

**INVITATION FOR AN
EXPRESSION OF INTEREST
CCS NOVA SCOTIA
RESEARCH CAPABILITIES**

Issue Date: November 7, 2016
Closing Date: May 15, 2016

Nova Scotia's Climate Change Action Plan (CCAP) *Towards a Greener Future*, introduced in 2009 had two main goals: reducing our contribution to climate change by reducing our greenhouse gas (GHG) emissions and preparing for changes to our climate. In 2009 the Greenhouse Gas Emissions Regulations were released in Nova Scotia establishing GHG emission caps on the electricity sector. Amendments were made to the Air Quality Regulations to set tighter limits for 2015 and 2020. The Environmental Goals and Prosperity Act (EGSPA) is another piece of legislation that imposes aggressive targets to reduce greenhouse gas emissions, promote renewable energy, improve air and water quality, and protect ecosystems. The EGSPA requires the reduction of greenhouse gas (GHG) emissions by 10% of 1990 levels while maintaining a level of economic performance equal to the Canadian average.

The majority of the GHG emissions in Nova Scotia are produced from the use of fossil fuels for electrical generation. To address this, the CCAP requires that the electrical sector progressively reduce GHGs and meet specific emission caps. This will take a complex mix of carbon management solutions. Carbon Capture and Storage/Utilization has the potential to play a role as one of these potential solutions.

Carbon Capture and Storage Research Consortium of Nova Scotia (CCS Nova Scotia) is a joint venture of the Province of Nova Scotia (with NRCan funding), Nova Scotia Power Inc. and Dalhousie University. CCS Nova Scotia was created to advance the use of carbon capture and storage/utilization technology in Nova Scotia, to determine the economic and technical feasibility of such technology, and to develop related research capacity and expertise in Nova Scotia. The goal of CCS Nova Scotia is to direct interdisciplinary research associated with the reduction of GHGs from stationary sourced carbon dioxide emissions in a safe and environmentally acceptable manner.

Recently CCS Nova Scotia has completed research on the viability of carbon capture and storage within certain geological formations of Nova Scotia. CCS Nova Scotia now invites companies, researchers and consortia to submit Expressions of Interest (EOI) to conduct applied research into carbon capture and storage/utilization in Nova Scotia. The purpose of this request is to gauge the interest of researchers and/or companies who might have new and innovative solutions for the reduction of GHG emissions in Nova Scotia. At this time, this EOI is nonbinding and is not a mandatory requirement of a formal bidding process.

Examples of the research areas that may be considered include, but are not limited to:

- New and innovative solutions for the capture of GHG emissions from sources within Nova Scotia, both industrial and commercial.
- Demonstrating technologies in which Nova Scotia firms can economically utilize captured GHG emissions for commercial and/or industrial use: e.g. feedstock for the production of manufactured goods. This would include an assessment of the cost effectiveness of such technology versus other options.
- Demonstrating technologies for energy storage in Nova Scotia to enhance the role of intermittent renewable energy sources such as wind and solar. In addition to a demonstration, the proponents would outline the costs/benefits of the deployment in meeting future GHG reductions. Storage can be at the commercial or residential scale.

Preference will be given to projects that have near term commercial benefits.

Two page expressions of interest are invited from companies, academic institutions, individual researchers or consortia that believe they have innovative solutions or research to contribute to CCS Nova Scotia. These expressions of interest must be received by [December 31, 2016].

The applicant(s) submitting those expressions of interest, which are deemed to have the greatest potential to significantly enhance the goals of CCS NS, will be invited to submit a full application for funding support. The funding cap is \$500,000 per project.

Expression of Interest must include:

- Primary Contact, Phone Number, Email Address, Mailing Address
- Project Title
- Project Proponent Name
- Partners
- Project Summary

Please submit expressions of interest via electronic submission to:

CCS Nova Scotia
Halifax, NS, Canada
C. 902.237.4990
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