Leading Collaborative Petroleum and Renewable Energy Research.

Request for Proposals

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Assessment of Clean Growth Economic Opportunities in Nova Scotia

RFP Release Date: October 22, 2020

Proposal Due Date: November 20, 2020 (5 pm ADT)

Contact

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1. Introduction

OERA is an independent, not-for-profit research organization that funds research aimed at reducing risk and encouraging the sustainable development of Nova Scotia's energy resources. OERA supports research into renewable energy technologies, cleantech initiatives and geoscience by facilitating collaborative, made-to-order teams of experts. Consistent with this mandate, the assessment of economic clean growth opportunities in Nova Scotia is the subject of this Request for Proposals (RFP). This RFP is issued by OERA in the context of a collaborative program funded by the Nova Scotia Department of Energy and Mines. This work supports the Province's broad energy policy objectives related to climate change, inclusive economic development, and the sustainable development of Nova Scotia's energy resources.

2. Context and Objectives

Context: Under the Sustainable Development Goals Act, Nova Scotia has legislated a net-zero greenhouse gas (GHG) emission economy by 2050. To achieve this important milestone a portfolio of decarbonization strategies will be adopted by the private and public sectors. Demand-focused strategies include energy efficiency, energy conservation and end-use electrification, while supply-focused strategies include low-carbon fuels and low-carbon electricity generation. How these strategies are implemented (i.e., slow, moderate, or rapid decarbonization) present different economic opportunities for Nova Scotian companies. To further its policy goals, the Nova Scotia Department of Energy and Mines wishes to understand the wider economic effects of these potential decarbonization strategies in Nova Scotia.

Applying decarbonization strategies will create economic development opportunities throughout the clean technology supply chain in Nova Scotia. However, the investment uptake is partially dependent on the ability of the local supply chain to mobilize contractors and supporting services that are necessary to obtain, install, and maintain low-carbon technologies.

OERA, on behalf of the Nova Scotia Department of Energy and Mines, is therefore requesting an investigation of the economic opportunities that arise from future low-carbon investments in Nova Scotia. The report will be a reference document for program and project-related decision making and will support the objectives of the Sustainable Goals Development Act while continuing to advance Nova Scotia's economic, social, and environmental well-being.

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Objectives: The objectives of this project are to create a report that furthers the understanding of the supply-chain-wide economic impacts of decarbonization strategies in Nova Scotia.

3. Scope of Work

The scope of work consists of three primary tasks:

Task 1: Information Review and Data Gathering

Task 2: Assessment and Analysis

Task 3: Reporting

The final deliverable must cover the following topics, although the report structure can be defined by the proponent.

1. Decarbonization scenarios

As a first step, three technology-explicit decarbonization scenarios should be defined and described. The scenarios should cover the period between 2020 and 2050 and will form the foundation of the report. The scenarios should be based on the scenario portfolio that has been presented as part of Nova Scotia Power's Integrated Resource Planning (IRP) process. The suggested scenarios for this project are: Scenario 1.0 A, 2.1 B and 3.2 B, which define a bandwidth of possible future scenarios for Nova Scotia's electricity generation sector. Please note, that while the IRP scenarios focus on electricity *generation*, the scenarios for this project must also include energy *utilization:* the decarbonization scenarios should encompass the whole clean technology sector supply chain and not focus on electricity alone. For this report, the clean technology sector comprises all services, processes, and products that have the potential to eliminate or reduce GHG emissions (e.g. building energy efficiency improvements, space heating decarbonization, low-carbon transportation, etc.).

2. Economic development opportunities in other jurisdictions

The report should review and summarize literature regarding the economic implications for other jurisdictions that already have seen similar development as outlined in the scenarios for Nova Scotia. The jurisdictions are to be defined by the proponent.

3. Economic implications of each scenario for Nova Scotia

The report should analyze and comment on the economic effects (e.g. creation of employment opportunities) that arise over time in each scenario. An economic analysis should be accompanied by economic modelling that allows for the identification of inter-sectoral relationships and growth opportunities. For example, if a scenario features electrification of heating systems, the report should analyze the economic effects that arise both from electricity supply (e.g. supply chain of building the electricity generation infrastructure) and heat pump demand (e.g. supply chain of manufacturing heat pumps, sales, installation, etc.). In addition, the report should outline conditions necessary for market expansion beyond Nova Scotia's borders.

4. Nova Scotia's clean technology supply chain

It is important to the Nova Scotia Department of Energy and Mines to understand the existing Nova Scotian clean economy supply chain that could help satisfy the demands as outlined in the analyses of each scenario. The report should therefore provide an overview of what companies exist locally, focusing on the goods and services they can currently provide.

