

Who Wants a Nuclear Power Plant?

Support for nuclear power in Australia

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Summary

In May 2006, the Prime Minister called for a ‘full-blooded’ debate about the establishment of a nuclear power industry in Australia. Soon after, a Newspoll survey found that 51 per cent of Australians were opposed to the construction of nuclear power plants in Australia, 38 per cent were supportive, and 11 per cent were uncommitted. A later Newspoll survey that was published in *The Australian* in December 2006 found similar results, with 50 per cent opposed to the construction of nuclear power plants in Australia, 35 per cent supportive and 15 per cent uncommitted.

The Newspoll surveys and other similar research indicates that while most Australians are opposed to the establishment of a nuclear power industry, a significant proportion of the population are supportive. However, overseas evidence suggests that support for nuclear energy is sensitive to siting issues. Proposals to construct nuclear power plants are usually highly controversial and they often face fierce local opposition. In fact, local opposition to siting proposals has stifled the expansion of the nuclear power industry in a number of other countries and affected the manner in which nuclear power plants have been sited and operated.

To gauge public concern about the siting of nuclear power plants in Australia, Newspoll were commissioned by the Australia Institute to conduct a survey of 1,200 Australians. Respondents were asked: If there were plans to build a nuclear power plant in your local area, would you be in favour of it or against it?

Key findings include the following.

- Two thirds of Australians (66 per cent) are opposed to a nuclear power plant in their local area, a quarter (25 per cent) are supportive and nine per cent are undecided. Fifty-five per cent are strongly opposed with only 10 per cent strongly in favour.
- Women are much more likely to oppose the construction of a nuclear power plant in their local area than men (75 per cent versus 57 per cent).

- Older Australians (aged 50 years and above) are less likely to be opposed to a nuclear power plant in their local area than young and middle-age Australians.
- In general, middle Australia is most strongly opposed to living near a nuclear power plant. Seventy-three per cent of middle-income households are opposed to living near a nuclear power plant, compared to 61 per cent of low-income households and 63 per cent of high-income households.
- People with children are more likely to oppose living near a nuclear power plant than those without children (72 per cent versus 64 per cent).
- The strongest opposition to siting nuclear power plants in people's local areas is in Victoria (71 per cent), Tasmania (70 per cent) and Western Australia (69 per cent). Support for nuclear power is strongest in South Australia, where 36 per cent of people say they would support a nuclear power plant in their local area.

A comparison of the results of the Australia Institute survey with the December 2006 Newspoll survey exploring support for nuclear energy at the general level shows that opposition to nuclear plants in the local area is substantially higher than opposition to nuclear power in general – 66 per cent versus 50 per cent. And while 35 per cent of Australians support the development of nuclear power in general, this drops to 25 per cent when people are asked whether they would support a nuclear power plant in their local area.

The results of the survey suggest that siting issues are likely to be central to any discussion about the establishment of a nuclear energy industry in Australia. Therefore, consideration of possible sites for nuclear power plants is an unavoidable aspect of the nuclear debate.

1. Introduction

In May 2006, the Prime Minister called for a ‘full-blooded’ debate about the establishment of a nuclear power industry in Australia (ABC 2006). Soon after he announced that Cabinet had approved the establishment of a Prime Ministerial Taskforce to review uranium mining, processing and nuclear energy in Australia (hereafter referred to as the ‘Nuclear Taskforce’) (Howard 2006a).

The Prime Minister said it was ‘foolish’ for Australia to merely be an exporter of uranium without looking into whether it could also support an enrichment and nuclear power industry. While he anticipated there would be opposition to the idea of expanding Australia’s nuclear industry, he stated that he wanted a ‘full and open review, and examination, and debate on this issue’ (Howard 2006a).

In May 2006, Newspoll were commissioned by *The Australian* to conduct a survey about the level of support for nuclear power stations in Australia (Newspoll 2006). The survey asked whether the respondents were in favour or against nuclear power stations being built in Australia. It found that 51 per cent of Australians were opposed to nuclear power, 38 per cent were supportive, and 11 per cent were uncommitted. Opposition to nuclear power was strongest amongst females, Labor voters and young and middle-age adults.

Newspoll repeated the same survey in December 2006 on behalf of *The Australian* and found similar results (Lewis and Kerr 2006; Newspoll 2007). Fifty per cent of Australians opposed nuclear energy, 35 per cent were supportive and 15 per cent were uncommitted. The proportion of young people (aged 18 to 34 years) strongly opposed to nuclear energy fell from 43 per cent to 32 per cent. However, strong opposition remained amongst females, Labor voters and those aged between 35 and 49 years.

