



RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
Bid Receiving Public Works and Government
Services Canada/Réception des
soumissions\Travaux publics et Services
gouvernementaux Canada
See herein for bid submission
instructions/
Voir la présente pour les
instructions sur la présentation
d'une soumission
NA
Ontario

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

Title - Sujet Dead Front Pad-Mounted Switchgear	
Solicitation No. - N° de l'invitation W6854-200197/A	Date 2020-04-22
Client Reference No. - N° de référence du client W6854-200197	
GETS Reference No. - N° de référence de SEAG PW-\$TOR-031-7925	
File No. - N° de dossier TOR-0-43007 (031)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2020-06-03	Time Zone Fuseau horaire Eastern Daylight Saving Time EDT
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Schmidt, Jeff	Buyer Id - Id de l'acheteur tor031
Telephone No. - N° de téléphone (647) 281-7423 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Line Crew Section, RP Ops Det Borden 16 Ramillies Road, Building P-154, Borden, ON L0M 1C0	

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address

**Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution

Public Works and Government Services Canada
Ontario Region
10th Floor, 4900 Yonge Street
Toronto
Ontario
M2N 6A6

Delivery Required - Livraison exigée See Herein	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 Requirement

The requirement is detailed under Article 2 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.

1.3 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](#) (2019-03-04) 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 the Public Works and Government Services Canada (PWGSC) Bid Receiving Unit specified below by the date and time indicated on page 1 of the bid solicitation:

PWGSC Ontario Region Bid Receiving Unit

Only bids submitted using epost Connect service will be accepted. The Bidder must send an email requesting to open an epost Connect conversation to the following address:

TPSGC.orreceptiondessoumissions-orbidreceiving.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.

It is the Bidder's responsibility to ensure the request for opening an epost Connect conversation is sent to the email address above at least six days before the solicitation closing date.

Bids transmitted by facsimile or hardcopy to PWGSC will not be accepted.

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than ten (10) 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.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

The Bidder must submit its bid electronically 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

Bids transmitted by facsimile or hardcopy will not be accepted.

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 Electronic Payment of Invoices – Bid

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Annex “1” Electronic Payment Instruments, to identify which ones are accepted.

If Annex “1” Electronic Payment Instruments is not completed, 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.

3.1.2 Exchange Rate Fluctuation

[C3011T](#) (2013-11-06), Exchange Rate Fluctuation

3.1.3 SACC Manual Clauses

Section III: Certifications

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

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

Item	Mandatory Technical Criteria	Bidders should indicate where in their bid, they meet the criteria
1.	Bidders demonstrate their equipment is CSA (CSA Group) or ULC (Underwriters Laboratories of Canada) certified by providing proof of CSA or ULC certification.	_____ Page number

4.1.2 Financial Evaluation

- i. Bidders must provide Firm Prices for the Firm and Optional Requirements in accordance with Annex B – Basis of Payment;
- ii. The Total Evaluated Price will be determined by adding the Extended Prices for Section 1 and Section 2. They will be calculated as follows:
 - a. Section 1 – The Evaluated Price will be calculated by multiplying the Quantity by the Firm Unit Price;
 - b. Section 2, Item 2.1 – The Evaluated Price will be calculated by multiplying the Quantity by the Firm Unit Price;
 - c. Section 2, Item 2.2 and 2.3 – The Evaluated Price will be the Firm Lot Price
- iii. SACC Manual Clause [A0220T](#) (2014-06-26), Evaluation of Price-Bid

4.2 Basis of Selection

- 4.2.1 SACC Manual Clause [A0031T](#) (2010-08-16) Basis of Selection - Mandatory Technical Criteria

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.

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

6.1.1 There is no security requirement applicable to the Contract.

6.2 Requirement

The Contractor must provide the items detailed under the "Requirement" 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

2010A (2018-06-21), General Conditions - Goods (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 date of Contract to _____ inclusive. *(To be completed at contract award)*

6.4.2 Delivery Date

All the deliverables must be received on or before 16 weeks of contract award.

