



# REQUEST FOR PROPOSAL DEMANDE DE PROPOSITION

Proposal to: Public Works and Government Services Canada

We hereby offer to sell to Her Majesty the Queen in right of Canada, in accordance with the terms and conditions set out herein, referred or attached hereto, the supplies and services listed herein or on any attached sheets at the price(s) set out therefor.

Propositions aux : Travaux publics et Services gouvernementaux Canada

Nous offrons par la présente de vendre à sa Majesté la Reine du chef du Canada, aux conditions énoncées ou incluses par référence dans la présente et aux annexes ci-jointes, les articles et les services énumérés ici et sur toute feuille ci-annexée, au(x) prix indiqué(s).

Solicitation No. - N° de l'invitation	Type - Genre	Update - Mise à jour
Solicitation closes - L'invitation prend fin at - à on - le	PWGSC File No. - N° de référence de TPSGC	

↑ Please ensure this area appears in window of return envelope ↑  
S'assurer que cette partie figure dans la fenêtre de l'enveloppe-réponse



Date of Solicitation - Date de l'invitation	
Address inquiries to - Adresser toute demande de renseignements à :	
Area code and Telephone No. Code régional et N° de téléphone	Facsimile No. N° de télécopieur
Destination	

**Instructions:**  
Municipal taxes are not applicable.

Unless otherwise specified herein by the Crown, all prices quoted are to be net prices in Canadian funds including Canadian customs duties, excise taxes, and are to be F.O.B, including all delivery charges to destination(s) as indicated. The amount of the Goods and Services Tax is to be shown as a separate item.

**Instructions:**  
Les taxes municipales ne s'appliquent pas.

Sauf indication contraire, énoncée par la Couronne, dans les présentes, tous les prix indiqués sont des prix nets, en dollars canadiens, comprenant les droits de douane canadiens, la taxe d'accise et doivent être F.A.B, y compris tous frais de livraison à la (aux) destination(s) indiquée(s). La somme de la taxe sur les produits et services devra être un article particulier.

Delivery required - Livraison exigée	Delivery offered - Livraison proposée
Vendor Name and Address - Raison sociale et adresse du fournisseur	
Facsimile No. - N° de télécopieur	
Telephone No. - N° de téléphone	
Name and title of person authorized to sign on behalf of vendor (type or print) - Nom et titre de la personne autorisée à signer au nom du fournisseur (caractère d'impression)	
Signature	Date

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## **PART 1 - GENERAL INFORMATION**

### **1.1 Security Requirements**

1. Before award of a contract, the following conditions must be met:
  - (a) the Bidder must hold a valid organization security clearance as indicated in Part 6 - Resulting Contract Clauses;
  - (b) the Bidder must provide the addresses of proposed sites or premises of work performance and document safeguarding as indicated in Part 3 - Section V Additional Information.
2. Before access to sensitive information is provided to the Bidder, the following conditions must be met:
  - (a) the Bidder's proposed individuals requiring access to sensitive information, assets or sensitive work sites must meet the security requirements as indicated in Part 6 - Resulting Contract Clauses;
  - (b) the Bidder's security capabilities must be met as indicated in Part 6 - Resulting Contract Clauses.
3. For additional information on security requirements, Bidders should refer to the [Contract Security Program](http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html) of Public Works and Government Services Canada (<http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html>) website.

### **1.2 Statement of Work**

The Work to be performed is detailed under Annex "A" of the resulting contract clauses.

### **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 from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

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## 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 [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/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](#) (2023-06-08) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of [2003](#), Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days  
Insert: 90 days

### 2.2 Submission of Bids

Bids must be submitted only to [Eric.Beaudry@tpsgc-pwgsc.gc.ca](mailto:Eric.Beaudry@tpsgc-pwgsc.gc.ca) by the date, time and place indicated on page 1 of the bid solicitation.

Due to the nature of the bid solicitation, bids transmitted by facsimile to PWGSC will not be accepted.

### 2.3 Former Public Servant

#### (a) Information Required

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 FPSs, 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.

#### (b) 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:

- (i) an individual;
- (ii) an individual who has incorporated;
- (iii) a partnership made of former public servants; or
- (iv) 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.

(c) **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 FPSs in receipt of a pension, as applicable:

- (i) name of former public servant;
- (ii) 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](#).

(d) **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:

- (i) name of former public servant;
- (ii) conditions of the lump sum payment incentive;
- (iii) date of termination of employment;
- (iv) amount of lump sum payment;
- (v) rate of pay on which lump sum payment is based;
- (vi) period of lump sum payment including start date, end date and number of weeks;
- (vii) 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.

## 2.4 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than 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.

## 2.5 Applicable Laws

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

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.

## 2.6 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.

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## **PART 3 - BID PREPARATION INSTRUCTIONS**

### **3.1 Bid Preparation Instructions**

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

- i. Section I: Technical Bid - One (1) electronic copy in PDF format
- ii. Section II: Financial Bid - One (1) electronic copy in PDF format
- iii. Section III: Certifications - One (1) electronic copy in PDF format
- iv. Section IV: Additional Information - One (1) electronic copy 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 submit their bids in unprotected (i.e. no password) PDF format by email.

The PWGSC email attachment size limit is 10MB. Emails exceeding 10MB will not be received. Bidders may split their submitted content into multiple emails by identifying, for example 1 of 3, 2 of 3 etc..

It is the sole responsibility of the Bidder to ensure a timely submission of their bid is made. Canada will not be responsible for late bids received at destination after the closing time, even if it was submitted before.

Bidders should also ensure their email message indicates the legal name of the bidding entity.

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

In their technical bid, Bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work described at Annex "A".

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

Bidders must submit their financial bid in Canadian Funds and in accordance with the Pricing Schedule detailed in Attachment 1 to Part 3.

#### **3.1.2 Exchange Rate Fluctuation**

C3011T (2013-11-06), Exchange Rate Fluctuation

#### **Section III: Certifications**

Bidders must submit the certifications and additional information required under Part 5.

#### **Section IV: Additional Information**

#### **3.1.3 Bidder's Proposed Sites or Premises Requiring Safeguarding Measures**

- 3.1.3.1** As indicated in Part 1 under Security Requirements, the Bidder must provide the full addresses of the Bidder's and proposed individuals sites or premises for which safeguarding measures are required for Work Performance:

Street Number / Street Name, Unit / Suite / Apartment Number  
City, Province, Territory / State  
Postal Code / Zip Code  
Country

- 3.1.3.2** The Company Security Officer must ensure through the Contract Security Program that the Contractor and individuals hold a valid security clearance at the required level, as indicated in Part 1, clause 1.1, Security Requirements.

### ATTACHMENT 1 TO PART 3 – PRICING SCHEDULE

The Bidder should complete this pricing schedule and include it in its financial bid. As a minimum, the Bidder must respond to this pricing schedule by inserting in its financial bid for each of the Milestone specified below (in Can \$) for each Milestone identified.

The rates specified below, when quoted by the Bidder, include the total estimated cost of all travel and living expenses that may need to be incurred for:

- a. Work described in Part 6, Resulting Contract Clauses, of this 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.
- b. travel between the successful bidder's place of business and the NCR; and
- c. 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.

