



<p>RETURN BIDS TO: RETOURNER LES SOUMISSIONS À:</p> <p>Bid Receiving - Environment and Climate Change Canada / Réception des soumissions – Environnement et changement climatique Canada</p> <p>Electronic Copy:</p> <p>soumissionsbids@ec.gc.ca</p> <p>BID SOLICITATION DEMANDE DE SOUMISSIONS</p> <p>PROPOSAL TO: ENVIRONMENT AND CLIMATE CHANGE CANADA</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>SOUSSION À: ENVIRONNEMENT ET CHANGEMENT CLIMATIQUE CANADA</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>Title – Titre Study of Waste to Energy Approaches in the Canadian Context</p>	
	<p>EC Bid Solicitation No. /SAP No. – N° de la demande de soumissions EC / N° SAP 5000063028</p>	
	<p>Date of Bid solicitation (YYYY-MM-DD) – Date de la demande de soumissions (AAAA-MM-JJ) 2022-02-16</p>	
	<p>Bid Solicitation Closes (YEAR-MM-DD) - La demande de soumissions prend fin (AAAA-MM-JJ)</p> <p>at – à 2:00 P.M. on – le 2022-03-18</p>	<p>Time Zone – Fuseau horaire</p> <p>Eastern Time Zone</p>
	<p>F.O.B – F.A.B Destination</p>	
	<p>Address Enquiries to - Adresser toutes questions à Megan Filliol megan.filliol@ec.gc.ca</p>	
	<p>Telephone No. – N° de téléphone 902-600-6216</p>	<p>Fax No. – N° de Fax</p>
	<p>Delivery Required (YEAR-MM-DD) – Livraison exigée (AAAA-MM-JJ) 2023-03-31</p>	
	<p>Destination of Services / Destination des services See herein</p>	
	<p>Security / Sécurité See herein</p>	
	<p>Vendor/Firm Name and Address - Raison sociale et adresse du fournisseur/de l'entrepreneur</p>	
	<p>Telephone No. – N° de téléphone</p>	<p>Fax No. – N° de Fax</p>
	<p>Name and title of person authorized to sign on behalf of Vendor/Firm: (type or print) / Nom et titre de la personne autorisée à signer au nom du fournisseur/de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</p>	
<p>Signature</p>	<p>Date</p>	



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Attachment 1 to Part 3, Financial Bid Presentation Sheet
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List of Annexes:

Annex A Statement of Work
Annex B Basis of Payment



PART 1 - GENERAL INFORMATION

1.1 Introduction

The bid solicitation is divided into seven parts plus attachments and annexes, as follows:

Part 1 General Information: provides a general description of the requirement;

Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;

Part 3 Bid Preparation Instructions: provides bidders with instructions on how to prepare their bid;

Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;

Part 5 Certifications and Additional Information: includes the certifications and additional information to be provided;

Part 6 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Attachments include the Financial Bid Presentation Sheet, Mandatory Technical Criteria And Point Rated Technical Criteria.

The Annexes include the Statement of Work, and the Basis of Payment.

1.2 Summary

- 1.2.1 Environment and Climate Change Canada (ECCC) requires a Contractor to conduct a Study to compile information that can be used by decision and policy makers with respect to thermal treatment of mixed municipal solid waste (MSW) for the purpose of value (energy or chemical) recovery (e.g. Waste-to Energy (WTE) operations). This Study will include information on the current state of technology, operations, and legislation in Canada and internationally; opportunities and barriers for implementation; as well as industry participants active in the Canadian market. This Work will be a resource shared with a range of stakeholders, including municipal, regional, provincial, and territorial governments and other interested organisations.

The period of the contract is from contract award to 2023-March-31.

- 1.2.2 Bidders must provide a list of names, or other related information as needed, pursuant to section 01 Integrity Provisions of Standard Instructions 2003.
- 1.2.3 For services requirements, bidders in receipt of a pension or a lump sum payment must provide the required information as detailed in article 3 of Part 2 of the bid solicitation.
- 1.2.5 The requirement is subject to the provisions of the Canadian Free Trade Agreement (CFTA), the Canada–Chile Free Trade Agreement, the Canada–Colombia Free Trade Agreement, the Canada–Honduras Free Trade Agreement, the Canada–Korea Free Trade Agreement, the Canada–Panama Free Trade Agreement, Canada-Peru Free Trade Agreement.

1.3 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

2.1. 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 PSPC/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 (2020-05-28) 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 and Climate Change Canada 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 and Climate Change Canada”

At Section 07 Delayed Bids:

Delete: “PWGSC”

Insert: “Environment and Climate Change Canada”

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

Delete: In its entirety

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"

2.2. SACC Manual Clauses

A7035T (2007-05-25) List of Proposed Subcontractors

2.3. Submission of Bids

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

2.4. 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: 2019-01 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.

