NWMO Video Review Focus Groups

NWMO SR-2009-05 January 2009

Navigator Ltd.

nwmo
NUCLEAR WASTE MANAGEMENT ORGANIZATION
SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

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Nuclear Waste Management Organization

The Nuclear Waste Management Organization (NWMO) was established in 2002 by Ontario Power Generation Inc., Hydro- Québec and New Brunswick Power Corporation in accordance with the *Nuclear Fuel Waste Act* (*NFWA*) to assume responsibility for the long-term management of Canada's used nuclear fuel.

NWMO's first mandate was to study options for the long-term management of used nuclear fuel. On June 14, 2007, the Government of Canada selected the NWMO's recommendation for Adaptive Phased Management (APM). The NWMO now has the mandate to implement the Government's decision.

Technically, Adaptive Phased Management (APM) has as its end-point the isolation and containment of used nuclear fuel in a deep repository constructed in a suitable rock formation. Collaboration, continuous learning and adaptability will underpin our implementation of the plan which will unfold over many decades, subject to extensive oversight and regulatory approvals.

NWMO Social Research

The objective of the social research program is to assist the NWMO, and interested citizens and organizations, in exploring and understanding the social issues and concerns associated with the implementation of Adaptive Phased Management. The program is also intended to support the adoption of appropriate processes and techniques to engage potentially affected citizens in decision-making.

The social research program is intended to be a support to NWMO's ongoing dialogue and collaboration activities, including work to engage potentially affected citizens in near term visioning of the implementation process going forward, long term visioning and the development of decision-making processes to be used into the future The program includes work to learn from the experience of others through examination of case studies and conversation with those involved in similar processes both in Canada and abroad. NWMO's social research is expected to engage a wide variety of specialists and explore a variety of perspectives on key issues of concern. The nature and conduct of this work is expected to change over time, as best practices evolve and as interested citizens and organizations identify the issues of most interest and concern throughout the implementation of Adaptive Phased Management.

Disclaimer:

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NWMO VIDEO REVIEW FOCUS GROUPS

DIAL ANALYSIS

JANUARY 2009

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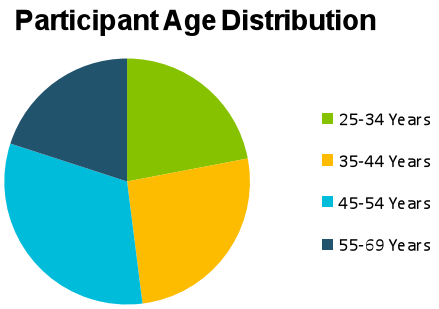
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INTRODUCTION

During the period of December 8-10, 2008, Navigator spoke to Canadians in three cities to assess reactions to the NWMO's informational video, *Moving Forward Together*. We used MSInteractive's "Perception Analyzer" dial testing technology as part of our focus group discussions to measure understanding and the perceived credibility of the video as we showed it to audiences in Saskatoon, Greater Toronto, and Montreal.

METHODOLOGY

Focus group participants in all three cities were selected using random digit dialing. Two groups were conducted in each city, one for each gender. Genders were divided because Navigator has found that in situations such as this, same-gender groups allow for nuanced differences in perspective between the genders to become apparent. A relatively equal distribution of ages and genders was achieved in this research project:



The groups were conducted in English in Saskatoon and Toronto, and in French in Montreal. The groups ran for two hours, and consisted of two parts: a review of a 14 minute video produced by the NWMO using handheld electronic dials, and a post-video discussion led by a moderator. In each session, the moderator welcomed the groups, led introductions, and then introduced MSInteractive's "Perception Analyzer" dial technology, which is the industry standard device for testing reaction to a video stimulus.

After some initial practice with the dials, participants evaluated the NWMO's *Moving Forward Together* video twice: once to measure their ability to understand the video, and a second time to determine perceived believability of the video. The dials allowed each participant to continually record their reaction to the video by twisting the dial left or right to rate the video along a scale of 0-100. Each participant could view their own scoring on the handheld device's LED display, but not the results of the group. The handheld devices were connected wirelessly to a computer which logged participant reactions to the video in real-time. The moderator instructed participants that a score of 50 was neutral, and that 0 and 100 represented the extremes of opinion for the criteria being measured (either understandability or believability). A professional moderator led a discussion immediately afterward, in order to explore reactions and gather commentary about the video.

