

**REQUEST FOR INFORMATION (RFI) - Suitability of Performance Testing Methods for Significantly Modified Boilers- 5000040588**

**Description:**

This RFI is being used to identify potential Contractor with direct experience as a vendor, manufacturer, engineer, and/or consultant in boiler performance testing will be asked to assess the suitability of the proposed quantification rules and methods to measure the environmental performance of significantly modified boilers for electric generation.

The RFI schedule is as follows:

RFI release date: Septembre 7, 2018

Vendor questions accepted until: September 13, 2018

RFI closing date and time: September 17, 2018 at 2:00pm

Please note that the ECCC will not distribute solicitation documents that are posted on buyandsell.gc.ca. Suppliers must download the solicitation document and attachments directly from the tender page.

**1. Background**

At the twenty-first session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) held in Paris in December 2015, Canada and 194 other countries reached an agreement to fight climate change (the Paris Agreement). The Paris Agreement strengthened the efforts of Parties to the UNFCCC to limit the global average temperature rise to well below 2°C and pursue efforts to limit the increase to 1.5°C. The Paris Agreement was officially ratified by Parliament in October 2016, committing Canada to reducing GHG emissions by 30% from 2005 levels by 2030. The goal was agreed to by most provincial Premiers at a meeting of First Ministers in March 2016<sup>1</sup>.

In order to support the Government of Canada's commitment under the Paris Agreement, the Department of the Environment and Climate Change Canada (the Department) published a Notice of Intent (NOI) in the *Canada Gazette*, Part I on December 17, 2016, that communicated its intent to accelerate the phase-out of coal-fired electricity generation in Canada from 2044 to 2030 by amending the *Reduction of Carbon Dioxide Emissions from Coal-fired Generation of Electricity Regulations*<sup>2</sup>. This would be achieved by an amendment to existing regulations that would require coal-fired electricity generation units to meet an emissions limit of 420 tonnes of control carbon dioxide (CO<sub>2</sub>) per gigawatt hour (420 t of CO<sub>2</sub>/GWh) of electricity produced by no later than 2030.

In parallel, the Department is also developing *Regulations Limiting Carbon Dioxide Emissions from Natural Gas-fired Generation of Electricity* (the Regulations) to ensure that the new electricity generation capacity built to replace coal units meets achievable performance standards.

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<sup>1</sup> Communiqué of Canada's First Ministers: <http://pm.gc.ca/eng/news/2016/12/09/communique-canadas-first-ministers>

<sup>2</sup> Notice of intent to develop greenhouse gas regulations for electricity generation in Canada: <http://www.gazette.gc.ca/rp-pr/p1/2016/2016-12-17/html/notice-avis-eng.html>

Core requirements of the proposed Regulations include setting CO<sub>2</sub> emission performance standards for new and significantly modified combustion engine units (including gas turbines and reciprocating engines) and boiler units. Of particular interest to this contract is the latter.

The performance standard for coal boilers that cease using coal as a fuel and continue operating using natural gas to generate electricity would not apply during a prescribed period. Afterwards, boilers would have to meet a stringent performance standard of 420 t of CO<sub>2</sub>/GWh. The timing for the application of the performance standard is based on the result of an initial performance test, which is to be conducted soon after the unit stops burning coal. Depending on the results of the test, the compliance requirement could come into force the year following the unit's end of useful life or be delayed up to 11 years thereafter. Converted units would also be required to maintain an annual degradation below 2%. The proposed Regulations would only apply to converted units that meet the conditions listed therein.

With regards to reporting requirements, owners or operators would be required to submit annual performance test reports for units to which the proposed Regulations apply. The proposed Regulations provide two methods to quantify CO<sub>2</sub> emissions: the Continuous Emission Monitoring System (CEMS) and a fuel-based method. Rules of quantification are also prescribed for the production of energy.

