



City of Danville, Virginia

PO Box 3300
Danville, VA 24543

427 Patton Street, Rm 304
Danville, VA 24541

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REQUESTS FOR PROPOSALS

Proposal No.: RFP 20-21-049

Title: Kentuck & Whitmell Substations 75 kV Circuit Breakers

Proposal Closing Date: **Sealed** Proposals shall be accepted no later than **October 20, 2020 at 5:00 pm** at the Purchasing Department, 427 Patton Street, Room 304, Danville, VA 24541

Direct Inquires to: J. Gary Via, Director of Purchasing
(434) 799-6528 option 4

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1.0 SCOPE

These specifications cover the design of the structures, equipment and materials required to provide substation circuit breakers for the Kentuck and Whitmell Substations as detailed in these Specifications.

1.1 Submit invoice(s) to:

City of Danville
Purchasing Department
PO Box 3300
Danville, VA 24543

1.2 Deadline

Sealed Proposals shall be submitted no later than October 20, 2020 at 5:00 pm to:

City of Danville
Purchasing Department
Attn.: J. Gary Via
427 Patton Street, Room 304
Danville, VA 24541

2.0 DELIVERY

2.1 Delivery shall be made to the substation sites located at:

Kentuck Substation
1865 Kentuck Road
Ringgold, VA 24586

Whitmell Substation
422 F C Beverly Road
Dry Fork, VA 24549

2.2 The manufacturer shall notify the City of shipment approximately forty-eight (48) hours before arrival.

3.0 SUPPLEMENTAL GENERAL CONDITIONS

3.1 Award Criteria

3.1.1 The award will be made to the proposal conforming to the and will be most advantageous to the City. Price, Technical recommendation by the City's Engineer and other factors considered such as delivery time, quality, operating and maintenance cost, service, resale value, etc. NOTE: DELIVERY TIMES MAY BE A FACTOR IN AWARD OF PROPOSAL.

3.1.2 The City reserves the right to reject any or all offers and to waive informalities and minor irregularities in offers received.

3.2 Authority

3.2.1 The Director of Purchasing as the designee of the City Manager has the sole responsibility and authority for negotiating, placing, and when necessary modifying each and every invitation to bid, purchase order or other award issued by the City of Danville. In the discharge of these responsibilities, the Director of Purchasing may be assisted by assigned buyers. No other City officer or employee is authorized to order supplies or services, enter into purchase negotiations, or in any way obligate the government of the City of Danville for an indebtedness. Any purchases contrary to these provisions and authorities shall be void and the City shall not be bound thereby.

3.2.2 This procurement process, including withdrawal of proposals and appeals or protests, is governed by the "PROCUREMENT CODE OF THE CITY OF DANVILLE, VIRGINIA". Copies of the Procurement Code may be obtained by writing the City of Danville Purchasing Department, PO Box 3300, Danville, VA 24543.

3.3 Proposal Preparation

3.3.1 Proposals must be written in ink or typewritten and shall be submitted on the forms issued. Unsigned proposals will not be accepted. No proposal may be considered if received after the time shown on Title Page. Offerors are expected to examine all instructions and specifications. Failure to do so will be at the Offeror's risk. Erasures or other changes must be initialed by the person signing the proposal.

3.3.2 Envelopes containing proposals must be sealed and marked in the lower left hand corner with the invitation number and the words RFP 20-21-049 "75 KVA Substation Circuit Breakers" and submitted to the office indicated on the title page.

3.4 Proposals Binding 60 Days

Unless otherwise specified all formal Proposals submitted shall be binding for sixty (60) calendar days following submission date.

3.5 Enforcement

This Agreement and the performance hereof shall be governed by and enforced under the laws of the Commonwealth of Virginia, and if legal action by either party is necessary for or with respect to the enforcement of any or all of the terms and conditions hereof, then exclusive venue therefore shall lie in the City of Danville, Virginia.

3.6 Interpretation

3.6.1 If any person contemplating the submission of a proposal on this invitation is in doubt as to the true meaning of any part of the plans, specification or other document, he should submit a written request for an interpretation thereof to the Director of Purchasing. An interpretation of the proposal invitation document will be made only by written addendum issued to each potential Offeror. **THE CITY WILL NOT BE RESPONSIBLE FOR EXPLANATIONS OR INTERPRETATIONS OF PROPOSAL INVITATION DOCUMENTS EXCEPT AS ISSUED IN ACCORDANCE HEREWITH.**

3.6.2 All notices, demands, requests, instructions, approvals, proposals and claims must be in writing.

3.7 Patents

The Vendor agrees to indemnify and save harmless the City, and all personnel from all suits and actions of every nature and description brought against them or any of them, for or on account of the use of patented appliances, products, or processes, and he shall pay all royalties and charges which are legal and equitable. Evidence of such payment or satisfaction shall be submitted upon request of the City as a necessary requirement in connection with the final execution of any contract in which such patented appliances, products, or processes are used.

3.8 Prices

3.8.1 All prices are based on delivery to the destination designated in the RFP including packing charges. Any discounts for payment (Invoicing Terms) should be entered on the proposal page and will be considered in the evaluation.

3.8.2 Unless lump sum is specifically requested, unit and extended prices should be given. Failure to do so may cause proposal to be rejected. In all cases, the unit price shall govern.

3.9 Performance

In case of default by the Vendor, the City may procure the commodity or services from other sources and hold the Vendor responsible for any excess costs occasioned thereby.

3.10 Specifications and Product Description

When brand names, Delivery ARO numbers, trade names, catalog numbers or cuts are listed, they are, unless otherwise specified, included for the purpose of furnishing Offerors with information concerning the style, type or kind of article desired and a Offeror may offer an article which he certifies to be equal in quality, performance and other essential characteristics. Any available printed material or literature which describes the product being offered for sale shall be included with the proposal. The City shall be the sole judge of suitability of substitutes offered. When a formal numbered specification is referred to in this invitation, no deviation will be permitted and the Offeror will be required to furnish articles in conformity with that specification.

