

This addendum shall form part of the contract for the Request for Quote 2016-04 (Stantec Specification No. 133546898S502), and will alter and take precedence over any provisions of which this addendum is in conflict.

Please be advised of the following additions, deletions, changes, or clarifications.

1. Section 1.2 - Scope of Work

The scope of work is now to include for the supply of six (6) current transformers in addition to the equipment listed in the specification.

2. Section 1.4 - Codes and Standards

In addition to the codes and standards listed, include the following:

CSA C61869-2 Instrument Transformers – Part 2: Current Transformers.

3. Section 2.1 - Invitations

The scope of work is now to include for the supply of six (6) current transformers in addition to the equipment listed in the specification.

4. Section 5 – Technical

4.1 Protection PTs - Taps

Include a tap for 69V (i.e. 80.5kV-115/69V) 3PX-0.3WXYZ 1.9Un 30 seconds.

4.2 PTs for Relaying and Cable Discharging

All PTs must be capable of enduring discharge of stored capacitive energy from the high voltage cables through the primary winding without damage, even when the secondary circuit is open. At a minimum, the PTs must be able to tolerate discharging of a fully charged 138kV cable with the following three phase characteristics:

System Voltage	138	(kV)
DC Resistance at 90°C	2.818E-05	(Ω/m)
Capacitance	2.230E-10	(F/m)
Reactive Power	28.1	(MVAR)
Total Length	17.54	(km)



The vendor shall stipulate the allowable minimum interval between successive cable discharge events.

4.2 CT Data Sheet

Include the following data sheet for the supply of current transformers:

Nominal System Voltage	138 kV
Maximum Operating Voltage	145 kV
Power Frequency Withstand Voltage	310 kV
Basic Insulation Level (BIL)	650 kV
Rated Frequency	60 Hz
Operating Temperature	-35°C to +40 °C
Number of windings per CT	6
Winding Ratios (Multi-tap)	3000-2000-1000/5 3000-2000-1000/5 3000-2000-1000/5 1200-800-300-200/5 1200-800-300-200/5 1200-800-300-200/5
Accuracy Class: 3000-2000-1000/5 CT	2.5L1200@3000/5 2.5L800@2000/5 2.5L400@1000/5
Accuracy Class: 1200-800-300-200/5CT	2.5L800@1200/5 2.5L533@800/5 2.5L200@300/5
Minimum Creepage Distance	25mm/kV
Materials: Mounting Hardware & Base	Galvanized Steel Nuts, Bolts & Washers
Live Parts	Aluminum
Ground Connector and Strap	Suitable for 4/0 AWG Stranded Cu Conductor
Clamp Type Line Connector	4 hole NEMA pad
Line to Ground Fault Level	40kA
Three Phase Fault Level	40kA

4.3 General Requirements



Each CT circuit will be an independent secondary winding coil, each with its own core or otherwise specified in the datasheet.

The winding polarity mark is to be associated with the H1 bushing, such that current flowing into the primary winding from the utility grid produces current flowing out of the X1 secondary winding, and the opposite direction for reverse power flow. The H1 bushing will be clearly identified on the housing, and the polarity marks are to be shown on the nameplate and/or winding schematic drawings.

The continuous current rating factor (RF) shall be 2.0 in accordance with CSA standard CAN C61869-2.

4.4 Insulating Bushing Column – Housing

Porcelains shall be wet process, homogeneous and free from cavities or other flaws. The glazing shall be uniform in color and free from blisters, burns and other defects. The color of the porcelain shall be light grey. The porcelains shall be silicon coated

Porcelain parts of the CTs may be constructed as one piece or multiple parts provided the multiple parts are assembled by one of the following methods:

- a. Flanged segments.
- b. Placing firing material in the joints between the segments and the entire porcelain part fired in one piece.
- c. Securely holding the parts together with a clamping device through the centerline of the bushing column. The joint must be at right angles to the longitudinal centerline of the housing if this method is used.

4.5 Secondary Terminals, Junction Boxes and Wiring

Provide three (3) separate secondary junction boxes. Each junction box will contain the secondary winding for one (1) 3000-5 CT and one (1) 1200-5 CT Each box shall have three (3) threaded 40 mm (1-1/2'') conduit openings, one on each side and one on the bottom, with removable weather tight plugs.



All leads of the CT's shall be terminated on clearly labeled shorting type terminal blocks in the control cabinet. The terminal blocks shall be Marathon 1600 ST series or equivalent and suitable for voltages which could be seen on the CT terminals during a fault and suitable for minimum size #8 AWG stranded copper conductor.

A maximum of two (2) wires shall be connected to a position on a terminal block. All other interface terminations will also be made using suitable connectors.

The Vendor shall furnish a jumper between the ground terminal of the interface terminal block and the case of the junction box.

Terminal blocks shall be identified by engraved nameplates. Nameplates on exposed surfaces shall be securely attached without the use of adhesives. Adhesives may be used on nameplates attached to internal surfaces.

CT wiring shall:

- a. Be run in rigid galvanized steel conduit and short lengths of liquid-tight flexible conduit between the bushing and terminal box.
- b. Contain no splices.
- c. Be minimum 10AWG stranded copper 90°C XLPE insulated.
- d. Wiring shall be capable of passing UL 44 vertical flame test VW-1.
- e. All wiring associated with current transformer secondary shall receive a low frequency withstand test of 2500V for 1 minute.

Wires shall be identified at both ends with permanent wire markers. Handwritten, stick-on wire markers and wire supports are not acceptable.

Unless otherwise specified in data sheet, terminal boxes shall be:

- a. NEMA 4 (or NEMA 4S).
- b. Made of heavy gauge aluminum, marine grade or stainless steel sheet for long lasting rust-proof operation.



- c. Terminal boxes shall not have any sharp edges or corners inside or outside.
- d. The Vendor shall provide 120V, low wattage space strip heaters to reduce condensation in terminal boxes.

4.6 CT Nameplate

Nameplates shall include at least the following information and manufacturer standard items not covered herein:

- a. Name of manufacturer.
- b. Manufacturing month and year.
- c. Serial number.
- d. Type and model.
- e. Maximum voltage (kV).
- f. CT Ratio/accuracy/thermal rating factor.
- g. Short circuit withstand capacity symmetrical and asymmetrical (kA).
- h. Conductor material (Cu or Al).
- i. Housing creepage (mm).
- j. Housing cantilever force withstand (kN or lbs).
- k. Basic Lightning Impulse, BIL (kV).
- l. Power frequency withstand (kV).
- m. Oil pressure (kPa) or gas pressure and type (MPa)
- n. Insulating liquid data: generic name (preferred), type, and make.
- o. Volume and weight of liquid (litres and kg).
- p. Overall weight of unit (kg).



