

ADVERTISEMENT FOR BIDS

Sealed proposals will be received in the Office of the Procurement Manager, Greenville Utilities Commission, 401 S. Greene Street, Greenville, North Carolina 27834 until 2:00 PM (EDST) on August 15, 2024 and immediately thereafter publicly opened and read for the furnishing of Hudson Substation Circuit Breakers.

Instructions for submitting bids and complete specifications will be available in the Office of the Procurement Manager, Greenville Utilities Commission, 401 S. Greene Street, Greenville, North Carolina during regular office hours, which are 8:30AM – 5:00PM Monday through Friday.

Greenville Utilities Commission reserves the right to reject any or all bids. **Late bids will not be considered.**

SECTION I
GENERAL INSTRUCTIONS FOR FORMAL BIDS
RELATED TO THE PURCHASE OF APPARATUS, SUPPLIES,
MATERIALS, AND EQUIPMENT

1.0 NOTICE TO BIDDERS

Sealed bids, subject to the conditions made a part hereof, will be received in the Office of the Procurement Manager, Greenville Utilities Commission, 401 S. Greene Street, Greenville, North Carolina 27834 until 2:00 PM (EDST) on August 15, 2024, the day of opening. **Bids submitted in a fax or e-mail in response to this Invitation for Bids will not be acceptable. Late Bids will not be considered.**

2.0 STANDARD FORMS REQUIRED

Each bidder must submit a proposal on the enclosed bid forms. **The bid must be signed by an authorized official of the firm. Return only the attached Proposal Form. Do not return the Advertisement for Bids, Instructions to Bidders or Specifications.**

3.0 PREPARATION OF BID

Bids must be in sealed envelopes clearly marked on the outside with the name of the bid and the bid opening date and time. Bid shall be addressed to PROCUREMENT MANAGER, GREENVILLE UTILITIES COMMISSION, 401 SOUTH GREENE STREET, GREENVILLE, NORTH CAROLINA 27834.

4.0 TIME FOR OPENING BIDS

Bids will be opened promptly and read at the hour and on the date set forth in the advertisement in the Office of the Procurement Manager, Greenville Utilities Main Office, 401 S. Greene Street, Greenville, North Carolina. Bidders or their authorized agents are invited to be present.

5.0 DEPOSIT

A deposit is **NOT** required for this bid.

6.0 NC SALES TAX

Do **not** include NC sales taxes in bid figure; however, Greenville Utilities Commission (GUC) does pay sales tax. Sales tax should be added to the invoice as a separate item.

7.0 FEDERAL EXCISE TAX

GUC is exempt from Federal Excise Tax and will issue a Federal Exemption Certificate upon request to the successful bidder.

8.0 EXCEPTIONS TO BE CLEARLY STATED

If bid is not in strict accordance with Section II, "Specifications," bidder must list or note all exceptions **on the Request for Proposal Form**, otherwise, it is fully understood that the successful bidder will furnish equipment and/or materials exactly as specified. GUC reserves the right to accept or reject bids with noted minor deviations from specifications and to determine the lowest responsible, responsive bid from the standpoint of quality, performance, and price.

9.0 EVALUATION AND AWARD OF BIDS

GUC reserves the right to reject any and all bids, to waive any and all informalities, and to disregard all nonconforming or conditional bids or counter proposals. In evaluating bids, GUC shall consider whether the bids comply with the prescribed requirements, plus all alternates or options requested. GUC reserves the right to include or exclude any option or alternative in GUC's opinion is in GUC's best interests. If a bid is to be awarded, it will be awarded to the lowest responsible, responsive bidder whose evaluation by GUC indicates that the award will be in GUC's best interests. Only firm prices will be considered for award of this bid.

10.0 PROMPT PAYMENT DISCOUNTS

Bidders are urged to compute all discounts into the price offered. If a prompt payment discount is offered, it may be considered in the award of the contract.

11.0 NUMERICAL ERRORS

In the case of a discrepancy between a unit price and the extension (the unit price multiplied by the number of units), the unit price governs. In the case where numerical bids are stated both in numbers and in words, the words govern.

12.0 BID WITHDRAWAL

A bidder must notify GUC in writing of its request to withdraw a bid within seventy-two (72) hours after the bid opening, not including Saturdays, Sundays, or holidays. In order to justify withdrawal, the bidder must demonstrate that a substantial error exists and that the bid was submitted in good faith.

