LINE 644 & 664 69KV REBUILD

69KV SIDE BREAK SWITCHES

CITY OF OAK RIDGE ELECTRIC DEPT
Oak Ridge, Tennessee

September 2022

Anthony Groft
TN PE License # 118429

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REVISION HISTORY

Rev. No.	Date	Description
00	09/14/2022	Issued for bid

SECTION 1 - INVITATION TO BID

1.01 BID ITEMS

The City of Oak Ridge Electric Dept (Owner) invites Bidders (Seller) to submit quotations for furnishing the following items (Goods):

- 1-Way Side Break Switch for 69kV Transmission Line
- 3-Way Side Break Switch for 69kV Transmission Line
- Motor Operator

1.02 BID SUBMITTAL

A. Bids will be accepted at the address below until 2:00 pm local time on **September 28, 2022**

City of Oak Ridge
100 Woodbury Lane, Oak Ridge, TN 37830
ATTN: Lyn Majeski, Materials Management

B. Proposals must be clearly marked as bids and include **"69kV Switches for Line 644 & 664 69kV Rebuild"** on the exterior of the mailing package.

C. No bidder may withdraw a bid for a period of ninety (90) days after the date set for opening of bids.

D. No bid security will be required to accompany bids.

1.03 INSTRUCTIONS TO BIDDERS

A. The contract generally consists of furnishing and delivering Goods to City of Oak Ridge **within 25 weeks** from the date of award.

1. Bids should include Manufacturer's best delivery date that is as close as possible to the requested delivery date.

B. Quoted prices shall be FOB at the Point of Destination. Freight shall be allowed and pre-paid. Seller has the responsibility of Goods during shipment. Title to the Goods and risk of loss or damage shall remain with Seller until the Goods are delivered in acceptable condition at the substation site.

C. The terms "Purchaser" and "Owner" shall refer to the City of Oak Ridge. The term "Engineer" shall refer to Patterson and Dewar Engineers, Inc. The terms "Bidder", "Seller" and "Manufacturer" shall refer to the supplier of the equipment described by the documents.

D. If the Bidder requires additional information or is in doubt as to the meaning of any part of the Contract documents, Bidder may telephone or submit a written request for such information or clarification to the Engineer at the following address. For questions to be answered, they must be received at least five (5) days prior to the Bid due-date. Addenda may be issued as deemed necessary by the Owner.

a. Patterson and Dewar Engineers, Inc,
1531 Hunt Club Blvd, Suite 200, Gallatin, TN 37066
ATTN: Anthony Groft, 615-527-7082, agroft@pdengineers.com

E. The Engineer will answer all matters pertaining to the project, including but not limited to, answering technical questions of prospective bidders, bid evaluation and recommendation, review and approval of fabrication drawings and similar documents, and approval of invoices prior to payment by the Owner.

F. This project shall be subject to a liquidated-damages clause.

G. Owner is tax-exempt and will provide certificate after award upon request.

H. Seller shall provide Certificate of Insurance that lists Owner and Engineer as additional insureds.

I. The Owner does not obligate itself to accept the lowest or any other bid and specifically reserves the right to reject any and all bids.

J. The Bidder shall provide all information requested. The Bidder shall take care to complete all portions of the Bid documents and to provide all required submittals. Failure to comply may result in the rejection of the bid.

K. The Owner invites cost saving and schedule improving alternatives. A Bidder shall first complete the Bid as issued by the Owner; Bidder may then submit the alternatives referenced to the base proposal. If the Bidder recommends any changes or deviations from the documents, Bidder shall describe the change fully and furnish complete information so that the Owner can make a decision based upon the alternative information provided.

L. If these specifications call for material, equipment or manufacturing procedures different from the Manufacturer's standard, the Manufacturer shall clearly identify all deviations or substitutions in this bid. When possible, the Manufacturer should bid according to the specifications with the Manufacturer's standard as an option.

M. Equal shall mean a satisfactory equivalent as approved solely by the Owner.

N. The Bidder shall clearly state all exceptions to this specification. Unless specifically stated otherwise, the Bidder shall furnish equipment, material and services in exact accordance with this specification, and any modifications to equipment, material and services necessary to comply with this specification shall be made by the Bidder at no additional cost to the Purchaser.

O. The cost to furnish any and all prints, drawings, diagrams, instruction manuals, cut sheets, AutoCad electronic files, reports, and certified test reports shall be included in the bid process and shall not be listed as a separate item.

P. All requested options, devices, and equipment are required and expected per the specifications, and the cost to furnish fully operational equipment with explanatory documentation shall be included in the bid process and shall not be listed as separate items.

SECTION 2 – GENERAL REQUIREMENTS

1.01 SUMMARY OF WORK

Design, manufacture, assemble, and factory test Goods in accordance with attached technical specifications and current industry standards. Deliver Goods F.O.B. to Point of Destination. Owner will furnish a construction contractor under a separate contract to perform foundation and site work construction for which the Goods under this Contract are being furnished.

