



**RETURN BIDS TO:**

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TPSGC

11 Laurier St. / 11, rue Laurier

Place du Portage, Phase III

Core 0B2 / Noyau 0B2

Gatineau, Québec K1A 0S5

Bid Fax: (819) 997-9776

**SOLICITATION AMENDMENT  
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

**Comments - Commentaires**

**Vendor/Firm Name and Address**

Raison sociale et adresse du  
fournisseur/de l'entrepreneur

**Issuing Office - Bureau de distribution**

Science Procurement Directorate/Direction de  
l'acquisition de travaux scientifiques  
Terrasses de la Chaudière, 4th Flo  
10 Wellington Street  
Gatineau  
Quebec  
K1A 0S5

<b>Title - Sujet</b> LEAP SCIENCE INSTRUMENT INVITATION TO QUALIFY (ITQ)	
<b>Solicitation No. - N° de l'invitation</b> 9F052-200589/B	<b>Amendment No. - N° modif.</b> 002
<b>Client Reference No. - N° de référence du client</b> 20200589	<b>Date</b> 2021-10-07
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$ST-048-39894	
<b>File No. - N° de dossier</b> 048st.9F052-200589	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> Eastern Daylight Saving Time EDT <b>on - le 2021-10-29</b> Heure Avancée de l'Est HAE	
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input checked="" type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Abbasi, Sameer Ali	<b>Buyer Id - Id de l'acheteur</b> 048st
<b>Telephone No. - N° de téléphone</b> (873) 354-4921 ( )	<b>FAX No. - N° de FAX</b> (819) 956-2675
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b>	

**Instructions: See Herein**

**Instructions: Voir aux présentes**

<b>Delivery Required - Livraison exigée</b>	<b>Delivery Offered - Livraison proposée</b>
<b>Vendor/Firm Name and Address</b> <b>Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>Telephone No. - N° de téléphone</b> <b>Facsimile No. - N° de télécopieur</b>	
<b>Name and title of person authorized to sign on behalf of Vendor/Firm</b> <b>(type or print)</b> <b>Nom et titre de la personne autorisée à signer au nom du fournisseur/</b> <b>de l'entrepreneur (taper ou écrire en caractères d'imprimerie)</b>	
<b>Signature</b>	<b>Date</b>

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This amendment is raised to address the following:

- To respond to questions received during the solicitation period; and
- To revise the Invitation to Qualify accordingly, as applicable.

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### **Questions and Answers**

**Q7:** Regarding Mandatory Evaluation Criteria 4. This states that: “The Respondent must demonstrate that it has provided space research and development services in the space sector to at least two organizations in the past seven (7) years from the date of ITQ closing.” May I have some clarification regarding what the “Respondent” includes in this instance? Is this limited to the PIs experience? Can this be a project that was led by a Co-I or Co-PI? If our team includes a sub-contractor for part of the development of the instrument, can the sub-contractor’s experience be applicable to this section?

**A7:** For the purposes of mandatory evaluation criteria number M4 and M7, the experience of the Respondent, the Respondent’s affiliates and the Respondent’s subcontractors will be considered. Please refer to new Section 5.4.2 Respondent Experience of PART 5 – EVALUATION PROCEDURES AND BASIS OF QUALIFICATION of the Invitation to Qualify (ITQ) for further details.

**Q8:** In the description of the process it states that “Any future NASA PRISM calls or similar NASA call processes, if applicable, will have a separate ITQ process associated with them.” Is it anticipated at this time that Canada will release similar ITQs in future years along with “future NASA PRISM calls or similar NASA call processes”?

**A8:** It is unknown at this time if Canada will release similar ITQs in future years along with “future NASA PRISM calls or similar NASA call processes”.

**Q9:** In regards to the 20% cost reserve specified in the ITQ, including at Table 1 – Mission Cost Breakdown, is there flexibility to allow respondents to determine the actual cost reserve required in their financial response rather than making it mandatory that it be 20%?

