



**Industry, Energy and Technology**

## **Call for Proposals**

# **Carbon Capture, Utilization and Storage Innovation Challenge**

**Date Issued: October 17, 2023**

## 1. Call for Proposals

The Department of Industry, Energy and Technology (IET), through its Green Transition Fund (GTF) and the Innovation and Business Investment Corporation (IBIC), is requesting proposals to accelerate the development of carbon capture, utilization and storage (CCUS) in Newfoundland and Labrador's offshore.

Administered by IET, the objective of the CCUS Innovation Challenge ("the Challenge") is to award up to \$6 million of funding to maximize and accelerate the decarbonization of the offshore through CCUS, and to demonstrate the potential for sequestering externally sourced carbon dioxide (CO<sub>2</sub>) in Newfoundland and Labrador's offshore. This is a cost-shared funding initiative through which IET will contribute a maximum of 50 per cent towards project costs with the remaining balance provided by proponents either through their own or other sources.

## 2. Why the CCUS Innovation Challenge?

It has become evident that Net Zero cannot be achieved without CCUS. The International Energy Agency estimates that 14 per cent of global CO<sub>2</sub> reductions must come from CCUS by 2060. As there are limited locations globally where significant amounts of carbon can be securely stored, there will be a global demand for carbon storage, representing an economic opportunity expected to be worth billions of dollars.

Jurisdictions with existing offshore oil and gas industries have distinct competitive advantages in this regard as they have available and extensive offshore geological data, infrastructure such as platforms that can be repurposed to transport and inject CO<sub>2</sub> into offshore reservoirs, and a skilled offshore workforce that requires relatively little training to carry out CCUS activities. Offshore CO<sub>2</sub> storage, particularly in deep water areas, also allows for these activities to be conducted in areas that will present minimal disruption to human activities and the environment.

Newfoundland and Labrador's offshore, which initial estimates suggest can offer gigaton-level storage potential for imported CO<sub>2</sub>, is an ideal candidate for the establishment of a significant CCUS industry. The establishment of such an industry would enable the province to maximize the lifespan of current oil-producing assets by enabling further de-carbonization of existing production activities, while providing a substantial new economic opportunity to further capitalize on the existing offshore infrastructure and workforce for decades to come.

In doing so, offshore CCUS can play a key role in helping Newfoundland and Labrador to achieve both its 2030 and 2050 CO<sub>2</sub> reduction targets, as offshore oil production represents 16 percent of the province's overall emissions. The province's offshore storage potential could also help other jurisdictions to meet their own emissions reduction targets.

## 3. The two Challenge Streams

All project proposals must directly respond to one of the two Challenge Streams, and proponents will be required to indicate which of the two streams they are applying to for funding.

### **Challenge Stream 1: Offshore CCUS to decarbonize existing oil production**

The first Challenge Stream is focused on the potential of Newfoundland and Labrador's active offshore fields to facilitate carbon storage to decarbonize existing oil production. This stream will require companies active in the province's offshore and post-secondary institutions in the province to partner in seeking to advance understanding of how offshore CCUS can contribute to the province's goal of reducing carbon emissions by 30 per cent from 2005 levels by 2030 and of reaching Net Zero by 2050. IET will award up to \$3 million from the GTF to support this Challenge Stream.

**Challenge Stream 2: The province's potential to establish an offshore regional and/or international CCUS hub**

The second Challenge Stream will support R&D focused on CO2 storage and transportation technologies and methodologies, as well as the collection and analysis of data that further characterizes the potential storage capacity of the province's offshore, that can demonstrate the potential of the province's offshore to provide safe, effective, long-term storage at a hub scale of local and externally sourced CO2. Projects should consider specific scenarios for the implementation of hub-scale storage in the province's offshore. IBIC will award up to \$3 million to support this challenge.

#### 4. Objectives and Expected Results

Proposals submitted for funding under the CCUS challenge must demonstrate the potential to deliver technical, economic, and other impacts and benefits, such as:

- Demonstrating the viability of offshore CCUS in Newfoundland and Labrador;
- Furthering the development of knowledge and/or technology that will enable offshore CCUS in the province;
- Facilitating CCUS collaboration between academia and industry in the province;
- Improved awareness of the province's offshore as a potential solution to help industry and other jurisdictions achieve decarbonization targets;
- Improved awareness of offshore CCUS in the province as a potential business, investment, and employment opportunity; and
- Promoting the province as a leader in offshore CCUS technologies and the green transition.
- All proposed work must be completed within a 24-month period from the date that funding is received. At IET's discretion, limited extensions may be provided in cases where proponents can demonstrate sufficient justification.

