



**RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:**

Bid Receiving - PWGSC / Réception des
soumissions - 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

**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 to herein or attached hereto, the
goods, services, and construction listed herein and on any
attached sheets at the price(s) set out therefor.

**Proposition 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 biens, services et construction énumérés
ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

Vendor/Firm Name and Address

Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

Electrical & Electronics Products Division
L'Esplanade Laurier
East Tower, 4th floor,
Ottawa
Ontario
K1A 0S5

Title - Sujet High Power RF Resistance Load	
Solicitation No. - N° de l'invitation UT255-211793/A	Date 2021-12-21
Client Reference No. - N° de référence du client UT255-211793	
GETS Reference No. - N° de référence de SEAG PW-\$\$HN-336-80779	
File No. - N° de dossier hn336.UT255-211793	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Eastern Standard Time EST on - le 2022-01-19 Heure Normale du l'Est HNE	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Bisson(hn336), Phillipe	Buyer Id - Id de l'acheteur hn336
Telephone No. - N° de téléphone (613) 295-8641 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Specified Herein Précisé dans les présentes	

Instructions: See Herein

Instructions: Voir aux présentes

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

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PART 1 - GENERAL INFORMATION

1.1 Security Requirements

There is no security requirement associated with the requirement.

1.2 Statement of Requirement

The contractor must provide the goods in accordance with the technical requirements and in the quantities stated herein at Annex A – Statement of Requirement.

1.2.1 Delivery Requirement

Delivery is requested to be completed by March 2, 2022.

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.

1.4 epost Connect service

This bid solicitation allows bidders to use the epost Connect service provided by Canada Post Corporation to transmit their bid electronically. Bidders must refer to Part 2 entitled Bidder Instructions, and Part 3 entitled Bid Preparation Instructions, of the bid solicitation, for further information.

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](#) (2020-05-28) 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

SACC Reference ID	Title	Date
B1000T	Condition of Material	2014-06-26

2.2 Submission of Bids

Bids must be submitted only to the Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation. Do not send proposal directly to the Contracting Officer. Email proposals not accepted.

PWGSC Bids Receiving Unit
11 Laurier Street, Place du Portage, Phase 3, Core 0B2,
Gatineau, Québec, K1A 0S5
Tel.: 819-420-7201 Fax: 819-997-9776
tpsgc.dgareceptiondessoumissions-abbidreceiving.pwgsc@tpsgc-pwgsc.gc.ca

Note: Bids will not be accepted if emailed directly to this email address. This email address is to be used to open an epost Connect conversation, as detailed in Standard Instructions [2003](#), or to send bids through an epost Connect message if the bidder is using its own licensing agreement for epost Connect.

Inquiries related to submissions of bids through the epost Connect may contact the Public Works and Government Services Canada (PWGSC) Bid Receiving Unit at the coordinates found in Section 20 Further Information of the [2003](#) (2020-05-28) Standard Instructions - Goods or Services - Competitive Requirements.

2.3 Enquiries - Bid Solicitation

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

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

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

- If the Bidder chooses to submit its bid electronically, Canada requests that the Bidder submits its bid in accordance with section 08 of the 2003 standard instructions. The epost Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation.

The bid must be gathered per section and separated as follows:

- Section I: Technical Bid
 - Section II: Financial Bid
 - Section III: Certifications
 - Section IV: Additional Information
- If the Bidder chooses to submit its bid in hard copies, Canada requests that the Bidder submits its bid in separately bound sections as follows:
 - Section I: Technical Bid (2 hard copies)
 - Section II: Financial Bid (1 hard copy)
 - Section III: Certifications (1 hard copy)
 - Section IV: Additional Information (1 hard copy)

If there is a discrepancy between the wording of the soft copy on electronic media and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

- If the Bidder is simultaneously providing copies of its bid using multiple acceptable delivery methods, and if there is a discrepancy between the wording of any of these copies and the electronic copy provided through epost Connect service, the wording of the electronic copy provided through epost Connect service will have priority over the wording of the other copies.

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

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

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

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process [Policy on Green Procurement](https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573) (<https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573>). To assist Canada in reaching its objectives, bidders should:

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

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.