2.5. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than (five) (5) 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.

2.6. Applicable Laws

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

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.

2.7. Basis for Canada's Ownership of Intellectual Property

Environment and Climate Change Canada has determined that any intellectual property rights arising from the performance of the Work under the resulting contract will belong to Canada, for the following reasons, as set out in the [Policy on Title to Intellectual Property Arising Under Crown Procurement Contracts](#):

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

2.8. Bid Challenge and Recourse Mechanisms

Bid Challenge and Recourse Mechanisms

- (a) Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.
- (b) Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada's [Buy and Sell](#) website, under the heading "[Bid Challenge and Recourse Mechanisms](#)" contains information on potential complaint bodies such as:
 - Office of the Procurement Ombudsman (OPO)
 - Canadian International Trade Tribunal (CITT)



- (c) Suppliers should note that there are **strict deadlines** for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1. Bid Preparation Instructions

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

Section I: Technical Bid (1 soft copies in PDF format)

Section II: Financial Bid (1 soft copies in PDF format)

Section III: Certifications (1 soft copies in PDF format)

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

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.

Note for electronic submission of bids:

In order to be considered, bids must be received by 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: soumissionsbids@ec.gc.ca

Attention: Megan Filliol

Solicitation Number: 500063028

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.

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 meet these requirements. Bidders should demonstrate their capability and describe their approach in a thorough, concise and clear manner for carrying out the work.

The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

Part 4, Evaluation Procedures, contains additional instructions that bidders should consider when preparing their technical bid.

Section II: Financial Bid

1.1 Bidders must submit their financial bid in Canadian funds and in accordance with the Financial Bid Presentation Sheet in Attachment 1 to Part 3. The total amount of Applicable Taxes must be shown separately.

1.2 Bidders must submit their price and rate FOB destination; Canadian customs duties and excise taxes included, as applicable; and Applicable Taxes excluded.

1.3 Price Breakdown

In their financial bid, the bidders are requested to provide a detailed breakdown of the price for the following elements for each phase of the Work, as applicable:

(a) Professional fees: For each individual and (or) labour category to be assigned to the Work, the bidders should indicate: i) the firm hourly rate or the firm daily rate, inclusive of overhead and profit; and ii) the estimated number of hours or days, as applicable. The bidders should indicate the number of hours in one working day.

The professional fees must include the total estimated cost of all travel and living expenses that may need to be incurred for:

- (i) Work described in Part 7, Resulting Contract of the bid solicitation required to be performed within the "National Capital Region (NCR). The NCR is defined in the *National Capital Act*, R.S.C. 1985, c. N-4, S.2. *The National Capital Act* is available on the Justice Website: [http://laws-lois.justice.gc.ca/eng/acts/N-4/;](http://laws-lois.justice.gc.ca/eng/acts/N-4/)"
- (ii) travel between the successful bidder's place of business and the NCR; and
- (iii) the relocation of resources

to satisfy the terms of any resulting contract. These expenses cannot be charged directly and separately from the professional fees to any contract that may result from the bid solicitation.

(b) Equipment (if applicable): The bidders should specify each item required to complete the Work and provide the pricing basis of each one, Canadian customs duty and excise taxes included, as applicable.

- (c) **Materials and Supplies (if applicable):** The bidders should identify each category of materials and supplies required to complete the Work and provide the pricing basis. The Bidder should indicate, on a per category basis, whether the items are likely to be consumed during the performance of any resulting contract.
- (d) **Subcontracts (if applicable):** The bidders should identify all of the proposed subcontractors and provide in their financial bid for each one a price breakdown.
- (e) **Other Direct Charges (if applicable):** The bidders should identify all of the categories of other direct charges anticipated, such as long distance communications and rentals, providing the pricing basis for each and explaining the relevance to the work described in Part 7 of the bid solicitation.
- (f) **Applicable Taxes:** The bidders should indicate the Applicable Taxes separately.

1.5 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

Bidders must submit the certifications required under Part 5.



ATTACHMENT “1” TO PART 3 - FINANCIAL BID PRESENTATION SHEET

The Bidder must complete this Financial Bid Presentation Sheet and include it in its financial bid.

Deliverable	Due date on or before	Subtotal
Draft summary of foundational information (Task 1)	Six (6) weeks following contract initiation.	
Draft summary of government policies and international actions (Tasks 2 and 3)	Twelve (12) weeks following contract initiation.	
Draft summary of facilities, projects and technology providers (Task 4)	Eighteen (18) weeks following contract initiation.	
Draft summary of assessment of potential (Task 5)	Twenty two (22) weeks following contract initiation.	
Draft full report (Task 6)	Twenty four (24) weeks following contract initiation.	
Final Report and presentation (Task 6)	Thirty (30) weeks following contract initiation.	
Subtotal (not including taxes) for evaluation purposes		

The inclusion of volumetric data in this document does not represent a commitment by Canada that Canada’s future usage of the services described in the bid solicitation will be consistent with this data.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1. Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

4.2. 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.