The results from the Newspoll surveys are comparable to those found in research conducted by Globescan Incorporated on behalf of the International Atomic Energy Agency in 2005 (GlobeScan Incorporated 2005). Sixty per cent of respondents in Australia said they opposed the construction of nuclear power plants and only 34 per cent of people were supportive. However, when asked whether they supported the use of nuclear power to help combat climate change, the level of opposition fell to 47 per cent and support for nuclear power rose to 47 per cent. These results may help explain why the Prime Minister believes the Australian public may be receptive to the idea of a nuclear power industry. In his words:

... we’ve moved another generation since the early 1980s and I think there is a whole new attitude on the part of a lot of people (Howard 2006a).

The levels of support for nuclear power in Australia, particularly when put in the context of climate change, are similar to those in a number of other countries, including Indonesia, United States, Great Britain, Canada and France (GlobeScan Incorporated 2005). However, overseas evidence suggests that support for nuclear energy is sensitive to siting issues. Proposals to construct nuclear power plants are usually highly controversial and they often face fierce local opposition. In fact, local opposition to siting proposals has stifled the expansion of the nuclear power industry in a number of other countries and affected the manner in which nuclear power plants

have been sited and operated (Kunreuther *et al.* 1996; Shaw 1996; Lesbirel and Shaw 2000; Lesbirel 2003; Sumihara 2003; Aldrich 2005).

The fact that nuclear energy attracts moderate levels of support at a general level but fierce opposition from local communities when concrete proposals are put forward suggests the presence of the NIMBY (not in my backyard) phenomenon. That is, even if people do not oppose nuclear power plants at a general level, they often object to proposals to construct them in their local areas. Part of this phenomenon is probably due to the way people evaluate risks. Research from Japan found that when people assess the value of nuclear power at a general level, they weigh both the perceived risks and potential benefits. Yet when it comes to a siting situation, perceived risks become the overriding factor and the weighting given to potential benefits is greatly diminished (Tanaka 2004).

The aim of this study is to evaluate the level of public support for nuclear power plants in people's local areas. This issue is likely to have important implications for the development of a nuclear power industry in Australia.

The Australia Institute commissioned Newspoll to conduct a national phone survey of 1,200 Australians aged 18 years and over. It was carried out between 8 – 10 December 2006. The respondents were selected by means of a stratified random sample process. Demographic information was collected to enable the results to be correlated with relevant factors, including income, sex and place of residence.

Respondents were asked:

If there were plans to build a nuclear power plant in your local area, would you be in favour of it or against it? If in favour, is that strongly in favour or somewhat in favour? If against, is that strongly against or somewhat against?

2. Results

The responses are reported in Tables 1 – 6. Table 1 shows the totals, Table 2 provides responses by sex, Table 3 by age, Table 4 by household income, Table 5 by whether the respondents have children and Table 6 by state.

Two thirds of Australians (66 per cent) are opposed to a nuclear power plant in their local area, a quarter (25 per cent) are supportive and nine per cent are undecided.

The proportion of people who are strongly against a nuclear power plant in their local area (55 per cent) is substantially larger than the proportion who are strongly in favour (10 per cent).

Table 1 If there were plans to build a nuclear power plant in your local area, would you be in favour of it or against it? (per cent)

	Total
Strongly in favour	10
Somewhat in favour	15
Total in favour	25
Strongly against	55
Somewhat against	12
Total against	66
Neither/Don't know	9

Figures may not add to 100 per cent due to rounding.

These results are different from other surveys that asked respondents about their attitudes towards nuclear power at a general level. Fewer people support nuclear power plants in their local area than support them at a general level and the proportion of people who oppose nuclear power is higher when people are asked about siting plants in their local area. This issue is discussed in greater detail in Section 3.

There are substantial differences in the responses provided by men and women (Table 2). Women are more likely to oppose the construction of a nuclear power plant in their local area than men (75 per cent versus 57 per cent). Sixty-four per cent of women are strongly opposed to a nuclear power plant in their local area and only five per cent are strongly supportive. In contrast, 45 per cent of men are strongly opposed and 15 per cent are strongly supportive.

Table 2 If there were plans to build a nuclear power plant in your local area, would you be in favour of it or against it? By sex (per cent)

	Male	Female
Strongly in favour	15	5
Somewhat in favour	21	10
Total in favour	36	15
Strongly against	45	64
Somewhat against	12	11
Total against	57	75
Neither/Don't know	7	10

Figures may not add to 100 per cent due to rounding.

There are substantial differences in the responses provided by people in different age groups (Table 3). Young (aged 18 to 34 years) and middle-age (aged 35 to 49 years) adults are more likely to oppose nuclear power plants in their local area than older Australians (aged 50 years and above). Seventy-two per cent of young adults and 71 per cent of middle-age adults are opposed to a nuclear power plant in their local area. The comparable figure for older Australians is only 60 per cent.