1.02 POINT OF DESTINATION

The Goods shall be delivered to the Point of Destination located at:

Substation 900: 1523 Blair Road, Oak Ridge, TN 37830

1.03 TESTING AND INSPECTION

The Goods are to be tested in accordance with latest edition or revision of ANSI, IEEE, ASCE, ASTM, NFPA, and NEMA standards. Prior to testing, Seller shall notify Owner at least one week in advance so Owner may have personnel at Seller's factory during testing. Seller shall furnish the results of the tests to Owner. Inspection of material by Owner's representative will not relieve Seller from responsibility for furnishing material to conform to the Specifications.

1.04 WARRANTIES

Seller warrants that all materials, equipment, and work furnished pursuant to this contract comply in all respects with the contract; that they are free from latent and patent defects in design, materials and workmanship; that they are suitable and adequate for the purposes for which they were designed and for such other purposes, if any, as are specified in the contract; and that they will give efficient and satisfactory service under such conditions as may be specified, for a period of five years after their first operation or use by the Owner, in actual service, or, if the contract provides for an acceptance test, for a period of five years after they have passed such test.

Seller shall, at his own expense, repair, replace, transport, and install any materials, equipment, or work or parts thereof, which prove defective or deficient during the warranty period.

This means that Seller will be responsible during the warranty period for the direct cost of (A) removing Goods or parts from service; (B) transporting Goods or parts from substation site to manufacturer or repair facility and back to the substation site; and (C) reinstalling Goods or parts for service after completing the required acceptance testing. If, however, it is impractical for Owner to wait for the manufacturer, Owner may perform such work at Seller's expense.

Any materials, equipment, work, or parts thereof, which fail to meet the guarantees or other requirements of the contract may be rejected; provided, however that if correction of the defects or deficiencies can be made through minor alterations or replacements of minor parts, and Seller proceeds immediately to complete such alterations, or to furnish and install such new parts as are necessary to meet the guarantees or other requirements of the contract, then the materials, equipment, or work shall not be rejected on account of defects or deficiencies so corrected. Any correction of a defect or deficiency will be guaranteed for a period of one year after such correction is effected. The correction of defects or deficiencies shall not operate to extend the time for performance of the contract as specified thereunder or to waive any claim for damages resulting from delay in performance or from any other cause.

Owner shall give Seller prompt notice of any breach of this warranty. Operation or use by Owner of the materials, equipment or work, or any part thereof shall not constitute a waiver of any of Owner's rights under this contract.

Seller warrants that the materials, equipment or work furnished hereunder are free from any and all claims, demands, and encumbrances; and that Seller will defend the title thereto. The foregoing warranties or guarantees contained in this contract shall supersede any and all others.

1.05 SERVICE ENGINEER

Seller shall furnish an optional price for an engineer to supervise check-out of the Goods. The quotation for this service shall include two days of a service engineer's time for installation supervision, start-up, and check-out of the switches. Service engineer will be responsible for directing Owner's labor in proper installation techniques. Provide resume of proposed engineer.

1.06 LIQUIDATED DAMAGES

If Seller fails to deliver the Goods on or before the date specified herein, Owner may choose to invoke a liquidated-damages charge of **$200.00** for each calendar day that the Goods are delayed. Liquidated damages will be limited to ten percent of the amount of the contract. This charge will be assessed to Seller when the delay is caused by any reason other than an act of God, purchaser, embargo or other governmental act or authority regulation or request, fire, theft, accident, strike, war, or riot. The time of delivery shall include the time for drawing approval.

1.07 SUBMITTAL PROCEDURES

A. Attach a completed Transmittal Form to each group of documents submitted, using a sufficient number of transmittal forms so that:

1. Items on a single transmittal form pertain to the same section of the Contract Documents; and

2. Items on a single transmittal form are either original submittals or the same number resubmittal.

B. Schedule submittals to expedite furnishing the Goods and coordinate submission of related items. Deliver each submittal to Engineer with copy to Owner at following addresses:

1. Address correspondence to Engineer as follows:

   Patterson & Dewar Engineers, Inc.
   1531 Hunt Club Blvd, Suite 200, Gallatin, TN 37066
   Attention: Anthony Groft, PE
   Phone: (615) 527-7082 Email: agroft@pdengineers.com

2. Address correspondence to Owner as follows:

   City of Oak Ridge Electric Dept
   100 Woodbury Lane, Oak Ridge, TN 37830
   Attention: Margaret A. Elgin, PE
   Phone: (865) 425-1818 Email: melgin@oakridgetn.gov

C. Submittals for approval will be accepted via email at the addresses above.

D. Submit items on sheet size of not less than 8-1/2" by 11" and not more than 24" by 36". Provide space for Seller and Engineer review stamps.

