



<p><b>RETURN BIDS TO:</b> <b>RETOURNER LES SOUMISSIONS À:</b></p> <p><b>Bid Receiving - Environment Canada</b> <b>/ Réception des soumissions –</b> <b>Environnement Canada</b></p> <p><b>Hard Copy :</b> <b>Environment and Climate Change</b> <b>Canada</b> 200 Sacre-Coeur Blvd., Gatineau, Quebec (Canada) K1A 0H3 Attn: Barry McKenna</p> <p><b>E-mail:</b> <a href="mailto:ec.soumissions-bids.ec@canada.ca">ec.soumissions-bids.ec@canada.ca</a> <b>Attention: Anthony DeFlavis</b> <b>Solicitation Number: 5000046564</b></p> <p><b>BID SOLICITATION</b> <b>DEMANDE DE SOUMISSIONS</b></p> <p><b>PROPOSAL TO: ENVIRONMENT</b> <b>CANADA</b></p> <p>We offer to perform or provide to Canada the services detailed in the document including any attachments and annexes, in accordance with the terms and conditions set out or referred to in the document, at the price(s) provided.</p> <p><b>SOUMISSION À:</b> <b>ENVIRONNEMENT CANADA</b></p> <p>Nous offrons d'effectuer ou de fournir au Canada, aux conditions énoncées ou incluses par référence dans le document incluant toutes pièces jointes et annexes, les services détaillés dans le document, au(x) prix indiqué(s).</p>	<p><b>Title – Titre</b> <b>NO<sub>x</sub> Emissions from Converted Coal-to-Gas Boilers</b></p>	
	<p><b>EC Bid Solicitation No. /SAP No. – N° de la demande de soumissions EC / N° SAP</b></p> <p>5000046564</p>	
	<p><b>Date of Bid solicitation (YYYY-MM-DD) – Date de la demande de soumissions (AAAA-MM-JJ)</b> 2019-09-19</p>	
	<p><b>Bid Solicitation Closes (YEAR-MM-DD) - La demande de soumissions prend fin (AAAA-MM-JJ)</b></p> <p>at – à 2:00 P.M. on – le 2019-10-10</p>	<p><b>Time Zone – Fuseau horaire</b></p> <p>EDT</p>
	<p><b>F.O.B – F.A.B</b> See herein</p>	
	<p><b>Address Enquiries to - Adresser toutes questions à Barry McKenna</b> <a href="mailto:Barryjoseph.mckenna@canada.ca">Barryjoseph.mckenna@canada.ca</a></p>	
	<p><b>Telephone No. – N° de téléphone</b> 819-938-9425</p>	<p><b>Fax No. – N° de Fax</b></p>
	<p><b>Delivery Required (YEAR-MM-DD) – Livraison exigée (AAAA-MM-JJ)</b> See herein</p>	
	<p><b>Destination - of Services / Destination des services</b> See herein</p>	
	<p><b>Security / Sécurité</b> There is no security requirement associated with this solicitation</p>	
<p><b>Vendor/Firm Name and Address - Raison sociale et adresse du fournisseur/de l'entrepreneur</b></p>		
<p><b>Telephone No. – N° de téléphone</b></p>	<p><b>Fax No. – N° de Fax</b></p>	
<p><b>Name and title of person authorized to sign on behalf of Vendor/Firm: (type or print) /</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b></p>		
<p><b>Signature</b></p>	<p><b>Date</b></p>	



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## **PART 1 – GENERAL INFORMATION**

### **1. Security Requirement**

1.1 There is no security requirement associated with this requirement.

### **2. Statement of Work**

The Work to be performed is detailed under Annex A, Statement of Work of the resulting contract.

### **3. Debriefings**

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

## **PART 2 – BIDDER INSTRUCTIONS**

### **1. Standard Instructions, Clauses and Conditions**

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the PWGSC *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 (2019-03-04) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

The standard instructions 2003 are modified as follows:

#### **Under “Text” at 02:**

**Delete:** “Procurement Business Number”

**Insert:** “Deleted”

#### **At Section 02 Procurement Business Number**

**Delete:** In its entirety

**Insert:** “Deleted”

#### **At Section 05 Submission of Bids, Subsection 05 (2d):**

**Delete:** In its entirety

**Insert:** “send its bid only to Environment Canada (EC) as specified on page 1 of the bid solicitation or to the address specified in the bid solicitation;”

#### **At Section 06 Late Bids:**

**Delete:** “PWGSC”



**Insert:** "Environment Canada"

**At Section 07 Delayed Bids:**

**Delete:** "PWGSC"

**Insert:** "Environment Canada"

**At Section 08 Transmission by Facsimile, Subsection 08 (1):**

**Delete:** In its entirety

**Insert:** "Bids may be submitted by facsimile if specified in the bid solicitation."

**At Section 12 Rejection of Bid, Subsection 12 (1) a. and b.:**

**Delete:** In their entirety

**Insert:** "Deleted"

**At Section 17 Joint Venture, Subsection 17 (1) b.:**

**Delete:** "the Procurement Business Number of each member of the joint venture,"

**Insert:** "Deleted"

**At Section 20 Further Information, Subsection 20 (2):**

**Delete:** In its entirety

**Insert:** "Deleted"

**At Section 05 Submission of Bids, Subsection 05 (4)**

**Delete:** "sixty (60) days"

**Insert:** "one hundred and twenty (120) days"

## **2. Submission of Bids**

**2.1** Bids must be submitted to Environment and Climate Change Canada (ECCC) at the address and by the date, time and place indicated on page 1 of the bid solicitation.

## **3. Former Public Servant – Competitive Bid**

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPS, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

## **Definitions**

For the purposes of this clause, "former public servant" is any former member of a department as defined in the *Financial Administration Act*, R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

a. an individual;



- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the *Public Service Superannuation Act* (PSSA), R.S., 1985, c.P-36, and any increases paid pursuant to the *Supplementary Retirement Benefits Act*, R.S., 1985, c.S-24 as it affects the PSSA. It does not include pensions payable pursuant to the *Canadian Forces Superannuation Act*, R.S., 1985, c.C-17, the *Defence Services Pension Continuation Act*, 1970, c.D-3, the *Royal Canadian Mounted Police Pension Continuation Act*, 1970, c.R-10, and the *Royal Canadian Mounted Police Superannuation Act*, R.S., 1985, c.R-11, the *Members of Parliament Retiring Allowances Act*, R.S., 1985, c.M-5, and that portion of pension payable to the *Canada Pension Plan Act*, R.S., 1985, c.C-8.

