

What We Heard:

Canadian Deep Geothermal Roadmap Kickoff Workshop

June 11, 2026



Canadian **DEEP**
GEOTHERMAL
COALITION

Workshop hosted by the
Canadian Deep Geothermal Secretariat (Cascade Institute)

Workshop facilitated by Hatlie Group



CANADA'S GEOTHERMAL MOMENT HAS ARRIVED.

The country possesses abundant deep geothermal resources, a worldclass energy sector with the skills and expertise to match, and a robust innovation ecosystem that's already producing novel solutions.

What's been missing is a plan.

FOREWORD

The Canadian Deep Geothermal Coalition came together in September 2025 to create that plan. Founding members included project developers, service companies, researchers, and others, and shared a deep conviction: Canada can and should be a global leader in deep geothermal energy.

Realizing this goal requires a credible, evidence-based strategy built from the ground up with input from the sector itself. That strategy is the Canadian Deep Geothermal Roadmap.

The Roadmap has three objectives:

- ▶ First, to tell Canada's geothermal story by building public awareness and making the case for geothermal as a strategic national resource.
- ▶ Second, to ground the Roadmap's recommendations in evidence by commissioning modelling, supply chain analysis, and global market research.
- ▶ Third, to engage stakeholders by building consensus on key next steps.

This report summarizes what we heard at the Kickoff Workshop held June 11, 2026, on the margins of the World Geothermal Congress in Calgary. The same morning, Natural Resources Canada **announced funding support** for the Roadmap through the Energy Innovation Program. This announcement provides a meaningful signal that Canada can harness its existing strengths to drive innovation and prosperity.

The workshop involved more than 80 participants committed to implementing the Roadmap. Following a keynote address from Dr. Marit Brommer, Chief

Executive Officer of the International Geothermal Association, participants engaged in two facilitated sessions. Each session followed a set process to ensure every voice in the room had the opportunity to contribute: individual reflection, table-level discussion, and plenary report-back.

Session 1 asked: What does success look like? Participants envisioned a 2050 in which deep geothermal is a recognized pillar of Canada's energy system, contributing to energy security and understood by the public, investors, and governments. Three themes emerged:

1. Relationships—with Indigenous communities, landowners, industry partners, and the public—are foundational, not incidental, to the Roadmap's success.
2. Communication—a clear, audience-specific strategy that addresses risks, confronts misconceptions, and makes the case for geothermal in terms decision makers and investors can act on—is crucial.
3. Accountability—measurable objectives, defined metrics, and a commitment to outcomes-driven implementation—is essential for developing a Roadmap that drives change. Participants also emphasized the need for policy and regulatory buy-in across all three orders of government, and for the Roadmap to reflect Canada's geologic and geographic diversity.

Session 2 asked: How should the Roadmap's Working Groups be structured to succeed? Participants validated the Coalition's proposed

Working Group model while offering substantive guidance on how to make it work.

1. Working Groups need clear mandates—defined visions, goals, responsibilities, and reporting structures—and a decision-making process that respects diversity of opinion while preventing paralysis.
2. Their outputs must be concrete and actionable, grounded in evidence, and presented in ways that are accessible to non-specialist audiences.
3. It's vital that Working Groups coordinate among one another: Indigenous perspectives, participants emphasized, should be woven through every Working Group rather than siloed in a single stream, and structured communication mechanisms must be in place from the outset to prevent the groups from working in isolation.

This report, prepared by Hatlie Group, captures what we heard across both sessions. It is a living document. Its findings will directly inform the mandates of the Roadmap's Working Groups, the scope of the commissioned modelling studies, and the engagement strategy that will guide the next phase of the Roadmap's development. We are grateful to everyone who contributed their time, expertise, and candour on June 11. The Roadmap we develop together will only be as strong as the collective insight of the community that builds it. This report is evidence that the community is ready.