E. Number each submittal item consecutively and insert the number in the space provided on the transmittal form. Assign resubmitted items the same submittal item number as the original with a suffix of a sequential letter to indicate it is a resubmitted item. For example, the first resubmittal of submittal item 2 would be number 2A.

F. Submittals which are not transmitted using a fully completed transmittal form may be returned along with items not reviewed and will be counted as a submittal.

G. Revise and resubmit items as required. Identify changes made since previous submittal. Distribute copies of reviewed submittal items to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

1.08 SHOP DRAWINGS AND SAMPLES

Seller shall submit Shop Drawings and Samples to Owner for Engineer's review and approval as soon as possible after receipt of order.

A. Submit the following quantities:

1. Shop drawings - One electronic copy (in PDF format) including manufacturers' data, brochures, suppliers' information, testing reports, certifications, and manufacturer's installation and testing instructions

2. Samples – Two of each item required for evaluation

B. Identify variations from Contract Specification.

C. Engineer will complete review in a timely manner and will return reviewed items to Seller with the following provided for each item submitted:

SUBMITTAL REVIEW BY ENGINEER		
PROJECT		
SUBMITTAL NO.		
Review of this shop drawing/submittal by Engineer is for general conformance with the requirements specified and compatibility with the design concept of the completed project. This review does not extend to means, methods, sequences, or procedures of construction (except where specifically called for in the specified requirements) or to issues of safety incident thereto. This review shall not relieve the contractor from its responsibility for full compliance with the requirements specified and to determine and verify the information contained therein. Provide final disposition of the comments made prior to issuance for fabrication or construction.		
ACTION: ☐ Approved ☐ Approved, but make corrections noted (no resubmittal required) ☐ Revise and Resubmit (see comments) ☐ None ☐ Not Required - ☐ Information Only		
REVIEWED BY:		**Date:**

Where:

"*Approved"* indicates submittal has been reviewed and appears to be in conformance with requirements of the Contract Documents. Proceed as shown on the submittal.

"*Approved, but make corrections noted*" indicates submittal appears to be in conformance with requirements of the Contract Documents. Incorporate the corrections noted and proceed as shown on the submittal. No resubmittal is required.

"*Revise and Resubmit*" indicates submittal does not appear to be in conformance with the Contract Documents. Engineer's comments will be noted on the submittal or in a separate, cross-referenced document. Re-check, make necessary revisions and resubmit.

"*None – Not Required or Information Only*" indicates that the submittal is not called for by the Contract Documents and that Engineer has not reviewed the material.

1.09 OPERATION, MAINTENANCE AND INSTALLATION MANUALS

A. Submit to Engineer one draft copy of complete Operation, Maintenance and Installation Manuals 30 days prior to shipment of Goods, which will be reviewed and returned with Engineer comments. Revise as required and submit two sets of final Operation, Maintenance and Installation Manuals upon shipment of the Goods.

B. Submit on 8-1/2" by 11" pages, bound in three slant D-ring binders with durable plastic covers.

C. Prepare binder cover with printed title "OPERATION, MAINTENANCE AND INSTALLATION MANUAL", title of project, and subject matter of binder when multiple binders are required.

D. Internally subdivide the binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.

E. Prepare a Table of Contents for each volume, with material, equipment, or system description identified in three parts as follows:

- Part 1: Directory, listing names, addresses, and telephone numbers of Engineer, Seller, subcontractors, and major component suppliers.

- Part 2: Operation, maintenance, and installation instructions, arranged by item and subdivided by Specification section. For each category, identify names, addresses, and telephone numbers of subcontractors and suppliers. Identify the following:

  - Significant design criteria
  - List of equipment
  - Parts list for each component
  - Operating instructions
  - Maintenance instructions
  - Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents
  - Installation instructions
  - Material Safety Data Sheets

- Part 3: Project documents and certificates, including the following:

  - Certified Final drawings, material and equipment data, manufacturer-prepared technical literature
  - Certified factory test results
  - Photocopies of warranties
  - Catalog cuts of all miscellaneous material

F. Furnish duplicate copies of warranty documents which are executed and transferable from subcontractors, suppliers, and manufacturers.

1.10 PROJECT RECORD DOCUMENTS

A. Maintain one set of the following documents for record purposes. Record actual revisions made to the Goods.

1. Drawings
2. Specifications
3. Changes to the Contract Documents
4. Reviewed Shop Drawings and Samples

B. Legibly mark Specifications and record at each “Part 2 - Products” section of the description of actual equipment and material furnished, including the following:

1. Manufacturer's name and equipment and material model and number
2. Material and equipment substitutions or alternates utilized
3. Changes made to the Contract Documents

C. As-built drawings

1. Include as part of complete Operation, Maintenance and Installation Manuals
2. Electronic files in AutoCAD 2010 compatible format

D. After the equipment has been placed into satisfactory operation, revise drawings to reflect field changes, if any, made to the Goods and submit copies of revised drawings for the Operations and Maintenance Manuals.