5. Gap analysis in terms of capacity, skills, and training for each scenario

The report should include a gap analysis of the existing clean technology supply chain capacity (see above) and the needed supply chain capacity for maximized economic development in Nova Scotia for each scenario. This section should identify the capacity, as well as critical skill and training gaps that need to be filled locally.

Additionally, the report should detail, per scenario, if substantial gaps in the provincial supply chain capabilities exist that would prohibit local economic development or the export of local services.

6. Recommendations to address gaps

Based on local knowledge and lessons taken from other jurisdictions, the report should provide recommendations that address the supply chain gaps that have been identified for each scenario. If differences in local economic development opportunities exist between the scenarios, the report should make recommendations to maximize the economic development potential for Nova Scotia.

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4. Deliverables

Upon project completion, the proponent will provide:

(1) A report that presents the findings of Tasks 1 and 2. Both a draft version and final version are required with the opportunity for the review committee to recommend reasonable changes to the draft version for inclusion by the proponent in the final version before the project ends.

(2) A presentation (in PowerPoint) to the review committee to accompany submission of the draft version of the report. The presentation will review the project and its main findings.

(3) A communication plan that details how to communicate the results of the report in a structured manner to key stakeholders.

5. Timelines

The proponent is expected to host regular project status meetings via video conference. OERA will host the kickoff meeting. The following timeline outlines OERA's expectations with respect to timing.

RFP release date:	October 22, 2020
Proposal due date:	November 20, 2020 (5 pm AST)
Project kickoff:	December 8, 2020
Final report:	March 31, 2021 (latest)

6. Funding

Funding available for this project is capped at a maximum of CAN $ 85,000 including taxes. Proposals that exceed this amount will not be considered. Note that proposals will be rated first in terms of experience/team/work plan and second in terms of value. Please include hourly rates in the proposal.

Please note that OERA reserves the right not to proceed with project award.

7. Proponent Qualifications

The successful applicant must have proven experience in energy system analysis and research as well as economic supply chain analysis. Proposals should explain the experience and

qualifications of the project team and provide references where available (both literature and previous clients). In addition, potential data sources should be outlined as the use of local data is encouraged. Experience with Nova Scotian supply chains will be critical, and a collaborative approach will be valued.

8. Proposal Requirements

- The proposal should be concisely worded with clearly described objectives, methods, budget, schedule, and deliverables. Maximum 15 pages excluding appendices, title page, and cover letter. Please assemble all components into a single PDF document.
- The proposal should include a description of the Respondent's organization and its relevant experience with similar projects. The Respondent must also describe the relevant work experience of the key staff assigned to this project and their roles on the project. This material should be summarized in the body of the RFP and can be presented in more detail, if needed, in the appendix.
- Please provide a project organizational chart showing the role and reporting hierarchy of project partners, and reporting lines to the OERA review committee.
- A single electronic document is sufficient. Please ensure the proposal or cover letter is signed by an officer or equivalent with authority to bind the Respondent to the statements made in the proposal.
- The electronic copy should be uploaded in PDF format to the OERA-FTP site available at https://oera.sharefile.com/r-r1e5abdd62a245949: The file name should include an abbreviated form of the proponent's name.

9. Questions and Clarifications

OERA will accept content related questions from interested applicants on an ongoing basis until 5 pm AST November 13, 2020. A Q&A page will be available on the OERA website https://www.oera.ca/opportunities/request-proposals/assessment-clean-growth-economic-opportunities-nova-scotia. The names and organizations of those submitting questions will remain anonymous; only the question and OERA's response will be posted. Interested parties are encouraged to check the Q&A page for updated information and/or clarifications that may help in completing their proposal.

Please submit your questions by email to Sven Scholtysik (sscholtysik@oera.ca).

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10. Evaluation

This project will be administered through OERA. As shown below, proposals will be quantitatively evaluated against a set of criteria.

Factor	**Weight**
Experience and Knowledge: Qualifications, experience and capabilities of the company and delivery team; demonstration of local knowledge relevant to this study.	40%
Project Plan, Approach and Methodology: Proponent demonstrates an understanding of the project service requirements and has outlined a clear and effective work plan. Proposal describes the objectives, methodology, milestones and deliverables, and a sound approach in undertaking this project. Communication format and frequency between the proponent and OERA are clearly described.	40%
Proposal Presentation and Organization: Proponent describes an achievable schedule with well-defined milestones and demonstrates the ability to complete the work on or before the desired completion date. The project will offer good value for the proposed budget. The budget is clear, complete, and well-described. The proposal includes all RFP requirements, demonstrates attention to clarity, grammar, presentation, and comprehensibility.	20%
Total:	100%