3.11 Taxes

The City is exempt from payment of State Sales and Use Tax on all tangible personal property purchased or leased for its use or consumption. Certificate of Exemption will be furnished upon request.

3.12 Vendor's Relationship to the City

3.12.1 Independent Contractor

It is expressly agreed and understood that the Vendor is in all respects an independent Contractor as to work and is in no respect any agent, servant, or employee of the City. The contract specifies the work to be done by the Vendor, but the method to be employed to accomplish the work shall be the responsibility of the Vendor.

3.12.2 Subcontracting

Vendor may subcontract services to be performed hereunder with the prior approval of the City, which approval shall not be unreasonably withheld. No such approval will be construed as making the City a part of, or to, such subcontract, or subjecting the City to liability of any kind to any subcontractor. No subcontract shall, under any circumstances, relieve the Vendor of its liability and obligation under this contract; and despite any such subcontracting the City shall deal through the Vendor, and subcontractors will be dealt with as representatives of the Vendor.

3.12.3 Payments to Subcontractors

a. The contractor shall take one of the two following actions within seven days after receipt of amounts paid to the contractor by the City of Danville for work performed by the subcontractor;

1. Pay the subcontractor for the proportionate share of the total payment received from the agency attributed to the work performed by the subcontractor under that contract; or

2. Notify the agency and subcontractor, in writing, of his intention to withhold all or a part of the subcontractor’s payment with the reason for nonpayment.

b. Individual Contractors shall provide their social security numbers and proprietorships, partnerships, and corporations to provide their federal identification numbers.

c. The contractor shall pay interest to the subcontractor on all amounts owed by the contractor that remain unpaid after seven days following receipt by the contractor of payment from the City of Danville for work performed by the subcontractor, except for amounts withheld as allowed in subdivision 1.

d. Unless otherwise provided under the terms of this contract, interest shall accrue at the rate of one percent per month.

The contractor shall include in each of its subcontracts a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractor.

A contractor’s obligation to pay an interest charge to a subcontractor pursuant to the payment clause in this section shall not be construed to be an obligation of the City of Danville. A contract modification shall not be made for the purpose of providing reimbursement for the interest charge. A cost reimbursement claim shall not include any amount for reimbursement for the interest charge.

3.12.4 Novation

The Vendor shall not assign or transfer, whether by as Assignment or Novation, any of its rights, duties, benefits, obligations, liabilities, or responsibilities under this Contract without the written consent of the City; provided, however, that assignments to banks, trust companies, or other financial institutions for the purpose of securing bond may be made without the consent of the City. Assignment or Novation of this Contract shall not be valid unless the Assignment or Novation expressly provides that the assignment of any of the Vendor’s rights or benefits under the Contract is subject to a prior lien for labor performed, services rendered, and materials, tools, and equipment supplied for the performance of the work under this Contract in favor of all persons, firms, or corporations rendering such labor or services or supplying such materials, tools, and equipment.

3.13 Drug Free Work Place

During the performance of this contract, the vendor agrees to:

- a. Provide a drug-free workplace for the vendor’s employees;
- b. Post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance

or marijuana is prohibited in the vendor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

- c. State in all solicitations or advertisements for employees placed by or on behalf of the vendor that the vendor maintains a drug-free workplace;
- d. Include the provisions of the foregoing clauses in every subcontract or purchase order of or over \$10,000, so that the provisions will be binding upon each subcontractor or vendor;

"Drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a vendor in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

3.14 Indemnification

The Vendor shall indemnify the City, its agents, officers, and employees, against any damages to property or injuries to or death of any person or persons, including property and employees or agents of the City, and shall defend and indemnify the City, its agents, officers, and employees, from any claims, demands, suits, actions, or proceedings of any kind, including workers' compensation claims, of or by anyone, in any way resulting from or arising out of the operations in connection with the work described in the contract, including operations of subcontractors and acts or omissions of employees or agents of Vendor or Vendor's subcontractors. Vendor shall procure and maintain, at Vendor's own cost and expense, any additional kinds and amount of insurance that, in Vendor's own judgment, may be necessary for Vendor's proper protection in the prosecution of the work.

b. The Vendor shall, at his own expense, appear, defend, and pay all charges of attorney and other expenses arising there from or incurred in connection therewith, and, if any judgment shall be rendered against the City, and/or its officers, agents, and employees, in any such action, the Vendor shall, at his own expense, satisfy and discharge the same. The Vendor expressly understands and agrees that any performance bond or insurance protection required by this contract, or otherwise provided by the Vendor, shall in no way limit the responsibility to indemnify, keep, and save harmless and defend the City, its agents, officers, and employees as herein provided.

c. The Vendor shall assume all risks and responsibilities for casualties of every description in connection with the work, except that he shall not be held liable or responsible for delays or damage to the work caused by acts of God, acts of Public Enemy, acts of Government, quarantine restrictions, general strikes through the trade, or by freight embargoes not caused or participated in by the Vendor. The Vendor shall have charge and control of the entire work until completion and acceptance of the same by the City.

d. The Vendor shall alone be liable and responsible for, and shall pay, any and all loss or damage sustained by any person or party either during the performance or subsequent to the completion of the work under this agreement, by reason of injuries to persons and damage to property, buildings, and adjacent work, that may occur either during the performance of the work covered by this contract or that may be sustained as

a result of or in consequence thereof, irrespective of whether or not such injury or damage be due to negligence or the inherent nature of the work.

e. The Vendor, however, will not be obligated to indemnify the City, its officers, agents, or employees against liability for damage arising out of bodily injury to persons or damage to property caused by or resulting solely from the negligence of the City or its officers, agents, and employees.