1. Submit full set of the project record documents to Engineer with claim for final Application for Payment.

1.11 ACCEPTABLE MATERIAL AND EQUIPMENT

The Bid shall be based on new equipment and materials only. No used equipment or materials are permitted. Identify any alternate item by trade name and number to enable Owner to determine whether such alternate item is acceptable. Alternates must be approved in writing by Owner prior to contract placement.

1.12 SHIPMENT

A. Bid Items shall be furnished F.O.B. Destination, Freight Prepaid and Allowed to the destination. Unloading will be provided by the Owner.

B. Ship the Goods only after receiving written acknowledgment by Owner of receipt of certified test reports. Give 48-hrs notice before shipment. Accompany each shipment with a packing list of articles included in the shipment. Mark parts for ease of field assembly

C. Manufacturer shall be responsible for obtaining necessary permits, providing and verifying routing and, in general, making all the necessary arrangements for transporting the equipment provided to Purchaser's destination.

D. Shipments may be in stages over 365 days at the Owner’s request. No shipments shall be accepted or received without authorization from the Owner.

E. Owner will accept shipments between 8:00 a.m. and 3:00 p.m. local time Monday through Thursday excluding observed holidays.

1.13 TRANSPORTATION AND HANDLING

A. Transport and handle Goods in accordance with manufacturer’s instructions.

B. Promptly inspect shipments to assure that Goods comply with requirements, quantities are correct, and Goods are undamaged.

C. Furnish equipment and personnel to handle Goods by methods to prevent soiling, disfigurement, or damage.

D. Uncrate Goods and dispose of packing material properly.

1.14 STORAGE AND PROTECTION

A. Store and protect Goods in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive Goods in weather-tight, climate controlled enclosures.

B. Cover Goods subject to deterioration with impervious sheet covering. Furnish ventilation to avoid condensation or potential degradation of Goods.

C. Furnish equipment and personnel to store Goods by methods to prevent soiling, disfigurement, or damage.

D. Arrange storage of Goods to permit access for inspection. Periodically inspect to assure Goods is undamaged and is maintained in acceptable conditions.

E. Assume responsibility for loss and damage including but not limited to breakage, corrosion, weather damage, and distortion until delivered to Owner.

1.15 PATENTS

Seller shall at its own expense defend any suit instituted by any party against Owner so far as it is based on the claim that any apparatus or part thereof furnished under this contract or Owner's use of such apparatus or part for the purpose for which it was designed or for such purposes, if any, specified in this contract constitutes infringement of any United States patent.

Owner shall give to Seller immediate notice in writing of the institution of such suit, and shall permit Seller, through its counsel, to defend the same, and shall give all requisite authority and all needed and available information and assistance to enable Seller to do so. Seller shall pay all damages and costs finally awarded therein against Owner by reason of such infringement, however Seller shall not be liable under any compromise made without its consent.

If in any such suit said apparatus or part or such use thereof by Owner is held to constitute infringement and such use is enjoined, Seller shall at its own expense procure for Owner forthwith the right to use or continue using the said apparatus or part; provided, however, that subject to Owner's approval Seller may at its sole expense replace said apparatus or part with non-infringing apparatus or parts, or modify it so that it becomes non-infringing.

1.16 CLAIMS BY THIRD PARTIES

Seller shall, at its own expense, assure the defense of and save harmless Owner from all claims for materials furnished or work done; shall promptly discharge the same and not suffer any mechanics or other liens to remain outstanding against any of the property. Satisfactory evidence must be presented that all persons

who have done work or furnished materials have been fully paid. If Seller fails to comply with its obligations as above, Owner may take such steps as it may deem appropriate to discharge such liens or claims and may withhold from any moneys due Seller such amount as may be necessary to satisfy and discharge the same and any expense incident thereto.

SECTION 3 – TERMS AND CONDITIONS

1.01 ACCEPTANCE; ENTIRE AGREEMENT

Acceptance of this order by acknowledgement, shipment or other performance shall be expressly limited to the terms and conditions contained in this order. Any additional or different terms or conditions proposed by the Seller are objected to and are hereby rejected. Upon acceptance, the terms contained in this order shall constitute the entire agreement between Seller and Purchaser with respect to the subject matter of this agreement (hereinafter referred to as the "Agreement") and may not be modified, added to, or rescinded except by a written document signed by Seller and Purchaser.

1.02 ASSIGNMENT AND SETOFF

The Seller shall not assign any right or interest under this Agreement nor delegate any work or other obligation to be performed or owned under this Agreement without the prior written consent of Purchaser. Any attempted assignment or delegation in contravention of this provision shall be void. Purchaser shall be entitled to set off any amounts owed by Seller to Purchaser against any amounts payable to Seller.