The level of support for a nuclear power plant in a local area is lowest amongst middle-age adults. Sixty-two per cent of this age group is strongly opposed to a nuclear power plant in their local area and only seven per cent are strongly supportive. In contrast, 49 per cent of older Australians are strongly opposed to a nuclear power plant in their local area and 12 per cent are strongly supportive.

Table 3 If there were plans to build a nuclear power plant in your local area, would you be in favour of it or against it? By age (per cent)

	18 – 34	35 – 49	50+
Strongly in favour	9	7	12
Somewhat in favour	13	13	18
Total in favour	22	21	30
Strongly against	55	62	49
Somewhat against	16	8	11
Total against	72	71	60
Neither/Don't know	7	9	10

Figures may not add to 100 per cent due to rounding.

The responses vary depending on levels of household income (Table 4). In general, middle Australia is most strongly opposed to living near a nuclear power plant. People from low- (less than \$30,000) and high- (\$70,000+) income households are less likely to say they are opposed to a nuclear power plant in their local area than those from middle-income households (61 per cent and 63 per cent respectively versus 73 per cent). Sixty-one per cent of Australians from middle-income households are strongly opposed to a nuclear power plant in their local area compared to 51 per cent from low-income households and 48 per cent from high-income households. Similarly, only six per cent of Australians from middle-income families are strongly supportive of a nuclear power plant in their local area compared to 10 per cent from low-income households and 11 per cent from high-income households.

Table 4 If there were plans to build a nuclear power plant in your local area, would you be in favour of it or against it? By household income (per cent)

	Less than \$30,000	\$30,000 to \$69,999	\$70,000+
Strongly in favour	10	6	11
Somewhat in favour	16	13	18
Total in favour	26	19	29
Strongly against	51	61	48
Somewhat against	11	12	14
Total against	61	73	63
Neither/Don't know	12	8	8

Figures may not add to 100 per cent due to rounding.

The likelihood that a person will oppose the construction of a nuclear power plant in their local area is affected by whether they have children (Table 5). Those with children are substantially more likely to be opposed to living near a nuclear power plant than those without children. Seventy-two per cent of parents are opposed to a nuclear power plant in their local area, 21 per cent are supportive and eight per cent are undecided. In contrast, amongst those without children, 64 per cent are opposed, 27 per cent are supportive and nine per cent are undecided. Sixty per cent of parents are strongly opposed to living near a nuclear power plant, with only seven per cent strongly in favour.

Table 5 If there were plans to build a nuclear power plant in your local area, would you be in favour of it or against it? By child status (per cent)

	Children	
	Yes	No
Strongly in favour	7	11
Somewhat in favour	14	16
Total in favour	21	27
Strongly against	60	52
Somewhat against	11	12
Total against	72	64
Neither/Don't know	8	9

Figures may not add to 100 per cent due to rounding.

There are some differences in opinion between the states (Table 6). The strongest opposition to living near a nuclear power plant is in Victoria (71 per cent), Tasmania (70 per cent) and Western Australia (69 per cent). Support for nuclear power is strongest in South Australia, where 36 per cent of people say they would support a nuclear power plant in their local area. New South Wales and Queensland fall between the other states.

Table 6 If there were plans to build a nuclear power plant in your local area, would you be in favour of it or against it? By state (per cent)