Maritime Electric Company Ltd.
Charlottetown, PE

Stantec

133546898S502
138kV Potential Transformer – Borden Substation
ADDENDUM NO. 1

***** End of Addendum 1 *****

Maritime Electric Company, Limited

Potential Transformers, 138 kV

Request for Quote 2016-04

TABLE OF CONTENTS

1.	PROJECT SCOPE DESCRIPTION	1
1.1	General	1
1.2	Scope of Work	1
1.3	Definitions	1
1.4	Codes and Standards	2
1.5	Service Conditions	3
2.	INSTRUCTIONS TO BIDDERS	4
2.1	Invitations	4
2.2	Quote Document	4
2.3	Bid Requirements	4
2.4	Submission of Bid Form	5
2.5	Enquiries	5
2.6	Addenda	5
2.7	Previous Experience	6
2.8	Bid without Knowledge of Others	6
2.9	Withdrawal of Bid	6
2.10	Shipment	6
2.11	Signing Bids	6
2.12	Evaluation of Bids	6
3.	CONDITIONS OF CONTRACT	7
3.1	Contract Documents	7
3.2	Work to be to the Satisfaction of the Engineer	7
3.3	Execution of Work	7
3.4	Program of Work and Extension of Time	7
3.5	Materials and Material Substitution	8
3.6	Materials to be Supplied by the Owner	8
3.7	Sub-Contracts	8
3.8	Alterations and Omissions	9
3.9	Supplied by Contractor	9
3.10	Terms of Payment	9
3.11	Work to be Free from All Encumbrances	10
3.12	Provisions for Cancellation of Contract	11
3.13	Default of the Contractor	12
3.14	Inspection and Tests	12
3.15	Permits and Licences	13
3.16	Patents	13
4.	SUPPLEMENTARY CONDITIONS	14
4.1	Escalation	14
4.2	Governing Laws	14
4.3	Dispute Resolution	14
4.4	Test on Contractor's Premises	14
4.5	Guarantee	15

4.6	Indemnification	15
4.7	Work Site Requirements	16
5.	TECHNICAL	17
5.1	138 kV Potential Transformers	17
5.1.1	Relaying PT Data Sheet	17
5.1.2	Power PT Data Sheet	18
5.1.3	General Requirements	18
5.1.4	Hardware	20
5.1.5	Nameplate	20
5.2	Tests	21
5.2.1	Design Tests	21
5.3	Packaging and Shipping	22
5.4	Spare Parts	23
5.5	Shop Drawings and Product Information	23
5.5	Operations and Maintenance Manuals	25
5.6	Technical Information	26
5.7	Quality Program	27
5.8	Inspection and Testing	27

APPENDICES

APPENDIX 1	TECHNICAL SUBMITTAL FORM
APPENDIX 2	TECHNICAL CONFORMITY STATEMENT
APPENDIX 3	BID SUBMITTAL FORM

SECTION 1

1. PROJECT SCOPE DESCRIPTION

1.1 General

Maritime Electric Corporation Ltd. (MECL) is building a new 138 kV Substation in Borden, PE to support the new 138 kV subsea cables that will be installed between New Brunswick and Prince Edward Island.

1.2 Scope of Work

This specification covers the technical requirements for the supply of twenty-one (21) - 84 kV – 120 V Potential Transformers (PT's) for relaying, four (4) 84 kV - 120 V Power Potential Transformers for Station Service, and six (6) Potential Transformers (PTs) for cable discharge resistors (supplied by others). All other items required for a complete and operable system shall be included.

1.3 Definitions

"Bidder" means a person, firm or corporation who proposes to submit, or who has submitted a quotation for the supply of the equipment.

"Calendar Day" means any day including Saturday, Sunday, statutory holiday or statutory vacation day that is observed by the construction industry in the area of the Place of Work.

"Change Directive" is a written instruction prepared by the Engineer and signed by the Owner directing the Vendor to proceed with a change in the Work within the general scope of the Technical Specification prior to the Owner and the Vendor agreeing upon an adjustment in Contract Price and Contract Time.

"Change Order" is a written amendment to the Contract prepared by the Engineer and signed by the purchaser stating their agreement upon:

1. A change in the work.
2. The method of adjustment or the amount of the adjustment in the Contract Price, if any.
3. The extent of the adjustment in the Contract Time, if any.

"Contract" is the undertaking by the parties to perform their respective duties, responsibilities, and obligations as prescribed in the Contract Documents and represents the entire agreement between the parties.

SECTION 1

"Installation Contractor" means the person or persons, firm or company, whose bid for the installation of the works will be accepted by the Owner pursuant to a general contract outside the scope of this supply document.

"Delivery Period" means the period commencing on the date of mailing of the Purchaser's official order to the Vendor and ending on the date when delivery to the site designated for delivery, covered by the purchase order, has been complete.

"Engineer" means Stantec Consulting Ltd. or its duly appointed representative who has been authorized by MECL to act on their behalf.

"Owner" means Maritime Electric Corporation Ltd. (MECL) and includes the Owner's personal representatives or successors.

"Purchase Order" means a pre-purchase for equipment selected by the Engineer, on behalf of the Owner.

"Purchaser" is the Owner.

"Shop Drawings" are the drawings, diagrams, schematics, illustrations, schedules, performance charts, brochures, product data, manuals and other data that the Vendor provides to illustrate details of the circuit breakers.

"Vendor" means the equipment supplier whose equipment has been selected by the Owner, referred to herein, and to guarantee delivery to the job site.

"Working Day" means any day excluding Saturday, Sunday, statutory holiday or statutory vacation day that is observed by the construction industry in the area of the Place of Work.

"Works" means the Works to be executed in accordance with this Contract.

"Approved" means approved by the Engineer.

"Specified" means specified by the Engineer, either on the drawings, in the Specification or otherwise either verbally or in writing.

1.4 Codes and Standards

1. American National Standards Institute (ANSI)/Institute of Electrical and Electronics Engineers (IEEE):

IEEE Std. C37.90	Standard for Relays and Relay Systems Associated with Electric Power Apparatus.
------------------	---

SECTION 1

- | | |
|---|---|
| IEEE Std. C57.13 | Standard Requirements for Instrument Transformers. |
| 2. Canadian Standards Association, (CSA International): | |
| C22.1
C22.2 NO. 38 | Canadian Electrical Code – Part 1.
Thermoset-Insulated Wires and Cables. |
| C22.3 NO. 61936-1 | Power Installations Exceeding 1kVAC. - Part 1:
Common Rules. |
| CAN C61869-1 | Instrument Transformers. |
| C50 | Insulating Oil, Electrical for Transformers and Switches. |
| C60044-2 | Instrument Transformers - Part 2: Voltage Transformers. |
| C71-1 | Insulation Coordination. |
| C71-2 | Insulation Coordination: Part 2. |
| W59 | Welded Steel Construction (Metal-Arc Welding). |
| 3. Other Standards: | |
| ASTM D3487 | Mineral Insulating Oil Used in Electrical Apparatus. |
| ISO 9001 | Quality Control Program. |
| NEMA CC-1 | Electrical Power Connection for Substations. |
| ASTM A123/A123M | Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products. |
| 4. In case of conflict between any of the publications listed above, the governing standard shall be the one which requires the highest quality of work and materials and affords the highest degree of safety to personnel as interpreted by the Engineer. | |

1.5 Service Conditions

1. The PT's shall be suitable for installation in a coastal environment where exposure to salt spray is likely. The manufacturer shall consider this element in

SECTION 1

submitting a tender and alter the design, ratings, etc. as required to compensate. (i.e. stainless or galvanized steel).