3.15 Insurance

The Vendor shall not commence work under any contract until he has obtained all the insurance required hereunder and such insurance has been approved by the City; nor shall the Vendor allow any Subcontractor to commence work on his subcontract until all similar insurance has been so obtained and approved. Approval of the insurance by the City shall not relieve or decrease the liability of the Vendor hereunder.

a. Worker’s Compensation including Occupational Disease and Employer’s Liability Insurance: The Vendor shall take out and maintain during the life of the Contract, Workers’ Compensation and Employer’s Liability Insurance for all of his employees to be engaged in work on the project under this Contract in an amount no less than the minimum allowed by the State Corporation Commission, and in case any such work is sublet, the Vendor shall require the Subcontractor similarly to provide Workers’ Compensation and Employers’ Liability Insurance for all of the latter’s employees to be engaged in such work.

b. Comprehensive General Liability Insurance: The Vendor shall maintain during the life of the Contract comprehensive general liability insurance as shall protect him and the City of Danville and its officers, agents and employees from claims for damages for personal injury, including death, as well as from claims for property damage, which may arise from operations under the Contract, whether such operations be by himself or by any Subcontractor, or by anyone directly or indirectly employed by either of them. The amount of such insurance shall be not less than a combined single limit of \$1,000,000.00 per occurrence on bodily injury and property damage and \$1,000,000.00 aggregate on completed operations. The comprehensive general liability insurance shall provide the following coverage:

- Comprehensive
- Premises – Operation
- Products/Completed Operations Hazard
- Contractual Insurance
- Broad Form Property Damage
- Personal Injury

c. Automobile liability insurance with minimum combined single limits of \$500,000.00 per occurrence. This insurance shall include bodily injury and property damage for the following vehicles:

Owned Vehicles

Non-owned Vehicles

Hired Vehicles

d. Umbrella Policy: At the option of the Vendor, primary limits may be less than required, with an umbrella policy providing the additional limits needed. This form of insurance will be acceptable provided that the primary and umbrella policies both provide the insurance coverage herein required. However, any such umbrella policy must have minimum coverage limits of \$2,000,000.00.

3.16 Equal Employment:

During the performance of the contract, the vendor agrees as follows:

a. The Vendor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin, except where religion, sex, or national origin is a bona fide occupational qualification reasonably necessary to the normal operation of the Vendor. The Vendor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions for this nondiscrimination clause.

b. The Vendor also shall not discriminate against any handicapped person in violation of any state or federal law or regulation and shall also post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this additional nondiscrimination clause.

c. The Vendor, in solicitations or advertisements for employees placed by or on behalf of the Vendor, will state that such vendor is an equal opportunity employer.

d. Notices, advertisements, and solicitations placed in accordance with Federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section

e. The Vendor will include the provisions of the foregoing paragraphs in every subcontract or purchase order over \$10,000 so that the provisions will be binding upon each subcontractor or vendor.

f. The Vendor will otherwise comply with all other applicable provisions of local, State, and Federal law.

g. The contractor does not, and shall not during the performance of the contract for goods and services in the Commonwealth, knowingly employ and unauthorized alien as defined in the Federal Immigration Reform and Control Act of 1986.

h. Contractors organized as a stock or nonstock corporation, limited liability company, business trust, or limited partnership or as a registered limited liability partnership shall be authorized to transact business in the Commonwealth as a domestic or foreign business entity if so required by Virginia Title 13.1 or Title 50 or as otherwise required by law.

A contractor organized or authorized to transact business in the Commonwealth pursuant to Virginia Title 13.1 or Title 50 shall include in its bid or proposal the identification number issued to it by the State Corporation Commission. Any bidder or offeror that is not required to be authorized to transact business in the Commonwealth as a foreign business entity under Title 13.1 or Title 50 or as otherwise required by law shall include in its bid or proposal a statement describing why the bidder or offeror is not required to be so authorized.

3.0 DOCUMENTS, PROPOSAL PAGES AND SPECIFICATIONS AS PDREPAED BY PIKE ENGINEERING

SEE ATTACHED MANUAL



**CITY OF DANVILLE
DANVILLE, VIRGINIA
KENTUCK AND WHITMELL SUBSTATION UPGRADES
SPECIFICATIONS AND PROPOSAL DOCUMENTS
FOR
72 KV CIRCUIT BREAKERS
REQUEST FOR PROPOSALS**



Virginia License#: 0407005765
1616 E. Millbrook Road, Suite 210
Raleigh, North Carolina 27609
Phone: (919) 256-5900

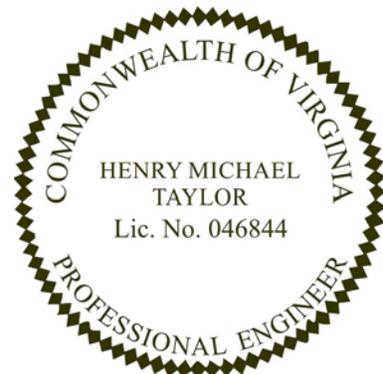


**KENTUCK AND WHITMELL SUBSTATION UPGRADE
SPECIFICATIONS AND PROPOSAL DOCUMENTS
FOR
72 KV CIRCUIT BREAKERS
REQUEST FOR PROPOSALS**



I hereby certify this document was prepared by me or under my direct supervision. I also certify I am a duly registered professional engineer under the laws of the Commonwealth of Virginia, Registration No. 046844.

