Request for Proposals

Evaluating the Technical Feasibility of Carbon Capture and Re-injection Offshore Newfoundland and Labrador, Canada

In association with the Oil and Gas Corporation of Newfoundland and Labrador

Newfoundland and Labrador Environmental Industry Association

RFP Release Date: September 17, 2020
Proposal Due Date: October 2, 2020

Background

CO_2 is currently separated and captured from natural gas fired electrical generating plants onshore around the world. This CO_2 is then injected into geologic formations for CO_2-EOR (enhanced oil recovery) and/or CO_2 storage (CCS). The majority of GHG emissions offshore NL originate from the burning of natural gas from gas turbines used to generate electricity on production facilities. The purpose of this study – being requested by NEIA, Noia, and their partner Newfoundland and Labrador Oil Corporation – is to investigate the potential for CO_2 capture from gas turbines on brownfield and greenfield production facilities offshore NL that can subsequently be used for enhanced oil recovery and/or geologic storage.

Scope of Work

Completion of the contracted work will require the following activities:

1. Highlight and describe small scale post-combustion CO_2 capture facilities currently in place (<200,000 tons CO_2 per year) for gas turbines

2. Identify technologies currently available or in progress that are modular and have the ability to be installed on an FPSO. This will include identifying metrics such as package dimensions and weight, power requirements, CO_2 capture rate, etc.

3. Identify challenges with applying this technology to a FPSO including space and weight limitations, parasitic loads (heat & power) challenges related to CO_2 handling, J-T effects, CO_2 purity expected in injection stream, phase transitions and interactions with other gases/fluids, etc.

4. Include a schematic of an FPSO conceptualizing how flue gas would be brought to a capture facility and where compression would be added to the produced CO_2 to pressurize the CO_2 for delivery to a well for injection

5. Describe possible CO_2 injection concepts/scenarios (i.e. dissolved CO_2 injected via water injector, WAG etc.)

6. Identify HSE elements that will be affected by this process including flaring, gas exposure, personnel required etc.

7. Provide a high-level summary of the supply chain capabilities and competencies likely required for implementation.

Deliverables and Timing

A Report that presents the findings of activities 1 through 7. 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.

Timelines:

1. RFP Release Date: September 17, 2020
2. Proposal Due Date: October 2, 2020
3. Project Kickoff: October 13, 2020
4. Draft Report: November 10, 2020
5. Final Report: November 17, 2020

Budgetary Guidelines and Payment Schedule

The scoring of submission will be based on both quality and cost of the proposed work plans. Payment will be made upon the proponent submitting invoices with supporting documentation in a form satisfactory to NEIA.

The payment schedule is as follows:

- 25% upon signing of contract
- 50% upon submission of draft study
- 25% holdback paid upon satisfactory completion of the project

Evaluation Criteria

Submissions will be evaluated according to the following criteria:

- Knowledge and experience in relation to the work: demonstrated ability to meet expectations based on completion of similar projects and/or quality of previous works
- Understanding of the scope and objectives of the project: demonstrated comprehension of/adherence to the RFP
- Proposed approach/workplan and schedule
- Local Content - consideration given to degree of local activity (e.g. owned and operated in Atlantic Canada; in-province proponent presence, and project team members identified)
- Price - value of work proposed versus identified costs

Proposal Submissions

The contracting organization for this RFP is NEIA. A single electronic document is sufficient. The proposal should be no longer than three (3) pages, and be concisely worded with clearly described objectives, methods, timelines, and outcomes. The proposal must acknowledge and fully accept the terms and conditions as laid out in this RFP.

The proposal should feature appendices, including (1) a brief description of the respondent's company and its relevant experience with similar projects, and (2) a description of the relevant work experience of the staff assigned to this project.

The electronic copy of submissions should be in DOC and/or PDF format, and sent to Kieran Hanley, NEIA's Executive Director, via email at kieran@neia.org no later than **Friday, October 2, 2020.** Questions from interested applicants can be directed to the same address

Terms and Conditions

- All proposals received will be considered strictly confidential;
- The lowest cost, or any proposal, will not necessarily be accepted;
- Proposed costs must be represented in Canadian dollars;
- No payment will be made for the preparation and submission of proposals for this project;
- No fee will be made on the cost of work incurred to remedy errors or omissions for which the consultant is responsible; and
- NEIA reserves the right to meet with all, or any, of the applicants during the proposal evaluation stage to clarify information in the submissions and seek additional detail which may be used in the evaluation.