2. The Potential Transformers and all associated components shall be suitable for operation in an ambient temperature range of -40°C to +40°C.
3. The PT's will be installed in a 138 kV, 60 Hz substation. Specific ratings shall be as per data sheets.

SECTION 2

2. INSTRUCTION TO BIDDERS

2.1 Invitations

Maritime Electric Company, Limited, hereinafter called the Owner requests bids as specified in the quote document for design, factory testing, supply and delivery to site of twenty-one (21) Potential Transformers for the Borden Substation in Prince Edward Island, signed and delivered to:

Mr. Patrick Cooke
Supervisor, Purchasing and Materials Management
Maritime Electric Company, Limited
PO Box 1328, 180 Kent Street
Charlottetown PE C1A 7N2 CANADA

By 2:00 p.m. Atlantic Time, Monday, February 8, 2016.

2.2 Quote Document

The quote document will comprise the following:

- Project Scope Description
- Instructions to Bidders
- Conditions of Contract
- Supplementary Conditions
- Technical
- Appendix 1, Technical Submittal Form
- Appendix 2, Technical Conformity Statement
- Appendix 3, Bid Submittal Form

2.3 Bid Requirements

a. In Accordance with Quote Document

Bids shall meet the quote document's requirements concerning:

- i. Submission of bids as described in these Instructions to Bidders;
- ii. Performance of Works to the quality, in the manner specified, and within times specified in the Specifications;
- iii. Performance of all other obligations and assumption of all liability imposed upon the Bidders by the said quote document; and

b. Right to Reject

Bidders are notified that the lowest or any Bid may not be accepted by Maritime Electric. Maritime Electric reserves the right to reject any and all Bids at any time

SECTION 2

without further explanation or to accept any Bid considered advantageous to Maritime Electric.

c. Negotiation with Bidders

Maritime Electric reserves the right in its sole discretion to clarify any Bid after closing by seeking further information from a Bidder without becoming obligated to clarify or seek further information from any or all other Bidders. However, this will not be an opportunity by the Bidder to either correct errors or to change their Bid in any substantive manner.

d. Alternatives Not Specified

Alternatives offered by Bidders and not specified in quote document may not be considered unless submitted separately and in addition to a bid in accordance with the quote document, and unless such alternatives affect only the quality of the Works as specified in the Specification and do not affect other requirements of the quote document. Alternatives shall be accompanied by complete information on physical characteristics, qualities, performance and price.

2.4 Submission of Bid Form

Bids may be submitted by email to cooke@maritimeelectric.com by the date specified in Invitations (2:00 p.m. Atlantic Time, Monday, February 8, 2016). If the email option is chosen, three hard copies of the bid must be received by 4:00 p.m. Atlantic Time, Tuesday, February 9, 2016.

2.5 Enquiries

Enquiries shall be submitted only by prospective Bidders and not by prospective Sub-Contractors or others.

All enquiries shall be by letter or e-mail only and addressed as follows:

Maritime Electric Company, Limited
PO Box 1328, 180 Kent Street
Charlottetown PE C1A 7N2 CANADA
Attention: Patrick Cooke - Supervisor, Purchasing and Materials Management
E-mail: cooke@maritimeelectric.com

2.6 Addenda

Any interpretation of, or change in the quote document prior to the latest date specified herein for receipt of bids, will be made only by written addendum issued by Maritime Electric Company, Limited to each Bidder to whom the quote document has been issued and shall become part of the quote document. No other interpretation or explanation shall be valid.

SECTION 2

2.7 Previous Experience

Bidders shall have experience in all aspects of the Works on which they are bidding.

2.8 Bid without Knowledge of Others

Bids shall be submitted without any connection, comparison of figures or arrangement with or knowledge of any other person or persons submitting a bid for the same work and shall be in all respects, fair and without collusion or fraud.

2.9 Withdrawal of Bid

Any bid may be withdrawn by the Bidder at any time prior to acceptance.

2.10 Shipment

Shipment of the Works shall be Incoterm DDP (F.O.B. Destination), Borden Substation, PE, Canada.

2.11 Signing Bids

If the bid is submitted by a corporation, the bid shall be signed under seal in its name and on its behalf by two duly authorized offices of the corporation.

If the bid is submitted by an individual, it should be signed under seal.

If the bid is submitted by two or more contractors as partners in a Joint Venture, each partner by signing under seal shall undertake that if the bid is accepted they will be jointly and severally bound to discharge the duties, obligations and responsibilities of the Contract.

2.12 Evaluation of Bids

For the purpose of comparison of bids, MECL and Stantec will consider a number of criteria such as performance characteristics, construction, warranty, price, delivery etc.

3. CONDITIONS OF CONTRACT

3.1 Contract Documents

The Contract documents are complementary and what is called for by any one shall be as binding as if called for by all. The intention of the documents is to include all labour, supervision, materials, construction plant and equipment, supplies, service, tools, transportation, facilities, and all things necessary for the proper execution of the Works excepting only those items specifically stated as being furnished by the Owner.

3.2 Work to be to the Satisfaction of the Engineer

The Contractor shall execute the Works in accordance with the Contract and to the satisfaction of the Engineer and shall comply with the Engineer's instructions on any matter relating thereto.

3.3 Execution of Works

The whole of the Works shall be of a kind and conducted in a manner approved by the Engineer who shall also decide on questions arising under the Contract whether concerning the execution of the Works or the interpretation of the Specification.

3.4 Program of Work and Extension of Time

- a. Time is of the essence of the Contract.

The Contractor shall proceed with the Works when authorized to do so by the Engineer and shall complete the whole of the Works on or before the completion date proposed in the Schedule of Timing approved by the Owner or the Engineer. If the Engineer should be of the opinion and so state in writing to the Contractor that the rate of progress of the Works is insufficient to enable the whole of the Works and any part thereof to be complete within the times proposed for such completion in the Specification, the Contractor shall take whatever measures as the Engineer may specify to expedite the progress of the Work.

The Contractor shall work a sufficient number of hours per shift and shifts per day to complete the Works within the time specified.

- b. Extension of Time for Completion

Should the Contractor be delayed in the execution of the Works by such special circumstances as changes in, or addition to, the Work required to be executed hereunder, or by fire, strikes, riots, acts of nature, or by any other happening or occurrence beyond the control of the Contractor (excepting lack of finances or failure to have adequate and suitable equipment, materials or labour forces on the

SECTION 3

Works), but in no way caused by, or resulting from, an act of default of the Contractor, and which is not otherwise excluded by the Contract, then the time fixed for completion of the Works may be varied for a period as determined and fixed by the Engineer.

