

Rethinking Nuclear Power Amidst “Global Warming” Worries

By Ann Stouffer Bisconti and Mark David Richards

The global debate on how to reduce air pollution has prompted policy leaders to take another look at the usefulness of nuclear energy. Following last December’s international climate change treaty, nuclear energy has become a key strategy in discussions for meeting the treaty’s emission-reduction goals. Because nuclear power plants emit no air pollutants and do not not adversely affect the global climate, they could play an important role in holding down carbon emissions.

Inevitably, one of the questions raised by policy makers is public support for nuclear energy. Thus, in January 1998 the Nuclear Energy Institute commissioned a survey of a “policy attentive” segment of the US population. For this survey, Bisconti Research interviewed a national sample of college graduates who are registered to vote.

Opinions on Present and Future Nuclear Plants

As seen in Figure 1, majorities indicated support both for keeping existing nuclear power plants (76%) and for maintaining the option of building additional plants (73%). The stron-

gest sentiment (87% agreed) was expressed for renewing the operating licenses of nuclear energy plants that continue to meet federal safety standards.

Surprisingly, 54% agreed that we definitely should build more nuclear power plants. Our previous research of the general public invariably found broad support for keeping the option to build more nuclear power plants open, but only minimal support for actually building more plants.

Historically, support for building more nuclear power plants has been influenced more by perceived need than any other factor: trends show a dramatic drop in support for building new plants after the energy crisis ended in 1982. Today, there is no near-term energy supply concern. But the dynamics have been changed by the convergence of energy and environmental imperatives.

Attitudes Toward Nuclear Energy

Two-thirds of respondents (65%) favored the use of nuclear energy although more are “somewhat” in favor rather than “strongly” in favor (see Figure 2). This was especially true of women; only 15% “strongly” favored nuclear energy use while 41% said they “somewhat” favored its use. Generally, a majority of all groups examined said they favored the use of nuclear energy except one; 46% of women ages 18-34 support this alternative.

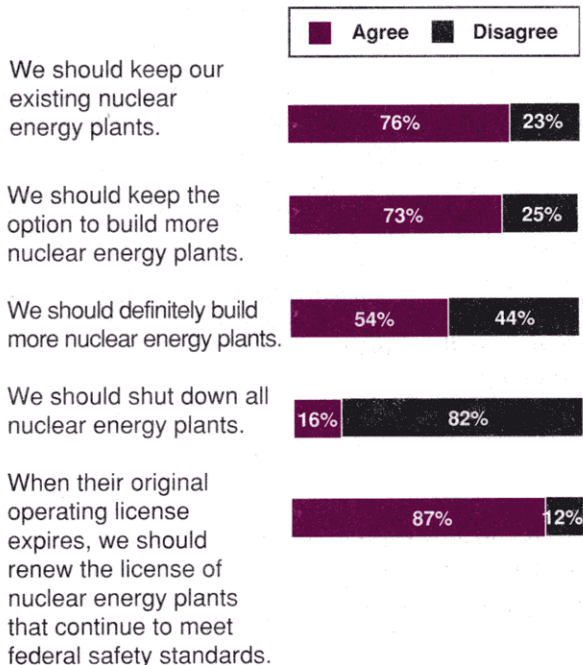
In comparing the ratings of various energy sources—nuclear, coal, solar, and natural gas—on an attribute scale, nuclear energy received a mixed grade where solar energy served as a popularity benchmark, receiving high ratings across the board (see Table 1). The common view is that both solar and nuclear energy are important fuels of the future—especially compared with coal.

Respondents viewed the safety of nuclear energy less favorably than that of the other three sources of electricity. Of particular interest, in light of the new focus on reducing air pollution emissions, are the ratings of the sources as being clean and green. Solar, of course, gets top marks in this area but natural gas and nuclear both received respectable ratings for being clean.

However, few rated nuclear energy high as a “green” source of energy. Focus groups we conducted revealed that there seems to be a disconnect between the image of power or energy and the “green” concept. The term green has several meanings—natural, inexperienced, money, as well as renewables. Many envision nuclear as non-green because it is

Figure 1: Among the “Policy Attentive” Solid Support for Nuclear Energy

Question: Please tell me if you personally strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the following statements.



highly technical, involves radiation, and because of the belief that there is not a widely embraced solution for the safe disposal of nuclear waste.

Pros and Cons

The key advantage that comes to mind when people think about nuclear energy is low cost (36%), followed by its benefits as a clean air energy source (29%); men mentioned the clean air advantage twice as often as women. However, considering the shifting policy context for nuclear energy, it is striking that only one-third of this college-educated group mention that nuclear energy plants do not emit air pollution. This suggests that the generalized feeling that nuclear energy will be needed in the future—as expressed in the attribute ratings as a “fuel of the future” and “important for future generations”—drives attitudes toward this source more than awareness of its possible role in supplying electricity without increasing air pollution.

Top concerns for nuclear energy use included the possibility of accidents (40%) and waste disposal (30%). Radiation leaks and environmental hazards were also mentioned as concerns at 17% and 10%, respectively. Thirty-nine percent of men mentioned used-fuel disposal as a disadvantage of nuclear energy compared with 21% of women. Women pointed more frequently to the danger of accidents—44% compared to 35% of men.

An important question now is whether the recent policy-level attention to nuclear energy will spur the federal government to expedite nuclear waste storage and disposal projects that are currently underway.

Impact of Information About Clean Air

As an interesting aside, after the energy-specific questions of the survey were completed, respondents were told that “there are more than 100 nuclear energy plants in the United States that

Table 1: For College Graduates Solar Reigns Supreme as an Energy Source

Question: I'll read some words and phrases and, for each one, please tell me how well it describes your feelings about [Insert Source]. Use a zero to ten scale. Zero means the phrase does not describe your feelings about [Insert Source] at all. Ten means it describes your feelings completely. You can use any number from zero to ten.

| | Mean Scores | | | |
|----------------------------------|----------------|------|--------------|-------------|
| | Nuclear Energy | Coal | Solar Energy | Natural Gas |
| Clean | 6.4 | 2.8 | 9.2 | 6.9 |
| Safe | 4.5 | 5.9 | 9.1 | 6.1 |
| Economical | 5.7 | 6.0 | 7.2 | 6.4 |
| Fuel of the future | 6.6 | 2.8 | 8.0 | 5.7 |
| Its technology is improving | 6.7 | 4.9 | 8.0 | 5.9 |
| Green | 4.7 | 2.9 | 7.9 | 5.2 |
| Important for future generations | 6.9 | 4.5 | 8.7 | 6.2 |
| Good | 5.6 | 4.5 | 8.7 | 6.4 |

Figure 2: Favorability Ratings of Nuclear Energy

Question: Now on the subject of nuclear energy, do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose the use of nuclear energy as one of the ways to provide electricity for the United States?



Providing Additional Information on Nuclear Energy Increases Favorability

Question: There are more than 100 nuclear energy plants in the United States that generate one-fifth of all the electricity we use in the United States without emitting any greenhouse gases. Knowing this, do you strongly favor, somewhat favor, somewhat oppose, or strongly oppose nuclear energy as one of the ways to provide electricity and improve our air quality in the United States?



generate one-fifth of all the electricity we use in the United States without emitting any greenhouse gases,” and then re-asked the previous favorability question (see Figure 2). This one sentence of information produced a 10-point increase in favorability—from 65 to 75%, and an 11-point increase in those strongly favorable—from 23 to 34%. Also, the percentage strongly opposed was cut almost in half. Perhaps as people become more aware of clean air issues, support for nuclear energy will continue to rise.



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