3.1.1 Equivalent Products

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 designates the brand name and model and/or part number and NCAGE of the substitute product;
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 provide technical information demonstrating the equivalency (e.g. Drawing, specifications, engineering reports and/or test reports), or to demonstrate that the substitute product is equivalent to the item specified in the bid solicitation, at the sole cost of bidders, within seven (7) business days of the request. If the bidder fails to provide the requested information within the specified delay, Canada may declare the bid non-responsive.

Section II: Financial Bid

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

3.1.2 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.

3.1.3 Electronic Payment of Invoices – Bid

If you are willing to accept payment of invoices by Electronic Payment Instruments, identify which ones are accepted.

- () VISA Acquisition Card;
- () MasterCard Acquisition Card;
- () Direct Deposit (Domestic and International);
- () Electronic Data Interchange (EDI);
- () Wire Transfer (International Only);

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UT255-211793/A
Client Ref. No. - N° de réf. du client
UT255-211793

Amd. No. - N° de la modif.
File No. - N° du dossier
hn336.UT255-211793

Buyer ID - Id de l'acheteur
hn336
CCC No./N° CCC - FMS No./N° VME

() Large Value Transfer System (LVTS) (Over \$25M)

If none are chosen, it will be considered as if Electronic Payment Instruments are not being accepted for payment of invoices. Acceptance of Electronic Payment Instruments will not be considered as an evaluation criterion.

Section III: Certifications

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

Section IV: Additional Information

3.1.4 Delivery Offered

While delivery is requested as indicated above, the best delivery that could be offered is_____.

3.1.5 Contractor Representatives

Name and telephone number of the person responsible for:

General enquiries

Name: _____
Telephone: _____
Facsimile: _____
E-mail: _____

Delivery follow-up

Name: _____
Telephone: _____
Facsimile: _____
E-mail: _____

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

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

4.1.1 Technical Evaluation

4.1.1.1 Mandatory Technical Criteria

The following Mandatory requirements must be submitted with the bid for evaluation

- Technical compliance (description of at Annex A)
- Bids must be submitted for all destinations per NSN.

4.1.2 Financial Evaluation

The following Mandatory factors will be taken into consideration in the evaluation of each bid: Compliance with Pricing Basis;

The bid price will be determined by processing items at Annex C as follows:

- a. Sum of all items total price (unit price x qty.)

4.1.2.1 Pricing Basis

The bidder must quote firm unit prices in Canadian dollars, DDP Delivered Duty Paid (Ottawa, ON), Applicable Taxes extra, as applicable. Freight charges to destination and all applicable Custom duties and Excise taxes must be included.

4.2. Basis of Selection

A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price on an aggregate basis 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.

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 General Environmental Criteria Certification

The Bidder must select and complete one of the following two certification statements.

- a) The Bidder certifies that the Bidder is registered or meets ISO 14001.

Bidders' Authorized Representative Signature

Date

or

b) The Bidder certifies that the Bidder meets and will continue to meet throughout the duration of the contract, a minimum of four (4) out of six (6) criteria identified in the table below.

Green Practices within the Bidders' organization	Insert a checkmark for each criterion that is met
Promotes a paperless environment through directives, procedures and/or programs	
All documents are printed double sided and in black and white for day to day business activity unless otherwise specified by your client	
Paper used for day to day business activity has a minimum of 30% recycled content and has a sustainable forestry management certification	
Utilizes environmentally preferable inks and purchase remanufactured ink cartridges or ink cartridges that can be returned to the manufacturer for reuse and recycling for day to day business activity.	
Recycling bins for paper, newsprint, plastic and aluminum containers available and emptied regularly in accordance with local recycling program.	
A minimum of 50% of office equipment has an energy efficient certification.	

Bidders' Authorized Representative Signature

Date

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](https://www.canada.ca/en/employment-social-development/canada/esdc/labour/development/programs/employment-equity/federal-contractor-program.html#) website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#>).

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UT255-211793

Amd. No. - N° de la modif.
File No. - N° du dossier
hn336.UT255-211793

Buyer ID - Id de l'acheteur
hn336
CCC No./N° CCC - FMS No./N° VME

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.

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 contractor must provide the goods and/or services in accordance with the technical requirements and in the quantities stated herein at Annex A – Statement of Requirements

6.2.1 SACC Manual Clauses

SACC Reference ID	Title	Date
B1501C	Electrical Equipment	2018-06-21
B7500C	Excess Goods	2006-06-16

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>) issued by Public Works and Government Services Canada.