6.4.3 Optional Goods and/or Services

The Contractor grants to Canada the irrevocable option to acquire the goods, services or both described at Annex B of the Contract under the same conditions and at the prices and/or rates stated in the Contract. The option may only be exercised by the Contracting Authority and will be evidenced, for administrative purposes only, through a contract amendment.

The Contracting Authority may exercise the option at any time before the expiry of the Contract by sending a written notice to the Contractor.

6.4.4 Delivery Points

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

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Jeff Schmidt
Title: Supply Specialist
Public Works and Government Services Canada
Acquisitions Branch
Directorate: Acquisitions
Address: 4900 Yonge St, 10th Floor
Toronto, ON M2N 6A6

Telephone: 647-281-7423
E-mail address: jeff.schmidt@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:

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

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

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

6.6 Payment

6.6.1 Basis of Payment - Firm Price, Firm Unit Price(s) or Firm Lot Prices

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm prices as specified in Annex B for a cost of \$ _____. 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 Single Payment

SACC Manual Clause [H1000C](#) (2008-05-12) Single Payment

6.6.3 Advanced Payment

For the Work described in Items 2.2 and 2.3 in Annex B:

Canada will pay the Contractor in advance for the Work if:

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

6.6.4 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)

6.7 Invoicing Instructions

6.7.1 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.

Each invoice must be supported by:

- a. a copy of the release document and any other documents as specified in the Contract;

6.7.2 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.

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 _____.

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;
- (b) the general conditions [2010A](#) (2018-06-21), General Conditions - Goods (Medium Complexity);
- (c) Annex A, Requirement;
- (d) Annex B, Basis of Payment;
- (e) the Contractor's bid dated _____.

6.11 Defence Contract

SACC Manual clause [A9006C](#) (2012-07-16) Defence Contract

6.12 SACC Manual Clauses

SACC Manual clause B1501C (2018-06-21) Electrical Equipment
SACC Manual clause B9028C (2007-05-25) Access to Facilities and Equipment

6.13 Insurance

The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.

ANNEX "A"

REQUIREMENT

1. BACKGROUND

The Real Property Operations Detachment (RP Ops Det) Borden is responsible for the Primary Distribution system supplying power to Canadian Forces Base (CFB) Borden's buildings and infrastructure in support of base operations and training at CFB Borden, Ontario. In the performance of this responsibility, there exists a requirement to replace several existing pad mounted sectionalizer switch cabinets on the 12470/7200 volt underground distribution system.

2. REQUIREMENT

To supply and deliver three (3), dead front, pad-mounted load interrupting switch enclosures in order to replace the existing live front enclosures at CFB Borden.

3. SCOPE

- 3.1 All work must be accepted by the Project Authority (PA), and the Unit Representative upon completion;
- 3.2 Any deviation from the directions or references must be approved prior to commencement by the PA and updated and forwarded to RP Ops Det Borden;
- 3.3 The Contractor must provide a drawing(s) for approval by the PA prior to construction;
- 3.4 Pad Mounted Switch Gear must conform to Appendix 1 – Specifications.

4. SPECIFICATIONS

The Contractor must provide equipment that meets all specifications identified in Appendix 1 – Specifications.

5. DELIVERY

- 5.1 The Contractor must deliver the goods to the Line Crew Section, RP Ops Det Borden located at:

16 Ramillies Road, Building P-154,
Borden, ON L0M 1C0.

Note: CFB Borden is located on County Road 90, 23 kms west of Barrie, Ontario.
Access to be coordinated with P A five (5) business days prior to the scheduled delivery date.

6. SITE ACCESS

- 6.1 Upon entering the Base, the Contractor has voluntarily consented to a search of their vehicle and its contents while on any part of CFB Borden and said military establishments, by the Base Commander or person designated by them;
- 6.2 The purpose of any search conducted is to ensure the security of CFB Borden and said military establishments, and/or material or classified information belonging to the Canadian Armed Forces.