4.2. Technical Evaluation

Mandatory and point rated technical evaluation criteria are included in Attachment "1" to Part 4.

4.3. Financial Evaluation

4.3.1 Mandatory Financial Criteria

	Mandatory criteria	Met/Not Met	Reference to Page in Proposal (Bidder to Insert)
MF1	Environment Canada has established funding for this project at a maximum amount of \$150,000.00 (in Canadian dollars) – excluding taxes – for professional services.		

4.3.2 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 follows:

- 4.3.2.1. The volumetric data included in the Financial Bid Presentation Sheet detailed in Attachment 1 to Part 3 are provided for bid evaluated price determination purposes only. They are not to be considered as a contract guarantee.



4.3.2.2. For bid evaluation and contractor(s) selection purposes only, the evaluated price of a bid will be determined in accordance with the Financial Bid Presentation Sheet detailed in Attachment 1 to Part 3.

4.4 Basis of Selection

4.4.1 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 mandatory financial criteria;
 and
 - (c) obtain the required minimum of 20 points overall for the technical evaluation criteria which are subject to point rating.

The rating is performed on a scale of 28 points.

- 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).

	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	77.7
Overall Rating		1st	3rd	2nd



**ATTACHMENT “1” TO PART 4,
MANDATORY TECHNICAL CRITERIA AND POINT RATED TECHNICAL CRITERIA**

The bidder must meet **all** mandatory requirements described below. These will be evaluated as either “**Yes**” or “**No**”. Proposals receiving a “**No**” for any mandatory requirement will **not** be considered further.

Attention bidders: Indicate in the column beside each criterion the number of the relevant page on which information presented in your proposal addresses the mandatory requirements associated with each criterion.

Mandatory Requirements	Page #	Yes	No
<p>M1 The bidder must demonstrate in their proposal that the proposed Project Manager has a minimum of ten (10) years of recent (within the last 12 years) experience in conducting industrial sector technology reviews and preparing foundational information or policy research reports for governments.</p> <p>This must be demonstrated in the proposal by providing the Project Manager’s name, current curriculum vitae, and descriptions of the projects/work completed, including timelines.</p>			
<p>M2 The bidder must demonstrate in their proposal that the proposed team has a minimum of three (3) key team members, including the Project Manager, each having at least five (5) years of experience (within the past ten (10) years) in conducting technology reviews, compiling foundational information, and undertaking policy research.</p> <p>This must be demonstrated in the proposal by providing the names of the key team members, current curriculum vitae for each key team member, and details of how experience was obtained, including timelines.</p>			
<p>M3 The bidder must demonstrate in their proposal that a minimum of one (1) team member is fluently bilingual and capable of conducting surveys (verbal and written) in both English and French.</p> <p>This must be demonstrated by identifying the fully bilingual team member in the proposal.</p>			

Point Rated Technical Criteria

Bids which meet all the mandatory technical criteria will be evaluated and scored as specified in the tables inserted below.

Bids which fail to obtain the required minimum number of points specified will be declared non-responsive. Each point rated technical criterion should be addressed separately.

Rated Criteria	Page #	Maximum Score	Score
<p>Experience and Qualifications of Contractor and Project Team Members</p> <p>To illustrate the experience and qualifications that will be evaluated in the Point Rated Technical Criteria R1, R2, R3, and R4, the Bidder should provide a description of at least five (5) projects or studies completed in the last ten (10) years in which the project team members participated, that included:</p> <ul style="list-style-type: none"> • Conducting studies that included researching and assessing waste-to-energy technologies; • Conducting studies that included researching policies, legislation, or standards related to waste management or waste-to-energy; • Performing analyses of market and economic opportunities related to waste-derived-fuels, -energy, and/or -products; • Administering surveys that collected and compiled information from industrial sectors. <p>Individual projects do not need to include all elements, but overall, project descriptions should demonstrate experience in all of the above areas.</p> <p>Each project description should be no more than one (1) page, and include the following:</p> <ul style="list-style-type: none"> • Project title, client name, industry sector; • Nature of services provided by the Bidder for the project or study, methodologies and approaches employed; • Topics addressed; • Name of project manager and key project team members and their roles in the project; • Name of contact to validate information. <p>Experience claims must be supported by examples, and must provide sufficient detail to provide a clear understanding of the work performed.</p>			
<p>R1 - Experience and expertise pertaining to waste-to-energy technologies (as described in the SOW)</p> <p>Members of the bidder’s project team have recent (within the last 5 years) and relevant experience. Relevant experience is experience and expertise conducting studies that included researching and assessing waste-to-energy technologies.</p> <p>0 Points - The proposal does not demonstrate relevant and/or recent experience or knowledge of the proposed project team.</p> <p>1 Point - The proposal demonstrates some relevant and recent experience and expertise of the proposed project team. “Demonstrates” is defined as at least one (1) of the project team members having experience working on at least one (1) project in the last five (5) years, involving conducting studies that included researching and assessing waste-to-energy technologies.</p>		<p>5 points</p>	