6.3.1 General Conditions

[2010A](#) (2021-12-02), General Conditions - Goods (Medium Complexity), apply to and form part of the Contract.

2010A 32 Anti-forced labour requirements

1. The Contractor represents and warrants that the Work is not mined, manufactured or produced wholly or in part by forced labour. Regardless of who acts as an importer, the Contractor must not during the performance of the Contract, directly or indirectly, deliver Work to Canada or import Work into Canada the importation of which is prohibited pursuant to ss. 136(1) of the *Customs Tariff Act* and tariff item No. 9897.00.00 of the [Customs Tariff – Schedule](#) (as amended from time to time), because it is mined, manufactured or produced wholly or in part by forced labour.
2. If a tariff classification determination is made under the *Customs Act* that the importation of the Work, or any part of the Work, is prohibited, the Contractor must immediately inform the Contracting Authority in writing. Canada may terminate the Contract for default in accordance with section 2010A 23 - Default by the Contractor if the Work or any part of the Work is classified under tariff item no. 9897.00.00 of the [Customs Tariff – Schedule](#) as mined, manufactured or produced wholly or in part by forced labour. If the Contractor

is aware that the Work, or any part of the Work, is being or has been investigated regarding whether it is prohibited from entry pursuant to tariff item No. 9897.00.00, the Contractor must immediately inform the Contracting Authority in writing of that investigation.

3. Canada may terminate the Contract for default in accordance with section 2010A 23 - Default by the Contractor if it has reasonable grounds to believe the Work was mined, manufactured or produced in whole or in part by forced labour or linked to human trafficking. Reasonable grounds for making such a determination may include:
 - a. Findings or Withhold Release Orders issued by the United States Customs and Border Protection, under the US Trade Facilitation and Trade Enforcement Act (TFTEA) of 2015; or
 - b. Credible evidence from a reliable source, including but not limited to non-governmental organizations.
4. Canada may terminate the Contract for default in accordance with section 2010A 23 - Default by the Contractor if the Contractor has, in the past three years, been convicted of any of the following offences under the Criminal Code or the Immigration and Refugee Protection Act:

Criminal Code

 - i. section 279.01 (Trafficking in persons);
 - ii. section 279.011 (Trafficking of a person under the age of eighteen years);
 - iii. subsection 279.02(1) (Material benefit - trafficking);
 - iv. subsection 279.02(2) (Material benefit - trafficking of person under 18 years);
 - v. subsection 279.03(1) (Withholding or destroying documents - trafficking);
 - vi. subsection 279.03(2) (Withholding or destroying documents - trafficking of person under 18 years); or

Immigration and Refugee Protection Act

 - vii. section 118 (Trafficking in persons).
5. Canada may terminate the Contract for default in accordance with section 2010A 23 - Default by the Contractor if the Contractor has, in the past three years, been convicted of an offence in a jurisdiction other than Canada that, in Canada's opinion, is similar to any of the offences identified in paragraphs 4(i) to (vii).
6. For purposes of determining whether a foreign offence is similar to a listed offence, PWGSC will take into account the following factors:
 - i. in the case of a conviction, whether the court acted within its jurisdiction;
 - ii. whether the supplier was afforded the right to appear during the court's proceedings or to submit to the court's jurisdiction;
 - iii. whether the court's decision was obtained by fraud; or

- iv. whether the supplier was entitled to present to the court every defence that the supplier would have been entitled to present had the proceeding been tried in Canada.

7. Where Canada intends to terminate the Contract under this section, Canada will inform the Contractor and provide the Contractor an opportunity to make written representations before making a final decision. Written representations must be submitted within 30 days from receiving a notice of concern unless Canada establishes a different deadline.

6.4 Term of Contract

6.4.1 Delivery Date

All the deliverables must be received on or before _____ (*Delivery as offered and as accepted will be inserted at contract award.*)

6.4.2 Delivery Points

Delivery of the requirement will be made to delivery point(s) specified at Annex "C" of the Contract.