APPENDIX 1 – SPECIFICATIONS

1. DESCRIPTION OF EQUIPMENT

- 1.1 The pad-mounted gear must be in accordance with the single-line diagram, and must conform to the specifications below;
- 1.2 The pad-mounted gear must consist of a single self-supporting enclosure, containing interrupter switches with the necessary accessory components, all completely factory-assembled and operationally checked. It must also include the following:
 - a) The interrupter switches and fuses must be enclosed within an inner grounded steel compartment for electrical isolation and for protection from contamination;
 - b) Switch terminals must be equipped with bushings rated 600 amperes continuous, and bus terminals must be equipped with bushing wells rated 200 amperes continuous to provide for elbow connection.

2. SOURCE QUALITY CONTROL

- 2.1 The equipment must meet the following Canadian Safety Association (CSA) certifications:
 - 2.1.1 CSA Group (CSA)
 - a. CSA C22.2 No.14-[10], Industrial Control Equipment;
 - b. CSA C22.2 No.31-[10], Switchgear Assemblies.
 - c. CSA C22.2 No.58-[M1989 (R2010)], High-Voltage Isolating Switches.
 - d. CSA G40.20/G40.21-[04 (R2009)], General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel;
 - 2.1.2 Electrical and Electronic Manufacturers' Association of Canada (EEMAC)
 - a. EEMAC G1-1-[1958], Indoor and Outdoor Switch and Bus Insulators.
 - b. EEMAC G8-3.3, Metal-Enclosed Interrupter Switchgear Assemblies.
 - 2.1.3 National Electrical Manufacturers Association (NEMA)
 - 2.1.4 ANSI C37.72 Standard for Pad-mount Load Interrupting Switches
 - 2.1.5 ANSI C37.60 Standard for Fault Interrupters
 - 2.1.6 ANSI/IEEE C57.12.28-2014 Conformance tests and requirements for the integrity of above grade pad-mount enclosures.
 - 2.1.7 ANSI C57.12.28 Standard for Pad-mounted Enclosures
 - 2.1.8 ANSI/IEEE 386 2016 Standard for separable Insulated Connector Systems.
 - 2.1.9 ULC or CSA Approval Required
 - 2.1.10 Submit copy of ISO verified factory testing.

3. ACTION AND INFORMATIONAL SUBMITTALS

- 3.1 Product Data:
 - 3.1.1 The Contractor must submit the manufacturer's instructions, printed product literature and data sheets for switchgear assembly and include product characteristics, performance criteria, physical size, finish and limitations to the Project Authority;
 - 3.1.2 Primary switchgear assembly must include:
 - a. Enclosure.

- b. Load interrupter switches.
- c. Bus bar.
- d. Infrared Viewing Windows.

3.2 Shop Drawings

3.2.1 The Contractor must send approval drawings stamped and signed by professional engineer to the Project Authority prior to construction.

3.2.2 Indicate on drawings:

- a. Floor anchoring method and dimensioned foundation template.
- b. Dimensioned cable entry and exit locations.
- c. Dimensioned cable termination height.
- d. Dimensioned position and size of bus bars and details of provision for extension.
- e. Dimensioned positions of main connections, including air clearances and support insulators.
- f. Layout of internal and front panel components suitably identified.

3.3 Certificates

3.3.1 The Contractor must send the manufacturer's test certificates to the Project Authority.

4. QUALITY ASSURANCE

4.1 Provide the PA the manufacturer's type test certificates indicating switchgear cubicles and components tested as integrated assembly.

4.2 Provide the PA with the test procedures, at least 10 days prior to testing.

4.3 Send production test results to the PA before equipment is shipped from factory.

5. DELIVERY, STORAGE AND HANDLING

5.1 The Contractor must deliver, store and handle materials in accordance with manufacturer's written instructions.

5.2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

5.3 Storage and Handling Requirements:

The Contractor must:

- a. Ship and store switchgear assembly in upright position.
- b. Keep doors locked and protect instruments from damage and dust.
- c. Store materials in dry location off ground and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
- d. Store and protect switchgear assembly from nicks, scratches, and blemishes.
- e. Replace defective or damaged materials with new.