GENERAL FINDINGS

Based on feedback about the video and in the discussion that followed, we have made the following observations:

NWMO'S VIDEO FARED VERY WELL AS A COMMUNICATIONS TOOL

People were generally comfortable with the subject matter, and did not display the degree of anxiety generally seen in some who are exposed to the issue for the first time. The video format was credited by many to be a good introduction to the subject.

While participants offered suggestions, many of which are highlighted in this document, by and large they agreed that the video was a good start.

> *It helps a lot to understand what they are saying.*
> – Male, Toronto

Opinions were mixed as to whether the video was too long or too short, so the moderator asked the groups if they would prefer to see the video as a standalone product or as part of a series, and the response was positive for a serial approach. Some suggested a system in which the NWMO would offer videos of varying complexity or detail, and others preferred videos to be made available by theme (monitoring, transportation, etc.).

MEN WERE SLIGHTLY MORE RECEPTIVE THAN WOMEN TO THE MATERIAL

In Saskatoon and Toronto, men were a more receptive audience for the NWMO's video than women. Our male participants' average dial scores for "understandable" and "believable" were slightly higher than the women's. Men's dial scores also exhibited a lower standard deviation than the women, indicating less variance in their response sets.

In post-video discussion, the women's groups were far more active questioners in all locations. In the men's groups, a disproportionate number of questions concerned the logistics and feasibility of the building project itself, whereas many questions about the merits and long-term impact of the repository came from female participants.

PARTICIPANTS LARGELY UNDERSTOOD VIDEO

Participants in all cities, languages, and of both genders dialed higher scores for their understanding of the video than for its believability. The gap was highest in Montreal, where the NWMO's mandate is often met with greater skepticism than in English Canada. That skepticism is rooted in mistrust of government, and in higher than average levels of environmental concern.

While the dial research produced some quantitative data to corroborate this belief, the comments after the videos tell an even more compelling story. This female participant was limited by her inability to assess accuracy based on the rapid pace of unattributed information in the video.

She spoke too fast… 'durable?'… what does 'durable' mean?
– Female, Saskatoon

Many participants told us that while they understood what was happening, they were unable to verify the accuracy of the information for themselves because the source of information was never displayed. Some participants encountered difficulty establishing the credibility of the video's various ideas because they did not have adequate information from which to research or compare. Aside from a reference to an NWMO document, the video does not mention how to acquire third party information so that viewers can learn about the science or the project from different angles. This disconnect – between what participants are told and what they can readily verify with citations – inevitably leads to a drop in believability scores. It is possibly due to the information gap that the NWMO video scored lower on believability than on understanding in every location we visited.

PEOPLE WANT TO KNOW HOW WE GOT HERE

The origin of the NWMO's project was an area of interest. Participants wanted to know more about the historical approaches to nuclear waste storage. They wanted to know why newer methods of storage and management are needed. There was curiosity about the content of the meetings, roundtables and discussions that led to the APM proposal. The video told them that groups were consulted, but they expressed a desire to know something about the content of these meetings: what were people's reactions, what were the alternatives to APM, and why was APM selected as the best choice?

Participants were also curious about who funded the preliminary work, and specifically if they had directly or indirectly paid for it as taxpayers. In addition, our participants told us that they would like to know more about the relative merits of the storage systems currently in use today, and how safe they are. The NWMO's video, in the opinion of many participants, could have done more to answer their "background" questions – especially since most viewers will be new to this topic.

TOO MUCH "SELL" NOT ENOUGH "TELL"

Participants believed that the NWMO's video was not entirely neutral in tone. Some participants considered there to be a certain degree of "selling" involved, and suspected that they were hearing just one side of an argument. Participants were initially skeptical about the product they were being sold.