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Phillipe Bisson – Supply Specialist

Public Works and Government Services Canada - Acquisitions Branch
Industrial Products and Vehicles Procurement Directorate - "HN" Division
4th Floor East Tower, L'Esplanade Laurier Bldg,
140 O'Connor St. Ottawa ON K1A 0R5
Telephone: 613-295-8641 E-mail address: Phillipe.Bisson@pwgsc-tpsgc.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 (*to be entered at contract award*):

Name: _____
Telephone: _____
Facsimile: _____
E-mail: _____

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 Technical Authority

The Technical Authority for the Contract is *(to be entered at contract award)*:

Name: _____
Telephone: _____
Facsimile: _____
E-mail: _____

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

6.5.4 Contractor's Representative

Name and telephone number of the person responsible for:

General enquiries

Name: _____
Telephone: _____
Facsimile: _____
E-mail: _____

Delivery follow-up

Name: _____
Telephone: _____
Facsimile: _____
E-mail: _____

6.6 Payment

6.6.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm unit price, as specified in in Annex C – Basis of Payment for a cost of \$ _____ (insert the amount at contract award). Customs duties are included and Applicable Taxes are extra.

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

6.6.2 Limitation of Price

SACC Manual clause C6000C (2017-08-17) Limitation of Price

6.6.4 Multiple Payments

SACC Manual clause H1001C (2008-05-12) Multiple Payments

6.6.5 Electronic Payment of Invoices – Contract

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s):

- a. Visa Acquisition Card;
- b. MasterCard Acquisition Card;
- c. Direct Deposit (Domestic and International);
- d. Electronic Data Interchange (EDI);
- e. Wire Transfer (International Only);
- f. Large Value Transfer System (LVTS) (Over \$25M)

6.6.7 SACC Manual Clauses

SACC Reference ID	Title	Date
<u>G1005C</u>	Insurance – No Specific Requirement	2016-01-28

6.7 Invoicing Instructions

1. The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

2. Invoices must be distributed as follows:

- (a) One copy must be emailed to the following address for certification and payment: ic.stsinvoicesunit-unitedefacturesst.ic@canada.ca
- (b) One copy must be emailed 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 _____ (*insert the name of the province or territory as specified by the Bidder in its bid, if applicable*).

6.10 Priority of Documents

If there is a discrepancy between the wordings 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 2010A (2021-12-02);
- (c) Annex A, Statement of Requirement;
- (d) Annex B, Mandatory Evaluation Criteria;
- (e) Annex C, Basis of Payment;
- (f) the Contractor's bid dated _____ as clarified on _____, as amended on _____

6.11 Shipping Instructions - Delivery at Destination

Goods must be consigned to the destination specified in the Contract and Delivered Duty Paid –DDP– (*Innovation, Science and Economic Development Canada, 235 Queen St, Ottawa ON, K1A 0H5*) Incoterms 2000 for shipments from a commercial contractor.

6.12 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".



Statement of Requirement for High Power RF Resistive Load

December 8, 2021

(Version 7.0)

Issued by IRSC Chair

Spectrum and Telecommunications Sector

Canada

1. Scope

This Statement of Requirement (SOR) details the requirements for a high power RF resistive load.

1.1 BACKGROUND

Innovation, Science and Economic Development (ISED) Canada, Spectrum and Telecommunications Sector (STS) is currently modernizing its aging radio frequency test and measurement equipment portfolio under the auspices of the Pulsar program. This equipment is used to monitor, localize and measure technical parameters of radio emissions for radio interference, compliance and enforcement work.

STS Officers are often required to perform measurements of various radio frequency transmitter parameters in the field without radiating unnecessary energy over the air. To accommodate this a high power RF resistive load is used to terminate the output of the transmitter being tested to safely dissipate transmitter RF output energy in the form of heat.

RF loads used must be portable, lightweight, safely dissipate the thermal energy created during their operation, and present a nominal 50 ohm resistive impedance to transmitters operating from just below the AM broadcast band all the way up to the PCS cellular bands. Loads currently in use have reached end of life and in many cases have failed or no longer meet their design specifications. This necessitates the need for replacement to ensure that this capability is maintained going forward.

1.2 Instructions

The following instructions apply to this specification:

- a) Requirements, which are identified by the word “**must**”, are mandatory. Deviations will not be permitted.
- b) Where a technical specification or requirement is identified in the mandatory technical specifications “Proof of Compliance” **must** be provided with the RFP response.