Virginia License#: 0407005765
1616 E. Millbrook Road, Suite 210
Raleigh, North Carolina 27609
Phone: (919) 256-5900



**CITY OF DANVILLE, VIRGINIA
PROPOSAL FOR
KENTUCK AND WHITMELL SUBSTATION UPGRADE
72 KV POWER CIRCUIT BREAKERS**

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NOTICE TO PROSPECTIVE PROPOSERS

Proposals will be received by the City of Danville Purchasing Office, in Room 304, 427 Patton Street, until **5:00 p.m., local time, October 20, 2020** for the furnishing of the following:

SUBSTATION POWER TRANSFORMERS

Proposals shall be marked "**Proposal for Substation 72 kV Circuit Breakers for Danville's Kentuck and Whitmell Substations Upgrade**". Proposers shall mail or hand deliver their Proposals as follows:

City of Danville,
Purchasing Office
Post Office Box 3300
427 Patton Street, Room 304
Danville, Virginia 24543
Attention: Mr. J. Gary Via

Specifications and proposal forms may be secured from the offices of the Engineer. All hand carried proposals are to be presented to the City of Danville Purchasing Office or at the time of the Proposal opening. Cash, bid bond, certified check or cashier's check insured by the Federal Deposit Insurance Corporation, made payable to the City of Danville, Virginia, in the amount of five percent (5 %) of the total Proposal must accompany all proposals in order to guarantee compliance with the provisions of the proposal.

The Proposer's proposal shall specify price, any applicable price terms, approval drawing time, and delivery time. All prices shall be FOB substation site. The Proposer's proposal shall include an outline drawing indicating approximate overall physical dimensions and weight.

Virginia sales tax is applicable to this purchase. Each Proposer shall show as a separate item the amounts which will be payable by the Purchaser for any taxes upon the sale of the proposed materials.

The Purchaser reserves the right to waive minor irregularities or errors in the Proposal if it appears that such irregularities or errors were made through inadvertence. Any such irregularities or errors so waived must be corrected on the Proposal prior to acceptance by the Purchaser. The Purchaser will evaluate all data provided in the proposal and select the proposal that in the sole judgment of the Purchaser represents the best value to the City of Danville. The Purchaser reserves the right to reject any or all proposals. The City of Danville will not discriminate against any Proposer submitting a Proposal because of race, creed, color, national origin or handicap.

RFP 20-21-049

“75 kV Substation Circuit Breakers”

City of Danville, Virginia

Purchaser

Pike Engineering, LLC.

Engineer

Date: October 1, 2020

**CITY OF DANVILLE, VIRGINIA
PROPOSAL FOR
KENTUCK AND WHITMELL SUBSTATION UPGRADE
72 KV POWER CIRCUIT BREAKERS**

<u>Proposal Schedule No. 1</u>	<u>Quantity</u>	<u>Unit Price*</u>	<u>Total Price</u>
Outdoor Circuit Breaker, 72 kV, 40,000-ampere interrupting, 60 Hertz, 1,200-ampere continuous, per the Specifications.	6	\$ _____	\$ _____
Applicable VA Sales Tax			\$ _____
Total delivery time (weeks) _____		Warranty (years) _____	

Cost of Field Service Engineering _____ is or _____ is not included in price.

If not included, fixed price per breaker for Field Service Engineering \$ _____

(Note: A five year warranty is specified. Anything less will be considered less responsive)

1. The prices of Materials proposed do not include any sums payable by the Purchaser for Virginia sales tax. The amount of tax shall be added to the invoice and paid by the Purchaser after the Materialman has performed the work. Invoices shall be submitted to the Engineer to be approved before submittal to the Purchaser.

2. The materials quoted conform to the Specifications, or any exceptions are clearly noted under paragraph 12 of this proposal or in the Compliance and Exceptions Checklist. (Exceptions or clarifications included elsewhere in the Proposer's Proposal will not be accepted unless they are clearly noted in paragraph 12 or the Compliance and Exceptions Checklist. Exceptions and clarifications may be listed in a separate portion of the proposal, but will not be considered valid unless so noted in paragraph 12 and clearly marked as "Exceptions to Specifications" in the separate proposal.) **Failure to fill in the Compliance and Exceptions Checklist will be considered an incomplete Proposal.**

3. The Purchaser may accept any Schedule or portion thereof or purchase additional quantities of any quoted materials.

4. The prices quoted shall include delivery of the materials and equipment by truck or rail F.O.B. substation sites, Danville, Virginia, with unloading and placement of the transformers on the pads. Delivery will not be deemed complete until transformers are fully assembled and tested.

5. The prices of the materials and equipment set forth herein shall include the cost of delivery to the site at the Materialman's risk. The time of delivery shall be as follows:

- a. Approval Drawings _____
(Weeks)*
- b. Final Drawings** _____
(Weeks)*
- c. Delivery** _____
(Weeks)*

* Number of consecutive calendar weeks after receipt of a written order.

** Allow two (2) weeks for receipt and return of Approval Drawings.

Delivery of all items of equipment to the Purchaser's designated delivery point shall be made to permit unloading between the hours of 9:00 a.m. and 3:00 p.m., Monday through Thursday, holidays excluded.

Delivery shall be made to the substation sites located at:

Kentuck Substation
1865 Kentuck Road
Ringgold, VA 24586

Whitmell Substation
422 F C Beverly Road
Dry Fork, VA 24549

6. Price Policy: The prices quoted in the Proposal are firm

Other terms and conditions that apply to this proposal _____

Note: If the manufacturer is proposing partial payments be made starting prior to the delivery of a transformer, the manufacturer will be required to furnish a performance bond in the full amount of the contract if this method of payment is accepted.