**A9:** Given that Respondents must submit a total firm, all-inclusive Mission Cost estimate in their financial response and in order to provide Respondents with flexibility to manage the risks associated with a total firm, all-inclusive Mission Cost estimate, the requirement for a mandatory 20% reserve has been removed and the bid solicitation has been amended accordingly.

**Q10:** In regards to Mandatory Financial Evaluation Criteria M11:

“The Respondent’s submission must be a total firm, all inclusive Mission Cost estimate in Canadian dollars, Applicable Taxes excluded, FOB destination, Canadian customs duties and excise taxes included, for the work to be performed for all phases of the LSI project in alignment with other components of the Response”.

Can you please confirm the shipping destination, as it is not specified in the solicitation document.

**R10:** The Contractor deliverables are to be shipped DDP (Delivery Duty Paid) to the locations specified in Appendix A Contractor Deliverables of the LEAP Science Instruments Phase ABCDEF Statement of Work (SOW).

**Solicitation Revisions**

- At page 6, under Section 1.2 Summary, of PART 1 – GENERAL Information:

DELETE:

**Table 1 – Mission Cost Breakdown**

<b>Delivery Location</b>	<b>NASA's Cost Cap (USD), Inclusive of 20% Cost Reserve</b>	<b>NASA's Foreign Participation Cost Cap (Baseline Canadian Payload Cost) (CAD) Applicable Taxes Extra, Inclusive of 20% Cost Reserve</b>	<b>Required Descope option(s) (CAD), Applicable Taxes Extra, Inclusive of 20% Cost Reserve</b>
South Polar	\$20M	\$8.4M <sup>1</sup>	Up to \$2.8M
Gruithuisen Domes	\$40M	\$16.8M <sup>1</sup>	Up to \$5.5M
Total	\$60M	\$25.2M <sup>1</sup>	Up to \$8.3M

(1) The baseline Canadian payload costs (CAD) represent 1/3rd of NASA's cost cap (USD), inclusive of 20% cost reserve, converted into CAD dollars, applicable taxes extra, inclusive of 20% cost reserve.

These cost requirements would include a 20% cost reserve as noted in Table 1, as per the PRISM call, that will be held at the CSA and included in the overall budget. The CAD values shown in the third column of Table 1 are based on an exchange rate of 0.80 CAN\$/US\$ and will remain unchanged regardless of any changes to the CAN\$/US\$ exchange rate in the future.

INSERT:

**Table 1 – Mission Cost Breakdown**

<b>Delivery Location</b>	<b>NASA's Cost Cap (USD)</b>	<b>NASA's Foreign Participation Cost Cap (Baseline Canadian Payload Cost) (CAD) Applicable Taxes Extra</b>	<b>Required Descope option(s) (CAD), Applicable Taxes Extra</b>
South Polar	\$20M	\$8.4M <sup>1</sup>	Up to \$2.8M
Gruithuisen Domes	\$40M	\$16.8M <sup>1</sup>	Up to \$5.5M
Total	\$60M	\$25.2M <sup>1</sup>	Up to \$8.3M

(1) The baseline Canadian payload costs (CAD) represent 1/3rd of NASA's cost cap (USD), converted into CAD dollars, applicable taxes extra.

The CAD values shown in the third column of Table 1 are based on an exchange rate of 0.80 CAN\$/US\$ and will remain unchanged regardless of any changes to the CAN\$/US\$ exchange rate in the future.

- At page 21, under Section 5.4 Technical and Managerial Evaluation, of PART 5 – EVALUATION PROCEDURES AND BASIS OF QUALIFICATION:

DELETE:

#### **5.4 Technical and Managerial Evaluation**

##### **Mandatory Evaluation Criteria:**

Each Response will be reviewed for compliance with the Mandatory Evaluation Criteria outlined in the ITQ. Any element of the ITQ that is identified specifically with the words "must" or "mandatory" is a mandatory requirement. Responses that do not comply with each and every mandatory requirement will be declared non-responsive and will be disqualified.

The mandatory technical and managerial criteria are described in Attachment 1 to Part 5 Mandatory Evaluation Criteria.