#### 5. Eligible/Ineligible Applicants

**Eligible Applicants**

All projects must be submitted and primarily implemented by two Lead Partners, one of which must be a non-commercial entity and one a commercial entity. Lead Applicants must be:

- Non-commercial Lead Partners: Academic experts based in post-secondary institutions in Newfoundland and Labrador that are engaged in R&D focused on offshore CCUS. Applying experts must have been engaged in offshore CCUS activities and/or R&D for a minimum of two years; and
- Commercial Lead Partners: registered incorporated business enterprises with a minimum of two years of experience operating in Newfoundland and Labrador's offshore.
- All proposals must be jointly submitted by one non-commercial and one commercial Lead Partner to be eligible for consideration.

Lead Partners will provide the Project Team, which will have primary responsibility for planning and implementing the proposed project. Lead Partners may work with any number of Contributors, whether industry or academic, that are internal or external to the province and that can provide additional required resources and expertise to implement proposed projects in support of the Project Team. Contributors must be actively engaged in research and development related to offshore CCUS in the province or another jurisdiction to be eligible to participate.

#### Ineligible applicants

Ineligible Lead Partners include:

- Municipalities, non-incorporated entities, and provincial and federal departments, agencies, and related entities;
- Commercial and non-commercial entities not currently engaged in research and development related to offshore CCUS.
- Non-commercial entities that are not based in the province
- Commercial entities that are not active in the province's offshore, and;
- Commercial and non-commercial Lead Partners that are unable, combined, to directly provide a minimum of 25 per cent of eligible project costs.

Ineligible Contributors include:

- Commercial and non-commercial entities not currently engaged in research and development related to offshore CCUS.

## 6. Funding Requirements and Eligible Expenses

### Funding requirements

A key objective of the Challenge is to encourage academic and industry proponents to collaborate in preparing and implementing cost-shared proposals. This is intended to be achieved through the following funding parameters:

- Provincial Government: Funding of a maximum of 50 per cent of eligible costs with a minimum Provincial Government contribution of \$1.5 million to a maximum of \$3.0 million;
- Provincial Government funding will be provided in two annual installments on the basis of a funding agreement signed by proponents and IET;

- Proponents: Remaining balance of project funding that must be fully secured before Challenge funding can be disbursed; and
- Lead Partners: Must combine to contribute no less than 25 per cent of eligible project costs.

Eligible expenses include:

- Incremental salary costs required to support the proposed project (e.g., additional researchers to be brought on who will be dedicated to the proposed project);
- Professional fees (engineering, consulting etc.);
- Travel considered essential to the implementation of the project;
- Incremental materials/supplies and related costs (e.g., transportation of equipment) that are essential for implementation of the project;
- GST/HST – applicants who are entitled to a refund or credit from the Canada Revenue Agency (CRA) on a portion of the GST/HST paid on eligible goods and services will be allowed to claim only the portion of tax not refunded by CRA; and
- Any other costs defined as eligible by IET.

All eligible categories of expenditure must be itemized in the breakdown of project costs.

Ineligible expenses include:

- Routine or non-incremental salaries and benefits;
- Routine or non-incremental operational, materials/supply and related costs;
- Core administrative functions;
- Administration fees;
- Entertainment; and
- Any other costs defined as ineligible by IET.

## 7. Application and evaluation process

The application and evaluation process will consist of three phases:

- Expression of Interest (EOI);
- Request for Proposals (RFP); and
- Award.

To be considered, proponents must first submit an Expression of Interest (EOI) in response to this Call for Proposals using the application form provided. The EOI submission requires proponents to provide general information such as a description of their project, the Project Team proposed to implement the project and their experience with CCUS, estimated budget and timeline, risk management approach, and expected sources of funding. At this stage, documentation to verify details of the proposal, such as confirmation of the participation of Project Team members and Contributors and confirmation of funding sources, will not be required.

Prospective proponents will have an opportunity to submit questions to IET in writing regarding the EOI phase. All questions must be submitted to [CCUS@gov.nl.ca](mailto:CCUS@gov.nl.ca) by the deadline noted in

section 9 below. IET will record all questions and prepare written responses that will be made available to all prospective proponents. The identity of entities that submit questions will be kept anonymous.