- 7. Proposals shall include the following:**
- a. Catalog numbers, manufacturer, ratings, characteristics, types, sizes, etc., of all materials and equipment included. A simple statement that all necessary materials and equipment will be provided is not satisfactory.
 - b. Performance data for the several items as set forth in the detailed Specifications.
 - c. Prices shall include the cost of delivery to the substation site and installation as per the Specifications.
 - d. Prices shall include the services of a Field Service Engineer. Refer to the "MANUFACTURER'S FIELD REPRESENTATIVE" paragraph of the Specifications for details of Field Service Engineering responsibilities and required field-testing.
8. Receipt of Approval Drawings by the Materialman constitutes authorization for manufacture predicated upon the Drawings and corrections found thereon. After the return of Approval Drawings, release for shipment is to be granted by the Engineer based upon the manufacturer's compliance with the following:
1. Notification of at least seven days prior to tests, so the Purchaser may have a representative present to witness the tests.
 2. Furnishing of the requested number of copies of the Final Drawings as called for in the Specifications.
 3. Thirty (30) days' notification of tentative shipping schedule and forty-eight (48) hours' notification prior to all deliveries.
9. Title to the materials and equipment shall pass to the Purchaser upon delivery to the point specified herein, completion of final assembly as directed by the Materialman's certified representative, and declaration by Materialman's certified representative that transformer is ready to be energized.
10. This Proposal is made pursuant to the provisions of the Notice to Proposers and the Specifications, and the Materialman agrees to the terms and conditions thereof.
11. The Materialman warrants the accuracy of all statements contained in the Materialman's Proposal, and agrees that the Purchaser shall rely upon such accuracy as a condition of the contract in the event that this Proposal is accepted.
12. The following Exceptions / Clarifications to the Specifications are applicable to the materials proposed:

Proposal / Specification Reference	Exception

13. Non-Collusive Proposal Certification By the submission of this Proposal, the Materialman certifies that:

1. This Proposal has been arrived at by the Materialman independently and has been submitted without collusion with any other manufacturer of materials, supplies, or equipment of the type described in the Notice to Prospective Proposers or the Specifications.
2. The contents of the Proposal have not been communicated by the Materialman or, to his best knowledge and belief, by any of his employees or agents to any person not an employee or agent of the Materialman, and will not be communicated to any person prior to the official opening of the Proposal.

14. If, in submitting this Proposal, the Materialman has made any change(s) from the Specifications to offer an alternate proposal(s), the Materialman understands that the Purchaser may evaluate the effect of such change as it sees fit, or may exclude the Proposal from consideration in determining the award of the Contract.

Submitted this the _____ day of _____, 2020.

Name of Firm _____

Signature _____

Printed or Typed Name _____

Title _____

Address of Materialman: _____

Telephone _____

E-mail _____



**City of Danville
Certification Regarding Debarment and Suspension**

Contracts for construction or services shall comply with the provisions of 43 CFR Part 12, Subpart C (Uniform Administrative Requirements for Grants and Cooperative Agreements with State and Local Governments). In order to comply with this provision, no contract may be awarded by the grantee (City of Danville), a subgrantee or contractor of any grantee or subgrantee to any party that has been debarred or suspended under Executive Order 12549. By signing this document, you certify to the best of your knowledge that the company, its principals, and its subcontractors which may be awarded a contract with the City of Danville:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or criminal offence in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission or embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statement, or receiving stolen property;
- (c) Are not presently indicted for or otherwise criminally charged by a governmental entity (Federal, State, or local) with commission of any of the offenses in paragraph (b) of this certification; and
- (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

BY _____ **DATE** _____
(Signature of Owner or Authorized Representative)

(Company Name) (Name/Location of Project)
CITY OF DANVILLE, VIRGINIA

**SPECIFICATIONS FOR
KENTUCK AND WHITMELL SUBSTATION UPGRADE
72 kV POWER CIRCUIT BREAKERS**

TECHNICAL SPECIFICATIONS

1. SCOPE

The work shall include furnishing all equipment and materials, as set forth in the Bid Schedule(s) and as specified herein.

GENERAL CONDITIONS

All materials and equipment shall be new. These Specifications describe the type, size, and characteristics of the various materials and equipment required to be furnished. Strict adherence to these general Specifications is required to facilitate review and consideration of the Proposal. Alternate proposals will be evaluated if deemed appropriate.

It is the intent of these Specifications that the breaker(s) shall be complete and fully operable. Any details or materials not mentioned in the Specifications, but required for satisfactory operation, shall be furnished and installed by the Materialman.

Station power available at the Owner's substation will be 120/240 volts, 60 Hz, single-phase. Control DC voltage at the substation will be 125 volts. The equipment on the breaker(s) shall coordinate with these voltages, as appropriate.

SPECIAL CONDITIONS

3.1 Defective Materials, Equipment, and Workmanship

All materials and equipment furnished hereunder shall be subject to the inspection, tests, and approval of the Engineer and the Materialman shall furnish all information required concerning the nature or source of all materials and equipment, as well as provide adequate facilities for testing and inspecting the materials and equipment at the plant of the Materialman.

The materials and equipment furnished hereunder shall become the property of the Owner when the breaker is sitting on the pad fully

assembled and certified ready for energization by a certified representative of the manufacturer, provided, however, that the Owner may reject any such materials and equipment which do not comply with the Specifications for materials and equipment and/or warranties of the Materialman and manufacturers. Recognition and subsequent rejection of any defective materials and equipment may occur either before or after incorporation of such materials and equipment into the facilities, provided such rejection is made within one year of date of delivery of the materials and equipment. Upon any such rejection, the Materialman shall replace the rejected materials and equipment with materials and equipment complying with the Specifications for materials and equipment and warranties, F.O.B. substation. The Owner shall return the rejected materials F.O.B. truck at the substation. In the event of the failure of the Materialman to so replace rejected materials and equipment, the Owner may make such replacement and the cost and expense thereof shall be paid by and recoverable from the Materialman.

3.2 Miscellaneous

The Materialman shall hold harmless and indemnify the Owner, its agents and employees, from any and all claims, suits and proceedings for infringement of any patent or patents covering materials and equipment purchased hereunder. The Materialman shall defend any suit or proceeding brought against the Owner, its agents or employees, based upon a claim that the materials and equipment or any part thereof constitute an infringement of any patent, or if the Materialman shall fail to defend such suit or proceeding, the Owner may do so and the Materialman shall make reimbursement for the expense of such litigation. If the materials and equipment, or any part thereof, are held to constitute infringement and the use thereof is enjoined, the Materialman shall, at its own expense, either procure for the Owner the right to continue to use the materials and equipment, or such part thereof, or shall replace the materials and equipment, with non-infringing materials and equipment.