<p>3 Points - The proposal sufficiently demonstrates relevant and recent experience and expertise of the proposed project team. “Sufficiently demonstrates” is defined as at least two (2) of the project team members each having experience working on at least two (2) projects in the last five (5) years, involving conducting studies that included researching and assessing waste-to-energy technologies.</p> <p>5 Points - The proposal strongly demonstrates relevant and recent experience and expertise of the proposed project team. “Strongly demonstrates” is defined as at least two (2) of the project team members each having experience working on at least three (3) projects in the last five (5) years, involving conducting studies that included researching and assessing waste-to-energy technologies.</p>			
<p>R2 – Experience and expertise pertaining to policies, legislation, or standards for waste management or waste-to-energy</p> <p>Members of the bidder’s project team have recent (within the last 5 years) and relevant experience. Relevant experience is experience and expertise conducting studies that included researching policies, legislation, or standards related to waste management or waste-to-energy.</p> <p>0 Points - The proposal does not demonstrate relevant and recent experience of the proposed project team members conducting studies that included researching policies, legislation, or standards related to waste management or waste-to-energy.</p> <p>1 Point - The proposal demonstrates some relevant and recent experience and expertise of the proposed project team. “Demonstrates” is defined as at least one (1) of the project team members having experience working on at least one (1) project in the last five (5) years, involving conducting studies that included researching policies, legislation, or standards related to waste management or waste-to-energy.</p> <p>3 Points - The proposal sufficiently demonstrates relevant and recent experience and expertise of the proposed project team. “Sufficiently demonstrates” is defined as at least two (2) of the project team members each having experience working on at least two (2) projects in the last five (5) years, involving conducting studies that included researching policies, legislation, or standards related to waste management or waste-to-energy.</p> <p>5 Points - The proposal strongly demonstrates relevant and recent experience and expertise of the proposed project team. “Strongly demonstrates” is defined as at least two (2) of the project team members each having experience working on at least three (3) projects in the last five (5) years,</p>		<p>5 points</p>	

<p>involving conducting studies that included researching policies, legislation, or standards related to waste management or waste-to-energy.</p>			
<p>R3 – Performing analyses of market and economic opportunities related to waste-derived-fuels, -energy, and/or -products</p> <p>Members of the bidder’s project team have recent, (within the last 5 years), and relevant experience and expertise. Relevant is experience and expertise in performing analyses of market and economic opportunities related to waste-derived-fuels, -energy, and/or -products.</p> <p>0 Points - The proposal does not demonstrate relevant and recent experience or expertise of the proposed project team.</p> <p>1 Point - The proposal demonstrates some relevant and recent experience and expertise of the proposed project team. “Demonstrates” is defined as at least one (1) of the project team members having experience working on at least one (1) project in the last five (5) years, performing analyses of market and economic opportunities related to waste-derived-fuels, -energy, and/or -products.</p> <p>3 Points - The proposal sufficiently demonstrates relevant and recent experience and expertise of the proposed project team. “Sufficiently demonstrates” is defined as at least two (2) of the project team members each having experience working on at least two (2) projects in the last five (5) years, performing analyses of market and economic opportunities related to waste-derived-fuels, -energy, and/or -products.</p> <p>5 Points - The proposal strongly demonstrates relevant and recent experience and expertise of the proposed project team. “Strongly demonstrates” is defined as at least two (2) of the project team members each having experience working on at least three (3) projects in the last five (5) years, performing analyses of market and economic opportunities related to waste-derived-fuels, -energy, and/or -products.</p>		<p>5 points</p>	
<p>R4 – Administering surveys that collected and compiled information from industrial sectors</p> <p>The bidder’s project team has recent experience (within the last 5 years) and relevant expertise – defined as expertise in administering surveys that collected and compiled information from industrial sectors.</p> <p>0 Points - The proposal does not demonstrate relevant and recent experience or expertise of the proposed project team.</p> <p>1 Points - The proposal demonstrates some relevant and recent experience and expertise of the proposed project team. “Demonstrates” is defined as at least one (1) of the project team members having experience working on at least</p>		<p>3 points</p>	