3.5 Materials and Material Substitution

Unless otherwise specified, all materials and equipment to be supplied by the Contractor for incorporation in the permanent Works shall be new and of the best quality of their respective kinds, shall comply with the latest edition of the relevant Standards and shall be subject to the approval of the Engineer before being used, and the delivery, storage and handling thereof shall be the sole responsibility of the Contractor and shall be subject to the approval of the Engineer.

In order to specify the quality and type of materials and equipment required for the Work, trade names and manufacturer's names may have been used in the Specification. The Contractor shall not substitute any other materials and equipment for any materials or equipment specified without the approval of the Engineer.

If the Contractor wishes to make a substitution for materials or equipment specified, they shall submit a request to the Engineer accompanied by complete information on the physical characteristics, qualities and performance of such materials or equipment to be substituted. If requested by the Engineer, the Contractor at his/her own expense shall submit to the Engineer for comparison purposes samples of both the specified materials or equipment and the proposed substitutes. The decision of the Engineer as to the quality or approval of any materials or equipment which the Contractor proposes to substitute will be final.

The Contractor shall bear the total cost of all necessary modifications to the Works arising as a result of substituted materials or equipment.

No payment over and above the prices entered in the Schedule of Prices will be made to the Contractor because of the use of substituted materials or equipment.

3.6 Materials to be Supplied by Owner

No materials will be supplied by the Owner for inclusion in the Works.

3.7 Sub-Contracts

The Contractor shall not sublet the whole of the Works. The Contractor shall not sublet any part of the Works without the written consent of the Engineer.

The Contractor shall be responsible to the Owner for all the work of his/her Sub-Contractors including without limitation Sub-Contractors nominated by the Owner or the Engineer, if any.

SECTION 3

The Contractor shall be held as fully responsible to the Owner for the acts and omissions of his/her Sub-Contractors, if any, and of persons directly or indirectly employed by them or any of them for the acts and omissions of persons directly employed by the Contractor.

Nothing contained in the Contract documents shall create any contractual relation between any Sub-Contractor and the Owner but the Contractor agrees to bind every Sub-Contractor by the terms of the Conditions of Contract and Specification as far as applicable to their work.

3.8 Alterations and Omissions

- a. Revisions in the drawings or further drawings and specifications may, from time to time, be issued by the Engineer during the process of the Works as deemed necessary.
- b. The Engineer may, from time to time, without invalidating this Specification make changes in the aforesaid drawings and Specification and issue additional instructions and require additional work, in which case the lump sum price submitted by the Supplier shall apply provided that no changes shall have been ordered which materially alter the character and scope of the work. Should such change(s) materially alter the character and scope of the work, the lump sum price shall be adjusted by the value of any such change ordered by the Engineer. Such value shall be determined by mutual agreement between the Owner and the Supplier and confirmed by a Change Order before the change is performed.
- c. The Engineer may also from time to time, without invalidating this Specification, direct the omission of certain items of work if such work is no longer required by the Owner, and in this case the lump sum price shall be decreased by the value of the omission(s). Such value shall be mutually agreed upon between the Owner and the Supplier and confirmed by a Change Order.

3.9 Supplied by Contractor

Except for those materials, services and facilities which are specifically stated in the Specification as being supplied by the Owner, the Contractor shall provide and include in the rates entered in the Schedule of Prices for the execution of the whole of the Works complete in every respect in accordance with the Contract.

3.10 Terms of Payment

The Owner shall pay the Supplier for performance of the Works in the following manner:

Net 30 days after delivery to site.

3.11 Work to be Free from all Encumbrances

Before making payment, the Owner or the Engineer may require the Contractor to furnish evidence that all work performed for which payment is being made are free and clear from all lawful claims, liens or privileges, under any law or ordinance including without limiting the generality of the foregoing, legal provisions relating to privileges or liens in favour of workmen, builders, architects or suppliers of materials.

When requested by the Engineer, such evidence shall include:

- a. A statutory Declaration that the Works are free from all lawful claims, liens and privileges.
- b. Such other evidence as may be necessary to satisfy the Engineer that the Contractor has fulfilled his/her obligations under the Contract.

The Contractor shall indemnify and hold harmless the Owner from and against any and all kinds of claims, liens, privileges including all claims, liens and privileges for labour and services performed and materials furnished in relation to the Works of this Contract.

3.12 Provisions for Cancellation of Contract

The Owner shall have the right to terminate this Contract on one week's notice in which event the Contractor shall be paid by the Owner for all work executed prior to the date of termination at the unit prices, lump sums and provisional sums set out in the Schedule of Prices and in addition:

- a. The amounts payable in respect of any preliminary items so far as the work or service comprised therein had been carried out or performed, and a proper proportion (as certified by the Engineer) of any such items, the work or service comprised in which has been partially carried out or performed, insofar as such expenditures shall not have been covered by the aforementioned payments;
- b. The cost of materials or goods reasonably ordered for the Works or temporary work which have been delivered to the Contractor or of which the Contractor is legally liable to accept delivery (such materials or goods becoming the property of the Owner upon such payment being made); and
- c. A sum to be certified by the Engineer being the amount of any expenditure reasonably incurred by the Contractor in the expectation of completing the whole of the Works insofar as such expenditure shall not have been covered by the aforementioned payments.

Providing always that, against any payments due from the Owner hereunder, the Owner shall be entitled to be credited with any sum previously paid by the Owner to the

SECTION 3

Contractor in respect of the execution of the Works and the Owner shall not pay or be liable to pay any bonus, damage or other claim by the Contractor or loss of his/her expected profit on the uncompleted portions of the Works.

3.13 Default of the Contractor

If the Contractor assigns the Contract or sublets the whole of the Works or if the Contractor should be adjudged bankrupt or if they should make a general assignment for their benefit of their creditors, or if a receiver should be appointed, or if the Contractor should be wound up or go into liquidation on account of insolvency, or if they refuse or fail to supply the properly skilled workmen, materials, construction equipment and small tools deemed necessary by the Engineer after having received 14 days notice in writing from the Engineer to do so, or if they should fail to make prompt payments to Sub-Contractors or for materials or labour or persistently disregards laws, ordinances, or the instructions of the Engineer, or in the opinion of the Engineer, otherwise be guilty of a substantial violation of the provisions of this Contract then the Owner may, upon the certificate of the Engineer that sufficient cause exists to justify such action and without prejudice to any other right or remedy, give the Contractor written notice and terminate the employment of the Contractor and take possession of the whole of the Works and finish the Works by whatever method the Owner may deem expedient but without undue delay or expense.

If the employment of the Contractor is terminated in accordance with the provisions of this clause, the Contractor shall not be entitled to receive any further payment until the Works are completed.

Upon completion of the Works, the Engineer shall determine:

- a. The amount which would have been due to the Contractor under the Contract if all of the Works had been performed by them; and
- b. The costs and expense borne by the Owner in completing the Works, or any part thereof, and damages for delay in completion, if any.