3.3 Standards

All equipment and materials covered by these Specifications and all tests applied thereto shall, unless otherwise stated herein, be in accordance with the applicable provisions of the latest editions of the Standards of the ASTM, ANSI, AEIC, AWS, NEMA, IEEE, and NESC. Where the term "Standards" is used in the specifications, it shall be understood to refer to the above standards.

4. DRAWINGS

4.1 Preliminary

Before proceeding with fabrication, the manufacturer shall submit for approval to the Engineer sufficient Drawings to demonstrate that all parts conform to the requirements and intent of these Specifications. The Drawings shall include outline, control cabinet front view and layout, nameplate, applicable equipment nameplates, material list with manufacturer part numbers, control schematics and wiring diagrams. Drawings shall be submitted electronically as AutoCAD ".dwg" drawings and in PDF format. Each drawing shall contain identifying information such as, but not limited to, customer and project name. Catalog cut sheets and details of instrument transformers, bushings, bushing terminal connectors, relays, and all accessories shall also be submitted for approval.

The Outline Drawing shall show dimensions of equipment, including bushings, bushing designations, base, and all other important external features. Outline Drawings shall be to scale and include plan view and elevations from all four (4) sides. These Drawings shall show weights, bushings, bushing catalog numbers and ampere ratings, description of top bushing terminals, and arrangement of all external accessory devices. Control schematic drawings shall clearly indicate the power requirements of DC circuits and AC auxiliary power (amps/volts/watts).

Approval of Drawings shall not be held to relieve the manufacturer of obligations to meet all requirements to the Specifications or responsibility for correctness of the Drawings, or responsibility to meet original shipping promise on the basis of customer being allowed two (2) weeks for approval.

The Engineer may require additional submittals of Shop Drawings if, in the opinion of the Engineer, such is required due to the extent of changes required on the previous submittal(s). If an extension of time is required due to a protracted drawing approval process, the price will remain as quoted for the quoted delivery.

Receipt of Approval Drawings by the Materialman constitutes authorization for manufacture based upon the corrections found thereon.

No changes shall be made in the final Drawings from the approved Approval Drawings. Any proposed changes from the approved drawings must go through the approval drawing process again **with the changes clearly denoted**. Following approval of drawings the Materialman shall submit a complete set of "For Construction" drawings to the Engineer.

4.2 Final Drawings and Instruction Manuals

Materialman shall furnish two (2) hard copies of instruction manuals **prior to the shipment of the equipment**. Both copies shall be sent to the Owner. Each instruction manual shall include a digital medium (such as a USB drive) that contains entire contents of instruction manual in PDF format. Final drawings are to be certified as "As-Built" and shall be provided in AutoCAD format in addition to PDF format.

Instruction manuals are to include, as a minimum, each of the following:

- 4.2.1 Materialman's installation and maintenance instructions for transformer
- 4.2.2 Manufacturer manuals, brochures, cut sheets, bulletins, etc. for components, fittings, valves, controls, and accessories
- 4.2.3 Manuals, brochures, cut sheets, bulletins, etc. for the breaker and replacement parts
- 4.2.4 Outline and assembly drawings
- 4.2.5 Control cabinet front view and layout drawing(s)
- 4.2.6 Nameplate drawing(s)
- 4.2.7 Material list drawing
- 4.2.8 Schematic and wiring diagram drawings for all control and accessory items
- 4.2.9 Details of bushing and bushing terminal connectors

- 4.2.10 Diagram of bushing current transformers indicating connection, number of turns, polarity marking, ratio, accuracy class, and thermal rating factor
- 4.2.11 Catalog cut sheets for instrument transformers, surge arresters, relays, and all control accessories
- 4.2.12 Certified test report (including Doble tests, etc.)

Certified field test report shall be furnished upon completion of acceptance testing.

5. SHIPPING

Three (3) breaker(s) shall be shipped fully assembled or ready to be assembled complete with all required assembly hardware to each substation site. The shipping address for the substations are:

Kentuck Substation
1865 Kentuck Road
Ringgold, VA 24586

Whitmell Substation
422 F C Beverly Road
Dry Fork, VA 24549

6. MANUFACTURER'S FIELD REPRESENTATIVE

The manufacturer shall provide and include in his price as a part of his Proposal the services of an on-site Field Service Engineer. The duties of the Field Service Engineer shall include filling the breaker with SF₆ gas, performing all required field tests, and checks as specified herein and supervising installation prior to placing in service. Field Service Engineer shall supply all tools, test equipment, and any miscellaneous materials or parts needed. Price shall include any additional allowance for travel and expenses.

7. CHARACTERISTICS

7.1 Trip Circuit Requirements

- 7.1.1 Each breaker shall be equipped with two (2) electrically and mechanically independent trip coils. The failure of one trip coil shall not damage or impair the operation of the other coil.

The design must be such that the simultaneous energization of both trip coils shall not prevent the breaker from tripping.

- 7.1.2 **Individual molded case circuit breaker** shall be provided for each trip circuit.
 - 7.1.3 Trip circuit operating voltage shall be as specified herein. Trip circuits shall operate properly within a range as specified in the latest revision of Table 8 in ANSI C37.06.
 - 7.1.4 Tripping current of each trip coil circuit and total power requirements shall be indicated on the drawings.
- 7.2 Closing Circuit Requirements
- 7.2.1 **Individual molded case circuit breakers** shall be provided for the closing circuit and spring charging motor.
 - 7.2.2 Closing circuit operating voltage shall be as specified herein. Closing circuit shall operate properly within a range as specified in the latest revision of Table 8 in ANSI C37.06.
 - 7.2.3 Closing current of each close coil circuit and total power requirements shall be indicated on the drawings.
 - 7.2.4 The close path must have a block close path, per ANSI standards.
- 7.3 Operating Mechanism
- 7.3.1 The breaker operating mechanism shall be electrically trip free with anti-pump feature.
 - 7.3.2 The breaker operating mechanism shall be spring type.
 - 7.3.3 The operating mechanism shall be capable of storing an Open – Close – Open operation minimum and furnished with a motor capable of charging in 10 seconds.
 - 7.3.4 The breaker shall monitor low spring charge with alarm function.
 - 7.3.5 The spring charging motor shall be provided with a universal AC/DC motor (**an AC/DC transfer scheme shall be provided to automatically switch to DC power upon loss of AC power**).

