

# Carbon Capture, Utilization, and Storage (CCUS) Research, Development, and Demonstration (RD&D) Call

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## CCUS RD&D Capture Focus Area Expression of Interest Form

\*indicates mandatory field

### Applicant Information

Legal name of organization\*

Organization type\*

GST Number (*If applicable*)

Province/Territory of Incorporation\*



## Applicant's Primary Contact

Salutation\*      First Name\*      Last Name\*

Position/Title\*      Preferred language\*

Email\*

Telephone No.\*      Extension      Mobile Telephone No.

## Applicant's Secondary Contact

Salutation      First Name      Last Name

Position/Title      Preferred language

Email

Telephone No.      Extension      Mobile Telephone No.

## Applicant's Organization Mailing Address

Street No.\*      Street Name\*      Street Type\*

Suite / Unit No.      City\*      Province/Territory\*

Postal Code\*      Main Telephone\*

## Project Information

### Project summary

Project Title\*

Project Description\* *(Short project summary for public use)*

Primary Location (latitude)\* *(Latitude coordinates of project)*

Primary Location (longitude)\* *(Longitude coordinates of project)*

Primary Location\* *(Province/territory of project)*

Secondary Location (latitude) *(Latitude coordinates of project)*

Secondary Location (longitude) *(Longitude coordinates of project)*

Secondary Location *(Province/territory of project)*

Technology Target Area\*

*Projects that replicate operating commercial CCUS facilities, and technologies or techniques that remove air contaminants (particulate matter, SO<sub>x</sub>, NO<sub>x</sub>, metals, etc.) from flue gas are ineligible.*

Project Type\*

Current Technology Readiness Level\* *Projects must be between Technology Readiness Level (TRL) 2 and 7. TRL definitions can be found in Appendix B of the Applicant's Guide.*

Planned Technology Readiness Level at end of funding\* *TRL definitions can be found in Appendix B of the Applicant's Guide.*

Expected Start Date\*  
YYYY/MM/DD (Must be 2023 onwards)

Expected Completion Date\*  
YYYY/MM/DD (Must be before 2029)

## Project budget

All values must be in CAD

Contribution funding requested from Program (total cash requested)\*  
*(Amount requested in this application)* \$

Estimate of contributions you will make to the project (cash)\* \$

Other expected funding (cash and in-kind)\* \$

Percentage of funding requested from Program\*  
*(This will be automatically calculated)*  
*Must NOT be above 75% for R&D projects.*  
*Must NOT be above 50% for Demo projects.*

Total Project Cost\* \$  
*(This will be automatically calculated)*

## Evaluated Questions

### **Technology/Innovation\*** (30 points)

Describe your technology/innovation, including:

- How your technology/process works (include technical details and supporting evidence)
- How your technology/process is innovative and novel
- Its position as a next generation capture technology/process, such as by having competitive advantages over or by addressing barriers/gaps/needs identified in current conventional capture projects. Be sure to highlight where it addressed the following criteria, as well as any other impacts you would like profile:
  - Potential to significantly reduce capital and/or operating costs of capturing CO<sub>2</sub> compared to commercially available, amine-based CO<sub>2</sub> capture technologies (include estimated cost reduction compared to benchmark technology applied to a similar CO<sub>2</sub> source)
  - Potential to be applied to a broader range of emission sources, sizes, and CO<sub>2</sub> concentrations
  - Potential to capture a higher fraction of emissions from a source

**Project Implementation Plan\*** (15 points)

Present your project plan, including:

- Plan to advance your technology/process from the current TRL to the anticipated TRL at project completion
- Scope, activities, deliverables, and schedule
- Sources of funding adding up to the total project cost (include the funding requested from NRCan, and the role it will play in advancing your project)
- Key risks and mitigation strategies

**Team/Partners\*** (10 points)

Describe your team and partners, including:

- Team structure, roles, and experience
- Partners who are providing financial, technical, or other support (letters of support are not required, but will be considered as part of the evaluation), and their roles and engagement to date

**Path to Scale / Target Market\*** (10 points)

Present how your project will scale to achieve broader impact, including:

- Path to scale/market and how your project is situated within the broader strategy for technology transfer, scale-up, and/or commercialization
- Market potential (include information on target market / customer base / receptor community)
- The next steps following this project to achieve scale (value proposition, business strategy, licencing, sales, capital attraction, etc.), identifying additional technical and non-technical barriers and how you plan to address them
- Knowledge dissemination, such as by sharing information and knowledge that can support Canada's CCUS/clean tech sector more broadly

**IP Generation and Strategy\*** (5 points)

Identify any intellectual property (IP) that will be generated through your project  
*(Check all that apply)*

Patents

Trade Secrets

Copyright

Trademark

Other

None

Provide details on the IP that you selected (e.g. for patents, what type will be filed in which jurisdictions; for copyrighted research, in which journal will it be published), and your IP strategy (include how it will support your path to scale)

**Social and Economic Benefits\*** (10 points)

Describe your project's social and economic benefits, including:

- Direct benefits to local and Indigenous communities by creating opportunities for community development, employment, contracts, training, etc.
- Contributions to Canadian prosperity, jobs, and competitiveness (include how your project builds on Canada's strengths and competitive advantages, and how it targets Canada's natural resource sector profiles and needs)
- Contributions to the Canadian economy by developing IP, knowledge products, codes and standards, etc.