The Contractor shall be entitled to receive the said amount less such cost and expense or if such cost and expense exceeds such amount, the Contractor shall pay upon demand to the Owner the amount of such excess.

3.14 Inspection and Tests

The Engineer or Owner's duly authorized representative shall at all times have access to the Works wherever it is in preparation or progress and the Contractor shall provide proper facilities for such access and for inspection and testing. If the Specification, the Engineer's instructions, laws or ordinances, or any public authority require any work to be tested or approved, the Contractor shall give the Engineer adequate notice of its

SECTION 3

readiness for inspection. If any work should be covered up without consent or approval of the Engineer, it must on request be uncovered for examination and made good by the Contractor at his/her expense.

Tests shall be carried out on the Works to the satisfaction of the Engineer.

Within twenty-four (24) hours after receiving written notice from the Engineer to that effect, the Contractor shall at their expense proceed to remove from the Works any part of the Works which in the opinion of the Engineer fails to meet the requirements of the Contract and to re-execute portions of the Works affected by such removal.

3.15 Permits and Licenses

The Contractor shall secure and pay for all other licenses and permits which they may require to comply fully with all laws, ordinances and regulations of the proper public authorities in connection with the performance of the Works. The Contractor shall be responsible for all damages and shall indemnify and save the Owner harmless from and against all claims for damages and liability which may arise out of failure of the Contractor to secure and pay for any such licenses and permits or to comply fully with any and all applicable laws, ordinances and regulations.

3.16 Patents

The Contractor agrees to indemnify, save harmless and defend the Owner from and against any and all suits, legal proceedings, claims, demands, damages, costs and attorney's fees incident to any infringement or to any claimed infringement of any patent or patents in the manufacture, sale or use of any materials, equipment or apparatus furnished by the Contractor or the Works.

4. SUPPLEMENTARY CONDITIONS

4.1 Escalation

Quoted prices shall be final. Extra work resulting from changes requested by Owner to be priced at quoted lump sum or unit labour rates plus material costs as per the Schedule for prices or as negotiated with Owner. No provision for price escalation will be made.

4.2 Governing Laws

The Contract shall be deemed to have been made in and shall be construed according to the laws of the Province of Prince Edward Island.

4.3 Dispute Resolution

4.3.1 At any time while this Agreement and any of its provisions are in force, should any dispute or question arise between the parties concerning the interpretation of this Agreement or any part thereof which cannot be resolved by agreement between the parties, then such dispute or question shall be submitted to mediation. The mediation shall be conducted with the assistance of a skilled and experienced mediator chosen by the Contractor from a list of mediators proposed by the Owner. The cost of mediation shall be borne by the parties equally.

4.3.2 Failing agreement through such mediation, then within five (5) days after the mediation has failed, the dispute or question shall be settled by binding arbitration in accordance with the Arbitration Act (Prince Edward Island), by one party giving notice to the other parties. The arbitration shall be conducted with the assistance of a skilled and experienced arbitrator chosen by the Contractor from a list of arbitrators proposed by the Owner.

4.3.3 The determination of the arbitrator shall be in writing and shall be final and binding upon the parties and no appeal shall be taken there from. The cost of arbitration shall be borne by the parties equally.

4.3.4 For greater certainty, the Arbitration Act (Prince Edward Island) shall apply to arbitrations of disputes under this Agreement.

4.4 Test on Contractor's Premises

Where the Contract provides for tests on the premises of the Contractor or of any Sub-Contractor, the Contractor shall provide such assistance, labour, materials, electricity, fuel, stores, apparatus and instruments as may be requisite and as may be reasonably demanded to carry out such tests efficiently.

SECTION 4

The Contractor shall give the Engineer fifteen (15) days notice in writing of the date on and the place at which the work will be ready for testing as provided in the Contract. The Contractor shall forthwith forward to the Engineer duly certified copies of the test readings. The Engineer shall give the Contractor 24 hours' notice of his/her intention to attend the tests.

4.5 Guarantee

The Contractor shall guarantee that the Works shall satisfactorily perform the function for which it was intended and be free from defects. They shall at the convenience of the Owner, replace, repair and install without charge to the Owner any of the Works or parts thereof which prove defective as a result of faulty design, materials or workmanship within a period of thirty six (36) months after energizing unless a longer period is specified elsewhere in the Contract with respect to the whole or any part of the Works.

If the Contractor replaces or renews any portion of the Works, the provisions of this clause shall apply to the portion of the Works so replaced or renewed as if that portion had been completed on the date of replacement or renewal. The portions of the Works affected by such replacement or renewal shall pass any final tests that were required by the Contract to be performed before the Completion Certificate was issued and all the provisions of the Contract concerning testing prior to issuance of a Completion Certificate shall apply.

In the event of default on the part of the Contractor in performing such replacement or renewal, the Owner may perform the work and hold the Contractor liable for the costs thereof and may deduct such costs from any monies due or that become due to the Contractor.

4.6 Indemnification

During the term of this agreement, and subject to the immediately following provisos, the Contractor shall indemnify and save harmless the Owner from and against all loss, costs, damages and expenses occasioned to the Owner by any act, omission, fault, default or negligence of the Contractor or those for whom the Contractor is in law responsible; provided, and it is expressly understood and agreed by and between the parties that the Contractor shall be in no way be responsible to the Owner under the provisions of this paragraph unless a claim in writing is made against the Contractor within ninety (90) days from and after the date on which the loss or damage event was discovered or ought reasonably to have been discovered by the Owner. The indemnity contained in this agreement shall not be prejudiced by, and shall survive, the termination of this agreement.

During the term of this agreement and subject to the immediately following provisos, the Contractor shall indemnify and save harmless the Owner from and against all loss, costs, damages and expenses occasioned to third parties by any act, omission, fault, default or

SECTION 4

negligence of the Contractor or those for whom the Contractor is in law responsible; provided, and it is expressly understood and agreed by and between the parties that the Contractor shall be in no way be responsible to the Owner under the provisions of this paragraph unless a claim in writing is made against the Contractor within ninety (90) days from and after notice of a claim of such third party in respect of the matter is given to the Owner. The indemnity contained in this agreement shall not be prejudiced by and shall survive the termination of this agreement.

4.7 Work Site Requirements

Should the occasion arise where the Contractor performs work on the Owner's property, the Contractor will adhere to the following requirements of the Owner:

- a. Environmental Protection
- b. Worker's Compensation Board of PEI
- c. Contractor's Insurance Requirements
- d. Health and Safety Requirements

Details relating to these requirements are available upon request.