<p>one (1) project in the last five (5) years, involving administering surveys that collected and compiled information from industrial sectors.</p> <p>2 Points - The proposal sufficiently demonstrates relevant and recent experience and expertise of the project team. “Sufficiently demonstrates” is defined as at least one (1) of the project team members having experience working on at least two (2) projects in the last five (5) years, involving administering surveys that collected and compiled information from industrial sectors.</p> <p>3 Points - The proposal strongly demonstrates relevant and recent experience and expertise of the project team. “Strongly demonstrates” is defined as at least one (1) of the project team members having experience working on at least three (3) projects in the last five (5) years, involving administering surveys that collected and compiled information from industrial sectors.</p>			
<p><u>Methodology and Work Plan</u></p> <p>The Bidder should provide a technical proposal including a description of the proposed work plan, allocation of project resources, methodology and quality assurance/quality control approach.</p>			
<p>R5 – Work plan and project resources</p> <p>0 Points - The proposal does not demonstrate the work plan and project resources.</p> <p>1 Point - The work plan is incomplete, not well defined and/or poorly constructed and does not demonstrate how the allocated resources will meet the objectives, deliverables, and timelines outlined in Annex A, Statement of Work. Resources, and/or roles and team structure as outlined in the proposal do not clearly identify how all the project objectives will be met.</p> <p>3 Points - The work plan is complete and demonstrates a level of confidence that allocated resources will meet the objectives, deliverables and timelines outlined in Annex A, Statement of Work.</p> <p>5 Points - The work plan is complete, very clear and logical and demonstrates a high level of confidence that allocated resources will meet the objectives, deliverables and timelines outlined in Annex A, Statement of Work.</p>		<p>5 points</p>	
<p>R6 – Methodology</p> <p>0 Points - The proposal does not demonstrate the methodology.</p> <p>1 Point - The methodology is lacking detail, and/or is not clear or well defined. The level of confidence is low that the objectives, deliverables and timelines outlined in Annex A, Statement of Work will be met. Most potential challenges are</p>		<p>5 points</p>	

<p>not identified and/or the process for addressing these challenges are not not addressed.</p> <p>3 Points - The methodology provides some detail and most challenges are clear and defined. The level of confidence is moderate that the objectives, deliverables and timelines outlined in Annex A, Statement of Work will be met. Most potential challenges are identified but the proposal lacks details on how the challenges will be addressed, such as: possible information sources, steps and mitigation.</p> <p>5 Points - The methodology is clear, logical, and detailed and most or all challenges are defined. The level of confidence is high that the objectives, deliverables and timelines outlined in Annex A, Statement of Work will be met. Most or all potential challenges are identified and the proposal provides clear detail on how the challenges will be addressed, such as: possible information sources, steps and mitigation.</p>			
Maximum Score: 28 points			
Minimum Passing Score: 20 points			



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.

5.1. Certifications Required Precedent to Contract Award

5.1.1 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.

5.1.2. 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 available at the bottom of the page of the [Employment and Social Development Canada \(ESDC\) - Labour's](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#) website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#>).

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.

5.2. 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.

5.2.1. 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.

5.2.2. Education and Experience

SACC Manual clause A3010T (2010-08-16) Education and Experience



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. *(at contract award, delete this sentence and add the title of the requirement)*

Title: *(insert only at contract award)*

6.1. Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex A.

6.2. Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the PSPC/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.

6.2.1 General Conditions

2035 (2021-12-02) General Conditions - Professional Services (High Complexity), apply to and form part of the Contract.

6.2.2 Supplemental General Conditions

4007 (2010-08-16), Canada to own Intellectual Property Rights in Foreground

6.2.3 Specific Person(s)

The Contractor must provide the services of the following person(s) to perform the Work as stated in the Contract: _____ *(insert name(s) of person(s))*.

6.3. Security Requirement

6.3.1 There is no security requirement applicable to this Contract.

6.4. Term of Contract

6.4.1 Period of the Contract

The period of the Contract is from date of Contract to 2023-03-31 inclusive.

6.5. Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Megan Filliol

Title: Team Manager, Procurement – Operations Atlantic
Environment and Climate Change Canada
Procurement and Contracting Division
Address: 17th Floor, 45 Alderney Dr., Dartmouth NS B2Y 2N6

Telephone: 902-600-6216
E-mail address: megan.filliol@ec.gc.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.

6.5.2 Project Authority *(insert only at contract award)*

The Project Authority for the Contract is:

Name: _____
Title: _____
Organization: _____
Address: _____

Telephone: ____-____-_____
Facsimile: ____-____-_____
E-mail address: _____

The Project 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 Project Authority, however the Project 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.

6.5.4 Contractor's Representative *(Fill in or delete as applicable)*

6.6. 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: 2019-01](#) of the Treasury Board Secretariat of Canada.