It's brought up like it's a solution in an IKEA kit. It's too simple.
– Female, Montreal

Post-video discussion made it apparent that many of the participants felt that the NWMO might be trying to solicit voluntary hosts for the waste site. Especially in Montreal, some participants were suspicious of the video's "infomercial" tone and used that word several times to describe it. Several participants in that location felt the video's tone was that of a "sales job," which confirmed the suspicion of some that few communities would truly be willing to host a repository, and therefore that a site would have to be aggressively "sold" to them.

ANIMATIONS WERE SEEN AS HELPFUL AND INSTRUCTIVE

In the NWMO's video, participants were presented with a 3-D animated image of a site that reduced complex ideas to ones that were simpler to visualize. It was well-received by participants, who expressed their appreciation for the animation sequence.

> *Having the graphics helped those of us who really don't quite get it.*
> – Female, Toronto

In all English groups, the animations significantly improved understanding scores. For the bulk of the 3-D animation portion (which runs from 4:30-6:15 in the English video), the "understand" score sustained an average score nearly 15% higher than the English video's overall score. In French, the same pattern held, but showed an increase of around 5%.

DIFFICULTY GRASPING ADAPTIVE PHASED MANAGEMENT

Adaptive Phased Management is a difficult concept for the uninitiated to grasp when hearing about it for the first time. Viewers of the NWMO's video, exposed to vast amounts of technical information for the first time, found the subject difficult. However, some participants felt that the way the concept was explained in the video did not help matters. For instance, the "technical method and management approach" is abstract and many called it confusing.

> *The Adaptive Phased Management …. [we need] a better definition of what that is.*
> – Male, Toronto

Dial data from the video portrayed a significant drop in "understand" scores when Adaptive Phased Management was introduced, and subsequently discussed as a technical method and management approach. The difference between these two elements of APM was simply not clear to participants, and participants expressed that confusion in their comments after reviewing the videos.

> *It was just a term they throw out there … Just another acronym.*
> – Male, Toronto

Some participants suggested that a very simple definition of Adaptive Phased Management be offered early on in the video, with more detail added from that point forward.

> *I would have liked to know what APM was earlier.*
> – Female, Saskatoon

It was clear that it is especially important for the term to be explained properly given that frequent references are made to APM at later points in the video. Participants generally felt that if APM is to be used as a foundational term, then it must be explained with clarity the first time it is introduced.

REACTION TO PARTICULAR VIDEO ELEMENTS

The mention and depiction of sealing over the repository site creates an immediate and strongly negative reaction in the minds of some viewers.

Women were especially concerned about images of children immediately following the reference to the site someday being returned to green field conditions. The ideas of "sealing," "returning the site," and "de-commissioning" all created confusion and some participants felt they were not explained in great enough detail: Is that final step necessary? Is the waste still retrievable?

> *When is it decommissioned?*
> – Female, Saskatoon

What's more, participants perceived the continued monitoring of the site and retrievable waste as contradictory to the land being shown covered over with grass.

At one point, a speaker in the video assures the viewer that the project "will not be imposed on anyone." In a matter of seconds, overall average believability scores dropped significantly.

> *Of course it's going to get imposed on someone.*
> – Male, Saskatoon

Participants again saw a contradiction in this assurance: they accepted the message that something needs to be done with the existing waste, but saw that as contradictory to the idea that no community would have this imposed on them: if it was so important, shouldn't it be imposed if necessary? In the mind of our participants, the video did not connect these dots.

Finally, some participants felt that the NWMO's video was simply too one-sided in its presentation of risk. They said, in all research locations, that they would like to know more about NWMO's understanding of potential risks and how they intend to manage it.

> *Never do you get a word that means a danger, or a threat. I understand that they don't want to sound negative, but it lacks in that there are dangers.*
> – Female, Montreal

Without a discussion of risk, participants cannot know with certainty that the NWMO is managing risk for us and are facing this challenge honestly.

Why don't they show – at least make reference to – the other side?
– Male, Saskatoon

Participants expressed a desire to know about worst case scenarios, as well as what has been done to prevent those from occurring. They know that no system is infallible, so they want to be assured that due diligence is being performed.