### **Former Public Servant in Receipt of a Pension**

As per the above definitions, is the Bidder a FPS in receipt of a pension? **Yes ( ) No ( )**

If so, the Bidder must provide the following information, for all FPS in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with Contracting Policy Notice: 2012-2 and the Guidelines on the Proactive Disclosure of Contracts.

### **Work Force Adjustment Directive**

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **Yes ( ) No ( )**

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;



- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;
- g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.

For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

#### **4. Enquiries - Bid Solicitation**

All enquiries must be submitted in writing to the Contracting Authority no later than seven (7) calendar days before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated and the enquiry can be answered to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

#### **5. Applicable Laws**

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Québec.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

#### **6. Basis for Canada's Ownership of Intellectual Property**

Environment Canada has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada, on the following grounds:

- (6.4.1) the main purpose of the contract, or of the deliverables contracted for, is to generate knowledge and information for public dissemination;



## PART 3 – BID PREPARATION INSTRUCTIONS

### 1. Bid Preparation Instructions

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I: Technical Bid: 3 hard copies or 1 soft copy in PDF format by e-mail  
Section II: Financial bid: 1 hard copy or 1 soft copy in PDF format by e-mail  
Section III: Certifications: 1 hard copy or 1 soft copy in PDF format by e-mail

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

In order to be considered, bids must be received no later than the date and time indicated on the cover page to herein as the “Closing Date.” Bids received after the Closing Date will be considered non-responsive and will not be considered for contract award. Bids submitted by email must be submitted ONLY to the following email address:

Email Address: [ec.soumissions-bids.ec@canada.ca](mailto:ec.soumissions-bids.ec@canada.ca)

Attention: Anthony DeFlavis

Solicitation Number: 5000046564

Bidders should ensure that their name, address, Closing Date of the solicitation and Solicitation Number are clearly indicated in the body of their email. Bids and supporting information may be submitted in either English or French.

The total size of the email, including all attachments, **must be less than 15 megabytes (MB)**. It is each Bidder’s responsibility to ensure that the total size of the email does not exceed this limit. Bids sent by fax will not be accepted.

It is important to note that emails systems can experience systematic delays and, at times, large attachments may cause systems to hold or delay transmission of emails. It is solely the Bidder’s responsibility to ensure that the Contracting Authority receives a bid on time, in the mailbox that has been identified for bid receipt purposes. Date stamps for this form of transmission are not acceptable.

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

- (a) use 8.5 x 11 inch (216 mm x 279 mm) paper;
- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process Policy on Green Procurement (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders should:





- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders; and
- (3) print on both sides of the paper.

### **Section I: Technical Bid**

In their technical bid, bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will carry out the Work

### **Section II: Financial Bid**

1. Bidders must submit their financial bid in accordance in accordance with the Basis of Payment in Annex B. The total amount of Applicable Taxes must be shown separately.
- 1.2 Bidders should include the following information in their financial bid:
  - (a) Their legal name; and
  - (b) The name of the contact person (including this person's mailing address, phone and facsimile numbers and email address) authorized by the Bidder to enter into communications with Canada with regards to their bid; and any contract that may result from their bid.

### **Section III - Certifications**

#### **1. Certifications Required Precedent to Contract Award**

Bidders must provide the required certifications Part 5.

## **PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION**

### **1. Evaluation Procedures**

Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.

#### **1.1 Technical Evaluation**

Except where expressly provided otherwise, the experience described in the bid must be the experience of the Bidder itself (which includes the experience of any companies that formed the Bidder by way of a merger but does not include any experience acquired through a purchase of assets or an assignment of contract). The experience of the Bidder's affiliates (i.e. parent, subsidiary or sister corporations), subcontractors, or suppliers will not be considered.





## 1.2 Technical Evaluation

### 1.2.1 Mandatory Technical Criteria

The criteria contained herein will be used by ECCC to evaluate whether each proposal has met all of the mandatory criteria.

In order to demonstrate experience in terms of project working months, the Bidder should provide brief project descriptions that include the following:

- The name of the client organization;
- A brief description of the objective of the project and the scope of the service provided;
- The dates and duration of the project;
- The level of effort of each of the current proposed resources that participated in the project;
- The extent to which the services were provided on-time, on-budget and in accordance with the established project objectives; and
- Resources/personnel involved and their role with respect to the project.

A specific project may be used towards multiple M2 criteria, however the Bidder must clearly state, for each of the applicable project team members, **the level of effort in months** that applies for each criteria. For example, if two team members have experience directly related to the operation of coal and/or natural gas boiler units used for utility-scale electricity generation, the Bidder must clearly identify the number of months of experience each team member has.

#### Table of Mandatory Requirements

Item	Mandatory Requirements	Compliant (Yes/No)
M1	The Bidder must describe the team that it proposes to undertake the work and the roles and responsibilities that each team member will be assigned.	<input type="checkbox"/> Yes <input type="checkbox"/> No
M2	The Bidder must provide the resumes of all team members that clearly demonstrate each team member's previous work experience on projects directly related to: <ul style="list-style-type: none"> <li>• The operation of coal and/or natural gas boiler units used for utility-scale electricity generation,</li> <li>• NO<sub>x</sub> emission control strategies, including control methods that reduce NO<sub>x</sub> formation and that reduce NO<sub>x</sub> emissions,</li> <li>• Environmental and health effects of NO<sub>x</sub>, including geographical/airshed considerations,</li> <li>• Estimating NO<sub>x</sub> emissions from natural gas-fired utility-scale electricity generating boiler units.</li> </ul>	<input type="checkbox"/> Yes <input type="checkbox"/> No
M3	The Bidder must demonstrate that the combined experience of the proposed team members on the topics listed in M2 is more than 36 months.	<input type="checkbox"/> Yes <input type="checkbox"/> No

### 1.2.2 Point Rated Technical Criteria



Bids which meet all the mandatory requirements will be evaluated and scored as specified in the table below.