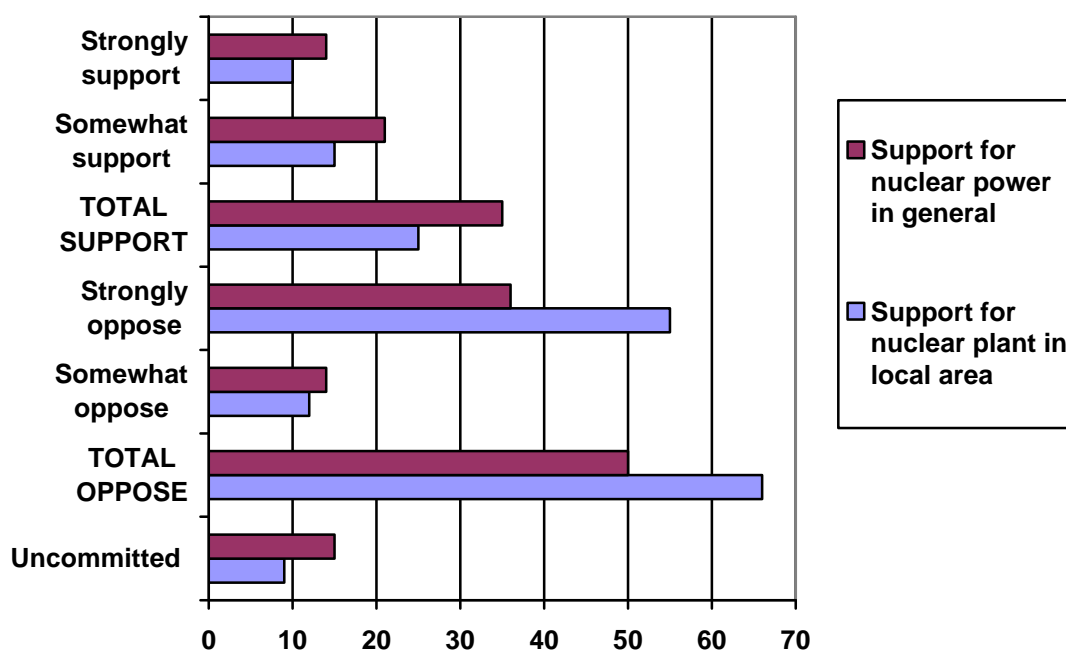
	NSW	VIC	QLD	SA	WA	TAS
Strongly in favour	8	8	12	15	12	6
Somewhat in favour	17	13	15	21	12	12
Total in favour	25	21	27	36	24	18
Strongly against	54	60	52	50	54	50
Somewhat against	12	11	11	9	15	21
Total against	66	71	63	59	69	70
Neither/Don't know	10	8	10	5	7	12

Figures may not add to 100 per cent due to rounding.

3. Support for nuclear energy at the general and local level

As discussed, the results from the survey are different from other surveys that asked about attitudes towards nuclear power at a general level (GlobeScan Incorporated 2005; Newspoll 2006; 2007). The level of support for nuclear energy is lower and the opposition higher when people are asked about a nuclear power plant in their local area compared to when they are asked about nuclear energy in general. This is shown in Figure 1, which compares our results with those from the December 2006 Newspoll that asked whether people were in favour or against nuclear power stations being built in Australia.

Figure 1 Comparison between support for, and opposition to, nuclear power plants at the general and local level (per cent)



Source: Newspoll (2006); Lewis and Kerr (2007).

The December 2006 Newspoll found that 35 per cent of people supported nuclear power plants being built in Australia. However, our survey found that only 25 per cent of Australians support a nuclear power plant in their local area. Similarly, in the December 2006 Newspoll, 50 per cent of respondents said they opposed nuclear power plants being built in Australia. Our survey found that 66 per cent of Australians oppose nuclear power plants in their local area.

The differences between the survey results are consistent with the overseas evidence concerning the presence of the NIMBY phenomenon in nuclear power debates. A significant proportion of the population who support nuclear power plants being built in Australia are likely to oppose plans to build them in their local area.

4. Implications

Approximately 50 per cent of Australians say they are opposed to the construction of nuclear power plants in Australia. However, two thirds of Australians say they would oppose plans to build a nuclear power plant in their local area. These figures suggest that siting issues are likely to be central to any debate about the establishment of a nuclear energy industry in Australia.

The Prime Minister has argued that attempts to discuss siting issues constitute a ‘scare campaign’ (Howard 2006b). He has suggested that he is trying to broaden the debate by confining it to issues about nuclear power’s potential in Australia. When asked in June 2006 about the potential for the nuclear debate to give rise to local opposition, he responded:

... there are not in my backyard campaigns about everything. ... What I am trying to do with this debate is to broaden it out so that we can look at what the potential is, and it would be negligent of me as Prime Minister not to set up the circumstances where we can sensibly examine all of the opportunities that this country has (Howard 2006b).

The Prime Minister’s suggestion that he can broaden the debate by excluding discussion of a crucial issue is a non sequitur, apparently designed to evade the political risks associated with nuclear power. Any government that seeks to establish a nuclear power industry in Australia will face political difficulties in areas identified as possible sites. In Japan, this has resulted in the creation of a scheme to compensate communities that have nuclear facilities in their local areas (Sumihara 2003; Aldrich 2005). Similar mechanisms could be employed in Australia.

Siting issues are an unavoidable part of the debate about the future of nuclear energy in Australia. The public cannot accurately evaluate whether it is willing to support a nuclear industry unless it has an idea about where the power plants are likely to be located. In the absence of this information, the Government is asking the community to make decisions in the abstract without being fully informed.

Further, from a practical perspective, if the Government wants to proceed with the establishment of a nuclear industry, early identification of potential sites provides decision-makers with a greater opportunity to persuade the relevant communities to support the construction of nuclear power plants in their local areas. In addition, local opposition to siting decisions is likely to have a profound impact on the manner in which any future nuclear industry develops, meaning that it is critical that siting issues are discussed at the earliest possible opportunity.

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