13.0 MINORITY BUSINESS PARTICIPATION PROGRAM

GUC has adopted an Affirmative Action and Minority and Women Business Enterprise Plan (M/WBE) Program. Firms submitting a proposal are attesting that they also have taken affirmative action to ensure equality of opportunity in all aspects of employment, and to utilize M/WBE suppliers of materials and/or labor.

14.0 QUANTITIES

Quantities specified are only estimates of GUC's requirements. GUC reserves the right to purchase more or less than the stated quantities at prices indicated in the submitted Proposal Form based on our actual needs.

15.0 DELIVERY

Shipments will be made to GUC only upon releases from a purchase order issued by GUC in accordance with its current needs.

Time is of the essence with respect to all deliveries under this Agreement.

Delivery of all equipment, materials, or supplies shall be made Free on Board (FOB) GUC Warehouse, 701 Utility Way, Greenville, North Carolina 27834, unless otherwise specified. The agreed price for such equipment, materials, or supplies shall include all costs of delivery and ownership, and risks of loss shall not be transferred from Provider to GUC until express written acceptance of delivery and inspection by GUC. Delivery hours are between 8:00 AM and 4:30 PM Monday-Friday only. **GUC's purchase order number is to be shown on the packing slip or any related documents.** GUC reserves the right to refuse or return any delivery with no purchase order number or which is damaged. GUC will not be charged a restocking fee for any delivery which is refused or returned.

16.0 DELIVERY TIME

Delivery time is to be stated by the bidder and will be a factor in the evaluation of bids.

17.0 CONTRACT PERIOD

N/A.

18.0 MANUFACTURER

Bidder is to specify the manufacturer of items being quoted.

19.0 CONTACT INFORMATION AND QUESTIONS

Questions regarding this bid request should be directed to Cleve Haddock, Procurement Manager, Finance Department at (252) 551-1533, haddockc@guc.com. **All questions must be received via e-mail by or before 12:00pm (EDST) July 31, 2024.**

20.0 TERMS AND CONDITIONS

The attached Terms and Conditions apply to all purchases made by Greenville Utilities Commission (GUC) and must be considered as part of the bid proposal.

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**GREENVILLE UTILITIES COMMISSION
GREENVILLE, NORTH CAROLINA**

**SPECIFICATIONS AND BID DOCUMENTS FOR
15.5 KV POWER BREAKERS
1200 and 2000 AMP RATED FOR THE
HUDSON SUBSTATION**

TECHNICAL SPECIFICATIONS

1.0 Scope

The work shall include furnishing all equipment and materials as set forth in the Bid Documents and as specified herein. Bids will be received for four (4) 1200 and one (1) 2000 ampere breakers with Schweitzer Model SEL-351S multifunction protective relays.

2.0 General Conditions

- 2.1 All materials and equipment shall be new, manufactured in the United States or Mexico, in compliance with RUS Information Publication 202-1, "List of Acceptable Material for RUS Systems."
- 2.2 These Specifications describe the type, size and characteristics of the various materials and equipment required to be furnished.
- 2.3 Proposals shall include the following:
 - 2.3.1 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.
 - 2.3.2 A user's list currently employing units of equal design and manufacturer in a power utility service environment. The list shall include client business name, address, telephone number and contact personnel who can provide service history for the product.
- 2.4 The breakers shall be complete and fully operable. Any details not mentioned in the Specifications but required for satisfactory operation shall be furnished and installed by the Manufacturer.

3.0 Defective Materials, Equipment, and Workmanship

- 3.1 Inspection and Tests – Greenville Utilities reserves the right to inspect, test and approve all material and equipment. The Manufacturer shall provide all test reports as requested by Greenville Utilities.
- 3.2 Acceptance and Rejection – Greenville Utilities shall take ownership of the material and equipment once it is inspected and delivered to GUC Warehouse. If the material and/or equipment are found not to comply with the specifications, Greenville Utilities reserves the right to reject the material and it shall be sent back

to the Manufacturer FOB truck at Greenville Utilities' facilities. The Manufacturer shall replace the defective material and/or equipment with material and/or equipment that meet the specifications.

- 3.3 Warranty – The Manufacturer shall provide a full one-year warranty from date of energization not to exceed 18 months from delivery which shall include all material and parts.