1.3 Definitions

The following definitions apply to the interpretation of this Statement of Requirement:

“Technical Authority” - The government official responsible for technical content of this requirement.

“Load” – Is the RF resistive load in a complete manufactured state in accordance with the requirements laid out in this Statement of Requirement.

“Equivalent” - A standard, means, or component type, which has been deemed to be acceptable by the Technical Authority as meeting the specified requirements for form, fit, function and performance.

“Proof of Compliance” is defined as an unaltered document, such as a product brochure, product data sheet, product technical specification sheet and/or a third party test report provided by a nationally and/or internationally recognized testing facility and/or a report generated by a nationally and/or internationally recognized third party software. The supporting Proof of Compliance documentation must provide specific information on each performance requirement and/or specification that it is being put forth for to substantiate.

1.4 Technical Specifications

The Contractor must provide the requested load in accordance with the technical specifications detailed in Appendix 1 - Mandatory Technical Specifications for *High Power RF Resistive Load*.

1.5 Standard Design

- a) The device must be the manufacturer’s latest in production model.

1.6 Identification

The following information must be permanently marked on the exterior of the equipment.

- a) Manufacturer's name, model and serial number.

1.7 Equipment Manuals

1.7.1 Equipment Manuals

Full documentation for the load including installation, operations, and maintenance **must** accompany each unit, shipped to each location.

1.7.2 Operator's Manuals

The operator's manuals **must** be bilingual (English/French) and must include the following:

- a) Instructions for the safe setup and operation of the load.
- b) Safety warnings.

1.8 Accessibility requirements

The manuals should be delivered in an accessible format, in compliance with the Harmonised European Standard, EN 301 549 (2018) (https://www.etsi.org/deliver/etsi_en/301500_301599/301549/02.01.02_60/en_301549v020102p.pdf)

for accessible Information and Communication Technology (ICT), clause 10 for non-web documents. Any other instructions that are provided with the device should conform to those standards for web-based documents, electronic documents, and hard copies.

The provision of facilities, tools and services, and all associated costs, to make the components and deliverables of this project accessible must be at the Contractor's expense.

For practical guidance on creating accessible documents, refer to these Accessible Document Guides (<https://a11y.canada.ca/en/>).

1.9 Equipment Lifecycle

Lifecycle of this equipment will be a ten (10) year period from date of delivery and acceptance of goods received as ordered and received undamaged.

1.10 Calibration and Maintenance Support

1.10.1 The Contractor **must** ensure capability to provide parts, repair and calibration services for a period of ten (10) years from date of delivery and acceptance of the equipment.

1.10.2 Initial factory calibration must be included as part of the original delivery.

1.10.3 Any subsequent calibration support is not part of this Contract.

1.11 List of Deliverables

1.11.1 High Power RF Resistive Load

Description	Quantity
High Power RF Resistive Load as specified in the Statement of Requirements	80 units

Appendix 1 – Mandatory Technical Specifications for High Power RF Resistive Load

(Reference: Appendix 2 – Definitions and Glossary Syllabus)

Hardware	Required specifications
Environmental	<p>The Load must meet or exceed the following:</p> <p>Minimum ambient operating temperature range: -40 degrees C to +40 degrees C</p> <p>Materials: all materials used in the construction of the load must be non-magnetic</p> <p>Corrosion resistance: all external metallic surfaces must be corrosion resistant either through prudent choice of material(s) or by chemical surface passivation treatment.</p>
Maximum Load physical dimensions	Maximum case dimensions must not to exceed 20 cm x 20 cm x 30 cm.
Maximum Load weight	Maximum weight must not exceed 6 kg.
Load internal heat transfer mechanism	The Load internal design must be of an inherently “dry” design meaning that the internal resistive element must transfer internally generated heat via a dry (non-liquid) medium to its external heat radiating surface(s).
Dummy Load external surface heat dissipation mechanism	The Load must be of a “self-cooling” design that does not require fans or additional cooling plates to dissipate heat via convection to the ambient surrounding air. An integral, permanently attached heat dissipating surface (i.e. metallic, finned, heatsink assembly) must be provided to dissipate heat for operation to rated maximum power levels.
Calibration Data	A statement of conformance must be provided with each unit to confirm that the unit meets design specifications for power dissipation, frequency range of operation and VSWR.
Load VSWR data	If VSWR is not flat across the entire operation frequency range then data must be provided where VSWR values change.
Load operating frequency range	The Load must be capable of operating from DC to a minimum of 2 GHz (with no gaps in frequency coverage).
Load power handling	The Load must be capable of continuously dissipating 300 watts average RF power (at 25 degrees Celsius ambient) with a temperature rise that does not degrade performance specifications without the use of any external auxiliary cooling (i.e. fans).
Load Input Impedance	Load must exhibit a nominal input impedance of 50 ohms across its entire operating frequency range.
Load RF connector type	The Load must be terminated in an N female connector.
Load input VSWR (from DC to 2 GHz)	VSWR must not exceed 1.25:1 between DC and 2 GHz.

