	12	3	2
Biofuels made from agricultural products	38	37	17	2	6
Hydroelectric power as a product of new dams	31	33	26	6	3
Nuclear energy	19	30	28	20	3
Clean coal energy where emissions are stored underground	15	32	35	11	6

Source: 2007 Lowy Institute, n=1003

Table 38. How much do you agree or disagree with the following statements about climate change?

	Strongly agree (%)	Agree (%)	No real opinion (%)	Disagree (%)	Strongly disagree (%)
Australia should lead the world in clean energy (solar, wind and geothermal) use	48	35	13	3	1
Renewable energy like wind and solar is just not going to meet our national energy needs for a very long time, if ever	9	28	21	31	10

Source: 2007 Australian Research Group (2007 The Climate Institute), exact sample size not reported

Table 39. And how much support would you give to the following Government measures to help reduce climate change in Australia during the next 12 months?

	Strongly support (%)	Support (%)	No real opinion/don't know (%)	Oppose (%)	Strongly oppose (%)
Make homes more energy efficient	48	42	8	2	0
Ensure new electricity generation comes from clean or renewable energy (solar, wind geothermal)	49	39	11	1	0
Reduce their emissions from cars	41	46	11	2	1

Source: 2008 AUSPOLL, n=1215

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