6.7. Payment

6.7.1 Basis of Payment



The Contractor will be reimbursed for the costs reasonably and properly incurred in the performance of the Work, as determined in accordance with the Basis of Payment in Annex B , to a limitation of expenditure of \$_____ (*insert the amount at contract award*). Customs duties are included and Applicable Taxes are extra.

7.7.2 Limitation of Expenditure

- (a) Canada's total liability to the Contractor under the Contract must not exceed \$ _____. Customs duties are included and the Applicable Taxes are extra.
- (b) No increase in the total liability of Canada or in the price of the Work resulting from any design changes, modifications or interpretations of the Work, will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would result in Canada's total liability being exceeded before obtaining the written approval of the Contracting Authority. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
 - (i) when it is 75 percent committed, or
 - (ii) four (4) months before the contract expiry date, or
 - (iii) as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work,whichever comes first.
- (c) If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

6.7.3 Multiple Payments

Canada will pay the Contractor upon completion and delivery of units in accordance with the payment provisions of the Contract if:

- a. an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b. all such documents have been verified by Canada;
- c. the Work delivered has been accepted by Canada.

6.7.4 Supplemental General Conditions

6.8. Invoicing Instructions

6.8.1 Single Payment

6.8.1.1 The Contractor must submit invoices monthly in accordance with the section entitled "Invoice Submission" of the general conditions.

6.8.1.2 Canada will pay the Contractor upon completion and delivery of the Work in accordance with the payment provisions of the Contract if:

- (a) an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- (b) all such documents have been verified by Canada;
- (c) the Work delivered has been accepted by Canada.

6.9. Certifications and Additional Information

6.9.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

6.10. 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.*)

6.11. 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) the supplemental general conditions 4007 (2010-08-16), Canada to own Intellectual Property Rights in Foreground;
- (c) the 2035 (2021-12-02) General Conditions - Professional Services (High Complexity);
- (d) Annex A, Statement of Work;
- (e) Annex B, Basis of Payment;
- (f) 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)*).

6.12. Insurance



SACC Manual clause G1005C (2016-01-28) Insurance – No Specific Requirement

6.13. Dispute Resolution

- (a) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.
- (b) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.
- (c) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.
- (d) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "[Dispute Resolution](#)".

ANNEX “A” STATEMENT OF WORK

1. Background

In December of 2020, the Government of Canada introduced [A Healthy Environment and a Healthy Economy](#) – Canada’s strengthened climate plan – which includes a commitment to explore opportunities to support waste management infrastructure. According to the waste hierarchy, waste management approaches that divert biodegradable materials from landfill and recover energy from waste are preferable options to landfilling. Residual mixed municipal solid waste (MSW) is the fraction of the mixed MSW stream that cannot be reused or recycled. Residual mixed MSW includes difficult-to-recycle materials such as thermoset plastics, and is typically disposed in a landfill or treated for value recovery (e.g. waste to energy [WTE] operations). Wastewater biosolids are produced as a result of the wastewater treatment process and, in some Canadian municipalities, are managed through incineration (with or without energy recovery). Thermochemical value recovery from waste offers an opportunity to extract energy and useful materials from residual mixed MSW or wastewater biosolids that would otherwise be disposed in a landfill. With existing and evolving technologies, community infrastructure has the potential to reduce the volume of residual mixed MSW and wastewater biosolids being sent to landfills, create low-carbon fuels and energy, and contribute to a circular economy. Environment and Climate Change Canada (ECCC) is seeking to compile information on thermal treatment technologies and operations for value recovery from mixed MSW in Canada, including the:

- Current status of the technology;
- Existing and planned implementations;
- Related legislative landscape;
- Opportunities and barriers for implementation;
- Industry participants that provide services, technology, or equipment related to such operations.

The compiled information will be available to government policy makers and communities investigating options for managing residual mixed MSW.

2. Purpose

The purpose of this Study is to compile information that can be used by decision and policy makers with respect to thermal treatment of mixed MSW for the purpose of value (energy or chemical) recovery (e.g. Waste to Energy (WTE) operations). This Study will include information on the current state of technology, operations, and legislation in Canada and internationally; opportunities and barriers for implementation; as well as industry participants active in the Canadian market.

This Work will be a resource shared with a range of stakeholders, including municipal, regional, provincial, and territorial governments and other interested organisations.



3. Objectives

The objectives of the Work are:

1. To review and compare existing thermal treatment technologies from mixed MSW, including technology readiness level (TRL), opportunities and barriers for implementation in Canada, capital and operational costs (Task 1).
2. To evaluate and quantify the GHG impacts of various types of thermal treatment operations for value recovery from mixed MSW (Task 1, Task 5).
3. To generate a comprehensive inventory of existing and planned WTE facilities in Canada (Task 4b).
4. To generate an inventory of industry participants that provide services, technology, or equipment related to WTE operations in Canada (Task 4c).
5. To generate a comprehensive inventory of existing and planned policies and legislation related to WTE in Canada and internationally (Task 2, Task 3).
6. To assess the Canadian potential to create energy and resources from waste (Task 5).