REFERENCES TO INTERNATIONAL EXPERTISE AND COOPERATION

Participants responded positively to the idea that Canada was participating in research on this subject with other countries. While this allayed some concerns about the project, it also raised new questions. Participants wanted to know what has been done in other countries: have they engaged in a program of APM? Do they have a plan to implement APM? If they have chosen not to implement APM, then why not?

Many participants asked if other countries were further along in this process than Canada, perhaps seeking the security of knowledge that others have already travelled this road with some success.

International import and export of nuclear waste raised many concerns in this section. Several participants asked if the NWMO planned to take nuclear waste from other countries.

INTEREST IN LEARNING MORE ABOUT THE CONSULTATION PROCESS

Participants were appreciative of the portions of the video that addressed social research, as they considered it very important. Although hearing about the consultation process generated some questions from participants, it was mainly an interest in gathering more detail that drove these inquiries.

Participants were interested in more specifics about the scope and depth of consultation that has occurred, and in specific references and figures. Many participants indicated they craved the level of detail in this portion of the video that was present in the technical portion.

Participants were especially curious about the focus on the consultation of Aboriginal groups and were not sure why that particular consultation was mentioned so conspicuously.

What are they discussing with Aboriginal [peoples]?
– Female, Saskatoon

Many participants arrived at the conclusion that the repository would be located on Aboriginal land. More broadly, the idea of social research in general was lost on some participants, who more often raised questions about scientific research.

REFERENCE TO FUTURE GENERATIONS IS A POWERFUL THEME

A powerful moment in the video narration occurs when reference is made to future generations and the backlog of nuclear waste that has developed,

> *Canadians have been clear that our generation, which benefits from nuclear energy, has an obligation to move forward now with a long-term management plan for the used fuel that is produced. It would be unfair to future generations to wait any longer.*

That passage caused a spike in the understanding and believability scores in all locations, and it speaks to our participants' underlying recognition of their responsibility to other human beings, now and in the years ahead. Many participants in our focus groups were surprised that a long-term system for storing used nuclear fuel had not yet been implemented.

> *That part really alarms me. Why weren't we doing this before?*
> – Male, Saskatoon

It is a powerful argument to many participants that Canadians living in the four nuclear provinces have benefitted from nuclear power for four decades and therefore ought to shoulder the greater effort needed to safely dispose of that waste.

VIDEO FINDINGS

GENERAL FINDINGS

While participants raised some difficult questions (as outlined above), reaction to the video was very strong on the whole; participants awarded the video relatively high scores for understanding given the complexity of the subject matter.

When the moderator asked English-speaking participants how well, on a scale of 0-100, they understood the NWMO's video, the scoring was equally balanced between genders. Saskatoon residents awarded slightly lower marks for their understanding of the video, while in Montreal, participant scores were even lower across the board.

Participants were generally less likely to agree that the NWMO's video was totally believable. The scores for credibility were about 14% lower than for comprehension in English Canada, and 18% lower in Montreal.

REACTION TO PRODUCTION ELEMENTS

The response to the video format and style of presentation was muted at best in English Canada. There was rarely a negative or positive response to the video, except in Toronto, when a female participant said,

> *It was like an Air Canada video … they just take you through the motions. It was very procedural, very structured.*
> – Female, Toronto

In Montreal, the response was a different story. There, the style was disparaged for several perceived faults. Respondents called it "American" in its style, and reacted poorly to benign elements like background music and natural sound effects.

REACTION TO DUBBING IN FRENCH LANGUAGE VIDEO

French language participants told us that they were particularly unsatisfied with the NWMO's use of audio dubbing in the video.

> *I don't like that they're lipsynched. There's one voice, and another voice and the birds going tweet, tweet, tweet. It was inaudible. I don't like the dubbing.*
> -Male, Montreal

Accordingly, they reacted poorly to most of the clips when dubbing was used. A survey of the "understanding" scores for the NWMO personalities reveals differences between Montreal and the English speaking groups that were consistent across most of the video. Dial scores dropped in Quebec during some of these interviews, as soon as it was clear they were dubbed.

PARTICIPANTS WONDERED WHY SITE SECURITY AND TRANSPORTATION WERE OMITTED

At the end of each session, the moderator asked participants to consider what they felt was missing from the video. In all locations, at least one person noted the absence of information about site security.