5. TECHNICAL

5.1 138 kV Potential Transformers

5.1.1 Relaying PT Data Sheet

Nominal System Voltage	138 kV
Maximum Operating Voltage	145 kV
Power Frequency Withstand Voltage	310 kV
Basic Insulation Level (BIL)	650 kV
Rated Frequency	60 Hz
Operating Temperature	+40°C to -40 °C
Accuracy Class	3PX and 0.3WXYZ (200VA) ,3PX and 0.3WXYZ (200VA)
Ratio	700:1
Rated Voltage Factor	1.9Un 30 Sec.
Minimum Creepage Distance	25mm/kV
Materials: Mounting Hardware & Base	Galvanized Steel Nuts, Bolts & Washers
Live Parts	Aluminum
Ground Connector and Strap	Suitable for 4/0 AWG Stranded Cu Conductor
Clamp Type Line Connector	Suitable for 2/0 AWG – 1,250 MCM Stranded Aluminum
Line to Ground Fault Level	40kA
Three Phase Fault Level	40kA

5.1.2 Power PT Data Sheet

Nominal System Voltage	138 kV
Maximum Operating Voltage	145 kV
Power Frequency Withstand Voltage	310 kV
Basic Insulation Level (BIL)	650 kV
Rated Frequency	60 Hz
Rated Voltage Factor	1.9Un 30sec.
Minimum Creepage Distance	25mm/kV
Operating Temperature	+40°C to -40 °C
Materials: Mounting Hardware & Base	Galvanized Steel Nuts, Bolts & Washers
Live Parts	Aluminum
Ground Connector and Strap	Suitable for 4/0 AWG Stranded Cu Conductor
Clamp Type Line Connector	Suitable for 2/0 AWG – 1,250 MCM Stranded Aluminum
Terminal Block for 120-240V customer connection	Suitable for 250 – 750 kcmil Stranded Cu Conductor
Line to Ground Fault Level	40kA
Three Phase Fault Level	40kA
KVA Rating at 25 ⁰ C	75 KVA
Winding Voltage	84000/120-240V
Off Load Taps	+/- 5% in five steps

5.1.3 General Requirements

1. The design and manufacture of all equipment shall conform to the requirements of ISO 9001.
2. Porcelains shall be silicon coated, wet process, homogeneous, and free from cavities or other flaws. The glazing shall be uniform in color and free from blisters, burns, and other defects. The color of the porcelain shall be light grey.
3. The PT's shall be furnished with a ground potential base tank containing all secondary parts, like an intermediate transformer, reactor, etc.
4. The base tank shall be furnished with an oil level indicator of the volume of oil present. The indicator shall be visible from ground level. Glass, through which

SECTION 5

oil can be exposed to sunlight, shall be capable of filtering out sunrays that cause oil deterioration. Use materials for all components including the sight glass and synthetic rubber compound (nitrile)/cork neoprene compound gaskets that are not detrimental to the insulating oil.

5. The oil-filled part of oil-filled type PT's shall be completely factory sealed to prevent breathing and absorption of moisture. The base housing shall be of weatherproof construction.
6. The transformer shall consist of factory-adjusted elements mounted in the base housing of PT's. The burden watts, burden power factor, voltage ratio, and phase angle shall be factory adjusted.
7. For all PT's an oil sample valve shall be situated at the base of the PT unit, suitable for taking oil samples for Dissolved Gas Analysis (DGA) in accordance with the industry acceptable standards. The sample valve shall be at the ground potential base tank of the equipment. Valves where the oil is extracted by using a hypodermic needle are not suitable.
8. The insulating oil shall be the manufacturer's standard product. The liquid shall not contain Polychlorinated Biphenyls (PCB's). Each station service transformer unit shall be permanently marked and a certification furnished that there are no more than one (1) part per million PCB present in the insulating liquid and that the oil is suited for the required application when the unit is delivered to the Owner.
9. Primary line terminals shall be either aluminum or tin-plated copper flat pads with NEMA standard 4-hole terminal pad.
10. The ground terminals (pad) shall either be an integral part of the base tank and be drilled and tapped for 13 mm (0.5 inch) bolts with NEMA spacing.
11. The PT's shall be capable of being washed with a high-pressure hose without damage.
12. All exposed surfaces of the equipment shall be properly treated for coastal environment (i.e. salt) to prevent corrosion. The finish shall be suitable for extreme weather conditions and all treatment applied in accordance with the latest revision of EEMAC Specification Y1-2.
13. One (1) ground pad suitable for 4/0 AWG copper conductors shall be provided.
14. The PT shall be supplied with any special tools that may be required for installation and maintenance.

5.1.4 Hardware

1. External components made from mild steel with a painted finish are not allowed.
2. All external fasteners and hardware (such as bolts, screws, hinges, and handles) shall be stainless steel.
3. Bolts shall have captive hexagon heads.
4. Hexagonal nuts shall be used for welded studs.
5. Field welding of any component is not acceptable.

5.1.5 Nameplate

Each PT shall have a rating plate securely attached on the PT bases containing the following information as per CSA/IEC60044-5, where applicable:

1. Manufacturer's name and address.
2. Manufacturing month and year.
3. Serial number.
4. Type and model.
5. Maximum voltage (kV).
6. Output (VA).
7. Ratios.
8. Rated frequency (Hz).
9. Rated Voltage Factor.
10. Thermal burden rating.
11. Accuracy rating.
12. Short circuit withstand (Sym and Asym kA).
13. Conductor material (Cu or Al).
14. Housing creepage (mm).

SECTION 5

15. Housing cantilever force withstand (kN or lbs).
16. Basic Lightning Impulse, BIL (kV).
17. Power frequency withstand (kV).
18. Oil pressure (kPa).
19. Insulating liquid data: generic name (preferred), type, and make.
20. Volume and weight of liquid (litres and kg).
21. Overall weight of unit (kg).

All exterior nameplates shall be made of stainless steel, permanently engraved and attached to the equipment.

5.2 Tests

All type, routine production, and all other appropriate tests as listed in and other related industry standards shall be performed on all equipment prior to shipment.

5.2.1 Design Tests

1. Each PT and Power PT shall be tested in accordance with CSA C60044-2, where applicable. Production Tests shall include:
 1. Capacitance and dissipation factor.
 2. Dielectric.
 3. Phase displacement.
 4. Polarity.
 5. Protective gap setting.
 6. Tightness test.
 7. Grounding Shield Test.
 8. Voltage Terminal Test
2. A certified test report shall be provided to the Owner according to Section 2.6 of this specification.

SECTION 5

1. The Vendor shall provide test procedures for review and acceptance by the Owner a minimum of 20 days prior to the commencement of testing.
2. The Owner reserves the right to witness all production tests. The Vendor shall provide written notification to the Owner two (2) weeks in advance of any production tests.
3. The Owner reserves the right to perform tests at his own expense to prove compliance with this specification. If, during a test performed by the Owner, the equipment fails as a result of design or fabrication error, or for any other cause which is the responsibility of the Vendor, the Vendor shall determine the cause of failure and resubmit acceptable proof of performance. The Vendor will be charged for all subsequent modifications and tests made for acceptance of the equipment.
4. Equipment that does not pass the specified tests shall not be shipped without written approval from the Owner.