1.03 PAYMENT

Upon the shipment of any material hereunder, the Seller shall submit to the Purchaser a detailed invoice in duplicate of the materials shipped. Within 30 days after delivery, the Purchaser shall make payment thereof to the Seller.

1.04 TIME OF PERFORMANCE

Time is of the essence of this Agreement. If tender of conforming goods is not made by the delivery ARO on the Bid Form, Purchaser may treat such failure as a breach hereof and will have all remedies afforded to it by law including, but not limited to, the rights to cover.

1.05 IDENTIFICATION; RISK OF LOSS

Identification of the goods ordered herein shall occur at the moment this order is accepted by Seller. Risk of loss shall pass to the Purchaser at the time that conforming goods to the Agreement are confirmed received at the Point of Destination.

1.06 INFRINGEMENT

Seller shall indemnify Purchaser and Purchaser's customers for any and all loss, damage, expense, (including but not limited to attorney's fees) claims or liability arising out of any infringement or claim of infringement of any patent, trademark, copyright, trade secret or other proprietary interest based on the manufacture, installation, normal use, lease, or sale of any service of material furnished to Purchaser under this Agreement. Purchaser shall notify Seller promptly of any such claim or infringement and Seller shall, at its own cost, defend, compromise, or settle, any such action or actions to satisfy and discharge the same without any cost or expense whatsoever to the Purchaser.

1.07 REJECTED GOODS

Purchaser shall give notice to Seller of any rejection of goods, and goods rejected will, at Seller's expense, be returned to Seller or otherwise disposed of as Seller may reasonably request. Payment for the goods prior to inspection and approval shall not constitute acceptance thereof. Neither Purchaser's inspection nor its failure to inspect the goods delivered hereunder shall release Seller from its warranties and obligations under this Agreement.

1.08 TERMINATION

A. Purchaser may terminate this Agreement for default upon notice to Seller if: 1) Seller fails to comply with any of the terms and conditions of this Agreement, including failure to deliver goods or perform services required within the time specified in this Agreement; 2) at any time reasonable grounds

for insecurity arise with respect to Seller's expected performance and Seller fails to furnish adequate assurance of due performance within ten (10) days after a written demand by Purchaser for such adequate assurance; 3) Seller shall become insolvent or make an assignment for the benefit of creditors; or 4) Seller shall file a voluntary petition in bankruptcy or insolvency or shall be involuntarily petitioned into bankruptcy or insolvency.

B. Purchaser may terminate this Agreement, in whole or in part, for its convenience, at any time by giving written notice to Seller, and Seller shall promptly comply with the directions contained in such notice. In such event, Purchaser shall make payment to Seller for all costs incurred by Seller prior to such termination reasonably allocable to this Agreement under recognized accounting practices, less any scrap or salvage value.

1.09 LIENS

Seller shall promptly pay for all materials, supplies and labor employed by it in manufacturing the ordered goods to the end that such goods may be kept free from Materialmen's, Warehousemen's and Mechanics' liens. Seller shall promptly discharge any such liens arising from the performance of this Agreement.

1.10 INDEMNITY OF THE PURCHASER

The Seller shall indemnify and hold Purchaser and its officers, employees, and agents harmless from and against all suits or claims that may be based upon any alleged injury to or the death of any person or damage to property that may occur or that may be alleged to have occurred in the course of performance of this Agreement whether or not such claim is made by a third person, except when it shall be proved that the alleged injury was caused solely by a negligent act or omission of the Purchaser. Seller shall, at its own cost and expense, pay all costs and expenses or such suit or claim, including attorney's fees in connection therewith, and if any judgement shall be rendered against the Purchaser in any such action or actions the Seller shall satisfy and discharge the same without cost or expense to Purchaser.

1.11 COMPLIANCE WITH LAWS

Seller and all material furnished by Seller shall fully comply with all federal, state, and local laws, ordinances, regulations, orders and codes, including identification and procurement of required permits, certificates, approvals and inspections in performance hereunder. Any provision required to be included in this Agreement by any such law, rule or regulation shall be deemed to be included herein. The Equal Opportunity Clause contained in Executive Order 11246 as amended, relating to equal employment opportunity for all persons without regard to race, color, religion, sex or national origin, the Affirmative Action Clause contained in 41 C.F.R. Chapter 60.250 relating to affirmative action obligations to disabled veterans and to veterans of the Vietnam Era, and the Affirmative Action Clause contained in 41 C.F.R. Chapter 60.741 relating to affirmative action obligations to handicapped workers, are incorporated herein by reference. The Seller also certifies that it does not engage in and requires that its subcontractor's (if any) employees or agents not engage in, any form of discrimination based on race, color, religion, sex or national origin. Seller agrees to indemnify Purchaser for any loss or damage that may be sustained by reason of any failure to do so.