**Environmental Benefits\*** (20 points)

Estimate the greenhouse gas (GHG) emissions reductions:

- \*\* total GHG emissions reductions if your technology/innovation/solution reaches scale as proposed;
- \*\*\* total GHG emissions reductions that might be achieved through the demonstration project as proposed once completed. If the demonstration will not continue to operate after a certain time period, ensure this is reflected accurately

	GHG Impact in 2030 <i>(Canada) (tCO<sub>2</sub>e/year)</i>	GHG Impact in 2050 <i>(Canada) (tCO<sub>2</sub>e/year)</i>	GHG Impact in 2050 <i>(Globally) (tCO<sub>2</sub>e/year)</i>
Impact of the technology/innovation at scale**			
Impact of the project once complete (demo projects only)***			

- Support the stated GHG emissions reductions in the table above by providing relevant justification and explanation, and clearly outlining the assumptions that were made
- Describe how your project supports Canada’s GHG emissions reductions targets by 2030 and 2050 (reference: <https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/net-zero-emissions-2050.html>)

- Describe the other environmental benefits (e.g. water, land use, waste reduction, air emissions impacts) of your project

## **Equity, Diversity and Inclusion (EDI) (voluntary)**

NRCan recognizes the importance of a diverse and inclusive workforce on the resilience of Canada's economy and the benefit of Canadian society. To that end, NRCan is collecting voluntary, anonymous, and aggregate information on groups that have historically been underrepresented in the science, technology, engineering, and natural resources sectors to get a better understanding of the state of Equity, Diversity and Inclusion (EDI) in the CCUS sector. This information will be analyzed to inform future program development, help promote diversity and inclusion in the clean energy sector, and track progress on increasing workforce diversity. Please ensure that there is no identifying personal information of individuals in any of the EDI sections.

As the following three sections on EDI are voluntary, responses will not impact your eligibility for the program. Any EDI information collected will not be evaluated or scored as part of your application.

### **EDI Section A – EDI Plan**

To support a diverse and inclusive energy technology sector, please indicate whether your organization has an EDI Plan and, if so, what this plan entails.

Select the status of your organization's EDI Plan

Please describe the goals, commitments, and/or actions your organization is taking in regard to EDI, formally or informally

## EDI Section B – Diversity in Leadership

The groups identified within the following questions are included in order to gain a better understanding of businesses owned, managed, or controlled by members of various communities across Canada. If your organization collects this information on owners, Board of Directors, Corporate Executives or Executive-Level Managers, and it can be shared, please provide the percentages (please note that people can be represented or identify under multiple categories so the percentage can add up to more than 100). If your organization does not collect this information, please select N/A.

	What percentage of the diversity characteristics below are represented by owners in your organization?  <i>Select N/A if this information is unknown or unable to be shared</i>	What percentage of the diversity characteristics below are represented by Board of Directors in your organization?  <i>Select N/A if this information is unknown or unable to be shared</i>	What percentage of the diversity characteristics below are represented by Corporate Executives or Executive-Level Managers in your organization?  <i>Select N/A if this information is unknown or unable to be shared</i>
Women?	%	%	%
N/A	N/A	N/A	N/A
Gender diverse people and/or People with other gender identities?  <i>People whose gender identity or gender expression does not conform to socially defined male or female gender norms.</i>	%	%	%
N/A	N/A	N/A	N/A
First Nations, Métis or Inuit peoples?	%	%	%
N/A	N/A	N/A	N/A
Landed immigrants or permanent residents?  <i>Persons who are not Canadian citizens by birth. This includes persons who are, or who have ever been, landed immigrants or permanent residents. Such persons have been granted the right to live in Canada permanently by immigration authorities. Immigrants who have obtained Canadian citizenship by naturalization are included in this category.</i>	%	%	%
N/A	N/A	N/A	N/A

	What percentage of the diversity characteristics below are represented by owners in your organization?  <i>Select N/A if this information is unknown or unable to be shared</i>	What percentage of the diversity characteristics below are represented by Board of Directors in your organization?  <i>Select N/A if this information is unknown or unable to be shared</i>	What percentage of the diversity characteristics below are represented by Corporate Executives or Executive-Level Managers in your organization?  <i>Select N/A if this information is unknown or unable to be shared</i>
<b>Persons with a disability?</b>  <i>A disability means any impairment, including a physical, mental, intellectual, cognitive, learning, communication or sensory impairment — or a functional limitation — whether permanent, temporary or episodic in nature, or evident or not, that, in interaction with a barrier, hinders a person’s full and equal participation in society.</i>	%	%	%
N/A	N/A	N/A	
<b>Youth?</b>  <i>Youth refers to persons aged 18 to 34.</i>	%	%	%
N/A	N/A	N/A	
<b>Members of visible minorities?</b>  <i>Persons, other than Indigenous peoples, who are non-Caucasian in race or non-white in colour</i>	%	%	%
N/A	N/A	N/A	