7.4 Construction Details

- 7.4.1 Each circuit breaker shall be designed and constructed for operation on a 3-phase, 60 hertz, solidly grounded system, at an ambient temperature range from -30°C (-22°F) to + 40°C (104°F) at an altitude below 3,300 feet. The breaker shall be single pressure SF₆ gas type using puffer interrupters or vacuum type.
- 7.4.2 Each circuit breaker shall be capable of electrically ganged 3-pole tripping and reclosing.
- 7.4.3 Each circuit breaker shall be dead-tank design.
- 7.4.4 Each circuit breaker shall be designed and built per the applicable seismic zone and associated requirements of the International Building Code (IBC) published by the International Code Council (ICC).
- 7.4.5 Minimum vertical clearance or taut-string distance from foundation to bottom of bushings shall be 8'-6".

7.5 Control Cabinet

- 7.5.1 The operating mechanism and necessary auxiliary devices shall be provided in one or more NEMA 4 type weatherproof, dust resistant enclosures, mounted on the breaker frame.
- 7.5.2 The breaker control cabinet will provide the internal wiring for the breaker system and the interface between the Owner's control and power circuits to the breaker.
- 7.5.3 The control cabinet shall allow sufficient space and provision for termination of Owner-furnished control and power circuits.
- 7.5.4 Provision for padlocking doors.

7.6 Bushings and Terminals

- 7.6.1 The breaker(s) shall be provided with bushings rated to meet or exceed the continuous current and BIL ratings of the breaker. Bushings shall be ANSI 70 gray.
 - 7.6.2 Bushings shall have minimum creepage distance required by applicable contamination district, as specified herein.
 - 7.6.3 Bushings shall have NEMA standard threaded terminal studs.
 - 7.6.4 Bushings shall be furnished with terminal connectors with NEMA 4-hole pad suitable for aluminum or copper connector, one for each bushing.
 - 7.6.5 Bushing designations (1, 3, 5 and 2, 4, 6) shall be labeled on breaker exterior and be clearly visible.
- 7.7 SF₆ Gas System
- 7.7.1 A drop in SF₆ gas density, in any pole, shall initiate a low SF₆ gas density alarm. A further drop in density, below the minimum required for proper interruption of fault currents, shall block any breaker operation, either open or close.
 - 7.7.2 Each breaker shall be furnished completely filled with factory specified volume of SF₆ gas to energize the breaker. The SF₆ gas shall be free of moisture and impurities. SF₆ /nitrogen gas mixtures shall not be furnished.
 - 7.7.3 The SF₆ to air seals and gaskets shall prevent SF₆ gas leakage in excess of 1 percent per year of gas volume. Corrosive arc products due to moisture infiltration shall be prevented to the maximum extent possible through the use of desiccant moisture absorbing chambers.

8. POWER AND CONTROL WIRING

- 8.1 Molded case circuit breakers shall be used for interruption and protection of low voltage circuits.

- 8.2 Marathon Catalog No. 1423123 power terminal block shall be provided for landing of Owner's ac control power leads.
- 8.3 Marathon Catalog No. 1422123 power terminal block shall be provided for landing of Owner's dc voltage control power leads.
- 8.4 Clearly indicate operating voltage and required field wiring of voltage supply to motor terminal blocks and on drawings.
- 8.5 Marathon heavy duty short circuiting terminal blocks, 1500 SC Series, or equal, shall be provided for landing of all bushing current transformer (BCT) leads. A separate terminal block shall be provided for each set of current transformer leads.
- 8.6 Marathon heavy duty terminal blocks, 1500 Series, or equal, shall be provided for landing of all other wiring.
- 8.7 A minimum of twelve (12) spare terminal block terminals shall be provided.
- 8.8 All terminal points shall be furnished with screws and lock washers.
- 8.9 All BCT leads shall be #10 AWG stranded copper.
- 8.10 All control wiring will be #14 AWG minimum stranded copper type SIS, except when larger wire is required by the circuit.
- 8.11 Bushing Current Transformer grounds: jumpers must be from the sixth pole of the shorting terminal block on the manufacturer's side directly to the ground bar. Jumpers between shorting terminal blocks are not acceptable unless jumpers are strictly between terminal blocks grouped together. An example of a grouping would be 1X-3X-5X.
- 8.12 All control devices and alarms shall be connected to terminal blocks located in the breaker control cabinet and clearly labeled on the drawings. All terminal blocks shall be situated such that they are clearly visible and easily accessible in case there is need of field modifications.
- 8.13 All terminal connections for conductor sizes #10 AWG in size and smaller shall be made with non-insulated full-ring tongue, crimp-type lugs. Lugs shall be AMP, Inc. "Solistrand Diamond-Grip" or approved equivalent. Spade-type terminals or slip-on connectors are not acceptable.

- 8.14 Legible sleeve type wire markers shall be provided at each end of wires over six inches (6") in length.

9. BUSHING CURRENT TRANSFORMERS

All current transformers shall be multi-ratio with standard taps with 10-ampere continuously rated secondary and as specified herein.

10. SCADA FEATURES

Supervisory control features shall include provision for remote monitoring of breaker status, breaker alarms, remote trip, and remote close. Contacts shall be normally closed for normal operation and open when blocked.