## 2. RFI Objective

The objectives of this contract are to assess the suitability of the proposed quantification rules and methods for the measurement of CO<sub>2</sub> emission intensity at significantly modified natural gas boilers (i.e., coal boilers converted to natural gas firing) and provide recommendations to ensure results are representative, precise, and accurate. The product(s) of this contract will inform the Department as it finalizes the final *Regulations Limiting Carbon Dioxide Emissions from Natural Gas-fired Generation of Electricity*.

The RFI seeks to:

Identify suppliers that ECCC may potentially include in a competitive procurement process

## 3. Requirements

- Assessing the suitability and limitations of the quantification rules and methods prescribed by the proposed Regulations for the measurement of CO<sub>2</sub> emissions intensity (CO<sub>2</sub> emission and gross electricity generation) from coal boilers converted to fire natural gas.
  - The proposed Regulations allow for the use of CEMS and a fuel-based method for the quantification of CO<sub>2</sub>.
    - An operator opting for CEMS must follow the *Reference Method for Source Testing: Quantification of Carbon Dioxide Releases by Continuous Emission Monitoring Systems from Thermal Power Generation*.
  - Rules of quantification for the production of energy are detailed in section 11 in the

proposed Regulations.

- Basing, where applicable, and to the extent possible, this work on information gathered at coal boilers converted to natural gas. If not possible, inferences can be made, as long as they are rationalized and properly documented.

- **Table 1. Schedule, Deliverables, Reporting Format**

#	Deliverable	Schedule*
1	Presentation of project work plan at kick-off meeting	Week 1
2	Revised project work plan	Week 2
3	Sub-task 1 and supporting data	Week 4
4	Revised sub-task 1 and supporting data	Week 5
5	Sub-task 2 and supporting data	Week 8
6	Revised sub-task 2 and supporting data	Week 9
7	Sub-task 3 and supporting data	Week 12
8	Revised sub-task 3 and supporting data	Week 13
9	Final report and supporting data	Week 14
10	Revised final report and supporting data	Week 15

#### **4. Nature and Format of Responses Requested**

Responses should be submitted by email by attaching a PDF or Word document.

Submissions must be less than 10 megabytes (MB) in size to be accepted. Responses submitted in other formats and/or submitted after the RFI closing date and time may not be accepted at ECCC discretion.

**Direct all submissions to the following:**

Annie.Emard@Canada.ca

#### **5. Response Costs**

Bidders will not be reimbursed for expenses incurred in responding to this RFI.

## 6. Treatment of Responses

Respondents are reminded that this is a RFI and not a Request for Proposal (RFP).

Responses will not be formally evaluated. However, the responses received may be used by ECCC to develop or modify procurement strategies or any draft documents contained in this RFI. ECCC will review all responses received by the RFI closing date. ECCC may, in its discretion, review responses received after the RFI closing date.

A review team composed of representatives of ECCC will review the responses submitted. ECCC reserves the right to hire any independent consultant, or use any Government resources that it considers necessary to review any response. Not all members of the review team will necessarily review all responses.

**Confidentiality:** Respondents should mark any portions of their response that they consider proprietary or confidential. ECCC will handle the responses in accordance with the *Access to Information Act*.

ECCC may, in its discretion, contact any respondents to follow up with additional questions or for clarification of any aspect of a response.

## 7. Official Languages

Responses to this RFI may be in one of the official languages of Canada, English or French.

## 8. Enquiries

Because this is not a bid solicitation, Canada will not necessarily respond to enquiries in writing or by circulating answers to all potential suppliers. However, respondents with questions regarding this Request for Information may direct their enquiries to: Procurement Contact Info; Annie Emard

## 9. Submission of Responses

Responses must be sent to [Annie.Emard@canada.ca](mailto:Annie.Emard@canada.ca) and must include:

- The title and number of the RFI;
- The name, title and address of the respondent;
- The name, address and telephone number of the respondent's contact;
- The date;
- Respondent's Statement of Capabilities