4. Scope of Work

For the purpose of this Project, the term “waste” includes the following materials:

- Residual mixed municipal solid waste (MSW), which includes post diversion waste materials from residential, industrial, commercial and institutional (ICI), and construction, renovation, and demolition (CRD) sectors;
- Sorting residues from recycling, composting, and anaerobic digestion facilities;
- Dewatered or dried municipal wastewater sludge and biosolids.

For the purpose of this Project, the term “thermal treatment” refers to any technology that involves high temperatures in the processing of waste (as feedstock), and generates usable energy (electricity or fuel) or valuable resources (e.g. chemical products). It does not include biological processes such as anaerobic digestion.

The contractor shall complete the following tasks as part of this scope of work.

Task 1: Compile foundational information on WTE technologies currently used or proposed for use in Canada

At minimum, the following processes must be included in the review:

- Direct combustion;
- Co-incineration of waste in combustion plants (e.g. power plants) and manufacturing facilities (e.g. cement kilns) that are utilizing residual waste (e.g. used tires, non-recyclable plastics, biosolids, demolition debris, and others) as a fuel source;
- Pyrolysis (both fast and slow pyrolysis, with the intention of producing biochar, biocoal, syngas, etc.);
- Gasification/plasma arc gasification; and,
- Production of waste-derived solid, liquid or gaseous fuels.

At minimum, the review must include the following for each process:

- Composition, quality, and quantity of waste/feedstock that can be processed at typical facilities (including but not limited to physico-chemical and thermal characteristics);
- Nature of mixed waste pre-processing required for typical facilities to operate effectively;
- Capital and operational/maintenance costs (per tonne of mixed MSW managed and per unit of energy or value recovered) (including financing);

- Description and quantity of products/materials recovered (e.g. energy, fuel, chemicals) (per tonne of mixed MSW managed) and their typical end markets;
- Anticipated revenue (e.g. revenue per unit of energy sold, per tonne of mixed MSW managed) and level of revenue needed to ensure a financially viable operation (e.g. sale of energy, tipping fees, etc.);
- Minimum size of a facility in order to be an economically viable operation;
- Description of waste residues and air emissions;
- Energy recovery efficiency, return on energy invested;
- Approaches to increasing the energy efficiency of the process;
- An assessment of GHG impacts, including development of emission factors that can be implemented into ECCC's *GHG Calculator for Organic Waste Management* (e.g. in units of energy use per tonne of mixed MSW) - emission factors will include consideration of process energy (both waste pre-processing and treatment), waste handling fuel/energy requirements, fuel and energy generated, etc.;
- [Technology readiness level](#) (TRL) as described by Innovation Canada;
- Opportunities and barriers for implementation in Canada.

The contractor will develop a summary of the information compiled in Task 1.

Task 2: Generate a comprehensive inventory of existing and planned policies, legislation, and standards applying to WTE operations in Canada

Compile and summarize existing and planned/proposed provincial, territorial, and federal policies, legislation and standards applying to WTE operations in Canada. This section should include an inventory of government funding programs and support for WTE technologies and operations.

Task 3: Compile information on WTE implementation in other economies

Identify and evaluate WTE implementations and trends in similar economies, including the United States, the European Union, Germany, France, Italy, Japan, the United Kingdom, and China. For each economy, compiled information should include:

- A brief description of foundational and related policies and drivers that motivated WTE sector development;
- A summary of the types and capacities of WTE technologies implemented, plans for expansion and trends/plans for changing energy/fuel type generated;
- Identification of specific regulations / policies (i.e incentives, subsidies, 'renewable' energy rates, GHG credits, etc.) that contribute to economic viability of certain technologies; and,
- The role of WTE in achieving goals for waste diversion, greenhouse gas emission reduction and circular economy.



Task 4: Conduct a survey of the Canadian WTE industry and generate a comprehensive inventory of existing and planned WTE facilities and technology providers in Canada

Task 4a:

The contractor will conduct a survey of industry participants to collect information relevant to this contract. A draft of the survey and the list of companies that will be requested to complete a survey will be reviewed by ECCC prior to distribution. ECCC will support the survey with a letter of introduction.

The contractor must be able to conduct the survey in both official languages (French and English).