4.0 **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, NEMA, NESC, IEEE and OSHA. Where the term "Standards" is used in the Specifications, it shall be understood to refer to the above Standards.

5.0 **Drawings**

5.1 **Format**

Drawings shall be sent to John Powell via email at Powelljl@guc.com. The drawings shall be in a .dwg format for use with ProgeCAD® 2020.

5.2 **Preliminary**

5.2.1 Before proceeding with fabrication, the manufacturer shall submit for approval the following drawings as a minimum: Outline, Nameplate, Current Transformer (CT) Nameplate, Bushing Outline, AC and DC Control Elementary, Control Wiring Interconnects and CT Secondary Excitation Curve and Ratio Correction Factor curve drawings. Approval Drawings shall be submitted to John Powell via email at Powelljl@guc.com.

5.2.2 The Outline Drawing shall show dimensions in English standard units. These Drawings shall show weights, operating moments and forces, catalog numbers, ampere ratings, and arrangement of all external accessory devices.

Approval of Drawings shall not be held to relieve the Manufacturer of obligations to meet all requirements of the Specifications, of responsibility for correctness of the Drawings, or of responsibility to meet original shipping promise with the Greenville Utilities being allowed two weeks for approval.

5.2.3 Receipt of Approval Drawings by the Manufacturer constitutes authorization for manufacture as noted or corrected. The Commission reserves the right to request re-submittal of Drawings as deemed appropriate prior to authorizing manufacture. If an extension of time is required due to a protracted drawing approval process, the price will remain as quoted for the quoted delivery.

5.3 Final Drawings and Instruction Books

5.3.1 Physical Documentation -- The Manufacturer shall furnish one (1) copies of the applicable instruction books for each of the breakers. These books shall provide detailed operation and maintenance instructions for all equipment furnished. Instruction books are to include the outline, nameplate, accessory schematics, and accessory detail wiring Drawings as listed below. All Drawings are to be certified correct and supplied within a reasonable length of time after the order is placed. Drawings must be furnished prior to the shipment of the equipment. Package shall include the following items as a minimum.

- Outline and Assembly Drawings showing size and location of major components and all principal dimensions.
- Control and relay panel front view.
- Details of bushing and bushing terminal connectors.
- Diagram of bushing current transformers, connection, number of turns, polarity marking, ratios and bushing orientation.
- Current transformer performance characteristic curves and data for all relay accuracy CTs.
- Details of control housing.
- Panel connection diagram showing exact connection for all components furnished.
- Ac and dc elementary circuit diagrams for all relay and control equipment furnished.
- Wiring control and schematic diagrams.
- One (1) copy of the Instruction Book.
- Renewal parts catalog.
- Two (2) copies of certified test reports.

5.3.2 Electronic Documentation – The manufacturer shall furnish a complete set of drawings, revised to "as-built" status, compatible with ProgeCAD® 2020. (.dwg" format, one set per breaker, referencing serial number on print)

5.3.3 All Drawings and documentation shall be submitted directly to Greenville Utilities, 3355 NC Hwy 43 N., Greenville, NC 27834, Attention: John Powell or by email to Powelljl@guc.com.

6.0 Shipping of Power Circuit Breakers

6.1 Equipment shall be shipped to GUC's Warehouse as outlined in Section 1, "General Instructions for Formal Bids." The Manufacturer shall ship via open-top truck or open trailer for ease of unloading by GUC personnel.

6.2 Before shipment, power circuit breakers shall be completely assembled to determine that all parts fit properly. Parts removed for shipment shall be marked to permit easy identification when reassembling.

- 6.3 Method of packing and loading shall be such as to protect all parts from dampness, corrosion, breakage, or vibration injury that might reasonably be encountered in transportation, storage, and handling.
- 6.4 Release for shipment is to be granted by GUC based upon the manufacturer's compliance with the following:
- Furnishing of the requisite number of copies of the Final Drawings as called for in the Specifications.
 - Thirty (30) days notification of tentative shipping schedule and forty-eight (48) hours notification prior to delivery.