Bidders are advised to address these criteria in the following order and in sufficient depth in their proposals to enable a thorough assessment. ECCC’s assessment will be based solely on the information contained within the proposal. ECCC may confirm information or seek clarification from bidders.

Only those proposals which are responsive (compliant) with all of the mandatory criteria and then achieve (or exceed) the stated minimum points required for the point rated technical criteria section will be further considered for award of a contract. Proposals not meeting the minimum points required will be deemed non-responsive.

A specific project may be used towards multiple R2 rated criteria, however the Bidder must clearly state, for each of the applicable project team members, the level of effort in months that applies for each criteria. For example, if two team members have experience directly related to R2.1, the Bidder must clearly identify the number of months of experience each team member has and points will be awarded for the combined total of months.

Unless specified otherwise, the following General Rating Guideline rating scheme will be assigned to the Bidder’s written response to the individual rated criteria as follows:

Rating	Guideline	Points awarded
5	Outstanding response, rated area is dealt with in depth, <b>requirement is exceeded</b> , response is exceptional	100% of the available points for this element
4	Rated area is well addressed	80% of the available points for this element
3	Rated area is satisfactorily addressed	60% of the available points for this element
2	Unsatisfactory response, rated area is partially addressed	40% of the available points for this element
1	Unsatisfactory response, rated area is minimally addressed	20% of the available points for this element
0	Unsatisfactory response, rated area is not addressed	0% of the available points for this element

**Table of Rated Criteria**

Item	Rated Requirements	Points Allocation	Max Points	Min Points
<b>R1</b>	<i>Approach and Methodology</i> The Bidder should provide the approach and methodology to be employed to meet the requirements of the Statement of Work. The approach and methodology will be evaluated based on the criteria described below:		40	24
<b>R1.1</b>	<i>Demonstrated understanding of the project scope</i>		5	



Item	Rated Requirements	Points Allocation	Max Points	Min Points
	<p><i>and objectives</i></p> <p>The Bidder's approach and methodology demonstrate a clear understanding of the project's scope and objectives.</p>			
<b>R1.2</b>	<p><i>Demonstrated approach/methodology for each of the Tasks</i></p> <p>The Bidder should provide a work plan that describes the steps proposed to complete each of the Tasks and sub-tasks.</p> <p>The evaluation will be based on the suitability of the steps proposed to effectively complete the Tasks.</p>		10	
<b>R1.3</b>	<p><i>Demonstrated work plan feasibility and organization, including estimated person days that each team member will work on the project</i></p> <p>Bidders are free to structure the work plan in any manner that clearly demonstrates the allocation of the resources to each Task and that communicates the supporting rationale for that work plan.</p> <p>The evaluation will be based on the appropriateness of the resource allocation to the Tasks and the level of effort proposed.</p>		10	
<b>R1.4</b>	<p><i>Demonstrated data sources, methods for collecting data and organizing data for each of the Tasks</i></p> <p>The Bidder should provide a table summarizing which sources, or sourcing methods will be used for each Task.</p> <p>The evaluation will be based on the variety, appropriateness, and quality of data sources.</p>		10	
<b>R1.5</b>	<p><i>Recognition of possible problems and proposed solutions</i></p> <p>The Bidder should for each Task, as applicable, state any major difficulties, challenges and/or risks that are anticipated and explain how they will be addressed.</p> <p>The evaluation will be based on the completeness of the Bidder's list of possible problems, rationale for possible problems and the appropriateness of the Bidder's proposed solutions.</p>		5	
<b>R2</b>	<p>Project Team Experience</p> <p>The Bidder must demonstrate the combined</p>		48	24



Item	Rated Requirements	Points Allocation	Max Points	Min Points
	<p>experience of the project team’s members in each of the following areas described below.</p> <p>For the purposes of this rated evaluation criteria, boilers used for utility-scale electricity generation will be defined as boilers that work in conjunction with an electricity generation system rated as being capable of outputting electrical energy at a rate equal to or greater than 25 MWe (electric).</p>			
<b>R2.1</b>	<p>Demonstrated experience of the project team that is directly related to the operation of coal and/or natural gas boiler units used for utility-scale electricity generation.</p> <p>This experience should be expressed by the Bidder in units of project working months.</p>	<p>0 to 12 months: 0 points 12+ to 36 months: 3 points 36+ to 84 months: 6 points 84+ to 120 months: 9 points 120+ months: 12 points</p>	12	
<b>R2.2</b>	<p>Demonstrated the experience of the project team that is directly related to coal and/or natural gas boilers that have been and/or are being considered for a coal-to-natural gas conversion.</p> <p>This experience should be expressed by the Bidder in units of project working months.</p>	<p>0 to 6 months: 0 points 6+ to 12 months: 2 points 12+ to 24 months: 4 points 24+ to 36 months: 6 points 36+ months: 8 points</p>	8	
<b>R2.3</b>	<p>Demonstrated the experience of the project team that is directly related to NO<sub>x</sub> emission control strategies, including control methods that reduce NO<sub>x</sub> formation and that reduce NO<sub>x</sub> air emissions.</p> <p>This experience should be expressed by the Bidder in units of project working months.</p>	<p>0 to 12 months: 0 points 12+ to 36 months: 3 points 36+ to 84 months: 6 points 84+ to 120 months: 9 points 120+ months: 12 points</p>	12	
<b>R2.4</b>	<p>Demonstrated the experience of the project team that is directly related to the environmental and health effects of NO<sub>x</sub> air emissions, including geographical/airshed considerations.</p> <p>This experience should be expressed by the Bidder in units of project working months.</p>	<p>0 to 12 months: 0 points 12+ to 36 months: 3 points 36+ to 84 months: 6 points 84+ to 120 months: 9 points 120+ months: 12 points</p>	4	
<b>R2.5</b>	<p>Demonstrated the experience of the project team that is directly related to estimating NO<sub>x</sub> air emissions from natural gas-fired utility-scale electricity generating boiler units.</p> <p>This experience should be expressed by the Bidder in units of project working months.</p>	<p>0 to 12 months: 0 points 12+ to 36 months: 3 points 36+ to 84 months: 6 points 84+ to 120 months: 9 points 120+ months: 12 points</p>	12	
	<b>Total Points for R1 &amp; R2</b>		88	48



## 1.3 Financial Evaluation

### 1.3.1 Mandatory Financial Criteria

The maximum funding available for the Contract resulting from the bid solicitation is **\$40,000.00** (Applicable Taxes extra). Bids valued in excess of this amount will be considered non-responsive. This disclosure does not commit Canada to pay the maximum funding available.