11. ACCESSORIES

Standard accessories shall be provided with each breaker. Accessories shall include the following:

- 11.1 An auxiliary switch with 14 "a" and 10 "b" contacts in addition to those required for control of breaker mechanism. All contacts shall be wired to terminal blocks. Contact surfaces shall be silver-plated. Contacts shall be rated to break 6 amperes at 135 volts dc.
- 11.2 Cutoff and latch checking switches.
- 11.3 One trip-close push-button station wired for local breaker test operation. One push button for each trip coil and one push button for the close coil.
- 11.4 Pressure gauge and pressure switches for annunciation of low operating pressure if pneumatically or hydraulically operated breaker is furnished.
- 11.5 SF₆ gas system pressure gauge.
- 11.6 Grounding pads with NEMA spacing terminals for attachment to the Owner's 1/0 AWG to 300 MCM stranded copper ground cables. Two (2) grounding pads shall be on diagonally opposite locations on each component of the frame and one (1) grounding pad shall be on the tank.
- 11.7 A mechanically actuated operation counter that is visible without

- opening a door.
- 11.8 Mechanical position indicator.
- 11.9 A primary contact erosion indicator shall be provided for ease of visual inspection to determine contact wear. Means for measuring and adjusting the primary contact gap and wipe shall be provided.
- 11.10 The control cabinet shall have internal, LED lighting controlled by a door-actuated switch. Operation of door-actuated switch shall be by entrance into cabinet. Operation by opening inner relay swing panel is not acceptable.
- 11.11 The control cabinet shall have a 120 VAC, 20 A, single phase, duplex receptacle. The receptacle shall be accessible from outside the cabinet and have a GFCI function.
- 11.12 Thermostatically controlled heater shall be provided in the low-voltage and high-voltage compartments in order to prevent condensation.
- 11.13 A suitable nameplate showing all ratios of the bushing current transformers shall be mounted either on the circuit breaker frame or inside the control cabinet.
- 11.14 All relays, switches, contactors, starters, and other devices shall be identified by nameplates and shall be mounted on the accessible wiring side of device.
- 11.15 One maintenance closing and opening devices shall be furnished for use with the breaker.
- 11.16 Manual pull-to-trip device located external to the housing and clearly labeled.
- 11.17 Adjustable pressure switches to:
- Alarm low SF₆ gas pressure
 - Trip/block tripping and lock out the circuit breaker for low SF₆ gas pressure
- 11.18 Loss of voltage alarm relay on each auxiliary power and control power feed to the breaker, one for auxiliary power, one for close control power, and one for each trip coil control power.

12. TESTS

12.1 Factory Tests

12.1.1 Regardless of any statements in the standards to the contrary, each breaker shall be completely assembled at the factory. The assembled components, including bushings, shall be those which will be a permanent part of the breaker assembly. After each breaker is completely assembled, it shall be subjected to and shall be certified to meet all requirements of the production tests as listed and described in ANSI C37.04, C37.06, and C37.09 Standards.

12.1.2 In addition, each breaker furnished under these specifications shall be Doble tested and the test results forwarded to the Owner and Engineer.

12.1.3 Each breaker shall be fully tested and verified for proper operation. Upon completion of factory assembly and wiring of equipment, the successful bidder shall conduct functional tests to verify correct wiring operation of equipment. Factory Acceptance Testing (FAT) shall, as a minimum, include the following:

- Pre-functional test checkout (general workmanship, wire continuity, isolation, etc.)

- DC Control Circuit Functional Tests

- AC Sensing Circuit Functional Tests

If wiring errors are discovered following delivery of the breaker(s), all costs to correct the errors shall be borne by the manufacturer. The manufacturer will be notified of the discovery of errors and given the opportunity to correct them first. If corrections are not made by the manufacturer in a timely manner, the owner shall arrange for others to make corrections and the manufacturer shall be responsible for all costs incurred.

12.2 Field Tests/Checks

All tests as called for by the latest revision of ANSI/NETA Standard for Acceptance Testing Specifications for Electrical Power Equipment and Systems shall be performed. For reference, applicable portions of ANSI/NETA ATS-2013 have been included in the Appendices.

Any tests listed that are not included in the bidder's proposal shall be so noted in the list of exceptions to the specifications.

Documentation of all tests and checks shall be provided in a certified test report to the Owner and Engineer.

13. WARRANTY

The Materialman shall guarantee his materials and workmanship against defect due to faulty materials or faulty workmanship or negligence for a period as outlined below following final acceptance of the work. He shall make good such defective materials or workmanship and any damage resulting therefrom without cost to the Owner.

The breaker shall carry a full five-year warranty against defects in materials or workmanship. Any less period will be considered less responsive and not in compliance with these specifications.

14. BID SCHEDULE NO. 1

BREAKER RATINGS, Minimum:

Rated interrupting time (60 Hertz basis):	3 cycles
Basic lightning impulse insulation level (BIL)	350 kV
Rated maximum voltage, rms:	72 kV
Rated continuous current, rms:	1,200 A
Rated short-circuit and short-time current, rms:	40 kA

Extrapolate ratings based on above values from latest revision of Table 3 of ANSI C37.06, "Preferred ratings for outdoor circuit breakers 123 kV and above..."

Dielectric withstand ratings and external insulation shall be in accordance with latest revision of Table 4 of ANSI C37.06.

BUSHING RATINGS:

Type of contaminated environment: Light

Minimum creepage distance shall be based on type of contaminated environment stated above and as described in latest revision of IEEE Std C57.19.100.

Bushings shall be rated to meet or exceed electrical insulation characteristics given in the latest revision of Table 1 of ANSI C57.19.01.

BUSHING CURRENT TRANSFORMERS:

Current transformer data:

Bushing Location	Ampere Ratio	Quantity Each Bushing	Total	Accuracy Class	Continuous Thermal Rating (30°C)
1,3,5	1200:5	2	6	C400	2.0
2,4,6	1200:5	2	6	C400	2.0

ANSI/NETA ATS-2013

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