The PRCP will apply to all mandatory technical and managerial evaluation criteria.

INSERT:

#### **5.4 Technical and Managerial Evaluation**

##### **5.4.1 Mandatory Evaluation Criteria:**

Each Response will be reviewed for compliance with the Mandatory Evaluation Criteria outlined in the ITQ. Any element of the ITQ that is identified specifically with the words "must" or "mandatory" is a mandatory requirement. Responses that do not comply with each and every mandatory requirement will be declared non-responsive and will be disqualified.

The mandatory technical and managerial criteria are described in Attachment 1 to Part 5 Mandatory Evaluation Criteria.

The PRCP will apply to all mandatory technical and managerial evaluation criteria.

##### **5.4.2 Respondent Experience**

Except where expressly provided otherwise, the experience described in the Response must be the experience of one or more of the following:

1. The Respondent itself (which includes the experience of any companies that formed the Respondent by way of a merger but does not include any experience acquired through a purchase of assets or an assignment of contract); or
2. The Respondent's affiliates (i.e. parent, subsidiary or sister corporations), provided the Respondent identifies and demonstrates the transfer of know-how, the use of toolsets and the use of key personnel from the affiliate for the applicable criterion; or
3. The Respondent's subcontractors, provided the Respondent includes a copy of the teaming agreements and identifies the roles and responsibilities of all parties under the agreement and how their work will be integrated.

The experience of the Respondent's suppliers will not be considered.

3. At page 48, under Section 1.3 Substantiation of Financial Compliance – Mandatory Evaluation Criteria, of ATTACHMENT 1 to PART 5: MANDATORY EVALUATION CRITERIA:

DELTE:

<p>M11</p>	<p>The Mission Cost estimate must be completed as per the Cost Breakdown Structure Template (Attachment A).</p> <p>The Respondent's submission must be a total firm, all-inclusive Mission Cost estimate in Canadian dollars, Applicable Taxes excluded, FOB destination, Canadian customs duties and excise taxes included, for the work to be performed for all phases of the LSI project in alignment with other components of the Response. As specified in Attachment 1 to Part 4 – Financial Response Preparation Instructions, the Mission Cost estimate:</p> <ul style="list-style-type: none"> <li>• The Respondent must provide a Mission Cost Estimate with a BoE for Phases A, B and C at Level 1 CBS by submitting the completed Attachment A-2;       <ul style="list-style-type: none"> <li>○ The components of the Response must be well justified providing insight on the method of development of the estimate.</li> <li>○ The components of the Response must give confidence in the feasibility of the investigation remaining within budget.</li> <li>○ The estimates must be developed using one of the following estimating methods: Parametric Estimating, Analogous Cost, Delphi Cost Estimation, or Bottoms-Up</li> </ul> </li> <li>• The Respondent must provide an Indicative Estimate for Phases D, E and F at Level 1 CBS by submitting the completed Attachment A-2.</li> </ul>	<p>Met / Not Met</p>
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INSERT:

M11	<p>The Mission Cost estimate must be completed as per the Cost Breakdown Structure Template (Attachment A).</p> <p>The Respondent's submission must be a total firm, all-inclusive Mission Cost estimate in Canadian dollars, Applicable Taxes excluded, Delivery Duty Paid (DDP) destination, Canadian customs duties and excise taxes included, for the work to be performed for all phases of the LSI project in alignment with other components of the Response. As specified in Attachment 1 to Part 4 – Financial Response Preparation Instructions, the Mission Cost estimate:</p> <ul style="list-style-type: none"> <li>• The Respondent must provide a Mission Cost Estimate with a BoE for Phases A, B and C at Level 1 CBS by submitting the completed Attachment A-2;             <ul style="list-style-type: none"> <li>○ The components of the Response must be well justified providing insight on the method of development of the estimate.</li> <li>○ The components of the Response must give confidence in the feasibility of the investigation remaining within budget.</li> <li>○ The estimates must be developed using one of the following estimating methods: Parametric Estimating, Analogous Cost, Delphi Cost Estimation, or Bottoms-Up</li> </ul> </li> <li>• The Respondent must provide an Indicative Estimate for Phases D, E and F at Level 1 CBS by submitting the completed Attachment A-2.</li> </ul>	Met / Not Met
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4. At page 48, under Section 1.3 Substantiation of Financial Compliance – Mandatory Evaluation Criteria, of ATTACHMENT 1 to PART 5: MANDATORY EVALUATION CRITERIA:

DELTE:

M12	<p>As specified in Attachment 1 to Part 4 – Financial Response Preparation Instructions, The Respondent must demonstrate that the Mission Cost Estimate:</p> <ul style="list-style-type: none"> <li>• Include the 20% cost reserve;</li> <li>• Will not exceed the \$5.6M CAD, Applicable Taxes extra, for the South Polar mission or \$11.3M CAD, Applicable Taxes extra, for the Gruithuisen Domes mission.</li> </ul>	Met / Not Met
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INSERT:

M12	<p>As specified in Attachment 1 to Part 4 – Financial Response Preparation Instructions, The Respondent must demonstrate that the Mission Cost Estimate:</p> <ul style="list-style-type: none"> <li>• Will not exceed the \$5.6M CAD, Applicable Taxes extra, for the South Polar mission or \$11.3M CAD, Applicable Taxes extra, for the Gruithuisen Domes mission.</li> </ul>	Met / Not Met
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5. At page 49, under Section 1.3 Substantiation of Financial Compliance – Mandatory Evaluation Criteria, of ATTACHMENT 1 to PART 5: MANDATORY EVALUATION CRITERIA:

DELTE:

M14	<p>As specified in Attachment 1 to Part 4 – Financial Response Preparation Instructions, the Respondent's cost estimate adheres to the following Ground Rules and Assumptions:</p> <ul style="list-style-type: none"> <li>• All estimated costs include inflation.</li> <li>• The CAD values shown in the third column of Table 1 of Section 1.2 of the ITQ are based on an exchange rate of 0.80 CAN\$/US\$ and will remain unchanged regardless of any changes to the CAN\$/US\$ exchange rate in the future.</li> <li>• Applicable Taxes excluded, FOB destination, Canadian customs duties and excise taxes included.</li> <li>• Include mark-ups and profits.</li> </ul> <p>All and any other material assumptions must be documented in the Respondent's ITQ submission.</p>	Met / Not Met
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INSERT:

M14	<p>As specified in Attachment 1 to Part 4 – Financial Response Preparation Instructions, the Respondent's cost estimate adheres to the following Ground Rules and Assumptions:</p> <ul style="list-style-type: none"> <li>• All estimated costs include inflation.</li> <li>• The CAD values shown in the third column of Table 1 of Section 1.2 of the ITQ are based on an exchange rate of 0.80 CAN\$/US\$ and will remain unchanged regardless of any changes to the CAN\$/US\$ exchange rate in the future.</li> <li>• Applicable Taxes excluded, DDP destination, Canadian customs duties and excise taxes included.</li> <li>• Include mark-ups and profits.</li> </ul> <p>All and any other material assumptions must be documented in the Respondent's ITQ submission.</p>	Met / Not Met
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6. At page 3 of 10, under Section 1.2 Definitions, of Attachment 1 to Part 4 – Financial Response Preparation Instructions:

DELETE:

**1.2.1 Mission Cost:** The total comprehensive cost in Canadian dollars, Applicable Taxes excluded, Free on Board (FOB) destination, Canadian customs duties and excise taxes included, to execute the proposed LSI mission excluding the launch cost. All the relevant costs are included in the Cost Breakdown Structure Template (Attachment A).

INSERT:

**1.2.1 Mission Cost:** The total comprehensive cost in Canadian dollars, Applicable Taxes excluded, Delivery Duty Paid (DDP) destination, Canadian customs duties and excise taxes included, to execute the proposed LSI mission excluding the launch cost. All the relevant costs are included in the Cost Breakdown Structure Template (Attachment A).