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.

	<b>Deliverable</b>	<b>Due Date</b>	<b>Firm Price</b>
1	Report outline with data gaps (Follow-up meeting #1)	Within 20 business days of contract award	\$ _____ (20%)
2	Presentation of Part #1 results (Follow-up meeting #2)	Within 100 business days of contract award	\$ _____ (30%)
3	Presentation of combined Part #1 and Part #2 results (Follow-up meeting #3)	Within 190 business days of contract award	\$ _____ (30%)
4	Final report	Within 210 business days of contract award	\$ _____ (20%)
<b>Total Evaluated Proposal Price</b>			\$ _____

*Note: Payments will be made according to progress on the contract. The value of each milestone is subject to negotiation before contract award.*



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## **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 the Client and PWGSC will evaluate the bids on behalf of Canada.

### **4.2 Technical Evaluation**

#### **(a) Mandatory Technical Criteria:**

- (i) Each bid will be reviewed for compliance with the mandatory requirements of the bid solicitation. Any element of the bid solicitation that is identified specifically with the words "must" or "mandatory" is a mandatory requirement. Bids that do not comply with each and every mandatory requirement will be declared non-responsive and be disqualified.
- (ii) The mandatory technical criteria are described in Attachment 1 to Part 4.

#### **(b) Point-Rated Technical Criteria:**

- (i) Each bid will be rated by assigning a score to the rated requirements, which are identified in the bid solicitation by the word "rated" or by reference to a score. Bidders who fail to submit complete bids with all the information requested by this bid solicitation will be rated accordingly.
- (ii) The rated requirements are described in Attachment 1 to Part 4.

### **4.3 Financial Evaluation**

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

### **4.4 Basis of Selection - Highest Combined Rating of Technical Merit and Price**

- a. To be declared responsive, a bid must:
  - comply with all the requirements of the bid solicitation;
  - meet all mandatory criteria; and
  - obtain the required minimum of **100 points** overall for the technical evaluation criteria which are subject to point rating. The rating is performed on a scale of **160 points**.
- 2. Bids not meeting (a) or (b) or (c) will be declared non-responsive.
- 3. The selection 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 \$50,000 (50).

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

		Bidder 1	Bidder 2	Bidder 3
<b>Overall Technical Score</b>		120/135	98/135	82/135
<b>Bid Evaluated Price</b>		\$60,000.00	\$55,000.00	\$50,000.00
<b>Calculations</b>	<b>Technical Merit Score</b>	$120/135 \times 70 = 62.22$	$98/135 \times 70 = 50.81$	$82/135 \times 70 = 42.52$
	<b>Pricing Score</b>	$50/60 \times 30 = 25$	$50/55 \times 30 = 27.27$	$50/50 \times 30 = 30$
<b>Combined Rating</b>		87.22	78.08	72.52
<b>Overall Rating</b>		1st	2nd	3rd

## ATTACHMENT 1 TO PART 4 TECHNICAL CRITERIA

### Mandatory and Point Rated Requirements

Each project proposal must include the following:

- A description of the research framework and/or model to be used in each part of the study;
- A description of the high-level data requirements and any identified data challenges with proposed solutions;
- A summary of relevant work experience (i.e. publications, reports, or studies) including a description of the completed work, the name of the client organization, the project start and end dates (month/year to month/year) and the name, phone number and email of a client reference;
- The bidder resume and a resume for each proposed resource who will perform work related to the project;
- A description of the roles and responsibilities for the bidder and any proposed resources on the project; and
- The total cost of the project.

Canada reserves the right to request and contact client references to validate information in the proposal and associated documentation.

Accepted forms of demonstrated compliance include work samples (reports/publications), project descriptions, and resumes of applicable resources. Reference projects should meet the following criteria:

- For a large organization [500 Full-time Equivalent (FTE) or more]; and
- For a Government of Canada department, organization or agency. This also includes Federal Crown Corporations.

	Mandatory Requirement	Met	Demonstrated Compliance
M1	The Bidder's organization must demonstrate experience performing life cycle assessment within the last five (5) years, prior to Bid closing.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
M2	The Bidder's organization must demonstrate relevant experience with Input-Output models.	<input type="checkbox"/> Yes <input type="checkbox"/> No	

ID	Point Rated Criteria	Max Points	Demonstrated Experience
R1	<p>The Bidder's organization should demonstrate experience analyzing scientific or laboratory equipment, within the last five (5) years, prior Bid closing.</p> <p>Reference projects should meet the following criteria:</p>	<p>60 points maximum Points will be allocated per project.</p> <p>1 project = 20 pts 2 projects = 40 pts 3 or more projects = 60 pts</p>	

ID	Point Rated Criteria	Max Points	Demonstrated Experience
R2	<p>For a large organization [500 Full-time Equivalent (FTE) or more]; and</p> <p>For a Government of Canada department, organization or agency. This also includes Federal Crown Corporations.</p>		
	<p>The Bidder's organization should demonstrate experience using UNSPS codes. This experience does not need to be associated with life cycle assessment.</p> <p>Reference completed projects should meet the following criteria: Large organization [500 Full-time Equivalent (FTE) or more]; and For a Government of Canada department, organization or agency. This also includes Federal Crown Corporations</p>	<p>60 points maximum Points will be allocated per project.</p> <p>1 project = 20 pts 2 projects = 40 pts 3 or more projects = 60 pts</p>	
R3	<p>The Bidder organization should demonstrate experience using the selected framework or model to assess the distribution and use life cycle stages, in addition to the required stages of resource, production and end of life.</p> <p>Reference completed projects should meet the following criteria:</p> <p>Large organization [500 Full-time Equivalent (FTE) or more]; and</p> <p>For a Government of Canada department, organization or agency. This also includes Federal Crown Corporations.</p>	<p>40 points maximum Points will be allocated per project within which distribution and use life cycle stages were assessed.</p> <p>1 project = 20 pts 2 or more projects = 40 pts</p>	
Maximum points R1 to R3		160	

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## **PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION**

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

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default 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 will render the bid non-responsive or constitute a default under the Contract.

### **5.1 Certifications Required with the Bid**

Bidders must submit the following duly completed certifications as part of their bid.

#### **5.1.1 Integrity Provisions - Declaration of Convicted Offences**

In accordance with the Integrity Provisions of the Standard Instructions, all bidders must provide with their bid, **if applicable**, the declaration form available on the [Forms for the Integrity Regime](http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html) website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

### **5.2 Certifications Precedent to Contract Award and Additional Information**

The certifications and additional information listed below should be submitted with the bid but may be submitted afterwards. If any of these required certifications or additional information 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 provide the certifications or the additional information listed below within the time frame provided will render the bid non-responsive.

#### **5.2.1 Integrity Provisions – Required Documentation**

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real property agreement of the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

#### **5.2.2 Security Requirements – Required Documentation**

In accordance with the [requirements of the Contract Security Program](http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html) of Public Works and Government Services Canada (<http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html>), the Bidder must provide a completed Contract Security Program Application for Registration (AFR) form to be given further consideration in the procurement process.