### 1.3.2 Evaluation of Price

The price of the bid will be evaluated in Canadian dollars, the Applicable Taxes excluded, Canadian customs and excise taxes included.

For evaluation purposes only, the price of the bid will be determined as described in the financial proposal requirements in Annex B.

## 2. Basis of Selection - Highest Combined Rating of Technical Merit (70%) and Price (30%)

1. To be declared responsive, a bid must:
  - (a) comply with all the requirements of the bid solicitation;
  - (b) meet all mandatory criteria; and
  - (c) obtain the required minimum points for the technical evaluation criteria which are subject to point rating.
2. Bids not meeting (a) or (b) or (c) will be declared non-responsive.
3. The evaluation will be based on the highest responsive combined rating of technical merit and price. The ratio will be 70% for the technical merit and 30% for the price.
4. To establish the technical merit score, the overall technical score for each responsive bid will be determined as follows: total number of points obtained / maximum number of points available multiplied by the ratio of 70%.
5. To establish the pricing score, each responsive bid will be prorated against the lowest evaluated price and the ratio of 30%.
6. For each responsive bid, the technical merit score and the pricing score will be added to determine its combined rating.
7. Neither the responsive bid obtaining the highest technical score nor the one with the lowest evaluated price will necessarily be accepted. The responsive bid with the highest combined rating of technical merit and price will be recommended for award of a contract.

The table below illustrates an example where all three bids are responsive and the selection of the contractor is determined by a 70/30 ratio of technical merit and price, respectively. The total available points equals 135 and the lowest evaluated price is \$45,000 (45).



**Basis of Selection - Highest Combined Rating Technical Merit (70%) and Price (30%)**

	Bidder		
	Bidder 1	Bidder 2	Bidder 3
Overall Technical Score	115/135	89/135	92/135
Bid Evaluated Price	\$55,000.00	\$50,000.00	\$45,000.00
Calculations			
Technical Merit Score	$115/135 \times 70 = 59.63$	$89/135 \times 70 = 46.15$	$92/135 \times 70 = 47.70$
Pricing Score	$45/55 \times 30 = 24.55$	$45/50 \times 30 = 27.00$	$45/45 \times 30 = 30.00$
Combined Rating	84.18	73.15	77.70
Overall Rating	1st	3rd	2nd

**PART 5 - CERTIFICATIONS**

Bidders must provide the required certifications and associated information to be awarded a contract.

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default in carrying out any of its obligations under the Contract, if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority may render the bid non-responsive or constitute a default under the Contract.

**1. Certifications Required Precedent to Contract Award**

**1.1 Integrity Provisions - Associated Information**

By submitting a bid, the Bidder certifies that the Bidder and its Affiliates are in compliance with the provisions as stated in Section 01 Integrity Provisions - Bid of Standard Instructions 2003. The associated information required within the Integrity Provisions will assist Canada in confirming that the certifications are true.

**1.2 Federal Contractors Program for Employment Equity - Bid Certification**

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" list ([http://www.labour.gc.ca/eng/standards\\_equity/eq/emp/fcp/list/inelig.shtml](http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml)) available from Employment and Social Development Canada (ESDC) - Labour's website.

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.



## **2. Additional Certifications Required Precedent to Contract Award**

The certifications listed below should be completed and submitted with the bid but may be submitted afterwards. If any of these required certifications is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to comply with the request of the Contracting Authority and to provide the certifications within the time frame provided will render the bid non-responsive.

### **2.1 Status and Availability of Resources**

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Bidder has proposed any individual who is not an employee of the Bidder, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Bidder and of his/her availability. Failure to comply with the request may result in the bid being declared non-responsive.

### **2.2 Education and Experience**

The Bidder certifies that all the information provided in the résumés and supporting material submitted with its bid, particularly the information pertaining to education, achievements, experience and work history, has been verified by the Bidder to be true and accurate. Furthermore, the Bidder warrants that every individual proposed by the Bidder for the requirement is capable of performing the Work described in the resulting contract.**3.**





## **PART 6 - RESULTING CONTRACT** *(at contract award, delete this line)*

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation

**Title:** *(insert title at contract award)*

**1.1** There is no security requirement applicable to this Contract.

### **2. Statement of Work**

The Contractor must perform the Work in accordance with the Statement of Work at Annex A and the Contractor's technical bid entitled \_\_\_\_\_, dated \_\_\_\_\_.

### **3. Standard Clauses and Conditions**

All clauses and conditions identified in the Contract by number, date and title are set out in the PWGSC *Standard Acquisition Clauses and Conditions Manual* (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

#### **3.1 General Conditions**

2010B *(2018-06-21)* General Conditions - Professional Services (Medium Complexity), as modified below, apply to and form part of the Contract.

General conditions 2010B is modified as follows:

#### **At Section 12 Transportation Costs**

**Delete:** In its entirety

**Insert:** "Deleted"

#### **At Section 13 Transportation Carriers' Liability**

**Delete:** In its entirety.

**Insert:** "Deleted"

#### **At Section 18, Confidentiality:**

**Delete:** In its entirety

**Insert:** "Deleted"

Insert Subsection: "35 Liability"

"The Contractor is liable for any damage caused by the Contractor, its employees, subcontractors, or agents to Canada or any third party. Canada is liable for any damage caused by Canada, its employees or agents to the Contractor or any third party. The Parties agree that no limitation of liability or indemnity provision applies to the Contract unless it is specifically incorporated in full text in the Articles of Agreement. Damage includes any injury to



persons (including injury resulting in death) or loss of or damage to property (including real property) caused as a result of or during the performance of the Contract.”