5.3 Packaging and Shipping

1. Shipment shall not be made until factory quality assurance tests have been completed, and any discrepancies have been resolved with the Owner.
2. Equipment shall be free from rust, scale, manufacturing residue, and foreign material to the extent that it can be put into operation without further cleaning.
3. Voltage transformer shall be supplied fully assembled with accessory components & bases packaged separately and clearly labeled.
4. All crating shall be adequately designed and constructed to permit safe delivery and acceptable receipt of voltage transformer and components.
5. If applicable, all machine-finished or bright surfaces shall be coated with a suitable corrosion preventive compound and suitably wrapped or otherwise protected against shipping damage.
6. The Vendor shall pay particular attention to proper packaging and bracing of the equipment to ensure its safe arrival at the jobsite. Precautions required for handling and storing the equipment shall be clearly indicated on the outside of the containers.
7. The Vendor shall be responsible for equipment damaged due to improper preparation for shipment and shall repair or replace such damaged equipment expeditiously at his own expense.

SECTION 5

8. All accessory items, small parts, and unit components shall be separately boxed or bundled to prevent galling due to rubbing of one part against the other.
9. All accessory items, small parts, and components shall be shipped with the main equipment and labeled for coordinated identification.
10. A complete itemized bill of lading which clearly identifies and inventories each assembly, subassembly, carton, box, package, envelope or container shall be furnished and enclosed with each item or items shipped at the time of shipment.
11. The Vendor shall label each shipping container. Each container shall be labelled as follows:
 - Owner
 - Project Name, Project No.
 - Potential Transformer or Power PT
 - Serial number
 - Tag number
12. The Vendor shall notify the Owner the projected date of shipment and then will notify the Owner 48-hours prior to delivery of the equipment to ensure provisions for unloading. Contact information for notification will be provided no later than the time of shipment.

5.4 Spare Parts

Vendor to supply a list of recommended spare parts.

5.5 Shop Drawings and Product Information

1. Within four (4) weeks of selection of the Vendor by the Owner, the Vendor shall submit to the Engineer for review, shop drawings and product information for the equipment to be supplied.
2. Include cost of shop drawings in quoted price.
3. The material and drawing information shall include:
 1. Dimensional outlines, sections and detail of all equipment, with anchor bolt location plan and required clearances.
 2. General assembly drawing with weights, service requirements, points of connection, recommended clearances, and complete parts list.
 3. Detailed instruction for the erection of equipment.

SECTION 5

4. Recommended spare parts.
 5. Wiring diagrams.
 6. PT nameplate drawing.
 7. Foundation plan showing location and size of anchors, bolts and circuit breaker impact loading.
 8. Mounting structures if applicable.
 9. Bill of Materials, listing devices, manufacturer and catalogue numbers
 10. Details for bushings, showing mounting dimensions, height, leakages, distance, BIL, voltage and current rating and terminal details.
-
4. Submit drawings electronically on or before the indicated dates.
 5. The Engineer will review and mark comments as required and return them to the Vendor indicating “Reviewed – MFG may proceed”; “Reviewed & changes Noted – Revised Dwgs Req’d (MFG may proceed with noted changes)”; and “Rejected – Revised Dwgs Req’d”. Review of the Vendor’s shop drawings by the Engineer shall not relieve the Vendor of the responsibility for the correctness thereof or for the results arising from any error or omission in details of the design. Resubmit all drawings marked “Rejected – Revised Dwgs Req’d” or “Reviewed & changes Noted – Revised Dwgs Req’d (MFG may proceed with noted changes)”.
 6. Review of shop drawings and acceptance of the equipment shall in any case be subject to final approval of the equipment and materials after they have been put in commission, all guarantees being fulfilled and the general operation of the equipment and materials having been found satisfactory by the Engineer.
 7. After the drawings, information and material have been reviewed by the Engineer, no change shall be made in them without the Engineer’s written permission. In the event of any alterations or changes being authorized, the final drawings and specifications indicating these changes shall be immediately furnished electronically at the Vendor’s expense.
 8. The Owner will not accept responsibility for cost of changes necessary if any equipment is fabricated without prior review of shop drawings. Review of shop drawings does not relieve the Vendor of responsibility to meet the requirements of the specifications.

5.6 Operations and Maintenance Manuals

1. The Vendor shall furnish to the Owner three (3) sets of operations and maintenance manuals specifying instructions for the following:
 1. Receiving, handling, storage.
 2. Installation, alignment checks.
 3. Electrical connections.
 4. Technical bulletins of all components.
 5. Operation.
 6. Maintenance procedures.
 7. As-built drawings and all other relevant drawings.
 8. Detailed spare parts list complete with current price list.
 9. Safety instructions.
 10. Tests and Vendor inspection procedures.
 11. Operational settings.
 12. Descriptive information on all devices.
 13. Procedures for assembly, operation and maintenance.
 14. Details on all field adjustments.
 15. Schedule of replacement parts.
 16. One copy of all approved drawings.
 17. Instructions for handling and storage.
 18. One set of complete drawings.
 19. Certified test certificate.
 20. Installation details, operating and maintenance instructions.

SECTION 5

2. Provide material not later than two (2) weeks after the equipment is placed into service.

5.7 Technical Information

For bidding purposes, the technical information required shall include but not be limited to the following:

1. Warranty information:
 - Details on Standard and Extended Warranty offerings.
 - Conditions required to qualify.
2. Power Transformer Losses:
 - Transformer losses will be evaluated based on the formula:
 - $E = 1.25T + NA + LB$, where:
 - E = total evaluated price, per transformer, used for bid evaluation purposes
 - T = transformer quoted price delivered to site
 - N = no-load loss at rated voltage, in kW
 - L = load loss at self-cooled rating, in kW
 - A = \$17,895.14/kW
 - B = \$882.34/kW
3. Failure Rates:
 - Statistical failure information.
4. Market Share information:
 - Number of PTs sold to MECL in recent years.
 - Number of PTs sold in Atlantic Canada in recent years.
 - Number of PTs sold in North America in recent years.
5. Service and Maintenance:
 - Location and quantity of nearby qualified service technicians.
 - Years of experience for service team.
6. Technical and catalogue information:
 1. Outline and assembly drawings.
 2. Erection drawings and mounting details.
 3. Spare parts list including individually priced items.
 4. Delivery time from receipt of order.

SECTION 5

5. Complete project schedule including shop drawing submittals.
6. Exceptions to specification.
7. Filled technical submittal form in Appendix A.
8. Recommended maintenance details and cycle in years.

Clearly state to which codes and standards the equipment is built and list any differences between Bidder's equipment and these codes and standards. Refer to Section 1.4 - Codes and Standards.

5.8 Quality Program

The Bidder shall provide information, description and details concerning their current Quality Assurance, Quality Control and Testing Program, applicable to the manufacture of this equipment.