A Technical Evaluation Panel (TEP) will assess and score EOI submissions for suitability and proposal quality. The TEP will be comprised of provincial and external experts.

The EOI phase is scheduled to take 6 weeks.

Proponents whose submissions are approved by the TEP will be invited to participate in the RFP phase and will be provided instructions for their participation. At the start of this phase, proponents will again have an opportunity to submit questions to IET in writing regarding the conduct of the RFP phase, and IET will similarly record all questions and prepare responses that will be made available to all RFP participants.

This phase will entail the preparation and submission of further information regarding EOI proposals, as well as documentation to substantiate details provided during the EOI phase, such as the availability of own-source funding, participation of Project Team members and Contributors, etc. RFP submissions will be assessed by the TEP, which will subsequently submit recommendations to the Management Committee of the GTF and the Board of Directors of IBIC, as appropriate, for final funding decisions.

At the conclusion of the RFP phase, proponents will be notified of the results. The RFP phase is scheduled to take 13 weeks.

Proponents whose projects are approved will receive funding agreements to review and discuss with IET to begin the Award phase. Once funding agreements are approved for signature by proponents and IET, awards will be announced and funding agreements signed at a public event to complete the Award phase. This phase is scheduled to take 4 weeks.

## 8. Scoring Procedure and Matrix

The assessment of EOI submissions will be conducted on the basis of both pass/fail and scored criteria. All criteria correspond to sections of the EOI application form that must be filled out by proponents.

Table 1 below indicates the pass/fail criteria that will be used to assess EOI submissions. All pass/fail criteria must be satisfied or the proponent will be disqualified from the Challenge.

Table 1: Pass/Fail Criteria

Number	Criterion	Pass/Fail
1	The EOI is submitted by two clearly identified Lead Partners: one industry partner with operations in NL and one academic partner based in NL	
2	The industry Lead Partner has at least two years of experience operating in NL's offshore	
3	The academic Lead Partner has at least two years of experience conducting research or otherwise working on offshore CCUS	
4	Both Lead Partners are in good standing with the Government of Newfoundland and Labrador	
5	The EOI does not seek more than 50 per cent in eligible costs from the Challenge	
6	The EOI identifies sources for the entirety of the proponent's share of the required project funding	
7	The Lead Partners indicate their capacity, combined, to provide at least 25 per cent of the funding of total eligible costs	
8	The EOI requests between \$1.5 million and \$3.0 million in Challenge funding from one of the two Challenge Streams	
9	The EOI provides a work plan that does not exceed 24 months to achieve the completion of work	
10	The proposed project is exclusively focused on conducting R&D to advance offshore CCUS in NL	

Table 2 below indicates the scored criteria that will be used to assess EOI submissions. These criteria will be scored in accordance with the following scale on the basis of compliance with the information requested, suitability of the information, and quality/appropriateness of the information provided:

- 1-2: Response demonstrates no or very weak understanding of the requirement
- 3-4: Response demonstrates weak or limited understanding of the requirement
- 5-6: Response demonstrates minimum or adequate understanding of the requirement
- 7-8: Response demonstrates good or very good understanding of the requirement
- 9-10: Response demonstrates excellent understanding or exceeds expectation

A score below 5 on any scored criterion, or a total score on all scored criteria below 60, will result in disqualification from the Challenge.

Table 2: Scored Criteria

Number	Criterion	Weight Factor	Maximum Points
1	Project Objectives	Criterion score x 1.0	10
2	Project Team and Contributors	Criterion score x 1.5	15
3	Project Description	Criterion score x 1.0	10
4	Project Methodology	Criterion score x 1.0	10
5	Expected Outputs and Outcomes	Criterion score x 1.0	10
6	Risk Mitigation	Criterion score x 1.0	10
7	Project Timeline and Milestones	Criterion score x 1.0	10
8	Potential/Plan for Subsequent Projects	Criterion score x 1.0	10
9	Estimated Costs/Proposed Funding Sources	Criterion score x 1.5	15
<b>Total score</b>			<b>100</b>

The individual scoring criteria will be assessed in accordance with the guidelines below.

**Project Objectives — 10%**

- How well has the proponent demonstrated an understanding of the purpose and scope of the Challenge?
- To what degree are the project’s objectives practical and achievable?

**Project Team and Contributors — 15%**

- How extensive is the CCUS expertise and experience of the individuals who will be responsible for the project for the Lead Partners?
- Does the broader project team have the necessary qualifications and experience in CCUS to ensure successful completion of the project?