**A. For professional services requirements where the deliverables are copyrightable works:**

**At Section 19 Copyright**

**Delete:** In its entirety

**Insert:**

1. In this section:  
"Material" means anything that is created or developed by the Contractor as part of the Work under the Contract, and in which copyright subsists.  
"Background Information" means all Intellectual Property that is not Foreground Information that is incorporated into the Work or necessary for the performance of the Work and that is proprietary to or the confidential information of the Contractor, its subcontractors or any other third party;  
"Foreground Information" means all Intellectual Property first conceived, developed, produced or reduced to practice as part of the Work under the Contract;
2. Material that is created or developed by the Contractor as part of the Work under the Contract belongs to Canada. The Contractor must incorporate the copyright symbol and either of the following notices, as appropriate: © Her Majesty the Queen in right of Canada (year) or © Sa Majesté la Reine du chef du Canada (année).
3. At the request of the Contracting Authority, the Contractor must provide to Canada, at the completion of the Work or at such other time as the Contracting Authority may require, a written permanent waiver of moral rights as defined in the [Copyright Act](#), R.S., 1985, c. C-42, in a form acceptable to the Contracting Authority, from every author that contributed to the Work. If the Contractor is an author, the Contractor permanently waives the Contractor's moral rights.
4. All Intellectual Property Rights in the Material belongs to Canada as soon as they come into existence. The Contractor has no right in or to any such Intellectual Property except any right that may be granted in writing by Canada.
5. The Contractor also grants to Canada a non-exclusive, perpetual, irrevocable, worldwide, fully-paid and royalty-free license to use the Background Information to the extent that this information is required by Canada to exercise its rights to use the Material. This license cannot be restricted in any way by the Contractor providing any form of notice to the contrary, including the wording on any shrink-wrapped license attached to any deliverable.

**At Section 06 Subcontracts**

**Delete:** paragraphs 1, 2, and 3 in their entirety.

**Insert:** “The Contractor may subcontract the supply of goods or services that are customarily subcontracted by the Contractor. Subcontracting does not relieve the Contractor from any of its obligations under the Contract or impose any liability upon Canada to a subcontractor. In any subcontract, the Contractor agrees to bind the subcontractor by the same conditions by which the Contractor is bound under the Contract, unless the Contracting Authority agrees otherwise,



with the exception of requirements under the Federal Contractors Program for employment equity which only apply to the Contractor.”

**4. Term of Contract**

**4.1 Period of the Contract**

The period of the Contract is from date of Contract to March 31, 2020 inclusive

**5. Authorities**

**5.1 Contracting Authority**

The Contracting Authority for the Contract is:

Name: Anthony De Flavis  
Title: Procurement Specialist  
Organization: Environment and Climate Change Canada  
Assets, Contracting and Environmental Management Directorate  
Workplace Services and Contracting Assets  
Procurement and Contracting Services  
Address: 105 McGill St  
Montréal, QC H2Y 2E7  
Telephone : 514-283-5958  
Email address : [anthony.deflavis@canada.ca](mailto:anthony.deflavis@canada.ca)

The Contracting Authority is responsible for the management of the Contract and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

**5.2 Technical Authority**

The Technical Authority for the Contract is:

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Address: \_\_\_\_\_  
  
Telephone: \_\_\_\_-\_\_\_\_-\_\_\_\_\_  
Facsimile: \_\_\_\_-\_\_\_\_-\_\_\_\_\_  
E-mail address: \_\_\_\_\_

The Technical Authority named above is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority, however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.



### **5.3 Contractor's Representative**

*(Fill in or delete as applicable)*

## **6. Proactive Disclosure of Contracts with Former Public Servants**

By providing information on its status, with respect to being a former public servant in receipt of a Public Service Superannuation Act (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with Contracting Policy Notice: 2012-2 of the Treasury Board Secretariat of Canada.

## **7. Payment**

### **7.1 Basis of Payment**

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price of \$ \_\_\_\_\_ *(insert the amount at contract award)*. Customs duties are \_\_\_\_\_ *(insert "included", "excluded" OR "subject to exemption")* and Applicable Taxes are extra.

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

### **7.3 PWGSC SACC Manual clauses**

A9117C *(insert the date)* T1204 - Direct Request by Customer Department

## **8 Invoicing Instructions**

### **8.1 Milestone Payments**

- (a) Canada will make milestone payments in accordance with the Schedule of Milestones detailed below and the payment provisions of the Contract if:
- (i) an accurate and complete claim for payment and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
  - (ii) all such documents have been verified by Canada;
  - (iii) all work associated with the milestone and as applicable any deliverable required have been completed and accepted by Canada.

### **8.2 Schedule of Milestones**

The schedule of milestones for which payments will be made in accordance with the Contract is as follows:



Milestone	Deliverable item	Firm Milestone Amount	Delivery date
1.	Report on NO <sub>x</sub> formation and emission reduction strategies		
2.	Report on technical, operational, and financial decisions impacting NO <sub>x</sub> emissions		
3.	Development of methodology and/or tool for the estimation of NO <sub>x</sub> emissions and NO <sub>x</sub> emission intensity		
4.	Presentation of Findings		

## 9. Certifications

### 9.1 Compliance

Compliance with the certifications provided by the Contractor in its bid is a **condition** of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification or it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

## 10. Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in \_\_\_\_\_. (*Insert the name of the province or territory as specified by the bidder in its bid, if applicable.*)

## 11. Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) Modified 2010B General Conditions - Professional Services (Medium Complexity) (2018-06-21)



- (c) Annex A, Statement of Work;
- (d) Annex B, Basis of Payment;
- (e) the Contractor's bid dated \_\_\_\_\_, (*insert date of bid*) (*If the bid was clarified or amended, insert at the time of contract award: "as clarified on \_\_\_\_\_" or "as amended on \_\_\_\_\_" and insert date(s) of clarification(s) or amendment(s).*)



## ANNEX A

### STATEMENT OF WORK

#### NO<sub>x</sub> Emissions from Converted Coal-to-Gas Boilers

##### 1. Introduction:

A Contractor with direct experience as a vendor, manufacturer, engineer, and/or consultant in utility boiler operations and emission estimates is required to estimate emissions from converted coal-to-gas boiler units, and describe and explain the technical, operational, and financial decisions influencing NO<sub>x</sub> emissions. Environment and Climate Change Canada (the Department) intends to use the deliverables of this work to inform the Department as it continues to risk-manage emissions from the electricity sector.

