

Solicitation No. - N° de l'invitation

22-58094

Client Ref. No. - N° de réf. du client

E60PV-19EQUI

Amd. No. - N° de la modif.

File No. - N° du dossier

Buyer ID - Id de l'acheteur

CCC No./N° CCC - FMS No./N° VME

SUPPLY ARRANGEMENT NUMBER: E60PV-19EQUI

Sollicitation Number : 22-58094

Silicon (Si) Charge Coupled Device (CCD) camera

PART 1 - GENERAL INFORMATION

1.1 Statement of Requirement

The requirement is detailed under ANNEX A of the resulting contract clauses.

1.2 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.

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](#) (2022-03-29) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

2.1.1 SACC Manual Clauses

1. Products that are equivalent in form, fit, function and quality to the item(s) specified in the bid solicitation will be considered where the Bidder:
 - a. designates the brand name, model and/or part number of the substitute product;
 - b. states that the substitute product is fully interchangeable with the item specified;
 - c. provides complete specifications and descriptive literature for each substitute product;
 - d. provides compliance statements that include technical specifics showing the substitute product meets all mandatory performance criteria that are specified in the bid solicitation; and
 - e. clearly identifies those areas in the specifications and descriptive literature that support the substitute product's compliance with any mandatory performance criteria.
2. Products offered as equivalent in form, fit, function and quality will not be considered if:
 - a. the bid fails to provide all the information requested to allow the Contracting Authority to fully evaluate the equivalency of each substitute product; or
 - b. the substitute product fails to meet or exceed the mandatory performance criteria specified in the bid solicitation for that item.
3. In conducting its evaluation of the bids, Canada may, but will have no obligation to, request bidders offering a substitute product to demonstrate, at the sole cost of bidders, that the substitute product is equivalent to the item specified in the bid solicitation.

2.2 Submission of Bids

Bids must be submitted no later than 2pm EDT, on 15 of December 2022

2.3 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.

2.4 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.

2.5 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

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.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment.

3.1.1 Exchange Rate Fluctuation

The requirement does not offer exchange rate fluctuation risk mitigation. Requests for exchange rate fluctuation risk mitigation will not be considered. All bids including such provision will render the bid non-responsive.

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) The evaluation team will determine if there are two (2) or more bids with a valid Canadian content certification with the bids coming from two or more Bidders that are not affiliated within the meaning used in the [Competition Act](#), R.S.C., 1985, c. C-34. In that event, only those bids with a valid certification will be eligible to be awarded a contract; otherwise, all bids will be eligible. If at any point in the evaluation process it is found, whether by determination of invalidity of certifications, determination that bids are non-responsive or withdrawal of bids by Bidders, that there are no longer two (2) or more responsive bids with a valid certification, then all responsive bids will be eligible to be awarded a contract. Canada may conduct the validation of Canadian content certifications at any time in the evaluation process including doing so concurrently with other steps.

4.1.1 Technical Evaluation

4.1.1.1 Mandatory Technical Criteria

The Mandatory Technical Criteria is located in Annex "A" Section 2.1

4.1.1.2 Financial Evaluation

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

4.2 Basis of Selection

A bid must comply with all requirements of the bid solicitation to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

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.

PART 6 - RESULTING CONTRACT CLAUSES

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

6.1 Security Requirements

There is no security requirement applicable to the Contract.

6.2 Statement of Requirement

The requirement is detailed under ANNEX A of the resulting contract clauses.

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

[2010A](#) (2022-01-28), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

6.4 Term of Contract

6.4.1 Delivery Date

All the deliverables must be received within three months from (90 days) contract issuance.

6.4.2 Delivery Points

National Research Council Canada
1200 Montreal Road, Building M50
Ottawa Ontario
K1A 0R6

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Johnathon Gillis
Title: Contracting Authority
National Research Council Canada
Finance and Procurement Services
Address: 1200 Montreal Road, Building M58 Ottawa Ontario K1A 0R6
Telephone: 343 552-4124
E-mail address: Johnathon.Gillis@nrc-cnrc.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 Project Authority for the Contract is:

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

Telephone: ____ ____ _____
Facsimile: ____ ____ _____
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 completed by the bidder)

Company Name:
Name:
Telephone:
E-mail address:
Supply Arrangement Number: E60PV-19EQUI/ ____/PV

6.6 Payment**6.6.1 Basis of Payment****6.6.2 Limitation of Expenditure**

Canada's total liability to the Contractor under the Contract must not exceed \$ _____. Customs duties are _____ excluded and Applicable Taxes are extra.

6.6.2 Limitation of Price

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

6.7 Invoicing Instructions**6.7.1 Invoices must be distributed as follows:**

- (a) The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.
- (b) One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.