Task 4b:

Based on survey responses collected in Task 4a and other available information, generate an inventory of existing and planned facilities including, but not limited to:

- The number, capacity, and locations of facilities;
- The technology employed by each facility;
- The length of time that each facility has operated;
- The types of material streams accepted by each facility;
- Information on the sources of material input streams, including the economic/business structure through which the material stream is sourced;
- The outputs of each facility, including the recovered value (e.g. energy, fuel, chemicals) and waste residues (e.g. air emissions, ash); and,
- The control technologies employed by the facility to mitigate the release of pollutants.

The contractor will provide ECCC with a full inventory of survey responses.

Task 4c:

Generate an inventory of industry participants that provide services, technology, or equipment related to WTE operations in Canada.

Task 5: Assess the Canadian potential to create energy and resources from waste

Assess the potential for WTE technology to contribute to GHG emission reduction and waste management goals in Canada, and to align with those on circular economy. The approach should identify an assessment framework and compile and evaluate information on factors that influence sustainable implementation of these technologies including consideration of, at a minimum:

- Current status and trends in WTE implementation in Canada and internationally;
- Feasibility of WTE implementation in Canada with respect to demographics, quantity and characteristics of future waste generation, and distance from points of waste generation to WTE facilities; Canadian market and economic opportunities related to waste-derived fuels and energy, including (but not limited to):
 - Available end markets for recovered products;
 - Current and projected market value of low-carbon energy and fuel;
 - Distance to market;
 - Waste management costs; and,

- Feedstock supply (including the impact of evolving waste reduction/diversion policies, improved recycling capability, changes in packaging design, etc.);
- Existing municipal/regional waste management strategies, including existing or anticipated waste processing capacity limitations;
- Projection of future energy and/or fuel generation from Canadian residual MSW;
- Estimate of the potential GHG impacts (e.g. avoided emissions) associated with production and use of waste-derived energy and fuel, within the context of conventional energy sources utilized by each province and territory;
- A summary of risks associated with implementing WTE processes (e.g. lowering incentive to reduce waste);and
- International experience in incorporation of WTE technology into national waste management strategies. Existing policies within Canada that influence the development of sustainable WTE projects.

Task 6: Prepare draft and final reports and presentation

Based on the data and information compiled in Tasks 1 through 5, prepare a draft and final report documenting the findings of this study. ECCC will review the draft report and provide written comments to the contractor no later than two weeks following receipt. The final report should incorporate ECCC comments.

A presentation will be prepared and delivered to ECCC based on the final report.

5. Methodology

The Contractor must propose an appropriately detailed and effective methodology for delivering this Work. It is anticipated that this will include extensive document review and analysis; economic assessment and forecasting; and both primary and secondary data collection.

If direct contact with industry participants is required to collect or validate information, the Departmental Representative is to be consulted first. ECCC will provide a letter of introduction and approve in advance any request soliciting company information. The Contractor must identify project team member(s) capable of communicating in French.

6. Project Deliverables and Schedule

The table below presents the key deliverables for each task and their schedule. A project initiation conference call will be held as soon as possible after the contract is awarded. The Contractor shall also plan on bi-weekly conference calls with the ECCC Technical Authority for the duration of the project.

Deliverable	Due date on or before
Draft summary of foundational information (Task 1)	Six (6) weeks following contract initiation.
Draft summary of government policies and international actions (Tasks 2 and 3)	Twelve (12) weeks following contract initiation.
Draft summary of facilities, projects and technology providers (Task 4)	Eighteen (18) weeks following contract initiation.
Draft summary of assessment of potential (Task 5)	Twenty two (22) weeks following contract initiation.
Draft full report (Task 6)	Twenty four (24) weeks following



	contract initiation.
Final Report and presentation (Task 6)	Thirty (30) weeks following contract initiation.

General instructions for deliverables:

- All documents, reports, notes and correspondence generated by the contractor during the course of this project shall be in English.
- All documents and reports shall be compatible with the Microsoft Office Suite for Windows.
- Materials should be developed in a reader-friendly format targeted toward an audience with a wide range of experience, education, and varying knowledge of the sector.
- Key information gaps and assumptions shall be identified throughout the report.
- All sources of information are to be documented, including notes from interviews and data spreadsheets.

ANNEX "B" BASIS OF PAYMENT

(to be completed at contract award)

Deliverable	Due date on or before	Subtotal
Draft summary of foundational information (Task 1)	Six (6) weeks following contract initiation.	
Draft summary of government policies and international actions (Tasks 2 and 3)	Twelve (12) weeks following contract initiation.	
Draft summary of facilities, projects and technology providers (Task 4)	Eighteen (18) weeks following contract initiation.	
Draft summary of assessment of potential (Task 5)	Twenty two (22) weeks following contract initiation.	
Draft full report (Task 6)	Twenty four (24) weeks following contract initiation.	
Final Report and presentation (Task 6)	Thirty (30) weeks following contract initiation.	
	Subtotal	
	Tax (to be determined)	
	TOTAL	