Bidders are reminded to obtain the required security clearance and, as applicable, security capabilities promptly. As indicated above, bidders who do not provide all the required information at bid closing will be given the opportunity to complete any missing information from the AFR form within a period set by the Contracting Authority. If that information is not provided within the timeframe established by the Contracting Authority (including any extension granted by the Contracting Authority in its discretion), or if Canada requires further information from the bidder in connection with assessing the request for security clearance (i.e., information not required by the AFR form), the Bidder will be required to submit that information within the time period established by the Contracting Authority, which will not be less than 48 hours. If, at any time, the Bidder fails to provide the required information within the timeframe established by the Contracting Authority, its bid will be declared non-compliant.

### **5.2.3 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](#) 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.

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](#)" list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed annex titled [Federal Contractors Program for Employment Equity - Certification](#), before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

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## **PART 6 RESULTING CONTRACT CLAUSES**

### **6.1 Security Requirements**

The following security requirements, applies to and forms part of the Contract.

1. The Contractor must, at all times during the performance of the Contract, hold a valid Designated Organization Screening (DOS), and obtain approved Document Safeguarding Capability at the level of PROTECTED A, issued by the Contract Security Program (CSP), Public Works and Government Services Canada (PWGSC).
2. The Contractor personnel requiring access to PROTECTED information, assets, or sensitive site(s) must EACH hold a valid RELIABILITY STATUS, granted or approved by the CSP, PWGSC.
3. The Contractor MUST NOT utilize its facilities to process, produce, or store PROTECTED information or assets until the CSP, PWGSC has issued written approval.
4. Processing of PROTECTED materiel electronically at the Contractor site is NOT permitted under this Contract.
5. Subcontracts which contain security requirements are NOT to be awarded without the prior written permission of the CSP, PWGSC.
6. The Contractor must comply with the provisions of the:
  - (a) Security Requirements Check List and security guide (if applicable), attached at Annex D;
  - (b) *Contract Security Manual* (Latest Edition).

### **6.2 Statement of Work**

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

### **6.3 Standard Clauses and Conditions**

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/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.

#### **6.3.1 General Conditions**

[2010B](#) (2022-12-01), General Conditions - Professional Services (Medium Complexity) apply to and form part of the Contract.

### **6.4 Term of Contract**

#### **6.4.1 Period of the Contract**

The period of the Contract is from Contract award date to February 28, 2025 inclusively.

## **6.5 Authorities**

### **6.5.1 Contracting Authority**

The Contracting Authority for the Contract is:

Eric Beaudry  
Supply Specialist  
Public Services and Procurement Canada  
Acquisitions Branch  
Departmental Acquisitions Services  
[Eric.Beaudry@tpsgc-pwgsc.gc.ca](mailto:Eric.Beaudry@tpsgc-pwgsc.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**

The Technical Authority for the Contract is: [\(To be entered at contract award\)](#)

Name:  
Title:  
Organization:  
Address:  
Telephone:  
E-mail address:

The Project Authority 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.

### **6.5.3 Contractor's Representative [To be entered at contract award](#)**

Name:  
Title:  
Organization:  
Address:  
Telephone:  
E-mail address:

## **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: 2012-2](#) of the Treasury Board Secretariat of Canada.



## **6.7 Payment**

### **6.7.1 Method of Payment – Milestone Payments**

Canada will make milestone payments in accordance with the Schedule of Milestones detailed in the Contract and the payment provisions of the Contract if:

- a. an accurate and complete claim for payment using [PWGSC-TPSGC 1111](#), Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b. all the certificates appearing on form [PWGSC-TPSGC 1111](#) have been signed by the respective authorized representatives;
- c. all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.

### **6.7.2 Invoicing Instructions**

The Contractor must submit invoices in accordance with the information required in the General Conditions.

By submitting invoices, the Contractor is certifying that the goods and services have been delivered and that all charges are in accordance with the Basis of Payment provision of the Contract, including any charges for work performed by subcontractors.

The Contractor must provide the original of each invoice to the Technical Authority. On request, the Contractor must provide a copy of any invoices requested by the Contracting Authority.

### **6.7.3 Electronic Payment of Invoices – Contract**

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s):  
Direct Deposit (Domestic and International);

## 6.8 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*).

## 6.9 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 general conditions 2010B (2022-12-01), , General Conditions - Professional Services (Medium Complexity);
- (c) Annex A, Statement of Work;
- (d) Annex B, Basis of Payment;
- (e) Annex C, Security Requirements Check List;
- (f) the Contractor's bid dated \_\_\_\_\_ (*insert date of bid*)

## 6.10 Dispute Resolution

The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.

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.

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.

Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "Dispute Resolution".

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**ANNEX "A"**  
**STATEMENT OF WORK**

**Conducting a life cycle assessment for large and complex scientific equipment**

**1. BACKGROUND**

The Federal Sustainable Development Strategy outlines the Government of Canada's sustainable development goals. These goals are supported by the Greening Government Strategy, which outlines a set of commitments toward net-zero carbon, climate-resilient, and green operations. In a 2008 research report<sup>1</sup>, scientific laboratories were reported to typically use five to ten times more energy per square meter than office buildings. Thus, improving the sustainability of federal laboratories is critical to achieving the Government of Canada's greening goals.

In Budget 2022, the Government announced Public Services and Procurement Canada (PSPC) would develop new tools, guidelines and targets to support the adoption of green procurement across the federal government. This work will assist with the transition to a net-zero, circular economy through green procurement, which includes life cycle assessment principles and the adoption of clean technologies and green products and services. Within PSPC, it is the Laboratories Canada initiative (Labs Canada) which will facilitate the greening of laboratories.

Among other specific actions, Labs Canada and Environment and Climate Change Canada (ECCC) have committed to identify the categories within the existing federal inventory of large and complex scientific equipment that have the Highest environmental impacts (HICATs). Once the HICATs are identified, the products within those categories will be analyzed for product-specific environmental impacts. The results of this two-part study will inform the development of measures to address Greenhouse gas (GHG) emissions related to the procurement of scientific equipment across federal science laboratories (e.g. the development of procurement criteria).

**2. OBJECTIVE**

Very limited data exists on the environmental impact of the procurement, use, and disposal of scientific and laboratory equipment across the Government of Canada. As a result, Labs Canada, in partnership with ECCC, requires the services of an expert to assess and evaluate embodied carbon (GHG emissions), embodied energy, and embodied water, associated with the large and complex scientific equipment assets within the federal scientific equipment inventory data.

**3. SCOPE**

For the study, the contractor must assess Labs Canada's inventory data of approximately 10,000 pieces of scientific and laboratory equipment assets from participating Science-based departments and agencies (SBDAs). The assessment will be comprised of a study broken down into two interrelated parts. Both parts of the study will involve the expert assessing categories or products for environmental impact, analyzing the results, and recommending measures to address these environmental impacts related to the procurement of scientific equipment across federal science laboratories (e.g. the development of procurement criteria).

**Part #1**

The contractor must identify the HICATs among the categories in the inventory of scientific equipment, assess the impact of those categories and develop applicable environmental criteria for them. The list of equipment categories, defined by the United Nations Standard Products and Services Codes (UNSPSC), considered in scope for this assessment are outlined in Annex A.