Peter Massie and Emily Smejkal
Canadian Deep Geothermal Coalition Secretariat

INTRODUCTION



Context

Canada's electricity demand is rising rapidly, and geopolitical pressures are strengthening the case for secure, clean baseload power. Deep geothermal represents a major opportunity, drawing on Canada's world-class oil and gas expertise, and vast underground resources. The **Canadian Deep Geothermal Coalition** formed to accelerate that opportunity, bringing together industry, Indigenous leaders, researchers, and policymakers to deliver a credible Canadian Deep Geothermal Roadmap. The Roadmap will tell Canada's geothermal story, generate critical new data through three modelling studies, and engage stakeholders across regions, sectors, and Indigenous communities to build the consensus needed for action.

Roadmap vision

The Canadian Deep Geothermal Roadmap will provide an evidence-based pathway to position Canada as a geothermal leader. The Roadmap will integrate expert Working Groups, modelling, and stakeholder engagement across Canada to identify technology pathways, facilitate investment, and support Indigenous leadership in order to achieve this vision.

Roadmap objectives

- ▶ Objective 1: Tell Canada's geothermal story.
- ▶ Objective 2: Generate critical new data and analysis.
- ▶ Objective 3: Engage stakeholders to build consensus.

**JUNE 11
2026**

SESSION OVERVIEW

As part of the World Geothermal Congress 2026, held in Calgary, Alberta, from June 8 to 11, 2026, the Canadian Deep Geothermal Coalition convened industry, academia, government, and Indigenous community members to initiate the development of a roadmap for geothermal energy in Canada.

The Canadian Deep Geothermal Coalition formed in September 2025 to initiate the idea and applied for funding through Natural Resources Canada's Energy Innovation Program to fund developing the Roadmap. On the morning of the Kickoff Workshop, Natural Resources Canada **announced** that the Coalition was successful with its application and approved funding for the Roadmap Project.

In her keynote address, Dr. Marit Brommer, the Chief Executive Officer of the International Geothermal Association, spoke about Canada's significant potential to become a leader in geothermal energy. She pointed to the funding announcement and the Kickoff Workshop as a great start for the Roadmap process.

The Kickoff Workshop had two primary goals for the half-day session:

- ▶ **Session 1 Goal:** Build a shared understanding of what the Roadmap is trying to achieve, and what's necessary to achieve it.
- ▶ **Session 2 Goal:** Validate the Working Group structure and shape Working Group mandates.

Context setting

At the beginning of each session, Emily Smejkal, Coalition Secretariat, provided context and information to support informed discussions.

Session 1 opened with the presentation of draft chapters for the Roadmap, providing a catalyst for conversation during the table discussions.

1. Geothermal 101
2. Benefits to Canada
3. Economics and finance
4. Technology innovation agenda
5. Regulatory readiness
6. Environmental impacts
7. Indigenous leadership
8. International market opportunity and competition
9. Canada's competitive advantage
10. Recommendations

Session 2 began with a presentation of draft Working Groups, which will focus on the development of the chapters within the Roadmap. The proposed Working Groups included Technology and Economics, Regulatory Excellence, Indigenous Leadership, and Strategic Positioning. Information was shared on a possible governance structure, as well as on connections of the Working Groups to the draft Roadmap chapters.

Discussion process

At the June 11, 2026, session, participants were grouped at eight tables, with seat assignments geared to having diverse voices at each table and balancing industry, academia, government, and Indigenous perspectives. Participants were guided through a series of discussion questions to support each session's goals.

The approach to the facilitated session discussions was based on identifying what success looks like and what is needed to achieve that definition of success. The process included:

1. Individual reflection: Each participant reflected on each question.
2. Table round: Each participant shared what came up for them in their individual reflection.
3. Table discussion: Table participants shared their reflections with their group and recorded

ideas on flipcharts for sharing back with the larger group.

4. Share-back: Each table group shared an overview of their table group's discussion.

By starting with individual reflection, each participant was provided with the opportunity to note what was important to their sector, role, or organization/company. By sharing within the table groups first, each participant was provided the opportunity to contribute in an equitable way, with a general table discussion then emerging from shared information and ideas. The share-back was the opportunity for the tables to agree on what was important in terms of the ideas, questions, or concerns that they wanted to bring back to the larger group, and to have open discussion as time allowed.