1.12 LABELING

All goods and materials to be supplied by Seller under this Agreement shall be labeled in accordance with the requirements of the Federal Occupational Safety and Health Act Hazard Communication Standard (29 CFR 1910.1200) and/or applicable State law or standard of similar effect. Seller shall immediately send to the Purchaser, referencing this purchase order number, all required written safety information materials including without limitation, Material Safety Data Sheets, required under said standards.

1.13 NON-WAIVER

No course of dealing or failure of either party to strictly enforce any term, right or condition of this Agreement shall be construed as a waiver of such term, right, or condition.

1.14 CHOICE OF LAW

The construction, interpretation and performance of this Agreement and all transactions under it shall be governed and resolved in accordance with the laws of the State of Tennessee.

1.15 NOTIFICATION

The Manufacturer shall acknowledge in writing to the Owner that the Owner's Purchase Order has been received within 5 days ARO. The acknowledgement shall include the date that the Purchase Order or acceptance is received and the date that equipment delivery is expected.

1.16 TERMINOLOGY

The terms "shall" and "will" which appear in the Bid and specifications place an absolute obligation on the Manufacturer to do that which is designated and/or specified.

1.17 TAXES

City of Oak Ridge, Tennessee is exempt from sales tax.

1.18 EQUAL OPPORTUNITY PROVISIONS

A. This Contract is subject to the provisions of Section 202 of Executive Order Number 11246 of September 24, 1965 as amended relating to Equal Opportunity and to the Affirmative Action requirements of 41CFR60. The Contractor, in performing the work or services of this contract, shall not discriminate against any person seeking employment with or by the contractor because of race, creed, color, sex, sexual orientation, or national origin or other legally protected status.

B. The City of Oak Ridge, Tennessee encourages the utilization of minority and women-owned businesses in its contracting and subcontracting projects and the Bidder is encouraged to actively solicit the participation of these businesses.

C. Each Bidder shall complete the following Equal Opportunity Compliance Certificate as part of the submitted proposal.

1.19 COMPLIANCE WITH IRAN DIVESTMENT ACT

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder in not on the list created pursuant to Tennessee Code Annotated §12-12-106.

1.20 NO BOYCOTT OF ISRAEL

Pursuant to Tennessee Code Annotated § 12-4-119. By signing and submitting a bid, the bidder certifies that it is not engaged in a boycott of the State of Israel and shall not boycott the State of Israel through the term of any Contract based on this Bid. For purposes of this certification, “boycott of Israel” shall be statutorily defined by Tennessee Code Annotated § 12-4-119(a). If the value of any contract based on this Proposal is less than $250,000.00 or Proposer employs less than ten (10) employees, then this certification shall not apply.

EQUAL OPPORTUNITY

COMPLIANCE CERTIFICATE

We hereby certify:

As a(n):_____ Division of Parent Company _____

_____ Subsidiary

_____ Affiliate Address _____

_____ Separate Corporation _____

And being: _____ a Small Business (Ref: ASPR-1-701-1)

_____ Minority Owned Business (Ref: 41CFR-1.701-1)

_____ from a Labor Surplus Area (Ref: 41CFR 1-1.801-1);

Having _____ employees in all divisions, subsidiaries, affiliates and parent (number) company;

That we shall comply with the applicable portions of the Equal Opportunity Clause as promulgated under Executive Order 11246. September 24, 1965 as amended, and all other federal laws and regulations pertaining to the Equal Employment Opportunity and Affirmative Action obligations of Federal Government Contractors, and shall submit the required compliance reports, and shall maintain non-segregated facilities.

Contractor _____

Address _____

_____

Signature of Authorized Representative_____

Date of Signing _____

SECTION 4 – BID FORM

1.01 BIDDER

This Bid is hereby submitted by: _____(Seller)

1.02 BID PRICE

Bidder shall perform Work for the following prices:

Bid Item	Description	Approved Manufacturers	QTY	Unit Price	Total Price
A.	69kV 1-Way In-Line Switches, Side Break, 1200amp, Phase-Over-Phase, Load Split Vacuum Interrupters	SEECO Turner	Six	$_____	$_____
				Unitized Switch Prices (if offered by Manufacturer)	
				$_____	$_____
A1.	Set of Spare Parts for 1-Way Switch*		Three	$_____	$_____
B.	69kV 3-Way Switches, Side Break, 1200amp, Phase-Over-Phase, Load Split Vacuum Interrupters	SEECO Turner	One	$_____	$_____
				Unitized Switch Prices (if offered by Manufacturer)	
				$_____	$_____
B1.	Set of Spare Parts for 3-Way Switch*		One	$_____	$_____
C.	Motor Operator	MindCore SEECO Turner	Nine	$_____	$_____
D.	69 kV 1-Way Switch Service Engineer **(OPTIONAL)**		Two days	$_____per day	$_____
E.	69 kV 3-Way Switch Service Engineer **(OPTIONAL)**		Two days	$_____per day	$_____
F.	Motor Operator Service Engineer **(OPTIONAL)**		Two days	$_____per day	$_____

* Manufacturer shall provide list and quote for recommended spare parts for each switch type.