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<sup>1</sup> *Laboratories for the 21<sup>st</sup> Century: An Introduction to Low-Energy Design* (<https://www.nrel.gov/docs/fy08osti/29413.pdf>), United States Environmental Protection Agency (EPA) and the United States Department of Energy, August 2008

The focus of Part #1 is on a partial Life cycle assessment (LCA) of the embodied carbon (GHG emissions), embodied energy, and embodied water associated with large and complex scientific equipment within the federal science community. The methodology used to assess categories is open to definition, but use of normalization, averages, archetypes, and/or proxies for the equipment in each category are allowed. At a minimum, the LCAs must consider the raw material extraction, production, and end of life stages of the life cycle in the assessment. If data availability and model parameters allow, distribution and use stages should also be assessed.

## **Part #2**

For the Part #2 of the study, the contractor must estimate the product-specific environmental impacts associated with the HICATs identified in Part #1 and must develop applicable environmental criteria for the assessed products. The focus is on a product-specific LCA of the embodied carbon (GHG emissions), embodied energy including energy use, and embodied water for each product in the Labs Canada inventory that is part of a HICAT. The methodology used to assess categories is open to definition as with Part #1. All stages of the life cycle must be considered in the product-specific LCA resources including raw material extraction, production, distribution, use, and end of life; however, proxies or extrapolation may be required for the distribution and use stages.

## **Data Limitations**

The data available for both parts of the study has several data limitations that must be considered.

- The inventory data generally includes manufacturer name, model number, equipment description, equipment location (city/province), equipment age, standard life expectancy, and UNSPS code (commodity level) for each equipment asset.
- The inventory data includes equipment with a wide variety of ages. If model parameters require limiting the age of equipment included in the assessment, this should be stated in the outline of data requirements.
- Labs Canada may be able to provide estimates or proxies for procurement cost and usage rates though data quality will be limited.
- Labs Canada is unlikely to provide information related to dimensions or mechanical requirements for equipment as availability of this information varies dramatically across the inventory.
- Labs Canada is unlikely to provide information related to consumables during the use stage as the availability of this information varies dramatically across the inventory.
- Labs Canada cannot provide any supplier level data such as resources, bill of materials, or energy sources used in production of equipment, or location of production.

## **4. TASKS**

The contractor must perform the following tasks. Tasks and deliverables are to be completed according to the project schedule outlined in section "5. Deliverables and Project Schedule."

- 4.1 Prepare and organize a virtual kick-off meeting.
- 4.2 Prepare and provide an outline of data requirements for Part #1 such that Labs Canada can prepare the inventory data for contractor use.
- 4.3 Check the provided data for completeness and complete any missing concordances as required (crosswalk analysis).
- 4.4 Prepare and organize a virtual follow-up meeting (#1) to discuss data gaps, crosswalk issues, and groupings of equipment categories for assessment and reporting results (see Annex A).
- 4.5 Quantify the partial life cycle embodied carbon (GHG emissions), embodied energy (energy use), and embodied water (water use) for each category of scientific equipment. At a minimum, the raw material extraction, production, and end of life stages must be assessed and quantified. If

data availability and model parameters allow, the distribution and use stages should be also assessed and quantified.

4.6 Analyze the results and identify the HICAT groupings of scientific equipment

4.7 Prepare and organize a virtual follow-up meeting (#2) to present the results of Part #1 in PowerPoint format (PPT) and discuss which HICATs to assess at the product level in Part #2. To facilitate those discussions, the presentation must include a matrix/table showing HICATs and the environmental impact by type (carbon, energy, water). An agreed upon list of HICATs to be assessed at the product level will be an outcome of this meeting.

4.8 Prepare and provide an outline of data requirements for Part #2, if different from the data needs of Part #1, such that Labs Canada can prepare the inventory data for contractor use.

4.9 Check the provided data for completeness and complete any missing concordances as required and if different from the data needs of Part #1 (crosswalk analysis).

4.10 Prepare and organize a virtual follow-up meeting (#3) to discuss data gaps, crosswalk issues, HICATs, and products to be assessed and reported on.

4.11 Quantify the life cycle embodied carbon (GHG emissions), embodied energy (energy use), and embodied water (water use) for each product from the inventory that is identified as a HICAT in Part #1. All life cycle stages must be assessed and quantified.

4.12 Analyze the results of the product-specific assessments.

4.13 Prepare and organize a virtual follow-up meeting (#4) to present the combined results of Part #1 and Part #2 in PowerPoint format (PPT).

4.14 Prepare and submit a draft report for the study (Part #1 and Part #2 combined) in electronic format (Word format) with supporting datasets and graphs (Excel format) for Labs Canada and ECCC.

4.15 Prepare and organize a final virtual meeting (#5) to discuss comments on the draft report for the study.

4.16 Prepare and submit a final report for the study in electronic format (both Word and PDF formats) with supporting datasets and graphs (Excel format) to the project authority.

## **5. DELIVERABLES AND PROJECT SCHEDULE**

5.1 The contractor must provide to Labs Canada the following deliverables in electronic format:

5.1.1 Work plan following the kick-off meeting.

5.1.2 Outline of data requirements for Part #1 such that Labs Canada can prepare the inventory data.

5.1.3 Notes of follow-up meeting #1, including updated work plan as needed.

5.1.4 Presentation of Part #1 results in PowerPoint format (PPT).

5.1.5 Notes of follow-up meeting #2, including the agreed upon list of HICATs to be assessed at the product level in Part #2.

5.1.6 Outline of data requirements for Part #2 such that Labs Canada can prepare the inventory data, if different from requirements for Part #1.

5.1.7 Notes of follow-up meeting #3, including updated work plan as needed.

5.1.8 Notes of follow-up meeting #4

5.1.9 Presentation of combined Part #1 and Part #2 results in PowerPoint format (PPT).

5.1.10 Notes of follow-up meeting #5.

5.1.11 Draft final report for the study (Part #1 and Part #2 combined) in Word and PDF format and accompanying datasets in Excel format. The report must include:

5.1.11.1 Executive summary prepared in both of Canada's official languages;

5.1.11.2 Supporting graphs, tables, and figures;

5.1.11.3 Methodology and limitations;

5.1.11.4 Assessment results for Part #1 including:

- GHG emissions, energy, and water scores (top scores and residual) for each grouping of scientific equipment;
- Intensity scores by environmental impact area which can be amortized over any relevant metric such as dollars based on procurement price, years based on equipment life span, or annual practical capacity (e.g. m<sup>3</sup> water/x for embodied water, MJ energy/x for embodied energy, and kg CO<sub>2</sub>eq/x for embodied carbon where x represents the amortization metric), where the information is presented as a matrix/table with HICATs grouping on one axis and impact areas (water, energy, carbon) on the other; and
- Contribution analysis showing the five top upstream sources of emissions for each grouping in each of the three environmental impact areas.

5.1.11.5 Assessment results for Part #2 including:

- GHG emissions, energy, and water rates or scores for each product in the inventory identified as a HICAT in Part #1;
- Comparison of environmental impacts identified in Part #2 to those identified in Part #1, grouped by UNSPSC, to demonstrate consistency between the methodology and results of the two parts of the study;
- Intensity scores by environmental impact area (e.g. MJ energy/\$ for embodied energy, kg CO<sub>2</sub>eq/\$ for embodied carbon, m<sup>3</sup> water/\$ for embodied water), including a matrix/table showing each product and the environmental impact by life cycle stage (resources, production, distribution, use, and disposal); and
- Contribution analysis showing the five top upstream sources of GHGs or energy use for each product.

5.1.11.6 Technical discussion with conclusions; and

5.1.11.7 Recommendations on measures to reduce environmental impacts in the procurement and management of scientific equipment. This may include, but is not limited to recommendations related to:

- Procurement reduction or streamlining;
- Procurement options such as alternative products or supplemental equipment to purchase (i.e. timers);
- Usage trackers or processes to implement (i.e. remote activity monitoring);
- Behavioural and cultural changes within the laboratory environment; and/or
- Maintenance activities.

5.1.12 Notes from final meeting

5.1.13 Final report in Word and PDF format, as well as final accompanying datasets in Excel format.

## 5.2 Milestones and events

5.2.1 The contractor will prepare and organize a kick-off meeting with the project authority to occur no later than 10 business days after contract award.

5.2.2 The contractor will prepare and organize a follow-up meeting (#1) to occur no later than 20 business days after contract award.

5.2.3 The contractor will prepare and organize a follow-up meeting (#2) to occur no later than 100 business days after contract award.

5.2.4 The contractor will prepare and organize a follow-up meeting (#3) to occur no later than 110 business days after contract award.

5.2.5 The contractor will prepare and organize a follow-up meeting (#4) to occur no later than 190 business days after contract award.

5.2.6 The contractor will prepare and organize a follow-up meeting (#5) to occur no later than 210 business days after contract award.

5.2.7 The contractor must complete all tasks and deliverables related to the study by February 28, 2025.

5.2.8 If delays caused by Labs Canada (i.e. data not provided in a timely fashion) impact the ability to meet interim deadlines, the contractor can reach out to the primary contact to discuss where flexibility in the timeline of milestones and events might exist.

## 6. CONSTRAINTS

6.1 All work must be completed by February 28, 2025.

6.2 All meetings must be conducted during business hours (between 9:00 a.m. and 5:00 p.m.) Eastern Standard Time.

6.3 All meetings must be conducted virtually using MS Teams, so no travel is required to perform the work.

6.4 All correspondence and deliverables including (but not limited to) documents, reports and invoices must be provided in electronic format as described under sections “4. Tasks” and “5. Deliverables and Project Schedule.”

6.5 All deliverables must be completed in English, except as indicated in section 5.1.6.1 and section 5.1.13.1.

6.6 The contractor must make an effort to ensure that their operations and performance of the work align with the Treasury Board [Policy on Green Procurement](#) and [Greening Government Strategy](#).

6.7 If available, a copy of the contractor's environmental performance report should be provided to project authority.

## 7. CLIENT SUPPORT

7.1 The project authority will provide the Labs Canada's federal scientific equipment inventory data as described in section 3. Scope and the consultant provided data outline.

7.2 The project authority will NOT provide supplier level data or information such as resources, bill of materials, or energy sources used in production of equipment, or location of production.

7.3 The project authority will NOT provide the contractor with a physical space to perform the work, nor will it cover costs associated with physical space.

7.4 The project authority will NOT cover costs associated with travel and does not support the use of travel associated with this work.

## Appendix A to Annex A

### Scientific Equipment Categories Considered in Scope by UNSPSC

The categories of scientific equipment that are in scope for the studies are based on the UNSPSC and will be focused on eight broad families as outlined in the table below.

UNSPSC Family	Description
24130000	Industrial refrigeration (includes pharmaceutical refrigerators and freezers)
41100000	Laboratory and scientific equipment
41110000	Measuring and observing and testing instruments
41120000	Laboratory supplies and fixtures
42180000	Patient exam and monitoring products
42270000	Respiratory and anesthesia and resuscitation products
42280000	Medical sterilization products
42290000	Surgical products

The actual categories to be used in the assessment for Part #1 will be defined at the 7-8 digital level (class or commodity) depending on the uniqueness of the equipment at those levels. An initial list of categories of interest for the assessment are outlined in the table below. This list considers whether the sub-groups are actually represented in the existing inventory and whether the sub-group actually relates to scientific research. The actual categories to be assessed in Part #1 will be defined jointly by the project authority and contractor during the first follow-up meeting. The products to be assessed in Part #2 will be dependent on which categories are identified as HICATs through Part #1.

UNSPSC commodities	Description
23151610	Micropipette puller
23151804	Reactors or fermenters or digesters
24131500	Industrial refrigerators
24131501	Combined refrigerator freezers
24131503	Walk in refrigerators
24131504	Pharmaceutical refrigerator and freezer
24131508	Cabinet refrigerator
24131509	Under counter refrigerator
24131510	Counter refrigerator
24131601	Chest freezers
24131602	Upright cabinet freezer
24131604	Freeze drying equipment
24131605	Walk in freezers
24131609	Under counter cabinet freezer
24131610	Counter cabinet freezer
40151502	Vacuum pumps



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40151503	Centrifugal pumps
40161701	Centrifuge
40161706	Nitrogen generator
41101518	Laboratory blenders or emulsifiers
41101519	Laboratory cell disruptor
41101701	Laboratory mills
41101703	Tissue grinders
41101705	Laboratory crushers or pulverizers
41101706	Laboratory disintegrators
41101707	Laboratory presses
41101708	Laboratory grinder or polisher
41101802	X ray generators
41101803	Coulometers
41101806	Magnetometers
41101810	Diffraction meters
41101811	Electron probe x ray micro analyzer
41102400	Laboratory heating and drying equipment
41102404	Laboratory heaters
41102406	Laboratory hotplates
41102421	Temperature cycling chambers or thermal cyclers
41102422	Dry baths or heating blocks
41102423	Stirring hotplates
41102424	Slide warmers
41102425	Slide dryers
41102901	Tissue embedding stations
41102909	Tissue processors
41102916	Microtomes
41102917	Microtome blades
41102929	Histology ultrasonic cleaner
41102994	Ultra cold or ultralow upright cabinets or freezers
41103000	Laboratory cooling equipment
41103003	Cryostats
41103005	Ultra cold or ultralow upright cabinets or freezers
41103006	Cryogenic or liquid nitrogen freezers
41103011	General purpose refrigerators or refrigerator freezers
41103012	Flammable material storage refrigerators or refrigerator freezers
41103013	Explosion proof refrigerators or refrigerator freezers
41103014	Chromatography refrigerators
41103017	Flammable material storage freezers
41103020	Ultra-cold or ultralow chest freezers
41103023	Laboratory chillers

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41103202	Laboratory washing machines
41103207	Microplate washers
41103301	Liquid scintillation counters
41103303	Densitometers
41103305	High vacuum equipment
41103309	Flow injection analysis equipment
41103312	Viscosimeters
41103316	Pycnometers
41103326	Wind tunnel
41103327	Current meter
41103406	Isolation glove boxes
41103407	Anaerobic chamber
41103409	Heated reach in environmental or growth chambers
41103410	Refrigerated and heated reach in environmental or growth chambers
41103416	Temperature cycle chamber
41103418	Temperature and humidity walk in environmental chamber
41103502	Fume hoods or cupboards
41103504	Laminar flow cabinets or stations
41103506	PCR enclosures
41103507	HEPA filtered enclosures
41103515	Laboratory gas generator
41103517	Biological safety cabinet
41103700	Laboratory baths
41103701	Circulating baths
41103702	Thermostatic baths
41103705	Water baths
41103709	Refrigerated baths
41103801	Laboratory mixers
41103803	Stirring tables
41103806	Magnetic stirrers
41103810	Overhead stirrers
41103811	Orbital shakers
41103813	Rotating shakers
41103814	Vortex mixers
41103817	Laboratory reactor
41103818	Microplate shaker
41103901	Microcentrifuges
41103903	Benchtop centrifuges
41103904	Refrigerated benchtop centrifuges
41103905	Floor centrifuges
41103906	Refrigerated floor centrifuges

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41103907	Ultracentrifuges
41103908	Vacuum centrifuges
41103914	Cytocentrifuge
41104000	Sampling equipment
41104001	Sample changers
41104002	Sample oxidizer
41104008	Air samplers or collectors
41104019	Sampling manifolds
41104021	Fraction collector
41104022	Sample shaper
41104202	Deionization or demineralization equipment
41104206	Ultra pure water systems
41104207	Water analysis systems
41104300	Fermentation equipment
41104301	Standard fermentation units
41104304	Digestion systems
41104401	Gravity convection general purpose incubators
41104405	Shaking incubators
41104406	Plate incubators
41104411	Dry wall single chamber carbon dioxide incubators
41104423	Refrigerated incubators
41104425	Carbon dioxide incubator
41104499	Laboratory ovens and accessories
41104501	Laboratory mechanical convection ovens
41104502	Gravity convection ovens
41104507	Laboratory microwave ovens
41104509	Vacuum ovens
41104510	Drying cabinets or ovens
41104511	Hybridization ovens or incubators
41104603	Tube furnaces
41104701	Freeze dryers or lyophilizers
41104802	Di distillation units
41104803	Laboratory evaporators
41104804	Vacuum or rotary evaporators
41104805	Nitrogen blowdown evaporators
41104814	Laboratory heat exchange condensers
41104816	Vacuum or centrifugal concentrators
41104819	Cell harvester
41105001	Laboratory separators
41105101	Laboratory vacuum pumps
41105104	Syringe pumps

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41105105	Metering pumps
41105106	Chromatography pumps
41105109	Rotary vane pumps
41105206	Immunohistochemistry autostainer
41105340	Electrophoresis system
41105342	Kit and reagent for agarose gel electrophoresis
41105505	High throughput screening HTS systems in nucleic acid purification
41106100	Deoxyribonucleic acid DNA analysis kits
41110000	Measuring and observing and testing instruments
41111501	Electronic toploading balances
41111502	Laboratory balances
41111507	Bench scales
41111509	Floor or platform scales
41111513	Moisture balances
41111517	Analytical balances
41111519	Crane scale
41111521	Thermogravimeter
41111601	Micrometers
41111605	Strain gauges
41111614	Height gauges
41111615	Laser measuring systems
41111703	Stereo or dissecting light microscopes
41111709	Binocular light compound microscopes
41111710	Combination electron and light microscopes
41111711	Electron microscopes
41111712	Inverted microscopes
41111713	Magnifiers
41111715	Telescopes
41111716	Borescope inspection equipment
41111718	Metallurgical microscopes
41111720	Scanning electron microscopes
41111721	Transmission electron microscopes
41111722	Fluorescent microscopes
41111723	Scanning light or spinning disk or laser scanning microscopes
41111724	Scanning probe microscopes
41111725	Polarizing microscopes
41111728	Wide field microscopes
41111729	Microscope eyepieces
41111737	Videoscopes
41111745	Micromanipulator
41111748	Multimedia image microscope

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41111759	Trinocular light compound microscope
41111766	Handheld digital microscope
41111801	Eddy current examination equipment
41111803	Magnetic particle examination equipment
41111804	Ultrasonic examination equipment
41111808	X ray radiography examination equipment
41111820	Fluorescence detector
41111929	Radiation detectors
41111939	Acoustic sensors
41111942	Opacity or dust or visibility sensors
41111943	Electrical resistance or conductance sensors
41111946	Electrical inductance sensors
41111970	Temperature sensor
41111973	Particle counter
41111975	Magnetic field monitor
41112103	Fiber sensors
41112110	Pressure transducer
41112201	Calorimeters
41112204	Pyrometers
41112209	Thermostats
41112220	Laboratory freezer or refrigerator thermometers
41112221	Laboratory incubator thermometers
41112243	Laboratory heat block thermometer
41112244	Calibration reference thermometer
41112301	Hygrometers
41112302	Psychrometers
41112303	Temperature humidity testers
41112417	Vapor pressure measuring instrument
41112501	Flowmeters
41112502	Rheometers
41112700	Laboratory seed and feed testing equipment
41112908	Echo sounder
41113002	Chemiluminescence or bioluminescence analyzers
41113005	Ion analyzers
41113009	Thermal differential analyzers
41113010	Thermo gravimetry analyzers
41113025	Monochromators
41113026	Nephelometers
41113027	Osmometers
41113029	Polarographs
41113030	Radiochromatographic scanner

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41113037	Microplate readers
41113040	Colony counter
41113041	Elemental analyzer
41113048	Color fastness tester
41113049	Combustion analyzer
41113055	Fuel gum tester
41113100	Gas analyzers and monitors
41113101	Automotive exhaust emission analyzers
41113102	Catalytic combustion analyzers
41113103	Chemical absorption gas analyzers
41113105	Hydrocarbons analyzers or detectors
41113106	Infra-red or ultra violet absorption analyzers
41113108	Nitrogen oxide analyzers
41113110	Oxygen gas analyzers
41113113	Sulfur dioxide analyzers or detectors
41113115	Radon detectors
41113119	Dissolved carbon dioxide analyzers
41113300	Liquid and solid and elemental analyzers
41113308	Electrolyte analyzers
41113315	Organic carbon analyzers
41113322	Nitrogen or nitrate or nitrite analyzer
41113328	Mercury analyzer
41113331	Freezing and thawing tester
41113333	Zeta potential analyzer
41113402	Alpha beta counters
41113403	Beta counters
41113405	Gamma counters
41113407	X ray microanalyzers
41113614	Electromagnetic field meters
41113621	Impedance meters
41113630	Multimeters
41113633	Potentiometers
41113637	Voltage or current meters
41113638	Oscilloscopes
41113646	Temperature calibrator or simulator
41113660	Oscillator tester
41113684	Voltage and current meter calibrator
41113687	Brake testing machine
41113708	Power meters
41113709	Modulation meters
41113711	Network analyzers