Appendix 2 –Definitions and Glossary Syllabus

Definitions	
Dummy Load	50 ohm resistive termination
Glossary	
C	Temperature in degrees Celsius
cm	Metric units of length in centimetres
GHz	Frequency in Gigahertz
kg	Metric unit of mass in kilograms
RF	Radio Frequency
VSWR	Voltage Standing Wave Ratio



ANNEX B— Mandatory Evaluation Criteria for High Power RF Resistive Load

Item #	Hardware	Required specifications	Evaluation Method	Cross Reference to Bid
001	Environmental	<p>The Load must meet or exceed the following:</p> <p>Minimum ambient operating temperature range: -40 degrees C to 40 degrees C</p> <p>Materials: all materials used in the construction of the load must be non-magnetic</p> <p>Corrosion resistance: all external metallic surfaces must be corrosion resistant either through prudent choice of material(s) or by chemical surface passivation treatment.</p>	Published vendor product information review	
002	Maximum Load physical dimensions	Maximum case dimensions must not to exceed 20 cm x 20 cm x 30 cm.	Published vendor product information review	
003	Maximum Load weight	Maximum weight must not exceed 6 kg.	Published vendor product information review	
004	Load internal heat transfer mechanism	The Load internal design must be of an inherently “dry” design meaning that the internal resistive element must transfer internally generated heat via a dry (non-liquid) medium to its external heat radiating surface(s).	Published vendor product information review	
005	Dummy Load external surface heat dissipation mechanism	The Load must be of a “self-cooling” design that does not require fans or additional cooling plates to dissipate heat via convection to the ambient surrounding air. An integral, permanently attached heat dissipating surface (i.e. metallic, finned, heatsink assembly) must be provided to dissipate heat for operation to rated maximum power levels.	Published vendor product information review	
006	Calibration Data	A statement of conformance must be provided with each unit to confirm that the unit meets design specifications for power dissipation, frequency range of operation and VSWR.	Published vendor product information review	
007	Load VSWR data	If VSWR is not flat across the entire operation frequency range then data must be provided where VSWR values change.	Published vendor product information review	
008	Load operating frequency range	The Load must be capable of operating from DC to a minimum of 2 GHz (with no gaps in frequency coverage).	Published vendor product information review	
009	Load power handling	The Load must be capable of continuously dissipating 300 watts average RF power (at 25 degrees	Published vendor product information review	

		Celsius ambient) with a temperature rise that does not degrade performance specifications without the use of any external auxiliary cooling (i.e. fans).		
010	Load Input Impedance	Load must exhibit a nominal input impedance of 50 ohms across its entire operating frequency range.	Published vendor product information review	
011	Load RF connector type	The Load must be terminated in an N female connector.	Published vendor product information review	
012	Load input VSWR (from DC to 2 GHz)	VSWR must not exceed 1.25:1 between DC and 2 GHz.	Published vendor product information review	

UT255-211793/A - ANNEX C - Basis of Payment					
Item #	Item Description	Quantity	Delivery Destination	Offered Delivery (Days or weeks after order)	Offered Unit Price (\$CAD)
001	High Power RF Resistive Load Must be supplied in accordance with the technical specifications at Annex A and Annex B. Offered Part #: _____ Offered Manufacturer: _____	80 units	Innovation, Science and Economic Development Canada 235 Queen Street Ottawa, ON, Canada K1A 0H5	_____	\$ _____ (\$CAD)
TOTAL (W/OUT TAXES):					
					\$ _____
TOTAL (W/ TAXES 13%):					
					\$ _____