Session questions

- ▶ **Session 1: What does success look like?**
 - > In 2050, where is deep geothermal visibly showing up in Canada's energy system and economy?
 - > What does the Roadmap absolutely need to get right to make that future credible?
 - > Does the current roadmap structure help tell a compelling, decision-ready story from opportunity to action?
- ▶ **Session 2: What is the single most important question that the different Working Groups must answer for the Roadmap to succeed?**
 - > How would you describe the Working Group's mandates?
 - > In what ways do they support effective decision making?
 - > What are the 2–3 most important outputs the Working Groups must deliver for the Roadmap to be useful?
 - > How can the Working Groups be connected to each other?

WHAT WE HEARD

This summary of findings provides an overview of what participants shared at the Canadian Deep Geothermal Roadmap Kickoff Workshop discussion sessions facilitated by Hatlie Group on June 11, 2026. Overall, the conversation was positive and constructive, and there was enthusiasm for the Roadmap's development. Questions, concerns, ideas, and feedback were shared openly, and the table discussions were productive.

100% support remote communities
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Fully in energy mix across (all sectors)
allant export NG
proven
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Gov derisk / \$ and Policy
engagement and real partnerships in Indigenous communities
more proven projects even lower T

Indigenous leadership moved up.
Close

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Synergies
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Reg harmonization
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Reg

SESSION 1:

WHAT DOES SUCCESS LOOK LIKE?

In 2050, where is deep geothermal visibly showing up in Canada's energy system and economy?

Review failures, learn from these
RELIABLE, ATTRACTIVE FINANCIAL FRAMEWORK
→ Standards for disclosure
→ Regulatory certainty
→ Policy support, early & across



In 2050, deep geothermal will be a key player in Canada's energy system.

- ▶ In 2050, geothermal will be seen as "just another industry" in Canada. A goal could be 20 percent of Canada's energy mix by 2050.
- ▶ In 2050, Canada will be the world's geothermal consulting hub.
- ▶ In 2050, synergies with other industries will exist. Support from utilities companies will create increased demand.
- ▶ Canadian geothermal will be a global leader in new technology and talent that builds on existing expertise in the industry.
- ▶ Geothermal will be used in multiple ways, including in areas such as military installations, community-driven projects, district heating, and northern or remote communities (focused on areas with population density).
- ▶ Geothermal will be a part of baseline electricity to meet demand in western Canada.

In 2050, deep geothermal will contribute to energy security.

- ▶ Reduced reliance on natural gas creates greater opportunities for exports. (Use geothermal and export oil and gas.)
- ▶ Using geothermal low-grade heat frees up electricity for other industries instead of heat.
- ▶ Reduced cost of drilling and development make geothermal economical for rural/remote communities.
- ▶ Heat is the low-hanging fruit and sets the stage for the rest of the Roadmap's success—for example, Iceland started with heat and then moved to power.
- ▶ Leverage existing expertise in the workforce to support geothermal industry through transitional training.
- ▶ Cascaded use systems to make the most efficient use of energy sources, for example: power generation, then heat use from the same extracted geothermal energy.

In 2050, deep geothermal will be supported and understood.

- ▶ There is support for integrating geothermal into existing energy infrastructure.
- ▶ There is cogeneration of market and industry targets.
- ▶ Progress has been made with implementation science for deep and shallow geothermal.
- ▶ Work with regulators will create a pathway for geothermal projects.
- ▶ Real data with credible estimates is available with granular data to create more defensible arguments.
- ▶ Technology is proven and is no longer a concept.

What does the Roadmap absolutely need to get right to make that future credible?

