

Responsible Action

Citizens' Dialogue on the Long-term Management of Used Nuclear Fuel

Judy Watling
Judith Maxwell
Nandini Saxena
Suzanne Taschereau

Executive Summary

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Executive Summary

Why the Dialogue was Held

Like many other countries, Canada is now on a path to making a decision about how to manage used nuclear fuel for the long term. Efforts to study options have been underway for some time now. In the late 1980's, the government established a Federal Environmental Assessment Panel which undertook an extensive study and held broad hearings to examine the concept of deep disposal of the used fuel in the Canadian Shield. The Panel issued its report in 1998 and concluded, among other things, that more work was needed to design a management approach that would be acceptable to Canadian society, and recommended that a social and ethical framework be developed and used to compare the various possible approaches.

The Nuclear Waste Management Organization (NWMO) was established in November 2002 and is committed to working with Canadians to develop an approach that is socially acceptable, technically sound, environmentally responsible and economically feasible. The NWMO is required to make a recommendation to the federal government on a long-term approach by November 2005.

In designing the framework with which to compare the various approaches, the NWMO is undertaking broad dialogues with communities of interest, Aboriginal peoples, experts in many fields and other stakeholders early in its process. As part of this process, it asked the Canadian Policy Research Networks (CPRN) to conduct a citizens' dialogue with unaffiliated Canadians, to help identify the core values that are most important to Canadians with respect to this issue and that they would want to see reflected in a long-term management approach.

Who Participated

Between January and March 2004, 462 Canadians gathered in 12 cities across Canada to have a dialogue with each other about the values they expect to be reflected in Canada's approach to the long-term management of used nuclear fuel. All the participants were randomly recruited by a professional polling firm to be as representative as possible of the Canadian population, 18 years of age and older. They therefore came as unaffiliated individuals, not as representatives of stakeholder or special interest groups. Because the dialogue was held with a randomly selected, representative group of Canadians, it is reasonable to conclude that these citizens generally reflect the views of the broader population.

The participants took their role seriously and applied themselves with enthusiasm and commitment, reflecting their desire to make a contribution to this important public policy issue.

The Dialogue Methodology

The deliberative dialogue methodology used by CPRN for this research project was based on Viewpoint Learning Inc.'s ChoiceWork Dialogue methodology, which brings people together in groups of approximately 40, and supports them in working through difficult issues as they engage with one another. It enables people to interact, hear other perspectives and modify their views as they work together to reconcile those views with deeper values that underpin the choices they make.

There were a number of challenges in using this methodology on this particular issue. Few people, outside of experts, are familiar with issues related to nuclear energy, and the technical complexity can be overwhelming to many lay persons. Another unusual aspect about this issue, compared to many other public policy issues is its very long term nature. It is difficult for most people to conceive of the possible impact in 500 or 1000 years of decisions made today.

It was not intended to turn participants into technical experts on nuclear fuel over the course of one day, nor to ask them to deliberate on the merits of the different technical methods available. Rather, the dialogue was designed to give them enough information to understand the broad issues at play for society, examine different values-based perspectives and deliberate with each other about what is most important for them with respect to the long-term management of used nuclear fuel.

Dialogue participants were presented with four scenarios, each representing a plausible view that could be held by a segment of society. They could choose or reject elements from different scenarios, or identify their own new ideas, in arriving at their own preferred scenario.

The scenarios provided to citizens for this dialogue addressed the issues that society is best placed to answer. They were presented with arguments in favour and against each perspective, reflecting different values that people hold dear.

The first set of scenarios asked the question, ***“How do we best share rights and responsibilities across generations? Should we emphasize using the knowledge we have today? Should we emphasize choice for future generations?”***

The second set of scenarios asked, ***“How do we best ensure confidence and trust in a management approach? Should we emphasize the role of governments? Should we emphasize the role of affected communities and civil society?”***

Citizens' Guiding Values

In looking at the advantages and disadvantages presented in the scenarios, and in thinking through the issues as a group, citizens were forced to explore what was really important to them.

Safety from Harm – An Overarching Requirement

One overriding need underpins the values framework that emerged from the 12 dialogue sessions - that is the basic human need to feel safe from harm. This need did not arise from a sense of fear nor from an expectation of a risk free world, but rather from a sense of responsibility to this generation and future generations to take the necessary precautions.