> *How will they protect the waste? They showed it a bit, but I'm not sold on that.*
> – Female, Toronto

While some participants mentioned terrorism, many simply meant that they wished to know more about the mechanics of site monitoring – how many people does that entail? Will it go on forever? Some participants wanted to hear that the site will not be left unsupervised.

> *I want to trust, but I don't always trust. I'm a healthy skeptic. I want to know – if something goes wrong – that there are procedures in place. I need them to secure me, because we're talking about nuclear.*
> – Female, Toronto

Additionally, the issue of transportation came up in every location. Participants noted that transportation of waste from the locations in which it is currently stored to a permanent location is never mentioned.

> *What they're really missing is the transportation.*
> – Female, Toronto

The absence of information about transportation provoked a variety of reactions. Some participants wondered if it was left out because of time constraints in the video while others wondered if it was not mentioned because of the potential danger that it presents. That the issue came up so consistently suggests that it should be addressed.

Participants did not demand that additional transportation or security information be contained in the same general introduction video, but were open-minded when asked if information of this sort instead belonged in a separate video.

PARTICIPANTS FOUND TECHNICAL LANGUAGE TO BE CONFUSING

Participant feedback and dial scores tell us that the following passage of narration from the NWMO's video created understanding problems in all groups,

> *Radioactive material will be contained through multiple engineered and natural barriers beginning with the ceramic fuel pellets themselves, which are insoluble in deep ground water. The pellets are sheathed in the zircalloy pencils which are then formed into fuel bundles which will be placed in copper and steel containers with a 100,000 year design-life manufactured to withstand glaciations and protect against oxidation.*

To someone who does not encounter this sort of language on a daily basis, the passage is simply too abstract to be meaningful. Other terms, like "Adaptive Phased Management" and "Willing Host Community" gave viewers pause as they attempted to decipher their meaning. Several participants commented on the term "Willing Host Community".

> *I had a problem with the term 'willing host' … it sounded like an experiment. It's not personal.*
> – Female, Toronto

Participants may be missing key concepts of the NWMO's video because they are stumbling on unnecessarily complex terms. As this participant observed, the NWMO may wish to use analogies whenever possible to make the point simpler:

> *I liked the hockey arena comparison. I get that.*
> – Male, Saskatoon

ABOUT NAVIGATOR

Navigator is a research-based strategy firm that works with companies, organizations and governments to solve corporate and public affairs challenges through strategic counsel and communications campaigns. We provide strategic counsel to organizations facing opinion challenges in target audiences.

Navigator has grown to become a diverse firm with consultants from a variety of backgrounds who have excelled in the fields of journalism, public opinion research, politics, marketing and law.

Our strategic approach can be summed up as: “Research. Strategy. Results.”

APPENDIX 1: MODERATOR'S GUIDE

1. OPENING OF FOCUS GROUP SESSION (0:00 – 0:10)

- Thank for attending
- Today we'll be offering feedback on a video, using electronic dials and a post-video discussion.

2. INTRODUCTIONS (0:15 – 0:20)

- Very brief introductions

3. DIALS TEST (0:20 – 0:35)

- Tonight we're going to view and then discuss a video produced by the Nuclear Waste Management Organization. It's about Canada's plan for the long-term management of used nuclear fuel.
- We're now going to begin the session by watching that video. It's about 14 minutes long in total, and we will review it in one long segment.

[INVITE GROUP TO PRACTICE, TEST DIALS FOR A MOMENT]

4. NWMO VIDEO REVIEW (0:35 – 1:00)

For the first viewing, remind participants to adjust dials based on ability to understand/ comprehend the material.

- We are using our dials to measure the degree to which you feel you understand the information being shared, is it clear to you. Turning the dial to the right indicates you feel you have a high level of understanding; turning the dial to the left would indicate a lower level of understanding.

[PLAY VIDEO: Start to finish]

Moderator will instruct group that they will view the video a second time, this time adjusting dials based on credibility/believability of material. Moderator will have script (story board version) for note taking as groups use dials).