##### 2. Background:

The Government of Canada (the Government) is committed to reducing GHG emissions to mitigate the effects of climate change. In 2016, Canada ratified the [Paris Agreement](#) and committed to a 30% reduction in overall GHG emissions below 2005 levels by 2030. In the same year, First Ministers from federal, provincial (except Saskatchewan), and territorial governments released the Pan-Canadian Framework on Clean Growth and Climate Change, which included a commitment to expand clean electricity sources, supported by infrastructure investments and regulations for coal and natural gas-fired electricity generation.

On December 12, 2018, the Department of the Environment (the Department) published the finalized [Regulations Amending the Reduction of Carbon Dioxide Emissions from Coal-fired Generation of Electricity Regulations](#) (the coal regulations) and the finalized [Regulations Limiting Carbon Dioxide Emissions from Natural Gas-fired Generation of Electricity](#) (the natural gas regulations) in the Canada Gazette, Part II. The two regulations were developed in parallel to provide regulatory certainty about the federal approach to controlling GHG emissions from electricity generation in Canada and to ensure that any new and significantly modified natural gas-fired electricity units built to replace coal-fired electricity units meet emission performance standards.

The natural gas regulations contain specific provisions for boilers that were registered under subsection 4(1) of the coal regulations and that have ceased to combust coal and continue generating electricity using natural gas as a fuel. In general, these coal-to-gas converted boiler units are subject to a 420 tonnes of CO<sub>2</sub>/GWh annual average performance standard at their end of useful life, as defined in the coal regulations. However, provisions in the natural gas regulations allow for converted units to operate beyond the end of useful life without a performance standard for a defined period. The period is prescribed 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.

The table below summarizes the initial performance test results and the associated period of time that the converted unit may operate until the 420 t/GWh performance standard applies:





<b>Initial Performance Test Intensity</b>	<b>When the 420 t/GWh performance standard applies</b>
Greater than 600 t/GWh	the year after the unit's end of useful life
Greater than 550 t/GWh and less than or equal to 600 t/GWh	the sixth year after the unit's end of useful life
Greater than 480 t/GWh and less than or equal to 550 t/GWh	the ninth year after the unit's end of useful life
Less than or equal to 480 t/GWh	the eleventh year after the unit's end of useful life

Converted boiler units are required to retest annually and are required to maintain an annual degradation below 2%. Of note is that biomass combustion is allowed in converted boilers and associated CO<sub>2</sub> emissions are not counted for the purposes of the 420 t/GWh performance standard. However, biomass emissions are to be counted in the performance testing of the boiler since biomass is not intended to be used as a mechanism to reach lower performance test intensities.

In addition to CO<sub>2</sub> reductions, there are air pollutant co-benefits of converting coal-fired boilers to gas, for example, virtual elimination of mercury, SO<sub>x</sub> and PM emissions. However, it remains unclear whether other air pollutants emitted by converted coal-to-gas boilers may still be of concern, namely nitrogen oxide (NO<sub>x</sub>) emissions.

**3. Objectives:**

The objectives of this project are to estimate emissions from converted coal-to-gas boiler units, and describe and explain the technical, operational, and financial decisions influencing NO<sub>x</sub> emissions. This includes any technical decisions that may be faced during the conversion process that could have a material impact on the expected unit NO<sub>x</sub> emission intensity and any operational parameters that could materially affect actual measured unit NO<sub>x</sub> emission intensity. The product(s) of this project will inform the Department as it continues to risk-manage emissions from the electricity sector.

**4. Scope of Work:**

In performing the work under this contract, the Contractor must observe the scope of work below:

- “Boiler unit” means an assembly comprised of a boiler and any other equipment that is physically connected to either, including steam turbines, generators, and emission control devices and that operate together to generate electricity from the combustion of coal or natural gas.
- A “good candidate for conversion” means a boiler unit that could achieve a positive return on investment within 5 years post-conversion based on the cost of technical modifications required and anticipated revenue by operational mode (e.g. baseload, peaking, etc.).
- For the purposes of Sub-tasks 2 and 3 of Task 2, the Contractor must assess all existing utility coal units in Canada, either individually, or in logical groupings. These units are:
  - HR Milner 1
  - Battle River 3, 4, and 5



- Sundance 3, 4, 5, and 6
- Keephills 1, 2, and 3
- Genesee 1, 2, and 3
- Coleson Cove 3
- Belledune 2
- Trenton 5 and 6
- Point Tupper 1
- Point Aconi 1
- Lingan 1, 2, 3, and 4
- Boundary Dam 4, 5, and 6
- Poplar River 1 and 2
- Shand 1

#### **4.1. Tasks:**

Within the context of the above scope, the Contractor must carry out the following Tasks:

##### **Task 1 – Kick-off Meeting**

The Contractor must participate in a kick-off meeting to review the project proposal. The Contractor must explain how their project work plan will ensure the objectives of this project are achieved. In addition, the Contractor must:

1. Explain the approach and methodology to be applied for each Task in this project, including identification of any data sources outside of his/her company's control and the collection methods he/she plans to use in order to obtain any such data.
2. Identify any information gaps that, unless filled, will compromise his/her ability to deliver the information in a meaningful and useful manner.
3. Suggest any approximations or workarounds that are typically used to close the information gaps identified above.
4. Explain the impact of any approximations or workarounds on the manner in which the information may be used.

##### **Task 2 – Report**

The Contractor must complete the work for each sub-task listed below and summarize each in a report.

###### ➤ Sub-task 1: NO<sub>x</sub> formation and emission reduction strategies

1. The Contractor must explain how and where NO<sub>x</sub> emissions form in natural gas boilers, provide details on how different boiler configurations or technical parameters impact the formation of NO<sub>x</sub>, and provide a brief overview of NO<sub>x</sub> control technologies and other emission reduction strategies. This section should also include, but is not limited to:
  - a. A discussion of the relationship between CO, CO<sub>2</sub> and NO<sub>x</sub> formation.
  - b. A discussion of general rules, principles, or ratios typically used by industry to



estimate emissions of CO as a function of NO<sub>x</sub>.