6. MATERIALS

The following materials must be provided:

6.1 Switchgear assembly: to CSA C22.2 No.31-18.

6.2 Steel for cubicles: to CSA G40.21.

- 6.3 Insulators: to CSA C22.2 No.58.
- 6.4 Enclosure finish to ANSI C57.12.28-2014

7. PRIMARY SWITCHGEAR

The Primary Switchgear requirements must include:

- 7.1 Primary switchgear: outdoor,
- 7.2 Nominal 3 Phase Voltage 14.4 kV;
- 7.3 Maximum Voltage, Minimum rating of 17.5 kV;
- 7.4 BIL Voltage, Minimum rating of 95 kV;
- 7.5 Short-Circuit;
 - a. Peak Withstand Current, Amperes, Peak 65,000 amperes; and
 - b. 620 MVA, Three-Phase Symmetrical, at Rated Nominal Voltage of 17.5 KV.

8. PRIMARY ENCLOSURE

The Primary Enclosure must include:

- 8.1 Dead Front, metal enclosed free standing, pad mounted, tamper resistant construction, outdoor CSA Enclosure 4 cubicle unit.
 - 8.1.1 Rolled flat steel sheets a minimum of 2.31 mm (11 gauge) thick;
 - 8.1.2 Ventilating louvres: rain, insect, and vermin proof with replaceable fiberglass filters.
 - 8.1.3 Doors
 - a. Full height outer doors, gasketed, provision for padlocking.
 - b. Three point latch, stops,
 - c. Viewing windows of transparent shatterproof material for inspection of disconnecting switch position.
 - d. Mounting hardware must be stainless steel or zinc-nickel-plated steel, and must not be externally accessible;
 - e. Metal pocket with weatherproof envelope and 1 set of drawings and diagram prints on inside surface of door.
 - f. An automatic three-point latching mechanism.
 - i. The latching mechanism must be spring-loaded, and must latch automatically when the door is closed. All latch points must latch at the same time to preclude partial latching.
 - ii. A pentahead socket wrench or tool must be required to actuate the mechanism to unlatch the door and, in the same motion, recharge the spring for the next closing operation.
 - iii. The latching mechanism must have provisions for padlocking that incorporate a means to protect the padlock shackle from tampering and that must be coordinated with the latches such that:
 - g. It must not be possible to unlatch the mechanism until the padlock is removed, and
 - h. It must not be possible to insert the padlock until the mechanism is completely latched closed.
 - i. Each door must be provided with a zinc-nickel-plated steel door holder.
 - 8.1.4 Switch cubicles must;
 - a. Be isolated and protected against;
 - i. Contamination;
 - ii. Construction to prevent infiltration of foliage and animals.
 - b. Provide gasketed seal between cubicle and enclosure roof.

- c. Have Insulating barriers of NEMA GPO3-grade fiberglass-reinforced polyester where required to achieve BIL ratings.
 - d. Full-length steel barriers must separate adjoining termination compartments.
- 8.1.5 Enclosure to be furnished with lifting tabs.
- a. The lifting tabs must be removable;
- 8.1.6 Roof
- a. The roof must be constructed of 11-gauge steel sheet.
 - b. A coat of insulating "no-drip" compound must be applied to the inside surface of the centre roof section to minimize condensation.
 - c. Roof sections over termination compartments must be liftable and hinged to allow room for cable pulling during installation.
 - d. Each roof section must have a retainer to hold it in the open position.
 - e. A mechanical interlock must be provided to ensure that the roof sections over the termination compartments are closed and secured before allowing full engagement of the door latching mechanism described in Section 1.8.1(c).
 - f. Roof sections over high-voltage compartments must be bolted to the enclosure with no exposed fasteners.