Quoted prices shall be FOB to the Point of Destination. Seller has the responsibility of Goods during shipment. Freight shall be allowed and pre-paid.

1.03 DELIVERY

A. Bid Item A:

1. The time proposed for submittal of approval drawings (ARO) is _____.
2. The time proposed for delivery of Goods is _____.

B. Bid Item B:

1. The time proposed for submittal of approval drawings (ARO) is _____.
2. The time proposed for delivery of Goods is _____.

C. Bid Item C:

1. The time proposed for submittal of approval drawings (ARO) is _____.
2. The time proposed for delivery of Goods is _____.

1.04 WARRANTY

A. Bid Item A: The proposed warranty period is _____.

B. Bid Item B: The proposed warranty period is _____.

C. Bid Item C: The proposed warranty period is _____.

1.05 ACKNOWLEDGEMENTS

A. Bidder acknowledges receipt of addenda as follows: _____

B. Bidder acknowledges terms of liquidated damages as outlined in the General Requirements.

1.06 LIST OF EXCEPTIONS AND CLARIFICATIONS

_____

_____

_____

_____

1.07 ATTACHMENTS TO BID

A. Provide outline drawing for all bid items.

1.08 BIDDER (SELLER) INFORMATION

Company	
Contact Name	
Address	
Address (cont.)	
Phone / Email	

Attachment "A" – SWITCH STRUCTURE INFORMATION

Switch Type	Switch Number	Structure Type	Height of Top Switch Platform	Means of Switch Attachment to Structure
1-Way, Phase Over Phase	#1	Steel Monopole	58'-6"	Mounted Directly to Pole with Through Bolts
	#2	Steel Monopole	58'-6"	Mounted Directly to Pole with Through Bolts
	#3	Steel Monopole	50'-6"	Mounted Directly to Pole with Through Bolts
	#4	Steel Monopole	55'-0"	Mounted Directly to Pole with Through Bolts
	#5	Steel Monopole	55'-0"	Mounted Directly to Pole with Through Bolts
	#6	Steel Monopole	55'-0"	Mounted Directly to Pole with Through Bolts
3-Way, Phase Over Phase	#1	Steel Monopole	55'-0"	Mounted Directly to Pole with Through Bolts

TRANSMISSION LINE SWITCHES

PART 1 – GENERAL

1.01 SUMMARY

A. This specification describes the requirements of the motor operated transmission switches. They shall be manufactured and tested in strict accordance with these Specifications.

SUBMITTALS

A. Shop Drawings

Erection details including bill of material, for installation on either a light-duty steel pole (through-bolt mounting) or a heavy-duty steel pole (welded bracket mounting) as detailed on project drawings.

B. Ratings

Electrical ratings including nominal and maximum continuous operating voltage, rated withstand voltage, continuous and momentary asymmetrical current and maximum load interrupting capability

Mechanical strength rating of frame for balanced and unbalanced conductor tension loading

Results of field Hi-Pot Tests

DELIVERY, STORAGE, AND HANDLING

A. Transmission switches shall be shipped with all insulator pedestals and bearings assembled and bolted into position on the frames. Each switch shall be crated in a manner suitable for stacking. Operating pipes and interphase bars shall be shipped unassembled and banded together, one set per switch, properly identified and protected against damage. All live parts and loose parts for each switch shall be shipped in a wooden box properly identified.

PART 2 – PRODUCTS

TRANSMISSION SWITCHES

A. General requirements and specifications for transmission applications are as follows:

Switches shall comply with the latest revisions of applicable ANSI, NEMA and ASTM standards, for the specified applications.

Current Carrying Parts

Current carrying parts shall be of copper or aluminum alloy construction with silver-to-silver or silver-to-copper alloy current transfer contacts.

Jaw contact material shall be capable of maintaining their integrity under high-speed closing conditions. The current carrying path shall not be springs, pins, or bearings.

Exposed contacts shall be self-wiping silver-to-silver or silver-to-copper. All other contacts, including hinge end contacts, shall be silver-to-silver, unless sealed and insulated from contamination and corrosion. Internal sealed contacts may be either silver-to-silver or silver-to-copper. All exposed contacts, both fixed and moveable, shall be replaceable in the field without field welding or brazing.

Blades

The switch blades shall be tubular and 6061-T6 aluminum or copper alloy.

The switch blades and other live parts shall be designed to prevent the accumulation of water. The blade shall be designed such that it is locked into the jaw upon closing.