7.0 **Power Circuit Breaker**

7.1 Manufacturers

7.1.1 The substation circuit breakers shall be one of the approved types listed below or approved equal. Approved manufacturers and types are as follows:

7.1.1.1 Siemens SDV7-MA

7.1.1.2 ABB R-MAG

7.2 General

7.2.1 1200A Breaker

Breaker Type	Outdoor, Dead Tank
Operation	3 pole, 1 throw
Maximum Design Voltage	15.5 kV
K factor	1.0
Frequency	60 Hz
Basic Insulation level (BIL)	110 kV
60 Hz Withstand Dry, one minute	50 kV
Continuous Amperage at 60 Hz	1200 A
Interrupting Amperage (sym.)	>=20,000 A
Interrupting Amperage (asym.)	>=24,000 A
Close & Latch Amperage (sym.)	>=32,000 A
Interrupting Time	<= 3 cycles (25 – 100% int. rating)
Interrupting Medium	Vacuum
Insulating Medium	Air
Operating Mechanism	Magnetic actuated
Paint	ANSI 70 Light Gray Minimum 5 mils (Appendix A)
Control Voltage (trip & close)	48 V DC
Close Voltage Range	36-56 VDC
Open Voltage Range	28-56 VDC
Motor/Heater Voltage	120/240 V AC
Frame	Welded sheet metal
Type	NEMA 3R Cabinet/mechanism housing
Adjustment Height	9'0" nominal
Conduit Entrance	Removable Bottom Plate
Cabinet	Hinged Panel for Prot. Relay & Test Sw.

Environment Ratings

Seismic Rating	0.08g
Temperature (Low)	-20° at 25 mph wind
Temperature (High)	105° F at 100% humidity
Winds	90 mph with 120 mph gusts
Ice	0.75 inches
Altitude	< 3,300 feet

Accessories

Auxiliary Position Switches (spare)	11 poles terminated on blocks
Bushings	6 - Porcelain light gray
Insulation rating	Standard creepage at breaker BIL
Electrical rating	Breaker continuous current rating
Bushing Terminals	6 – 4-hole spade –
Material	Bronze tinned plated
Electrical Rating	Breaker continuous current rating
Convenience Light	Guarded with door switch control

Convenience Receptacle	Ground fault protected (120 VAC)
Current Transformers.....	6 – 10C400 relaying/metering
Thermal rating	2.0 with 10 ampere secondary
Electrical rating.....	1200:5 MR BCT
Location	1 set (1-3-5) for multifunction relay
	1 set (2-4-6) for external use
Grounding Pads.....	Welded NEMA 2 hole 1-3/4” spacing
Legs	2 - at diagonal corners
HV Compartment.....	2 - on opposite sides
Grounding Terminals	4 - Bronze Parallel Connectors
Equivalent	Anderson ST-4
Lifting Eyes & Lugs	Top lifting of Breaker
Manual Trip/Close Tool.....	Provided
Manual Mechanical Trip (69).....	Manual reset with electrical interlock
Multifunction Relay.....	SEL 0351S7X3E3E5221
Operation Counter	Veeder Root (visible from outside)
Thermostatic Controlled Heater	30° – 70° F
Test Switches (current/trip/potential).....	ABB FT-14 style FT4A14T06CN4036
Test Switches (input/outputs).....	ABB FT-1 style C9688A08G01
Trip Coils	2 per breaker
Loss of AC Relay	Wired to the multifunction relay

7.2.2 2000A Breaker

Breaker Type	Outdoor, Dead Tank
Operation	3 pole, 1 throw
Maximum Design Voltage	15.5 kV
K factor	1.0
Frequency	60 Hz
Basic Insulation level (BIL)	110 kV
60 Hz Withstand Dry, one minute	50 kV
Continuous Amperage at 60 Hz	2000 A
Interrupting Amperage (sym.)	>=20,000 A
Interrupting Amperage (asym.)	>=24,000 A
Close & Latch Amperage (sym.)	>=32,000 A
Interrupting Time	<= 3 cycles (25 – 100% int. rating)
Interrupting Medium	Vacuum
Insulating Medium	Air
Operating Mechanism	Magnetic actuated
Paint	ANSI 70 Light Gray Minimum 5 mils (Appendix A)
Control Voltage (trip & close)	48 V DC
Close Voltage Range	36-56 VDC
Open Voltage Range	28-56 VDC
Motor/Heater Voltage	120/240 V AC
Frame	Welded sheet metal
Type	NEMA 3R Cabinet/mechanism housing
Adjustment Height	9'0" nominal
Conduit Entrance	Removable Bottom Plate
Cabinet	Hinged Panel for Prot. Relay & Test Sw.