7. At page 4 of 10, under Section 1.4.2 Maximum Funding, of Attachment 1 to Part 4 – Financial Response Preparation Instructions:

DELETE:

**1.4.2** Maximum Funding

As outlined in this Invitation to Qualify (ITQ), as part of the PRISM call, NASA limits international contribution to 1/3 of the mission cost for both the South Polar mission and the Gruithuisen Domes delivery location.

As such, if a U.S. team proposal, with a Canadian Qualified Respondent, is selected as part of the PRISM call selection process for only one delivery location, the CSA plans to support one Canadian science instrument up to the full allowed 1/3 international contribution of the total investigation cost for either of the above-mentioned locations. This cost requirement includes a 20% cost reserve, as per the PRISM call, that will be held by the CSA and included in the overall budget.

Responses with values in excess of this maximum funding will be considered non-responsive. This disclosure does not commit Canada to pay the maximum funding available.

INSERT:

**1.4.2** Maximum Funding

As outlined in this Invitation to Qualify (ITQ), as part of the PRISM call, NASA limits international contribution to 1/3 of the mission cost for both the South Polar mission and the Gruithuisen Domes delivery location.

As such, if a U.S. team proposal, with a Canadian Qualified Respondent, is selected as part of the PRISM call selection process for only one delivery location, the CSA plans to support one Canadian

science instrument up to the full allowed 1/3 international contribution of the total investigation cost for either of the above-mentioned locations.

Responses with values in excess of this maximum funding will be considered non-responsive. This disclosure does not commit Canada to pay the maximum funding available.

8. At page 5 of 10, under Section 1.4.3 Descoping Option, of Attachment 1 to Part 4 – Financial Response Preparation Instructions:

DELETE:

Table 1 – Mission Cost Breakdown

<b>Delivery Location</b>	<b>NASA's Cost Cap (USD), Inclusive of 20% Cost Reserve</b>	<b>NASA's Foreign Participation Cost Cap (Baseline Canadian Payload Cost) (CAD) Applicable Taxes Extra, Inclusive of 20% Cost Reserve</b>	<b>Required Descope option(s) (CAD), Applicable Taxes Extra</b>
South Polar	\$20M	\$8.4M <sup>1</sup>	Up to \$2.8M
Gruithuisen Domes	\$40M	\$16.8M <sup>1</sup>	Up to \$5.5M
<b>Total</b>	<b>\$60M</b>	<b>\$25.2M<sup>1</sup></b>	<b>Up to \$8.3M</b>

(1) The baseline Canadian payload costs (CAD) represent 1/3 of NASA's cost cap (USD), inclusive of 20% cost reserve converted into CAD dollars; applicable taxes extra.

Appendix C provides hypothetical examples of selected Canadian proposals with the outcome for each based on the maximum funding available of \$16.9M for this requirement. These examples are not considered an exhaustive list of scenarios of selected Canadian proposals that could meet the funding requirement. The CAD values shown in the third column of Table 1 are based on an exchange rate of 0.80 CAN\$/US\$ and will remain unchanged regardless of any changes to the CAN\$/US\$ exchange rate in the future.

INSERT:

Table 1 – Mission Cost Breakdown

<b>Delivery Location</b>	<b>NASA's Cost Cap (USD)</b>	<b>NASA's Foreign Participation Cost Cap (Baseline Canadian Payload Cost) (CAD) Applicable Taxes Extra</b>	<b>Required Descope option(s) (CAD), Applicable Taxes Extra</b>
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<b>Total</b>	<b>\$60M</b>	<b>\$25.2M<sup>1</sup></b>	<b>Up to \$8.3M</b>

(1) The baseline Canadian payload costs (CAD) represent 1/3 of NASA's cost cap (USD), converted into CAD dollars; applicable taxes extra.

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Appendix C provides hypothetical examples of selected Canadian proposals with the outcome for each based on the maximum funding available of \$16.9M for this requirement. These examples are not considered an exhaustive list of scenarios of selected Canadian proposals that could meet the funding requirement. The CAD values shown in the third column of Table 1 are based on an exchange rate of 0.80 CAN\$/US\$ and will remain unchanged regardless of any changes to the CAN\$/US\$ exchange rate in the future.