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41113726	Heat resistance tester
41113735	Microwave equipment tester
41113737	Noise meter
41113808	Gravimeters
41113824	Soil head permeability tester
41113903	Particle size measuring apparatus
41113904	Penetrometers
41113907	Porosimeters
41114108	Vibrometers
41114501	Dynamometers
41114503	Extensometers
41114508	Surface testers
41114509	Tensiometers
41114518	Zipper endurance tester
41114520	Drop tester
41114524	Hydraulic tester
41114601	Abrasion testers
41114602	Compression testers
41114611	Hardness testers
41114612	Impact testers
41114620	Shock testing apparatus
41114622	Torsion testers
41114624	Vibration tester
41114631	Stress tester
41114632	Tensile strength tester
41114723	Bursting strength tester
41115102	Goniometer
41115301	Light absorption meters
41115303	Frequency analyzers
41115306	Interferometers
41115309	Lux or light meter
41115311	Photometer
41115312	Bench refractometers or polarimeters
41115318	Colorimeters
41115319	Tube or plate readers
41115320	Signal generators
41115321	Infrared imagers
41115323	Function generator
41115324	Ultraviolet sensor
41115325	Thermal imager
41115328	Wave form synthesizer

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41115339	Ellipsometer
41115401	Spectrofluorimeters or fluorimeters
41115403	Spectrometers
41115404	Mass spectrometers
41115405	Proton spectrometers
41115406	Spectrophotometers
41115407	Atomic absorption AA spectrometers
41115408	Infrared spectrometers
41115409	Nuclear magnetic resonance NMR spectrometers
41115411	Inductively coupled plasma ICP spectrometers
41115413	Flow cytometer
41115501	Sonars
41115502	Sonometers
41115503	Sound measuring apparatus or decibel meter
41115515	Hydrophone
41115603	Ph meters
41115606	Ion selective electrode ise meters
41115609	Conductivity meters
41115611	Dissolved oxygen meters
41115612	Dissolved oxygen probes
41115703	Gas chromatographs
41115704	Ion chromatographs
41115705	Liquid chromatographs
41115707	High pressure liquid chromatograph chromatography
41115714	Autosampler
41115715	Injectors
41115721	Fast protein liquid chromatography FPLC system
41115728	Ion chromatography IC column
41115733	Ion chromatography IC eluent generator
41115807	Chemistry analyzers
41115811	Deoxyribonucleic sequence analyzers
41115823	Protein analyzers
41115837	Particle counter and sizer
41115843	Molecular diagnostics analyzer
41115853	Automated high performance chromatography HPLC analyzer system
41115859	Gas liquid chromatography and mass spectrometry analyzer
41115862	Nucleic acid extraction, isolation and purification analyzer
41115864	Multiplex analyzer
41115866	Biomagnetic separation analyzer
41116018	Particle sizer and counter analyzer reagent
41121502	Laboratory diluters



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41123000	Laboratory desiccators and desiccants
41131501	Automated cell counter
41151624	Pipetting and diluting system for clinical use
41171617	Microbiological incubator
41191506	Microscopes and accessories
41191601	Automated slide stainer
42143711	Phototherapy radiometers
42183016	Ophthalmic spectrophotometers
42201609	Medical magnetic resonance imaging MRI scanners
42201612	Nuclear magnetic resonance NMR spectroscopic systems
42201724	Medical ultrasound or doppler or echocardiograph transducer accessories
42201812	Medical x ray table or stand or chair or cabinet
42201847	X ray systems (not mobile)
42201848	Digital x ray imaging systems
42281500	Autoclave and sterilizer equipment and accessories
42281508	Steam autoclaves or sterilizers
43211500	Computers
43211503	Notebook computers
43211507	Desktop computers
46171624	X ray baggage inspection system
47101521	Ultrafiltration equipment
60104808	Sound meters
60104810	Spectroscopes
60104814	Radiometer

## Appendix B to Annex A

### Terminology

CO<sub>2</sub>eq: Carbon Dioxide equivalent  
ECCC: Environment and Climate Change Canada  
GGF: Greening Government Fund  
GHG: Greenhouse gases  
HICATs: categories of goods and services with highest environmental impact  
Labs Canada: Laboratories Canada  
LCA: Life Cycle Assessment  
MJ: Mega Joule  
PSPC: Public Services and Procurement Canada  
SBDAs: Science-based departments and agencies  
UNSPSC: United Nations Standard Product and Services Codes

**ANNEX "B"**  
**BASIS OF PAYMENT**

The Contractor will be paid in accordance with the following Basis of Payment for Work pursuant to the Contract.

**(To be completed upon contract award)**

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

<b>Milestone No.</b>	<b>Deliverable</b>	<b>Due Date</b>	<b>Firm Price</b>
1	Report outline with data gaps (Follow-up meeting #1)	Within 20 business days of contract award	\$ _____ (20%)
2	Presentation of Part #1 results (Follow-up meeting #2)	Within 100 business days of contract award	\$ _____ (30%)
3	Presentation of combined Part #1 and Part #2 results (Follow-up meeting #4)	Within 190 business days of contract award	\$ _____ (30%)
4	Final report	Within 210 business days of contract award	\$ _____ (20%)
<b>Total Evaluated Proposal Price</b>			\$ _____

## ANNEX "C" SECURITY REQUIREMENTS CHECK LIST



Government of Canada  
Gouvernement du Canada

Contract Number / Numéro du contrat 10077568
Security Classification / Classification de sécurité UNCLASSIFIED