6.8 Certifications and Additional Information**6.8.1 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.

6.9 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in Ontario.

6.10 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;
- (c) the general conditions [2010A](#)
- (d) Annex A, Statement of Work **OR** Requirement;
- (f) the Contractor's bid dated _____ (*insert date of bid*)

6.11 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](#)".

6.12 Shipping Instructions

IF SHIPPING IS NOT INCLUDED PLEASE SHIP "PREPAY & CHARGE" PLEASE SHIP WITH EITHER VIA PUROLATOR OR FED EX, IF WEIGHT EXCEEDS 75 LBS OR SIZE DICTATES PLEASE SHIP APEX MOTOR EXPRESS (1-800-895-2739) FOR ONTARIO/QUEBEC SHIPMENT.

NRC Customs contacts if Carrier options aren't available:

Daniel Frampton

daniel.frampton@nrc-cnrc.gc.ca / Tel: 613-993-9113 / Cell: 613-299-6935 / Fax: 613-993-5098

Christian Latreille

christian.latreille@nrc-cnrc.gc.ca / Tel: 613-993-2259 / Cell: 613-290-3155 / Fax: 613-993-5098

ANNEX "A"**STATEMENT OF REQUIREMENT**

The NRC has a requirement for the supply of a Silicon (Si) Charge Coupled Device (CCD) camera for optical spectroscopy. This instrument will be used in the quantum physics laboratory for quantum materials (such as GaAs-AlGaAs heterostructures and Van der Waals heterostructures) optical characterization as well as for quantum nanostructure characterization such as quantum dots and other electronic quantum circuits (quantum point contacts, Hall bars, etc.). Experiments will be performed in the visible and near IR spectral range. The CCD camera must meet all of the mandatory technical requirements as specified below. The requirement must include all of the following:

Deliverables: The CCD camera with the following mandatory technical requirements:

Sensor:	Must be back-illuminated CCD, Deep-Depletion with anti-fringing
Dark Current:	Must be 0.03 e ⁻ /pixel/sec or lower
Quantum efficiency	Must be above 85% in the spectral range between 500 and 900 nm.
Active pixels:	Must be 1300 x 100 or more
Pixel size:	Must be 20 x 20 µm or smaller
Image area:	Must be 26 x 2 mm or larger with 100% fill factor
Minimum temperature:	Must operate -80°C or lower
Control software	Must be included with a python compatible development kit for camera control

Additionally, the Contractor must meet all applicable Canadian Standard Association (CSA) standards.

Contract obligations

- 1) **Installation:** No installation required
- 2) **Manuals:** The Contractor must deliver 1 complete set of Documentation, in English with the deliverables.
- 3) **Training:** No training involved.
- 4) **Maintenance and Support Services:** 12 month warranty minimum required.

The following requirements in Appendix "A" Part 2 are the Mandatory Technical Criteria which will be evaluated during the Bid Evaluation. In addition the Contractor will be required to meet all of the mandatory technical requirements for the duration of the Contract.

Item	Mandatory Technical Criteria	Bidders are requested to cross reference the mandatory technical criteria in a concise format by using page, paragraph(s) & subparagraphs as applicable to their supporting technical documentation	Met/Not Met
M1	Sensor: Must be back-illuminated CCD, Deep-Depletion with anti-fringing	Document Name: _____ Page Number: _____	
M2	Dark Current: Must be 0.03 e ⁻ /pixel/sec or lower	Document Name: _____ Page Number: _____	
M3	Quantum efficiency: Must be above 85% in the spectral range between 500 and 900 nm.	Document Name: _____ Page Number: _____	
M4	Active pixels: Must be 1300 x 100 or more	Document Name: _____ Page Number: _____	
M5	Pixel size: Must be 20 x 20 µm or smaller	Document Name: _____ Page Number: _____	
M6	Image area: Must be 26 x 2 mm or larger with 100% fill factor	Document Name: _____ Page Number: _____	
M7	Minimum temperature: Must operate -80°C or lower	Document Name: _____ Page Number: _____	
M8	Control software: Must be included with a python compatible development kit for camera control	Document Name: _____ Page Number: _____	

ANNEX "B"**BASIS OF PAYMENT****To be completed by the bidder**

Item	Product Number	Description	Number of Units	Unit of Issue	Firm Unit Price (CAD)	Extended Price (Number of Units X Firm Unit Price) (CAD)
1		Silicon (Si) Charge Coupled Device (CCD) camera (inclusive of all functionalities listed in Annex A)	1	Each	\$	\$
					Total	\$
					(applicable taxes are extra, if applicable)	