Relationships

- ▶ Relationships need to be well-established; this includes relationships with landowners, rights holders, Indigenous communities, and municipalities, and communication with the public.
- ▶ Indigenous leadership partnerships are critical. There needs to be real engagement with Indigenous groups about what geothermal is and how it can benefit their communities.
- ▶ Partnerships with oil and gas and other relevant industries are critical. Look for opportunities to collaborate on knowledge sharing.
- ▶ Creating a broader audience will create greater pull and market opportunities.

Communications

- ▶ Public concerns around benefits and risks need to be addressed, and myths and misunderstandings confronted.
- ▶ The Roadmap needs to reflect and demonstrate lessons learned and past successes and experiences, including from other Canadian energy industries and other countries.
- ▶ Messaging needs to include education about geothermal as a sustainable energy source. Emphasize affordability and environmental and social benefits.
- ▶ Provide examples of the success of geothermal around the world.
- ▶ The public needs to be convinced of the need to take risks in geothermal.

- ▶ Messaging needs to demonstrate an aspirational but credible vision with a realistic, achievable goal that fosters momentum to achieve that goal.
- ▶ Messaging needs to emphasize Canadian job creation as a benefit (for example, “a flourishing workforce by 2050”).
- ▶ The terms the Roadmap uses need to be defined to ensure readers understand the goals and scope of the Roadmap. This may include terms like *deep*, *ultra-deep*, and *moonshot*, which may be inspiring to some audiences but signal uncertainty and elevated risks to others.
- ▶ How geothermal opportunities are framed to governments, investors, and the public will influence whether they are viewed as practical investments or speculative ventures.
- ▶ Target audiences need to be defined, with particular attention to who the decision makers are, such as government regulators and financial institutions.
- ▶ Instill investor confidence to attract the capital required to move geothermal development forward in Canada.
- ▶ The Roadmap communication strategy needs to target communications to different audiences, such as decision makers, governments, academia, the public, tradespeople, etc.
- ▶ The conversation has been too focused on numbers and not focused enough on why people and decision makers should support this work.

Metrics

- ▶ Devise sustainability metrics for which projects are accountable.
- ▶ Develop realistic quantitative targets.
- ▶ Be guided by an outcomes-driven approach.

- ▶ Have clear objectives without being limited by goals that are too specific.
- ▶ Use a systems-thinking approach.
- ▶ Understand that this is market-driven and the optimal path may not follow what we know now.

Policy, regulation, and investment considerations

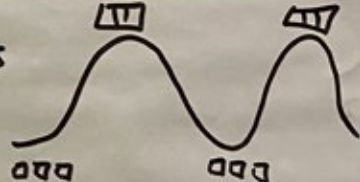
- ▶ Obtain political buy-in across all three orders of government.
- ▶ Encourage private-sector support.
- ▶ Regulators need to work with the geothermal industry to increase capacity and reduce barriers.
- ▶ Harmonize policy and regulation across federal and provincial governments.
- ▶ Carbon incentives could support integration of the geothermal industry.
- ▶ Risk management: Clearly identify the risks facing the sector and demonstrate credible pathways to manage them.
- ▶ Engage external experts to help with policy, regulation, and investment to inform decision making.
- ▶ Policy and regulations will be different in different geographical areas of Canada, which impacts access to geothermal.
- ▶ Optimization of geothermal project timelines will need to include regulatory stakeholders, financial, and technology readiness.

Science and technology of developing geothermal

- ▶ The science needs to be reflective of the varying geography of Canada, and of potential new technologies.
- ▶ Use Canadian drilling expertise (sedimentary and hard rock).
- ▶ Gather data in the Maritimes (for example, investigate the Government of Nova Scotia's initiatives to restart geo-energy).

- ▶ Leverage technology and expertise generated in Alberta and Western Canada more broadly for oil and gas technology to incentivize knowledge sharing between the Canadian energy sector and the global geothermal industry.
- ▶ Draw on expertise in other areas to fill gaps.
- ▶ Include geothermal in modelling studies.
- ▶ Be technology agnostic.
- ▶ Variations in the geothermal sector include deep and shallow drilling science.
- ▶ Compete with other industrial uses for pore space.
- ▶ Use best practices from minerals and oil and gas for standardization of resource estimation and disclosure.
- ▶ Integrate full use of the resource, as with the “whole moose” or “whole fish” concept.