- We are using our dials to measure the degree to which you feel you believe and find credible the information being shared. Turning the dial to the right indicates you find the content believable, turning the dial to the left would indicate a lower level of confidence – that you do not believe or find credible what you are hearing and seeing.

[PLAY VIDEO AGAIN: Start to finish]

5. DISCUSSION OF VIDEO (1:00 – 1:50)

- What is your first reaction?
- What about the videos made you feel confident the NWMO had the right approach?
- Did anything make you feel the opposite? Was there a lack of confidence?

- What about the video seemed credible or not credible?
- Was it easy to understand or not easy to understand?

PROBE as necessary:

- Who should see this video?
- What did you find to be the most informative part of this video? The least?
- Does it answer all the questions you had right away?
  - What does it leave you wondering?
  - Does it tell you how to find out more?
  - Is this a video that you would rather watch on a computer, or on your TV at home? Is it the right length for online?
- How could the NWMO improve this video?

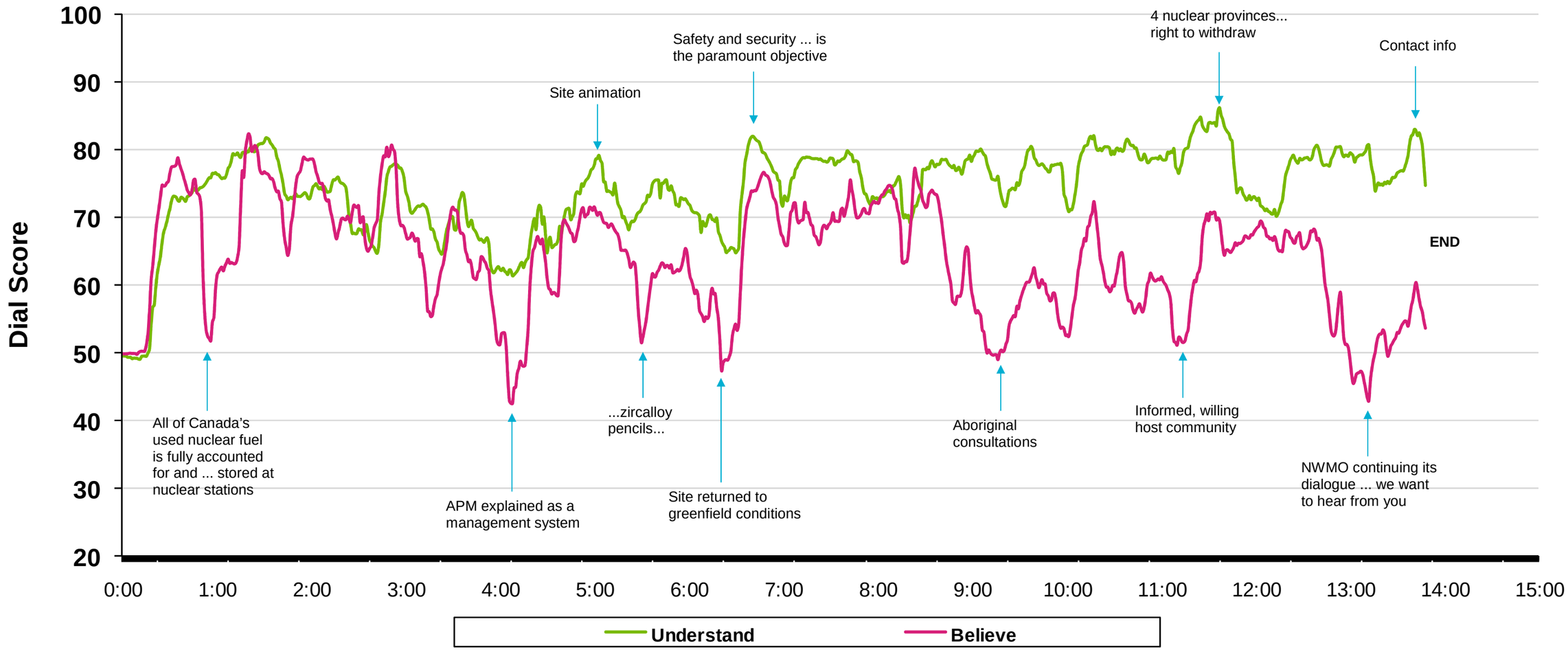
6. WRAP-UP (1:50 – 2:00)