- c. A discussion of the environmental and human health effects of NO<sub>x</sub>.
- d. NO<sub>x</sub> control methods including those that:
  - i. Reduce NO<sub>x</sub> formation by reducing peak temperatures
    - o Flue gas recirculation, natural gas reburning, low NO<sub>x</sub> burners, combustion optimization, burners out of service, less excess air, water or steam injection, over fire air, air staging, reduced air preheat and catalytic combustion
  - ii. Reduce residence time at peak temperature
    - o Air, fuel or steam injection
  - iii. Chemically reduce NO<sub>x</sub> emissions
    - o Fuel reburning, low NO<sub>x</sub> burners, selective catalytic reduction, selective non-catalytic reduction
  - iv. Oxidation of NO<sub>x</sub> with subsequent absorption
    - o Non-thermal plasma reactor, oxidant injection
  - v. Remove nitrogen
    - o Using oxygen instead of air, ultra-low nitrogen fuel
  - vi. Use a sorbent
    - o Sorbent in combustion chambers or in ducts
- e. Estimates of costs of NO<sub>x</sub> emission reduction strategies / technologies, if available.

➤ Sub-task 2: Technical, operational, and financial decisions impacting NO<sub>x</sub> emissions

1. The Contractor must describe the technical, operational, and financial factors to consider when converting a coal-fired boiler to natural gas-fired, making specific reference to decisions that may affect NO<sub>x</sub> emissions. These factors may include, but are not limited to:
  - a. Boiler-specific and site-specific modifications required (e.g. replacement of burners, modification of heat transfer surfaces, removal or installation of emission control systems). The Contractor must generate a relative ranking of how impactful each decision may be on NO<sub>x</sub> emissions.
  - b. Region-specific considerations (e.g. proximity of facility to population centers, existing NO<sub>x</sub> sources). The Contractor must explain how NO<sub>x</sub> emissions disperse, travel, and discuss the extent to which NO<sub>x</sub> emissions from a converted boiler would change existing environmental and health conditions.
  - c. Operational considerations may include whether a converted boiler is operated as a baseload unit, a seasonal peaking unit, or a daily or weekly peaking unit and the resulting expected impacts on NO<sub>x</sub> emissions.
  - d. Financial considerations associated with each of the technical and operational considerations and a determination of whether the presence or absence of each factor may affect whether the boiler is a good candidate for



conversion, e.g. identifying factors that may be cost-prohibitive in the short term.

➤ Sub-task 3: Development of methodology and/or tool for the estimation of NO<sub>x</sub> emissions and NO<sub>x</sub> emission intensity

1. The Contractor must create a methodology and/or tool to estimate the total annual NO<sub>x</sub> emissions and the annual average NO<sub>x</sub> emission intensity from converted natural gas-fired boilers in Canada. The Contractor must provide a table of estimated NO<sub>x</sub> emissions for a variety of coal-to-gas converted boiler options to be mutually agreed upon between the Project Authority and the Contractor. Any assumptions used must be accompanied by suitable documentation. The methodology/tool will have the ability to manipulate input parameters including, but not limited to:
  - a. Converted boiler unit size
  - b. Emission reduction strategies (whether reducing NO<sub>x</sub> formation or add-on controls are installed) and combinations thereof
  - c. Operational mode (baseload, seasonal peak, daily or weekly peak)

➤ Sub-task 4: NO<sub>x</sub> emissions from biomass

1. The Contractor must describe in qualitative terms (quantitative where available), the impact that co-firing of biomass in converted natural gas-fired boilers may have on annual NO<sub>x</sub> emissions.

The report will be produced in a suitable format, with the drafts discussed and reviewed with the Project Authority. The target audience for the report is engineers and other technical staff. Upon review by the Project Authority, the Contractor will provide the additional details needed to clarify the descriptions for the Project Authority.

The Department approves the Contractor to reference and use, as needed, other information in so long as the Contractor has the necessary legal rights to do so, and reviews the material to ensure that it is appropriate and accurate.

### **Task 3 – Presentation of findings**

The Contractor must create and deliver a 45 to 60-minute MS PowerPoint presentation that summarizes the findings of Task 2. The MS PowerPoint presentation delivery medium (e.g. GoToMeeting, WebEx, etc.) will be mutually agreed upon between the Project Authority and the Contractor. A questions-and-answers period will follow the presentation. The Project Authority and other ECCC representatives will attend the presentation.

### **Important Notes**

- Additional information: This list of task elements is not necessarily exhaustive. The Contractor is encouraged and expected to provide any additional information discovered during the course of this work where this additional information would be deemed by the Project Authority to be relevant in fulfilling the purpose and objectives of this contract.
- Uncertainties: Where deemed appropriate by the Project Authority, uncertainties should



be identified by the Contractor, with the Contractor explaining the sources of the uncertainties within the context of the level of risk of an effect, a range of distances where it could be an issue, etc.

- **Monetary values:** As it applies to the non-invoice matters of this contract, all monetary values must be expressed by the Contractor in Canadian dollars, with the source year readily visible. Instances of currency conversion and time adjustment must be identified by the Contractor and accompanied by the Contractor's explanation of the exchange and discount rates used.
- **Technical data:** The Contractor is expected to provide and present technical data in tables and graphs.
- **Sources:** The Contractor must report all relevant sources using citations and complete references.
- **Incomplete task:** The Contractor must prepare drafts and final reports that must include, but not be limited to, the tasks identified above. If a particular task, or aspect thereof, cannot for any reason be fulfilled, then the Contractor must explain, in writing, to the satisfaction of the Project Authority why this is so.
- **Reports:** The reports, whether in draft or final form, must be written in a clear and logical fashion, and must be submitted in Microsoft Office Word for Windows, and must be fully compatible with the 2016 version.
- **Supporting and underlying data:** Both raw and calculated data must be provided in Microsoft Office Excel for Windows, and must be fully compatible with the 2016 version. Data must be properly organized, referenced and sourced. If estimates and assumptions are used, they must be clearly identified and justified. Spreadsheet design and documentation should enable modification and replication of results by the Project Authority.

**5. Acceptance Criteria:**

To ensure that they reflect the needs of the Department, completion of each task will be determined by the Project Authority, with the deliverables being subject to the acceptance and/or approval of the Project Authority.