Quarterly congregation
 . Bringing gaps using transdisciplinary connectors
 . Leverage unity and silos



Does the current Roadmap structure help tell a compelling, decision-ready story from opportunity to action?

Investment

- ▶ The Roadmap structure needs to tell a compelling story with clear goals that encourage support from funders (focus on big companies, not just startups) and clarity for decision makers (government) on how to support it.
 - > Include risk identification and indicate how those risks will be mitigated.
 - > Include a pathway to bankability.
 - > Include a pathway to market.
 - > Include a pathway to financial success.
 - > Include connections to other industries.
- ▶ Find ways to get to “yes” for geothermal projects. The Canadian geothermal sector needs visible successes as success builds acceptance, builds investor confidence, and attracts capital.
- ▶ Government matching funds for projects to get started can lead to increased funding from corporations as they see the benefit and impact.
- ▶ Understand how federal/provincial regulatory policies work to achieve regulatory readiness.
- ▶ The geothermal sector needs to come together to make the economic case that

is aligned with regulators and policy, and supported by the public, to attract private capital into geothermal.

- ▶ Opportunity exists to attract international investors to the geothermal innovation that is happening in Canada.
- ▶ Demonstrated success changes everything; small successes are steps towards deeper and more ambitious opportunities.
- ▶ Develop cost-effective and commercially viable geothermal projects first and operate them successfully, then build from there.

Successful examples to guide the roadmap

- ▶ Iceland has completed a roadmap.
- ▶ Other countries, such as Kenya, have adopted geothermal.
- ▶ Idaho has geothermal-heated greenhouse operations (with some operating continuously since the 1920s/1930s).
- ▶ Mirror mining industry with the Canadian Institute of Mining, Metallurgy, and Petroleum to facilitate standards, data sharing, regulatory, networking, and education.



WHAT IS THE SINGLE MOST IMPORTANT QUESTION THAT THE DIFFERENT WORKING GROUPS MUST ANSWER FOR THE ROADMAP TO SUCCEED?

What success means for the Roadmap

- ▶ Geothermal will be a unifier.
- ▶ Geothermal has a revenue source.
- ▶ Geothermal will be a source of integrity.
- ▶ Geothermal will be an employer.
- ▶ Leverage strengths and cooperation to fill gaps.
- ▶ Build domestic capacity and export Canadian expertise.
- ▶ Capture the viewpoints of all stakeholders to create a shared vision of Canadian geothermal that shows how each stakeholder fits.

Mandates

- ▶ Clear vision, goals, and structures are needed for the Working Groups.
 - What questions are the Working Groups answering?
 - Who are the Working Groups speaking to and why?
 - Are roles, responsibilities, and accountabilities defined?
 - A SWOT analysis should be conducted for each group.
- ▶ Working Groups need to engage with relevant communities.
 - Working Groups should be provided with resources on how to engage and how to educate.
 - Each group should develop their own specific engagement plan detailing who they need to talk to, what they need to share, and what communities need to hear and see.
- ▶ Individual mandates of each Working Group need to work together to create the big picture of what the Roadmap is trying to accomplish.
- ▶ Mandates need to make considerations for bankability.

Decision making

- ▶ Working Groups must respect the diversity of opinions and be a safe space for everyone to express their views and disagree with one another.
- ▶ Consensus decision making is a good model but is not always attainable; there will be times where compromises are needed to prevent delays. A safe space for knowledge sharing and hearing all voices will help attain consensus.
- ▶ Each Working Group needs to identify who the decision makers are—both specific to their group and where it overlaps with others.
- ▶ Decisions need to be based on trusted sources and facts, with a diversity of organizations informing decision making.
- ▶ Have industry, Indigenous partners, financial investors, and government at the same table, with clear key performance indicators.