They talked about safety and security in the context of recent events that posed risks to public health and the environment and expressed concerns about possible acts of terrorism, both now and in the future.

To manage these risks, they looked to governments to fulfill their responsibilities as regulators and standard setters. And they called for better information, greater transparency and inclusiveness in decision making to build public confidence about their overall safety.

The values framework summarized below reflects the choices they made, the conditions they imposed and the reasons they gave for choosing one outcome over another.

The Values Framework

Responsibilities across Generations:

- 1. Responsibility** - we need to live up to our responsibilities and deal with the problems we create
- 2. Adaptability** - continuous improvement based on new knowledge
- 3. Stewardship** - we have a duty to use all resources with care and to leave a sound legacy for future generations

Ensuring Confidence and Trust:

- 4. Accountability and Transparency** - to rebuild trust
- 5. Knowledge** - a public good for better decisions now and in the future
- 6. Inclusion** - the best decisions reflect broad engagement and many perspectives; we all have a role to play

1. Responsibility - we need to live up to our responsibilities and deal with the problems we create

Citizens want to leave a legacy for their children and grandchildren that they can be proud of. They want to take concrete steps to deal with problems. Dialogue participants were surprised and upset that the decision to use nuclear fuel was made 30 or more years ago without a plan in place to manage the used fuel for the long-term. As the generation that has consumed the energy and created the used fuel, they felt a sense of responsibility, to the extent possible, to act now and pay now.

2. Adaptability - continuous improvement based on new knowledge

Citizens do not presume that we have the best answers today. They look back over the last century and see how dramatically technology has changed their lives, and they expect this advancement to continue. They wanted to make deliberate investments in research so that future generations will have safer, more efficient ways to deal with the used fuel. They also wanted to invest in measures to ensure that future generations will have the knowledge and capacity to fulfill their own responsibilities with respect to the used fuel.

They therefore wanted to ensure that future generations will have access to the fuel so they can apply new knowledge. And they wanted a flexible, step-by-step management approach that would regularly take stock of new knowledge and adapt accordingly.

3. Stewardship - we have a duty to use all resources with care and to leave a sound legacy for future generations

The concepts of reduce, reuse and recycle are deeply embedded in the Canadian psyche, and citizens want to use all resources wisely. They want to address issues in an integrated, holistic way, looking at all possible costs and benefits of decisions on used fuel and on broad energy policy.

Dialogue participants saw reducing the volume of waste as a necessary part of the management approach. They acknowledged their own responsibility to reduce the amount of electricity they use, and recognized the challenge in changing behaviour. They called on governments to provide leadership to individuals and industry to reduce consumption by offering incentives and providing more information on the real costs of energy and the environmental and health impacts. They sought greater use of alternative energy sources like wind and solar power. And they wanted more research into how to safely extract more energy from the uranium as well as to try and reduce the toxicity of the waste.

4. Accountability and Transparency - to rebuild trust

Citizens hold governments, especially the federal government, as ultimately accountable for the public good, but their level of trust in government and industry is low. Dialogue participants imposed the following conditions on governments:

- There must be real engagement of experts, citizens, communities and other stakeholders before any decision is made;
- People must be told the truth. There must be greater transparency in decision making and monitoring by both government and industry. They want to know why decisions are made and how they are being implemented. They want to know if standards are being met or not. They want full disclosure of financial and management information;
- They are seeking assurance that decisions will not be made for political expediency or profit; and,
- They hold governments responsible for ensuring safety and security, including enforcing strong regulations and standards.

Participants felt that in order to have trust, they needed an independent, non-partisan oversight body to monitor government and industry, and to provide reliable information to citizens. They wanted this body to be composed of experts from many fields as well as citizen representatives.

5. Knowledge - a public good for better decisions now and in the future

Citizens are embracing the idea of knowledge as a public good to help make better choices, both now and in the future.

Their surprise at their own lack of awareness about the used nuclear fuel led to an urgent call for a) better efforts to ensure people are informed so they can engage in an informed way to support better decisions and b) investment in the education of young people to ensure that future generations have technical expertise and social institutions necessary to manage the used fuel.

Participants wanted investments to be made to create new technical knowledge and increased cooperation on research with other countries so that everyone could benefit from the best knowledge available.

6. Inclusion – the best decisions reflect broad engagement and many perspectives; we all have a role to play

Inclusion is about having a voice that is heard. Dialogue participants believed that better decisions would be made by involving as many perspectives as possible. Consumers, energy producers and related industries, scientists and other experts, affected communities, governments and citizens have a role in

making decisions and for contributing in an ongoing way to the management of used fuel over the long-term.

Citizens' Advice on the Way Forward

The core conclusions from the 12 dialogue sessions highlight the citizens' desirable characteristics for a long-term management approach. There was a high degree of consistency across all of the dialogues and the different data sources. The citizens' advice is outlined below:

- i. First and foremost, human health and the environment must be as safe as possible from harm, now and for the future.
- ii. We need to accept responsibility as the creators of the used fuel and users of the energy. Use our knowledge today to put in place a management approach for the long term. It must be flexible enough to adapt to new knowledge as it becomes available.
- iii. Recognizing that we don't have all the answers today, we need to deliberately invest in more research and expand global cooperation on research into better ways to manage the used fuel.
- iv. We need to take concrete steps now to ensure future generations have the knowledge and capacity to continue to address this issue.
- v. Future generations must be able to access the used fuel to apply better technology and manage the used fuel more safely or efficiently.
- vi. In the meantime, we need to reduce the amount of used fuel that we create, by conserving energy use, by assessing the costs and benefits of all types of energy, and increasing our use of alternative sources of energy such as wind and solar power.
- vii. There is a shared responsibility for making decisions between governments, experts from many disciplines, citizens and stakeholders.
- viii. Communities most affected should have a greater role and should be given support to ensure they have access to expert knowledge and resources if required.
- ix. Government is responsible and accountable in the end to ensure decisions are made in the broad public interest.
- x. To support the best decisions possible, there is a need for greater transparency of information about health and safety regulations, financial management and new research.
- xi. An independent body with expert and citizen representation monitors government and industry and provides reliable information to the public on the management of used nuclear fuel.

At the end of the day, participants were asked to rate their level of support for the fifth scenario they had developed together (as set out in the list above). Participants gave a high rating for their scenario (77%).

Implications from the Dialogue for the Way Forward

For the management of used nuclear fuel:

- Citizens were angry and frustrated by their lack of awareness around the issues related to used nuclear fuel. How, they argued, can society manage these issues for centuries to come if nobody knows what is going on? In order for them to have confidence, they called for government and industry to become far more transparent and effective in their communications.
- Their call for an independent watchdog, with both multidisciplinary experts and citizen representatives requires decision makers to revisit the mandates of existing oversight bodies in the nuclear field, and to determine how best to meet citizens' expectation in this area, keeping in mind the need for these bodies to have a very public face.
- The principles of reduce, reuse, recycle are deeply embedded in the Canadian psyche, and led them to insist that the industry and government invest in research and cooperate with other countries to find better ways to manage the used fuel.

In summary, dialogue participants offered a strong endorsement of the broad engagement approach the NWMO is using, and called for this type of approach to be embedded in future decision making. As NWMO assesses and compares the benefits and costs of the different management approaches and develops a recommendation for government consideration, it would do well to consider how best to continue the relationship that it has begun with citizens.

Implications for broader public policy:

- Citizens know that current patterns of energy consumption are not sustainable. They know that behaviour needs to change, that society needs to change, but they cannot see the logical path forward. They called for a discussion on the costs and benefits of all energy sources, including the cost of managing energy waste. They looked to governments for leadership in facilitating this discussion. Many of them would have liked to have started this conversation as the dialogue unfolded.
- Citizens are looking for public policy decisions to be made in a holistic, integrated way, looking at the long term, rather than short term political expediency. They want due consideration given to comparing costs and benefits, and impacts on other issues.
- There are many complex technical issues facing society today that raise deep ethical challenges and choices and have long-term consequences for generations to come. In addition to the best technical advice, decision

makers also need to understand what society values most, to help set the boundaries of risks and consequences that citizens are prepared to take themselves and impose on their children and grandchildren. They also want a voice when these decisions are made.

- Finally, the call for an independent oversight body to monitor governments and provide reliable information is driven by the absence of trust. Neither industry nor government should risk catching customers or citizens by surprise. In order to build greater confidence and to effectively engage, there is a need for a two-way conversation - with governments informing citizens and citizens having a voice, along with experts and stakeholders, in important public policy choices. It is through providing opportunity for Canadians in all their diversity to learn from each other and find areas of agreement, that we understand what society values. In this way, decisions gain trust, legitimacy and sustainability over the longer term.