**Project Description — 10%**

- To what extent will the proposed project advance the development of offshore CCUS in NL?
- Is the scope of the proposed project achievable within a 24-month timeframe and within the financial resources the proposal indicates are required?

**Project Methodology — 10%**

- To what extent will the proposed methodology ensure achievement of the project’s objectives, expected outputs, and expected outcomes?
- Does the project team, including contributors, have sufficient experience and expertise to apply the proposed methodology?

**Expected Outputs and Outcomes — 10%**

- Does the EOI clearly demonstrate how the project will deliver technical, economic, and other impacts and benefits as outlined in Section 4 above?



**Risk Mitigation — 10%**

- Has the proponent assessed and identified key potential risks that may arise in the course of project implementation?
- Has the proponent proposed appropriate risk mitigation measures that will enable control of the identified risks?

**Project timeline and milestones — 10%**

- Has the proponent presented a realistic and achievable timeline for implementation of the proposed project?
- Has the proponent identified sufficient and appropriate milestones that will enable effective monitoring of project progress?

**Potential/Plan for Subsequent projects — 10%**

- To what extent will completion of the proposed project enable subsequent R&D that can further advance the development of offshore CCUS in NL?

**Estimated Costs and Proposed Funding Sources — 15%**

- Is the breakdown of estimated project costs reasonable and structured in a manner that is consistent with the activities identified in the project description that can result in the delivery of the expected outcomes and expected outputs?
- Is the proposed breakdown of the proponent’s own funding sources realistic and achievable? *(i.e., if some sources require applications for funding, have these applications already been submitted and/or discussed with funding providers? This could have bearing on the proponent’s ability to secure all of its own funding sources in advance of the disbursement of Challenge funding.)*

IET reserves the right to make partial awards and to negotiate scope changes with proponents, and also to award no funding under either or both Challenge Streams.

9. [Application and evaluation process timeline](#)

The timeline for the application and evaluation process is provided in Table 3 below. This timeline is subject to change at IET’s discretion.

*Table 3: Application and evaluation process timeline*

Action	Date
Launch of the Challenge and the EOI phase	October 17, 2023
Deadline for submission of questions regarding EOI phase	October 25, 2023
Deadline for IET provision of responses to questions	November 3, 2023
Deadline for submission of EOI	November 17, 2023
Notification of EOI results and invitations to participate in RFP	November 27, 2023
Deadline for submission of questions regarding RFP phase	December 4, 2023

Deadline for IET provision of responses to questions	December 13, 2023
Deadline for RFP submissions	January 29, 2024
Notification of RFP results and start of Contracting and Award phase	February 23, 2024
Public Announcement of awards and signing of funding agreements	March 22, 2024

## 10. Stacking of Assistance

The total Provincial Government contribution to the proposed project shall not exceed 50 per cent of eligible costs. All proponents will accordingly be required to inform IET of any financial assistance received or requested for the project from any Provincial Government department upon submission of the EOI. Proponents shall not submit any application for financial assistance for the project to any Provincial Government department after submission of an EOI. Failure to adhere to this requirement will result in disqualification from the Challenge. Funding agreements will contain a continuing disclosure obligation, for the duration of the agreement, concerning other any (federal or provincial) government assistance.

## 11. General Inquiries

Proponents should direct any general inquiries regarding the Challenge to [CCUS@gov.nl.ca](mailto:CCUS@gov.nl.ca). Questions relating to the EOI and RFP phases will be answered during the periods indicated in Table 3 above.

## 12. EOI Submissions

EOI submissions in PDF format must be sent by email to: [CCUS@gov.nl.ca](mailto:CCUS@gov.nl.ca) no later than **5:00pm, Newfoundland and Labrador time, on November 17, 2023**. The maximum file size that can be submitted is 50MB. Submissions received after this time will not be considered. Paper submissions will not be accepted.

## 13. Access to Information and Protection of Privacy Act, 2015

Information submitted to IET in response to this call for proposals will be collected under the authority of section 61(c) of the **Access to Information and Protection of Privacy Act, 2015**, for the purpose of assessing the merit of the project with regards to carbon capture, utilization and storage. Any information that may be received will be governed in accordance with the **Access to Information and Protection of Privacy Act, 2015** and will only be used for the above noted purpose. If you have any questions about how this information will be collected, used and potentially disclosed, please contact [CCUS@gov.nl.ca](mailto:CCUS@gov.nl.ca).