9. BUS BARS

The Bus Bars must include:

- 9.1 Three phase bare and full capacity neutral bus bars, continuous current rating minimum 600 Amperes extending full width of multi-cubicles suitably supported on insulators.
- 9.2 Peak Withstand Current, minimum 65 000 Amperes;

10. GROUNDING

- 10.1 The ground-connection pad must have a short-circuit rating equal to that of the pad-mounted gear;
- 10.2 A copper rod, connected to the ground-connection pad, must be provided in each termination compartment for switches and bus.
 - 10.2.1 Rod must extend across the full width of the compartment, and
 - 10.2.2 Allow grounding of cable concentric neutrals and accessories.

11. LOAD INTERRUPTER SWITCH

- 11.1 All compartments must be furnished with a three pole interrupter switch:
 - 11.1.1 Continuous Current, 600 Amperes;
 - 11.1.2 Load Dropping Current, 600 Amperes;
 - 11.1.3 One-Second Short-Time Withstand Current, 14,000 Amperes, RMS, Symmetrical; and
 - 11.1.4 Three-Time Duty-Cycle Fault-Closing Current, 36,400 Amperes, RMS, Symmetrical
- 11.2 Interrupter switches must be operated by means of an externally accessible minimum 3/4-in. hex switch-operating hub.
 - 11.2.1 The switch-operating hub must be located within a recessed stainless-steel pocket mounted on the side of the pad-mounted gear enclosure and must accommodate a 3/4-in. deep-socket wrench or a 3/4-in. shallow-socket wrench with extension.
 - 11.2.2 The switch-operating-hub pocket must include a pad lockable stainless-steel access cover that must incorporate a hood to protect the padlock shackle from tampering.
 - 11.2.3 Stops must be provided on the switch-operating hub to prevent over travel
 - 11.2.4 Labels to indicate switch position must be provided in the switch-operating-hub pocket.

-
- 11.2.5 Each interrupter switch must be provided with a folding switch-operating handle.
 - 11.2.6 The switch-operating handle must be secured to the inside of the switch-operating-hub pocket.
 - 11.2.7 The folded handle must be stored behind the closed switch-operating-hub access cover.

 - 11.3 Interrupter switches must utilize a quick-make quick-break mechanism installed by the switch manufacturer.

 - 11.4 Mounting provisions must be provided to accommodate one three-phase fault indicator with three single-phase sensors in each switch-termination compartment.

12. TERMINATION COMPARTMENTS

- 12.1 Dead front, 15 KV 200 amp load break bushings and wells.
- 12.2 Parking stand and 15 kV standoff insulator adjacent to each cable termination position to accommodate parking of primary cable elbow terminator when disconnected from bushing.
- 12.3 15 kV, protective caps for all unused bushings.

13. INFRARED VIEWING WINDOWS

- 13.1 Each termination compartment for a switch must be equipped with a viewing window to allow visual inspection of interrupter switch blades to allow positive verification of switch position.

14. FINISHES

Finishes must include:

- 14.1 The finish must be olive green, Munsell 7GY3.29/1.5.
- 14.2 Supply 2 spray cans touch up paint.

15. EQUIPMENT IDENTIFICATION

The Contractor must:

- 15.1 Identify equipment identification name plates:
 - 15.1.1 The outside of each door (or set of double doors) must be provided with a nameplate indicating the manufacturer's name, catalog number, model number, date of manufacture, and serial number.
 - 15.1.2 The inside of each door (or set of double doors) must be provided with a ratings label indicating the following:
 - a. Overall pad-mounted gear ratings: nominal voltage, kV; maximum voltage, kV; BIL voltage, kV; power frequency, Hz; short-circuit peak withstand current, amperes, peak; short-circuit one-second short-time withstand current, amperes, RMS, symmetrical; and short-circuit MVA, three-phase symmetrical, at rated nominal voltage.
 - b. Main bus ratings: continuous current, amperes; peak withstand current, amperes, peak; and one-second short-time withstand current, amperes, RMS symmetrical.
 - c. Switch ratings: continuous current, amperes; load splitting current, amperes; load dropping current, amperes; peak withstand current, amperes, peak; one-second short-time withstand current, amperes, RMS, symmetrical; and three-time duty-cycle fault-closing current, amperes, RMS symmetrical and amperes, peak.
 - d. A three-line connection diagram showing interrupter switches, fuses, and bus along with the manufacturer's model number shall be provided on the inside of each door (or set of double doors), and on the inside of each switch-operating-hub access cover.

16. SOURCE QUALITY CONTROL

- 16.1 ANSI C37.72 Standard for Pad-mount Load Interrupting Switches
- 16.2 ANSI/IEEE C57.12.28-2014 Conformance tests and requirements for the integrity of above grade pad-mount enclosures.
- 16.3 ANSI C57.12.28 Standard for Pad-mounted Enclosures
- 16.4 ANSI/IEEE 386 2016 Standard for separable Insulated Connector Systems.
- 16.5 ULC or CSA Approval Required
- 16.6 Submit copy of ISO verified factory testing

17. CONFIGURATION

- 17.1 The equipment must meet the following configuration:

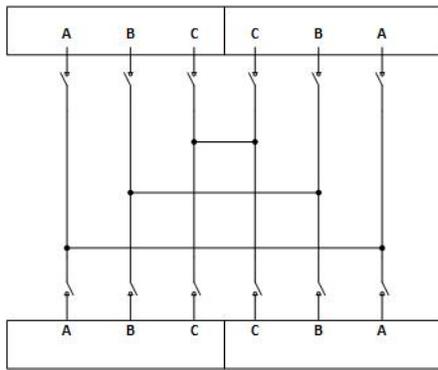


Figure 1: Four cubicle switch configuration.

ANNEX "B"

BASIS OF PAYMENT

Firm unit prices in Canadian funds including Canadian customs duties, excise taxes, and F.O.B. Destination, including all delivery charges. The total amount of Goods and Services Tax (GST) or Harmonized Sales Tax (HST) is to be shown separately, if applicable.

Note: All wording in italics will be removed upon contract award.

1. Firm Requirement

Item	Description	Quantity	Firm Unit Price	Total Extended Price
1.1	For the supply and delivery of Dead-Front Pad-Mount Switchgears in accordance with Annex A, Requirement.	3	\$ _____	\$ _____

Item 1.1 Evaluated Price \$ _____

Subtotal \$ _____

Applicable Taxes \$ _____

Total \$ _____

2. Optional Requirements

Canada may purchase the optional units together or separately.

Item	Description	Quantity	Firm Unit Price
2.1	For the supply and delivery of Dead Front Pad Mount Switch Gears in accordance with Annex A, Requirement.	2	\$ _____

Item 2.1 Evaluated Price \$ _____

Item	Description	Firm Lot Price
2.2	For the supply of a Second Year Extended Warranty for all firm and optional units (1.1 and 2.1) upon expiry of the standard Warranty identified in Section <u>09</u> of the <u>2010A</u> General Conditions.	\$ _____
2.3	For the supply of a Third Year Extended Warranty for all firm and optional units (1.1 and 2.1).	\$ _____

TOTAL EVALUATED PRICE (Section 1.1 + 2.1 + 2.2 + 2.3) \$ _____

ANNEX "1" to PART 3 OF THE BID SOLICITATION

ELECTRONIC PAYMENT INSTRUMENTS

The Bidder accepts any of the following Electronic Payment Instrument(s):

- VISA Acquisition Card;
- MasterCard Acquisition Card;
- Direct Deposit (Domestic and International);
- Electronic Data Interchange (EDI);
- Wire Transfer (International Only);
- Large Value Transfer System (LVTS) (Over \$25M)