## **EDI Section C – Public Commitment on EDI**

Public commitments tell employees, investors, and customers that diversity and inclusion is an important part of an organization's values and activities. It positions organizations as a leader in EDI, improves internal culture, and attracts and retains better and more diverse talents that can lead to more innovation and creative thinking. This question is included to gain a better understanding of applicants who have made public commitments to EDI.

**Has your organization made a public commitment to EDI?**

### **Yes**

If yes, please select all that apply:

1. Equal by 30
2. 50-30 Challenge
3. Leadership Accord on Equity, Diversity and Inclusion
4. Other (please specify):

**Our organization is in the process of signing onto a public commitment.**

If yes, please select all that apply:

1. Equal by 30
2. 50-30 Challenge
3. Leadership Accord on Equity, Diversity and Inclusion
4. Other (please specify):

### **No**

## Declarations (mandatory)

The applicant hereby:

1. Attests that it is legally registered or incorporated in Canada.\*
2. Attests that the information provided is true and accurate to the best of their knowledge.\*
3. Attests that it is the owner of all information—proprietary, confidential or otherwise—provided as part of the submission, or, if the information belongs to another party, that it has obtained written consent to disclose the information to NRCan.\*
4. Understands that any costs incurred for the submission of the application are at the applicants' own risk.\*
5. Understands that NRCan reserves the right to alter the currently envisaged process, funding amounts, and deadlines, or to cancel the entire application process at its sole discretion.\*
6. Understands that project funding decisions will only be made following receipt, review, and selection of full project proposals.\*
7. Understands and acknowledges that no liability and no commitment or obligation exists on the part of NRCan to make a financial contribution to the project until a written contribution agreement is signed by both parties.\*
8. Understands that reviewers are bound by the requirements of the *Access to Information Act* and the *Privacy Act* regarding the treatment of confidential information.\*
9. Do you agree for NRCan to share this application, and any other submitted supplemental material, with other funding entities of:
 

The Government of Canada*	Yes	No
The Provincial, Territorial, or Municipal Government*	Yes	No
Not-for-Profit sector such as Sustainable Development Technology Canada, and the Green Municipal Fund*	Yes	No
10. I acknowledge, that by submitting an application to the Program I am consenting for NRCan to share this proposal and any other information provided as supplemental material as part of this proposal with the Government of Canada's Clean Growth Hub. The Clean Growth Hub is a whole-of-government focal point for clean technology focused on supporting companies and projects.\*

11. My organization does not conduct business dealings in any country against which Canada has imposed economic sanctions under the *United Nations Act*, *Special Economic Measures Act* or the Justice for Victims of Foreign Corrupt Officials (Sergei Magnitsky Law).\* (See [https://www.international.gc.ca/world-monde/international\\_relations-relations\\_internationales/sanctions/current-actuelles.aspx?lang=eng](https://www.international.gc.ca/world-monde/international_relations-relations_internationales/sanctions/current-actuelles.aspx?lang=eng))
12. My organization does not conduct business dealings with any persons that are listed in Canada's sanctions legislation under the *United Nations Act*, *Special Economic Measures Act* or the Justice for Victims of Foreign Corrupt Officials (Sergei Magnitsky Law).\*
13. My organization is not owned, or directly or indirectly held or controlled by a person (individual or corporate entity) that is listed in Canada's sanctions legislation under the *United Nations Act*, *Special Economic Measures Act* or the Justice for Victims of Foreign Corrupt Officials (Sergei Magnitsky Law).\* For greater certainty, this would include shareholders or corporate entities anywhere in your corporate structure that are sanctioned under the aforementioned legislation.
14. My organization acknowledges and agrees that there will be legally binding obligations in the Contribution Agreement to prohibit both any business dealings with, and to having any entity in the corporate structure owned, held or controlled by, any persons that are listed in Canada's sanctions legislation (currently or in the future) under the *United Nations Act*, *Special Economic Measures Act* or the Justice for Victims of Foreign Corrupt Officials (Sergei Magnitsky Law).\*

Please attach your completed application and any letters of support that you may have (no other attachments will be accepted) in an email to [eip-ccus.pie-cusc@nrcan-rncan.gc.ca](mailto:eip-ccus.pie-cusc@nrcan-rncan.gc.ca) with the subject line "EIP CCUS RD&D Capture EOI - <<Insert Organization Name>>".

The submission deadline is **11:59 p.m. EDT on October 3, 2022**. For your application to be considered eligible, you are responsible for ensuring that your application is fully completed and properly submitted on time.