9. At page 6 of 10, under Section 1.4.4 Ground Rules & Assumptions, of Attachment 1 to Part 4 – Financial Response Preparation Instructions:

DELETE:

**1.4.4.2 Tax Exclusion and Profits**

All estimated costs entered in the Cost Breakdown Structure Template (Attachment A):

- a) Are in Canadian dollars, Applicable Taxes excluded, FOB destination, Canadian customs duties and excise taxes included.
- b) Should include mark-ups and profits.

INSERT:

**1.4.4.2 Tax Exclusion and Profits**

All estimated costs entered in the Cost Breakdown Structure Template (Attachment A):

- a) Are in Canadian dollars, Applicable Taxes excluded, DDP destination, Canadian customs duties and excise taxes included.
- b) Should include mark-ups and profits.

10. At Attachment A Cost Breakdown Structure Template:

DELETE:

Entire Excel Document: Attachment A - Cost Breakdown Structure Template

INSERT:

Excel Document: Attachment A - Cost Breakdown Structure Template revised version dated October 6, 2021

11. At page 38, under Appendix A Contractor Deliverables of ANNEX A, STATEMENT OF WORK:

DELETE:

**A.1 HARDWARE DELIVERABLES**

The Contractor must deliver all hardware listed Table . All items are delivered to CSA but may be shipped according to the instructions below.

**TABLE A-1 – HARDWARE DELIVERABLES**

Description	Quantity	Delivery Date	Shipped to
LSI Breadboards and Shipping Container	As built	AR*	CSA
LSI full-scale SLA Models and shipping container	1	CDR	CSA
LSI EM, and Shipping Container	1	AR*	CSA
LSI Flight Model, Launch Packaging Flight Support Equipment and Shipping Container	1	PSR	NASA
Sized LSI SLA model and shipping container	1	TRR	TBD**
Sized LSI SLA model and shipping container	1	FR	CSA

\*Note: At CSA’s discretion, CSA may choose to let the Contractor retain possession.

\*\* Location will be the actual location where operations are performed. For the purposes of cost estimation, assume this will be in the United States.

INSERT:

**A.1 HARDWARE DELIVERABLES**

The Contractor must deliver all hardware listed Table . All items are delivered to CSA but may be shipped according to the instructions below.

**TABLE A-1 – HARDWARE DELIVERABLES**

Description	Quantity	Delivery Date	Shipped to
LSI Breadboards and Shipping Container	As built	AR*	CSA
LSI full-scale SLA Models and shipping container	1	CDR	CSA
LSI EM, and Shipping Container	1	AR*	CSA
LSI Flight Model, Launch Packaging Flight Support Equipment and Shipping Container	1	PSR	NASA
Sized LSI SLA model and shipping container	1	TRR	TBD**
Sized LSI SLA model and shipping container	1	FR	CSA

\*Note: LSI Breadboards, EM, and shipping containers may include a US destination to support lunar surface operations. That detail will be determined as part of the operations concept development (CDRL’s OPS-03 and OPS-04) to determine the best location for those items as a tool to support surface operations. The exact timing (e.g. Delivery Date) may be modified based on those plans. The Contractor must include those shipping costs, including return to Canada after operations are completed, as part of the contract which may be merged with other shipments. At

Solicitation No. - N° de l'invitation  
9F052-200589/B  
Client Ref. No. - N° de réf. du client  
9F052-200589

Amd. No. - N° de la modif.  
002  
File No. - N° du dossier  
048st.9F052-200589

Buyer ID - Id de l'acheteur  
048st  
CCC No./N° CCC - FMS No./N° VME

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CSA's discretion, CSA may choose to let the Contractor retain possession at the end of the contract.

\*\* Location will be the actual location where operations are performed. For the purposes of cost estimation, assume this will be in the United States.

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**ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME**