A NEXT STEP

WHERE DO WE BEGIN?

WHAT WE HEARD FROM A DELIBERATIVE SURVEY OF CANADIANS

A presentation by Hill+Knowlton Strategies



Significant common ground

around potential principles, priorities & considerations

Views can differ about potential strategy approaches

Pragmatism and coherence in

the weighing of pros & cons and trade-offs

Expectation that experience, expertise and science will guide us

Desire to see an **Optimal division of labour** among the players



WHAT First step in the NWMO's efforts to engage Canadians on the development of an integrated long-term strategy for managing Canada's radioactive waste

The research was designed to:

WHY

- Begin to identify principles, priorities and considerations the public believes should guide the development of Canada's ISRW
- Shape the design of subsequent engagement efforts

WHEN January 18 - February 5, 2021

WHO Random sample of n=1,625 adult residents of Canada

HOW Self-administered online survey



PROBABILITY PANEL: H+K Strategies & EKOS Research (Probit) SURVEY QUESTIONNAIRE: Deliberative INFORMATION PROVIDED:

- Different levels of radioactive waste
- Current management approaches.
- International approaches
- Options for development of a strategy

MARGIN OF ERROR: ±2.4%, 19 times out of 20



QUESTIONS, PRINCIPLES & PRIORITIES

SAFETY

"How safe actually are the sites now in use? What impact have these sites had on the environment? What guarantees are in place to ensure that future sites will be monitored and kept safe?"

TRANSPORTATION

"Will transport of waste be secured? How? In barrels or special containers? I don't want to see a cloud of radioactive dust billowing from a transport truck."

ALTERNATIVES

"Can Radioactive waste be repurposed?"

USE OF NUCLEAR TECHNOLOGY

"Are we planning on building more nuclear reactors in the near future? Is that why you ask this question at this point in time? How big will the waste pile get?"

IMPORTANCE OF GUIDING PRINCIPLES

The strategy must....

 ...ensure that the environment is protected...
 ...

 ...have safety as the overarching principle...
 ...

 ...be developed and implemented to meet or exceed
 ...

 regulatory requirements...
 ...

 ...be informed by the best available knowledge...
 ...

 ...ensure the security of facilities, materials, infrastructure, and information...
 ...

 ...be developed in a transparent manner...
 ...

 ...be developed in a transparent manner...
 ...

 ...be developed in a way that informs and engages the public...
 ...

 ...be developed and implemented in a fiscally responsible way...
 ...

Where possible, the strategy should make use of existing projects...

						% Important (7+6+5)
82%				10	% 4%	97%
76%				14% 7%		96%
· · ·		15% 5%		96%		
7			17%	6%	96%	
65		2	0%	9%	94%	
56%			23% 12%		92%	
48%			16%	1:	2%	76%
44%		24%		17%		86%
36%		16%)	13%		66%
36%		21%		19%		75%
25%	26	26%		22%		73%

■7-Extremely important ■6 ■5

PRIORITIES (FORCED CHOICE PAIRED TRADE-OFFS)



POTENTIAL STRATEGY PARAMETERS

APPROACHES TO RADIOACTIVE WASTE MANAGEMENT

Status Quo vs. Permanent Disposal

2

Single/Centralized Facility vs. Multiple/Decentralized Facilities

3

Model for Strategy Implementation

RELATIVE CONCERN WITH THE HAZARDS OF LLW AND ILW

I am just as concerned about the hazards of low-level radioactive waste as I am of intermediate-level radioactive waste



CONTINUED SURFACE STORAGE VS. USE OF SPECIFICALLY DESIGNED FACILITIES FOR LLW AND ILW

Low-Level Radioactive Waste

Putting the intermediate-level waste in a Putting low-level waste in a specially designed disposal facility deep geological repository (DGR) or other 41% type of facility, such as a deep borehole, where it will be safe without further actions by future generations Continuing to store and monitor lowlevel waste on the surface as it is now, Continuing to store and monitor intermediateuntil such a time as the radioactivity has level waste on the surface indefinitely, which 10% 8% decayed and the waste can be disposed will require future generations to continue to of in a conventional manner (this would actively take care of the waste take up to 300 years)

Intermediate-Level Radioactive Waste

63%

 Either approach is fine, as long as all federal and international safety regulations are met
 46%
 Either approach is fine, as long as all federal and international safety regulations are met
 20%

 I don't know
 6%
 I don't know
 7%

CENTRALIZED VS. A DECENTRALIZED APPROACH TO THE LONG-TERM MANAGEMENT OF LLW AND ILW

Low-Level Radioactive Waste

Intermediate-Level Radioactive Waste



CREATING A SEPARATE ORGANIZATION TO IMPLEMENT CANADA'S STRATEGY VS. ALLOWING EACH WASTE OWNER TO IMPLEMENT IT





THE LENS

- Minimize impacts on the environment
- Reduce/eliminate potential for "leakage" into soil and water
- Keep the facility/facilities away from population centres

KEY TRADE-OFFS

- Reduce need for transportation
- Allow for design/building the safest & most secure facility (or facilities)
- Reduce vulnerability to weather, natural disasters, human error, and security threats
- Facilitate response/mitigation to accidents/incidents

VIGILANCE

- Encourage vigilance and ease & effectiveness of monitoring
- Promote transparency and accountability

OTHER CONSIDERATIONS

- Reduce impacts on future generations (i.e., moral responsibility and capacity)
- Facilitate adaptation and incorporation of new technologies
- Make use of proven approaches
 - Cost less (minor)



"I wish I knew more about how nuclear waste was transported to waste facilities but taking that out of the equation, I think it is better to have one **centralized facility**, created from the ground up to exceed international standards and maintained at that level..."

"Because storing it on the surface in a proper facility allows careful monitoring and easier access if needed. Storage underground leads to the saying 'out of site, out of mind'."

"Owners understand their businesses, and their businesses waste/by product concerns. Most industries that utilize natural resources are well versed in putting procedures and plans in place based on governmental regulations, to ensure they can **run their businesses sustainably**."

"Centralized decision making and accountability is easier to monitor and report to the public."

IPLICATIONS OR FUTURE PUBL ENGAGEMENT

POTENTIAL GUIDING PRINCIPLES CAN SERVE AS FOUNDATION

Moving forward:

- Merge
- Add
- Refine
- Understand

ANTICIPATED QUESTIONS

- What is the future of nuclear?
- Might alternatives emerge and can we adapt?
- What will transportation look like?
- How will siting work?

COMMUNICATING WHO THE PLAYERS ARE WITHIN A COMPLEX REGULATORY FRAMEWORK

Ultimately, faith and trust will lead to acceptance (or not). Government and private sector are seen as having complementary strengths.

Challenges:

- There is a bewildering array of terms and relationships.
- The [diffuse] regulatory framework is hard to grasp.

Thank you

For more information contact:

Patrick Beauchamp Vice President, Research and Analytics Pat.Beauchamp@hkstrategies.ca

HILL+KNOWLTON STRATEGIES CANADA HKSTRATEGIES.CA