5.9 Inspection and Testing

1. The Owner, Engineer and/or their authorized agents shall have the privilege of inspecting and witnessing all testing at all times during the manufacture of the equipment or materials ordered herein.
2. Provide advance notice of at least 5 days for inspection and testing.
3. Shop tests shall not constitute a waiver of requirements to meet actual field operating conditions or relieve the Vendor of their responsibility.

APPENDIX 1
TECHNICAL SUBMITTAL FORM

APPENDIX 1 - Technical Submittal Form

1. Installation Engineer – Contact Name & Numbers:

2. List of Special Tools and Devices Required for Installation, Operation and/or Maintenance:

Tool or Device	Price	Number Included in Bid

APPENDIX 1 - Technical Submittal Form

3. List of Recommended Spare Parts and Costs:

Spare Parts	Price	Number included in bid

4. Voltage Transformer Rating:

- 4.1 Manufacturer _____
- 4.2 Voltage Transformer Model/Designation _____
- 4.3 Rated Voltage _____ kV
- 4.5 Rated Maximum Voltage _____ kV
- 4.6 Rated BIL _____ kV
- 4.7 Rated Frequency _____ Hz
- 4.8 Lightning impulse withstand voltage _____ kV
- 4.9 Power Frequency Applied Voltage Test _____ kV
- 4.10 Minimum Creepage Distance _____ mm
- 4.11 Thermal Burden (Minimum) _____ VA
- 4.12 Nominal Volt-amperes _____ VA
- 4.13 Accuracy Class _____

APPENDIX 1 - Technical Submittal Form

5. Power Transformer Rating:

- 5.1 Manufacturer _____
- 5.2 Voltage Transformer Model/Designation _____
- 5.3 Rated Voltage _____ kV
- 5.4 Rated Maximum Voltage _____ kV
- 5.5 Rated BIL _____ kV
- 5.6 Rated Frequency _____ Hz
- 5.7 Rated Primary to Secondary Impedance _____ %
- 5.8 No load loss at rated voltage _____ kW
- 5.9 Load loss at 100% rated load _____ kW
- 5.10 Load loss at 50% rated load _____ kW
- 5.11 Load loss at 25% rated load _____ kW
- 5.12 Lightning impulse withstand voltage _____ kV
- 5.13 Power Frequency Applied Voltage Test _____ kV
- 5.14 Minimum Creepage Distance _____ mm
- 5.15 Transformer capacity _____ kVA

6. Voltage Transformer Design:

- 6.1 Insulating Oil Volume _____ L
- 6.2 Insulating Oil Mass _____ Kg
- 6.3 Net Weight with Insulating Medium _____ Kg
- 6.4 Total Impact and Uplift Loading for Foundation Design in
 Terms of Equivalent Static Load _____
- 6.5 Fully Assembled Voltage Transformer:
 - Height (mm) _____
 - Width (mm) _____
 - Length (mm) _____
- 6.6 Ratio of Windings _____
- 6.7 Accuracy of Windings _____
- 6.8 Insulator Leakage Distance _____

APPENDIX 1 - Technical Submittal Form

7. Power Transformer Design:

- 7.1 Insulating Medium _____
- 7.2 Insulating Medium Volume _____ L
- 7.3 Insulating Medium Mass _____ Kg
- 7.4 Net Weight with Insulating Medium _____ Kg
- 7.5 Total Impact and Uplift Loading for Foundation Design in
 Terms of Equivalent Static Load _____
- 7.6 Fully Assembled Voltage Transformer:
 - Height (mm) _____
 - Width (mm) _____
 - Length (mm) _____
- 7.7 Ratio of Windings _____
- 7.8 Power Rating _____ KVA
- 7.9 Insulator Leakage Distance _____

8. Voltage Transformer Construction:

- 8.1 Material of Structures _____
- 8.2 Material of Insulators _____
- 8.3 Material of Control Compartment _____
- 8.4 Type of Cabinet Insulation _____
- 8.5 Type and Make of Terminal Blocks _____
- 8.6 Material of High Voltage Terminals _____
- 8.7 Colour _____

APPENDIX 1 - Technical Submittal Form

9. Power Transformer Construction:

- 9.1 Material of Structures _____
- 9.2 Material of Insulators _____
- 9.3 Material of Control Compartment _____
- 9.4 Type of Cabinet Insulation _____
- 9.5 Type and Make of Terminal Blocks _____
- 9.6 Material of High Voltage Terminals _____
- 9.7 Colour _____
- 9.8 HV Terminal type- NEMA (or Clamp Conductor Range) _____
- 9.9 LV Winding Voltage _____ V
- 9.10 Off Load Taps _____

APPENDIX 2
TECHNICAL CONFORMITY STATEMENT

APPENDIX 2 - Technical Conformity Statements

BIDDER is to duly complete and sign the appropriate section below and return with their tender.

A. No technical deviations/exceptions:

We _____ hereby confirm that our proposal No. _____ Dated _____ in response to MECL Invitation To Tender No. _____ is in full compliances with Stantec Consulting Ltd. technical requirements.

B. Technical deviations/exceptions

We _____ hereby confirm that our proposal No. _____ Dated _____ in response to MECL Invitation to Tender No. _____ is not in full compliances with Stantec Consulting Ltd. technical requirements with only the following deviations/exceptions taken.

Stantec Consulting Ltd./
 Technical Requirement

Technical Deviations/Exceptions

 Authorized Signature

 Name of Bidder

 Date

APPENDIX 3
BID SUBMITTAL FORM

APPENDIX 3 - Bid Submittal Form

Recommended Spare Parts (lot)	\$ _____
BID PRICE (1 +2 +3 +4 +5 +6)	\$ _____
ADD HST (14% OF BID PRICE)	\$ _____
TOTAL PRICE	\$ _____

Detailed payment schedule may be attached if applicable.

Quotation prices will be firm for acceptance within 30 days of quotation closing date.

3. ADDITIONAL INFORMATION REQUIRED WITH TENDER:

In addition to the above, the quotation response shall include:

1. Any other costs to meet quotation specifications.
2. Completion of technical submittal data form.
3. Technical information as outlined in the technical specification.
4. Confirmation of INCOTERMS as DDP job site, offloading by others.
5. Anticipated payment terms with payment schedule.
6. Terms & Conditions acceptance or exceptions tracking form.
7. Technical conformity statement.
8. Information, description and details concerning current Quality Assurance, Quality Control and Testing Program, applicable to the manufacture of this equipment.
9. Schedule as outlined in the technical specifications.

4. DELIVERY:

Anticipated award date	February 17, 2016
Latest allowable on-site date (Preference will be given to earlier guaranteed delivery times. Any date later than listed date will not be considered)	September 19, 2016
Issuance of approved drawings for fabrication, after receipt of purchase order	Weeks
Issuance of remaining wiring and termination drawings, after receipt of purchase order	Weeks
Delivery of unit, after receipt of approved drawings	Weeks

APPENDIX 3 - Bid Submittal Form

Company Address _____

Telephone No. _____ Fax No. _____

Name _____ Title _____

Signature _____