Outputs

- ▶ Use regulatory best practices.
- ▶ Present concrete data and solutions in an engaging and clear manner.
 - Provide clarity on the “why” and the “how.”
 - Make it succinct and simple, using a “why or why not” lens.
- ▶ Use systems-thinking leadership tools to create change.
 - This is a big systemic transformation with lot of different moving parts.
 - There are several organizations working in parallel that need to connect for the common good.
- ▶ Develop a unified voice based on collaboration and engagement reflective of different knowledge pools.
- ▶ Push society forward with greater energy security for all.



- ▶ Work with the federal government so that it is a part of the process and outputs don't end up as a report on a shelf.
- ▶ Develop an employment plan.
- ▶ Develop an engagement plan.
- ▶ Develop a regulatory/funding/enabling plan.
- ▶ Outputs need to factor in industrial users and regional utilities.

Connecting and communicating among Working Groups

- ▶ Bridge the silos. The secretariat model works to connect and coordinate diverse actors, and should actively encourage knowledge sharing and discussion.
- ▶ Indigenous perspectives need to be intertwined with all the Working Groups.
- ▶ Recruit diverse and knowledgeable representatives to communicate the detailed work of each Working Group when the Working Groups gather.
 - > Some of the work of the Working Groups needs to be done in silos on account of the specific nature of each Working Group's mandate/focus.
 - > Working Groups may work in parallel on their details while integrating with the larger group to move the Roadmap forward.
- ▶ Integrate a coordinated system of status updates and feedback mechanisms among Working Groups. Include opportunities for information sharing, discussion, conclusion, consensus, or capturing differing opinions.
- ▶ Create systems and structures for accountability.

Suggestions

- ▶ Iceland example (three groups): resource performance, community trust, and operational sustainability.
- ▶ Financing group.
- ▶ Market intelligence and development group.
- ▶ A Working Group on strategic positioning should be charged with identifying key decision makers for the steering committee and secretariat to target when delivering the Roadmap.

NEXT STEPS

The Canadian Deep Geothermal Coalition Secretariat is moving quickly to maintain the incredible momentum that was sparked at the Kickoff Workshop and the World Geothermal Congress. The enthusiasm, expertise, and constructive feedback of participants have provided a strong foundation for the next phase of the Canadian Deep Geothermal Roadmap.

The immediate priority is establishing the four Working Groups—Technology, Finance and Economics, Community, and Competitiveness—that will guide the Roadmap's analytical work and shape its recommendations. Working Group formation is now underway, and the Secretariat is reaching out to participants from the Kickoff Workshop and the broader geothermal community to confirm membership and leadership roles.

Our goal is to have all four Working Groups constituted and holding their inaugural meetings by September 2026. These groups will play a central role in developing Roadmap chapters, providing expert input to the commissioned studies, reviewing emerging findings, and helping build consensus around actionable recommendations for Canada's geothermal future.

Additional information regarding Working Group mandates, governance, participation expectations, timelines, deliverables, and opportunities for involvement will be provided in a forthcoming Roadmap implementation and engagement document.

GET INVOLVED

The Roadmap will only be as strong as the expertise and commitment of the people who contribute to it. Working Group participation is open to Coalition members and qualified contributors from across industry, government, academia, and Indigenous communities. We look forward to continuing this work together and building an evidence-based pathway to position Canada as a global leader in deep geothermal energy.

Want to get involved? Click or scan the QR code to express your interest.

Canadian Deep Geothermal
Roadmap: Working group
registration





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INSTITUTIONAL PARTNERS



AUTHORS

Hatlie Group is a consulting and cultural services firm based in Treaty Six territory that supports non-profit organizations in transitioning management and governance practice. The **Canadian Deep Geothermal Secretariat** is the coordinating body that supports the Canadian Deep Geothermal Coalition and leads the development of Canada's Deep Geothermal Roadmap. Housed at the Cascade Institute, the Secretariat provides project coordination, governance support, stakeholder engagement, communications, and administrative leadership to ensure the Roadmap reflects diverse perspectives and delivers actionable recommendations for Canada's geothermal future.

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