**6. Language of Work:**

The Contractor must conduct all work in English and must provide written materials in a language style consistent with that used in the preparation of normal business dealings, e.g., submission of project tenders, equipment documentation, etc.

**7. Schedule, Deliverables & Reporting Format:**

The deliverables and schedule are outlined below in Table 1.

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

#	Deliverable	Format	Calendar days from contract signature
1	Discussion of project work plan at kick-off meeting	MsWord	7



#	Deliverable	Format	Calendar days from contract signature
2	Revised project work plan (Task 1)	MsWord	14
3	Sub-task 1 and supporting data	MsWord	25
4	Revised sub-task 1 and supporting data	MsWord	32
5	Sub-task 2 and supporting data	MsWord	39
6	Revised sub-task 2 and supporting data	MsWord	46
7	Sub-task 3 & 4 and supporting data	MsWord and MsExcel	53
8	Revised sub-task 3 & 4 and supporting data	MsWord and MsExcel	60
9	Final report and supporting data	MsWord and MsExcel	67
10	Revised final report and supporting data	MsWord and MsExcel	74
11	Presentation of findings (Task 3)	MsPowerPoint	By day 85

All deliverables must be provided in the required electronic format and submitted to the Project Authority. In addition to the final report, the Contractor must provide to the Project Authority electronic copies of all background documents (including reports, papers, notes, text, graphics, surveys, raw data, and spreadsheets) used for the delivery of this Contract.

Exchanges between the Project Authority and the Contractor prior shall be via telephone and / or email.

**8. Travel:**

The Contractor is not required to travel to fulfill the tasks of this contract.



## ANNEX B

### BASIS OF PAYMENT

*(to be completed at contract award)*

#### 1. Financial Proposal

**The Bidder must complete this pricing schedule and include it in its financial bid. Prices must only appear in the Financial Bid and in no other part of the bid.**

##### 1.1 Overview

The Bidder's financial proposal must be submitted in Canadian Funds, GST/HST excluded, FOB Destination, customs duties and excise tax included.

The total amount of Goods and Services Tax or Harmonized Sales Tax is to be shown separately, if applicable. The price of bids will be evaluated in Canadian dollars, Goods and Services Tax (GST) excluded FOB destination, Customs duties and Excise taxes included.

##### 1.2 Definitions

###### Firm Lot Price:

This is a basis of payment that applies when the total amount payable to the contractor for all or, as applicable, a portion of the contractual obligations, is the firm price agreed upon by the contracting authority and the contractor. As part of the financial proposal, the Contractor must still provide a clear and detailed breakdown of all cost elements, professional fees, travel and direct expenses to support the quoted price.

The contractor must satisfactorily fulfill all of its contractual obligations relative to the work to which this basis of payment applies, without additional payment whether or not the actual cost incurred exceeds the firm lot price.

###### 1.3 The Bidder must complete this pricing schedule and include it in its financial bid

The financial proposal must provide the total fixed price for completing the work as well as a detailed breakdown of that price. Details must be provided for each sub criteria. The financial proposal should address each of the following, as applicable in detail:

###### 1.3.1 Table 1- Professional Services per diem Rates

The bidder is to enter the per diem rates that will be used throughout the performance of the Contract. The bidder must enter the names and rates for each of the key team members. For team members required to support the work, the Bidder is to identify each of the labour categories that will be employed and the per diem rate that will apply to the category.

Professional Services	Estimated Level of Effort (Days)	Firm per diem rate*	(Level of effort) x (per diem rate)
Resource Name			
Project Manager			
Team member 1			





<b>Team member ....</b>			
<b>Support Categories</b>			
<b>Category 1 Name</b>			
<b>Category 2 Name</b>			
		<b>Total Estimated Price</b>	

\* **Per Diem rates** are firm and all-inclusive of overhead, profit and expenses such as travel and time to the NCR facilities.

**Please note the following:**

Definition of a Day/Proration: A day is defined as 7.5 hours exclusive of meal breaks. Payment will be for days actually worked with no provision for annual leave, statutory holidays and sick leave. Time worked ("Days\_worked", in the formula below) which is less than a day will be prorated to reflect actual time worked in accordance with the following formula:

$$\text{Days Worked} = \frac{\text{hours worked}}{7.5 \text{ hour day}}$$

**1.3.2 Table 2 – Other Direct Expenses**

<b>Other Expenses</b>	Amount	Mark-up	Total
<b>Direct Expenses:</b> Materials, supplies, and other direct expenses incurred during the performance of the Work at actual cost with a Mark-up		_____ %	

**1.3.3 Table 3 - Subcontracts**

<b>Subcontracts</b>	Amount	Mark-up	Total
<b>Subcontracts: at actual cost with markup.</b> List any subcontracts proposed for any portion of the Contract describing the work to be performed and a cost breakdown with a Mark-up		_____ %	

**1.3.4 Table 4 – Total**

<b>TOTAL (sum tables 1 to 3) Firm Lot Price</b>	\$
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### 1.4. Payment Schedule

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price of \$ \_\_\_\_\_ (*insert amount at contract award*). Customs duties are included and Applicable Taxes are extra.

Canada will make milestone payments in accordance with the following Schedule of Milestones

Milestones		Due (calendar days after Contract Award)	% of contract Price	Amount
Number	Description			
1	Report on NO <sub>x</sub> formation and emission reduction strategies (SoW Task 2, subtask 1 completion)	32	20	
2	Report on Technical, operational, and financial decisions impacting NO <sub>x</sub> emissions (SoW Task 2, subtask 2 completion)	46	20	
3	Delivery of methodology and/or tool for the estimation of NO <sub>x</sub> emissions and NO <sub>x</sub> emission intensity and report on NO <sub>x</sub> emissions from biomass (SoW Task2,subtask 4)	60	30	
4	Presentation of Findings (SoW task 3)	85	30	

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

### 1.5 Good and Services Tax (GST) / Harmonized Sales Tax (HST)

All prices and amounts of money in the Contract are exclusive of Goods and Services Tax (GST) or Harmonized Sales Tax (HST), as applicable, unless otherwise indicated. The GST or HST, whichever is applicable, is extra to the price and will be paid by Canada.