- As we end our session does anyone have any remaining issues to discuss or questions to raise about our discussions here?
- Adjourn

APPENDIX 2: VIDEO ANALYSIS CHARTS

Moving Forward Together

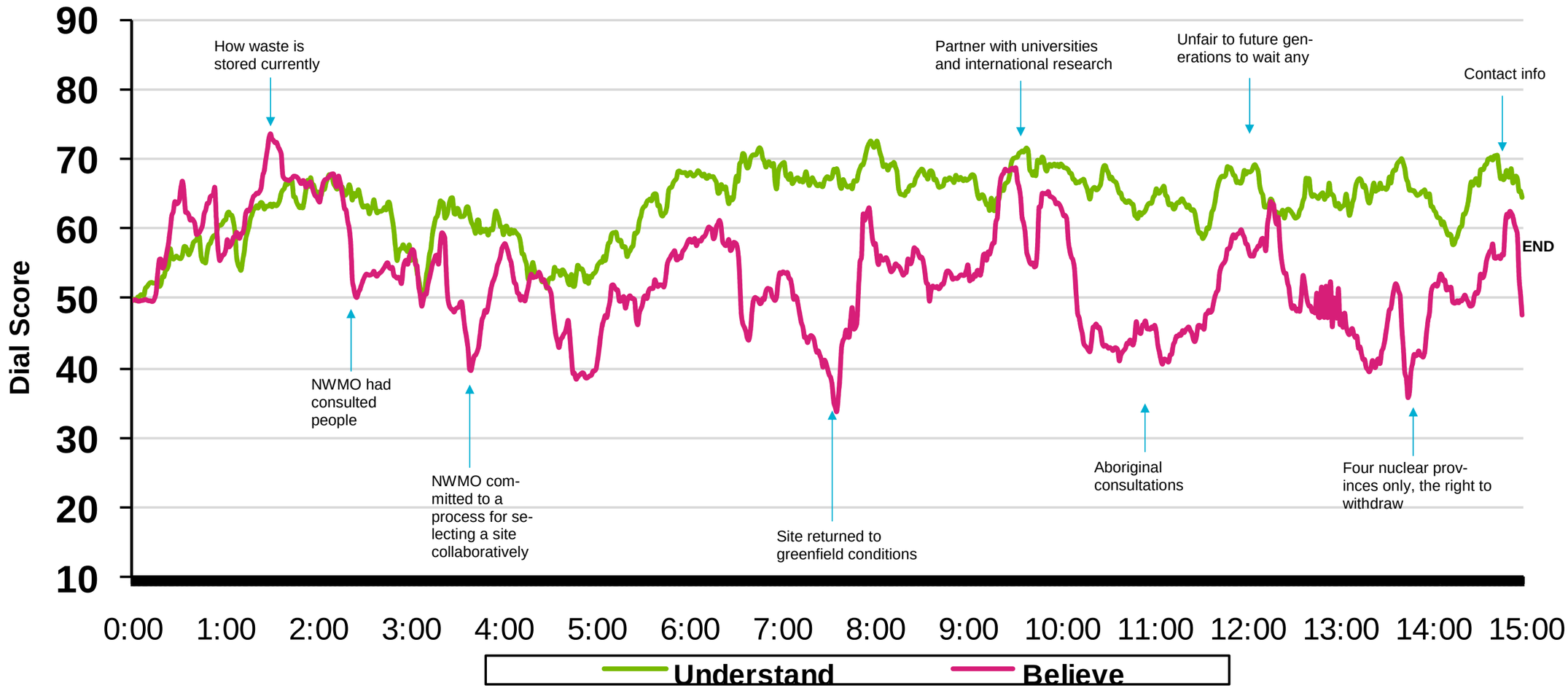
Perception Analyzer Dial Responses



Conducted by
Navigator Ltd
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Façonnons l’avenir ensemble

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