Terminal Pads

All terminal pads shall be machined copper, aluminum, or bronze. The pads shall be equipped with tin-plated copper shields in a NEMA configuration to reduce galvanic corrosion.

Switches with ampere ratings between 600 and 2000 shall have terminal pads with four holes on NEMA spacing of 1 ¾-inch. Bolt holes shall be 9/16-inch.

Operating Mechanisms

Switches shall be either manual or motor operated as specified in the Project Data Sheet.

The mechanisms shall have a provision for locking with a 5/16 inch short-shackle padlock in the open or the closed position.

Operating mechanism shall be mounted 3'-0" above the bottom of the steel base plate.

Operating mechanisms shall be suitable for operating the switches from grade elevation

.Operating mechanism shall be equipped with auxiliary contacts for position indication as specified in the project drawings.

Each gang-operated switch unit shall be supplied with manual operating mechanism, complete with galvanized steel vertical operating pipe, group operating pipe, and interphase pipe; galvanized steel or malleable iron bell cranks, outboard bearings, pipe guides, operating levers or cranks, universal joints, as needed. Details of structural members necessary to support the switches and operating mechanisms on the steel structures shall be provided as required. Galvanized steel shims, bolts, nuts, and washers shall be provided for all operator support brackets and bases required for attachment to the steel structure.

Galvanized steel control and interphase pipes shall be of sufficient size and strength to eliminate twist in the torsional operating pipes and significant sag in push-pull interphase pipes.

All switches shall include provisions for interphase adjustment of each individual switch pole. These provisions shall be of a continuously adjustable type for correction of any misalignment in the switch insulators, bases, and operating pipes. It shall be mechanically impossible, after final adjustment, for any switch to remain in a partially open or closed position at the completion of any operator cycle.

The rotating insulator stack on each switch pole and the outboard bearing shall have maintenance free sealed bearings.

The operating assembly shall have position indicators and provisions for pad locking in both the open and closed position. It shall be provided with a 1/0 copper grounding conductor, 24 inches in length.

The maximum operating effort shall be fifty pounds for the swing handle operator.

The motor operating voltage shall be as specified in the Project Data Sheet. Switch position shall not be altered or affected by de-coupling the operator in the fully closed or open positions. Motor operator shall be equipped with adjustable stops for both open and closed positions. Motor operator cabinet shall be provided with 120 VAC, thermostatically controlled heater of sufficient rating to prevent condensation. A LOCAL/REMOTE selector switch shall be provided. Motor operator shall have the following features:

IED Based control with DNP communications capability

Capable of monitoring status of Motor and motor current

Battery Back up capability with 120V battery charger

Heater with circulating fan

Receptacle

Convenience Light

3-5 second operating time

Loss of AC alarm

Loss of DC Alarm

Stainless steel NEMA 3R cabinet

Frames and Mounting Hardware

All switches shall be provided with bases, clips, shims, galvanized mounting bolts, nuts, washers and fittings to meet dimensions shown on the Contract Drawings.

The switch base shall be constructed of ASTM A36, steel or aluminum, with sufficient rigidity to maintain proper alignment at the tops of the insulators and adjustment of the blades and contacts under all climatic and loading conditions. All steel shall be hot-dipped galvanized in accordance with ASTM A123 drawings accompanying the order.

Provisions shall be made for the adjustment of the alignment of all insulator stacks. Adjustments shall be made by use of tipping screws located under the insulator.

Nameplates

All switches shall be equipped with a non-corrosive nameplate in accordance with ANSI C37.30, permanently attached.

Insulators

Insulators shall be supplied in accordance with the latest revisions of ANSI C29.8 and C29.9 for each voltage class specified.

Insulator type and color shall conform to ANSI 70.

Post insulators shall be supplied with the proper fittings required to develop the impulse level and to support the jumpers or switch parts. Galvanized hardware shall be supplied for mounting live parts and bases to insulators.

B. Switches shall be side-break, with one blade on a common frame, manufactured by Turner Electric or SEECO, and shall meet the following electrical requirements:

Nominal Operating Voltage, kV:	69
Maximum Operating Voltage, kV:	72.5

Minimum Rated Withstand Voltage, 60 Hz kV RMS for 10 seconds, Wet:	145
Minimum Rated Withstand Voltage, 60 Hz kV RMS for 1 minute, Dry:	175
Minimum Rated Impulse Voltage, kV 1.2 x 50 Micro Sec. Wave Crest:	350
Continuous Rating, Amps:	600
Momentary Asymmetrical Rating, kA :	40
Minimum Load Interrupting Rating, Amps, @ 70 % Power Factor:	600

PART 3 – EXECUTION

3.01 GENERAL

A. Follow all manufacturer-provided instructions and recommendations for the following:

1. Receiving and storage
2. Assembly and adjustment of switch components
3. Testing and installation of vacuum interrupters
4. Inspection of complete switch assembly