### SECURITY REQUIREMENTS CHECK LIST (SRCL) LISTE DE VÉRIFICATION DES EXIGENCES RELATIVES À LA SÉCURITÉ (LVERS)

PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE		
1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine	Public Works and Government Services Canada	2. Branch or Directorate / Direction générale ou Direction SPIB
3. a) Subcontract Number / Numéro du contrat de sous-traitance	3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant	
4. Brief Description of Work / Brève description du travail Consultant Contract		
5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées?	<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui
5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?	<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui
6. Indicate the type of access required / Indiquer le type d'accès requis		
6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c) (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)	<input type="checkbox"/> No Non	<input checked="" type="checkbox"/> Yes Oui
6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? No access to PROTECTED and/or CLASSIFIED information or assets is permitted. Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé.	<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui
6. c) Is this a commercial courier or delivery requirement with no overnight storage? S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit?	<input checked="" type="checkbox"/> No Non	<input type="checkbox"/> Yes Oui
7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès		
Canada <input checked="" type="checkbox"/>	NATO / OTAN <input type="checkbox"/>	Foreign / Étranger <input type="checkbox"/>
7. b) Release restrictions / Restrictions relatives à la diffusion		
No release restrictions Aucune restriction relative à la diffusion <input checked="" type="checkbox"/>	All NATO countries Tous les pays de l'OTAN <input type="checkbox"/>	No release restrictions Aucune restriction relative à la diffusion <input type="checkbox"/>
Not releasable À ne pas diffuser <input type="checkbox"/>		
Restricted to: / Limité à: <input type="checkbox"/>	Restricted to: / Limité à: <input type="checkbox"/>	Restricted to: / Limité à: <input type="checkbox"/>
Specify country(ies): / Préciser le(s) pays:	Specify country(ies): / Préciser le(s) pays:	Specify country(ies): / Préciser le(s) pays:
7. c) Level of information / Niveau d'information		
PROTECTED A PROTÉGÉ A <input checked="" type="checkbox"/>	NATO UNCLASSIFIED NATO NON CLASSIFIÉ <input type="checkbox"/>	PROTECTED A PROTÉGÉ A <input type="checkbox"/>
PROTECTED B PROTÉGÉ B <input type="checkbox"/>	NATO RESTRICTED NATO DIFFUSION RESTREINTE <input type="checkbox"/>	PROTECTED B PROTÉGÉ B <input type="checkbox"/>
PROTECTED C PROTÉGÉ C <input type="checkbox"/>	NATO CONFIDENTIAL NATO CONFIDENTIEL <input type="checkbox"/>	PROTECTED C PROTÉGÉ C <input type="checkbox"/>
CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>	NATO SECRET NATO SECRET <input type="checkbox"/>	CONFIDENTIAL CONFIDENTIEL <input type="checkbox"/>
SECRET SECRET <input type="checkbox"/>	COSMIC TOP SECRET COSMIC TRÈS SECRET <input type="checkbox"/>	SECRET SECRET <input type="checkbox"/>
TOP SECRET TRÈS SECRET <input type="checkbox"/>		TOP SECRET TRÈS SECRET <input type="checkbox"/>
TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/>		TOP SECRET (SIGINT) TRÈS SECRET (SIGINT) <input type="checkbox"/>



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**PART A (continued) / PARTIE A (suite)**

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC information or assets?  
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS?  No / Non  Yes / Oui  
If Yes, indicate the level of sensitivity:  
Dans l'affirmative, indiquer le niveau de sensibilité :

9. Will the supplier require access to extremely sensitive INFOSEC information or assets?  
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate?  No / Non  Yes / Oui

Short Title(s) of material / Titre(s) abrégé(s) du matériel :  
Document Number / Numéro du document :

**PART B - PERSONNEL (SUPPLIER) / PARTIE B - PERSONNEL (FOURNISSEUR)**

10. a) Personnel security screening level required / Niveau de contrôle de la sécurité du personnel requis

<input checked="" type="checkbox"/> RELIABILITY STATUS COTE DE FIABILITÉ	<input type="checkbox"/> CONFIDENTIAL CONFIDENTIEL	<input type="checkbox"/> SECRET SECRET	<input type="checkbox"/> TOP SECRET TRÈS SECRET
<input type="checkbox"/> TOP SECRET - SIGINT TRÈS SECRET - SIGINT	<input type="checkbox"/> NATO CONFIDENTIAL NATO CONFIDENTIEL	<input type="checkbox"/> NATO SECRET NATO SECRET	<input type="checkbox"/> COSMIC TOP SECRET COSMIC TRÈS SECRET
<input type="checkbox"/> SITE ACCESS ACCÈS AUX EMPLACEMENTS			

Special comments:  
Commentaires spéciaux : \_\_\_\_\_

NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.  
REMARQUE : Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

10. b) May unscreened personnel be used for portions of the work?  
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail?  No / Non  Yes / Oui  
If Yes, will unscreened personnel be escorted?  
Dans l'affirmative, le personnel en question sera-t-il escorté?  No / Non  Yes / Oui

**PART C - SAFEGUARDS (SUPPLIER) / PARTIE C - MESURES DE PROTECTION (FOURNISSEUR)**

**INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS**

11. a) Will the supplier be required to receive and store PROTECTED and/or CLASSIFIED information or assets on its site or premises?  
Le fournisseur sera-t-il tenu de recevoir et d'entreposer sur place des renseignements ou des biens PROTÉGÉS et/ou CLASSIFIÉS?  No / Non  Yes / Oui

11. b) Will the supplier be required to safeguard COMSEC information or assets?  
Le fournisseur sera-t-il tenu de protéger des renseignements ou des biens COMSEC?  No / Non  Yes / Oui

**PRODUCTION**

11. c) Will the production (manufacture, and/or repair and/or modification) of PROTECTED and/or CLASSIFIED material or equipment occur at the supplier's site or premises?  
Les installations du fournisseur serviront-elles à la production (fabrication et/ou réparation et/ou modification) de matériel PROTÉGÉ et/ou CLASSIFIÉ?  No / Non  Yes / Oui

**INFORMATION TECHNOLOGY (IT) MEDIA / SUPPORT RELATIF A LA TECHNOLOGIE DE L'INFORMATION (TI)**

11. d) Will the supplier be required to use its IT systems to electronically process, produce or store PROTECTED and/or CLASSIFIED information or data?  
Le fournisseur sera-t-il tenu d'utiliser ses propres systèmes informatiques pour traiter, produire ou stocker électroniquement des renseignements ou des données PROTÉGÉS et/ou CLASSIFIÉS?  No / Non  Yes / Oui

11. e) Will there be an electronic link between the supplier's IT systems and the government department or agency?  
Disposera-t-on d'un lien électronique entre le système informatique du fournisseur et celui du ministère ou de l'agence gouvernementale?  No / Non  Yes / Oui

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**PART C - (continued) / PARTIE C - (suite)**

For users completing the form **manually** use the summary chart below to indicate the category(ies) and level(s) of safeguarding required at the supplier's site(s) or premises.

Les utilisateurs qui remplissent le formulaire **manuellement** doivent utiliser le tableau récapitulatif ci-dessous pour indiquer, pour chaque catégorie, les niveaux de sauvegarde requis aux installations du fournisseur.

For users completing the form **online** (via the Internet), the summary chart is automatically populated by your responses to previous questions.

Dans le cas des utilisateurs qui remplissent le formulaire **en ligne** (par Internet), les réponses aux questions précédentes sont automatiquement saisies dans le tableau récapitulatif.

**SUMMARY CHART / TABLEAU RÉCAPITULATIF**

Category / Catégorie	PROTECTED / PROTÉGÉ			CLASSIFIED / CLASSIFIÉ			NATO				COMSEC					
	A	B	C	CONFIDENTIAL / CONFIDENTIEL	SECRET	TOP SECRET / TRÈS SECRET	NATO RESTRICTED / NATO DIFFUSION RESTREINTE	NATO CONFIDENTIAL / NATO CONFIDENTIEL	NATO SECRET	COSMIC TOP SECRET / COSMIC TRÈS SECRET	PROTECTED / PROTÉGÉ			CONFIDENTIAL	SECRET	TOP SECRET / TRÈS SECRET
											A	B	C			
Information / Assets / Renseignements / Biens / Production	<input checked="" type="checkbox"/>															
IT Media / Support TI																
IT Link / Lien électronique																

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?  
La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE?  No / Non  Yes / Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".  
Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire.

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?  
La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE?  No / Non  Yes / Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification" and indicate with attachments (e.g. SECRET with Attachments).  
Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée « Classification de sécurité » au haut et au bas du formulaire et indiquer qu'il y a des pièces jointes (p. ex. SECRET avec des pièces jointes).