Environment Ratings

Seismic Rating	0.08g
Temperature (Low)	-20° at 25 mph wind
Temperature (High)	105° F at 100% humidity
Winds	90 mph with 120 mph gusts
Ice	0.75 inches
Altitude	< 3,300 feet

Accessories

Auxiliary Position Switches (spare)	11 poles terminated on blocks
Bushings	6 - Porcelain light gray
Insulation rating	Standard creepage at breaker BIL
Electrical rating	Breaker continuous current rating
Bushing Terminals	6 – 4-hole spade –
Material	Bronze tinned plated
Electrical Rating	Breaker continuous current rating
Convenience Light	Guarded with door switch control
Convenience Receptacle	Ground fault protected (120 VAC)

Current Transformers.....	6 – 10C400 relaying/metering
Thermal rating	2.0 with 10 ampere secondary
Electrical rating.....	2000:5 MR BCT
Location	1 set (1-3-5) for multifunction relay
	1 set (2-4-6) for external use
Grounding Pads.....	Welded NEMA 2 hole 1-3/4” spacing
Legs	2 - at diagonal corners
HV Compartment.....	2 - on opposite sides
Grounding Terminals	4 - Bronze Parallel Connectors
Equivalent	Anderson ST-4
Lifting Eyes & Lugs	Top lifting of Breaker
Manual Trip/Close Tool.....	Provided
Manual Mechanical Trip (69).....	Manual reset with electrical interlock
Multifunction Relay.....	SEL 0351S7X3E3E5221
Operation Counter	Veeder Root (visible from outside)
Thermostatic Controlled Heater	30° – 70° F
Test Switches (current/trip/potential).....	ABB FT-14 style FT4A14T06CN4036
Test Switches (input/outputs).....	ABB FT-1 style C9688A08G01
Trip Coils	2 per breaker
Loss of AC Relay	Wired to the multifunction relay

7.3 Paint

All surfaces of steel parts (framework, tank, etc.) shall be cleaned in accordance with the Manufacturer’s standards to remove dirt, scale, and grease prior to painting. This shall be immediately followed by an application of priming of rust-inhibitive paint and the necessary base coat. All steel surfaces shall have a minimum of 5 mils of paint. The exterior surfaces of all bolts, nuts and washers shall be primed and painted as above, or such parts shall be stainless steel or galvanized. No exposed cadmium-plated parts or zinc chromate-plated parts will be allowed. Color specification shall be ANSI #70 light gray. See Appendix A.

7.4 Assembly

The proposed equipment shall be completely assembled, wired, adjusted, and tested at the factory before shipment.

7.5 Nameplates

Each breaker shall be equipped with one (1) or more etched stainless steel weatherproof nameplates prominently attached to the breaker cabinetry, illustrating the following data.

7.5.1 Manufacturer’s data shall include name of manufacturer, breaker model or style number, breaker serial number, instruction book and diagram reference numbers, breaker weights, 1-3-5 and 2-4-6 bushing orientation and interrupter media information.

7.5.2 Breaker rating data shall include maximum rated voltage application, continuous rated ampacity, impulse withstand (BIL) rating at rated frequency, duty interval in cycles, rated short-circuit interrupting capacity

(amperes), voltage range (K) factor and close and latching capacity (amperes).

- 7.5.3 Breaker mechanism data shall include manufacturer's model/style number of mechanism, closing coil rated amperes at rated voltage, closing voltage range, tripping coil rated amperes at rated voltage, tripping voltage range and mechanism recharging motor amperes at rated application voltage.
- 7.5.4 Bushing current transformer data shall include bushing location, polarity, accuracy class, progression of turns, turns ratio and turns ratio reference chart for available taps.
- 7.5.5 All devices, relay, fuse blocks, etc. shall be labeled for easy identification.

7.6 Component Parts and Accessories

- 7.6.1 Bushing Current Transformers - All wired to shorting terminal blocks in the mechanism and relay cabinet. The current transformer leads are to be permanently connected and properly identified to the shorting terminal blocks in the control cabinet. Each CT shall be wired to a separate terminal block; sharing of terminal blocks by different CTs shall not be allowed. Current transformers shall be considered part of the breaker and shall be coordinated with the breaker to meet all currents, voltages, and mechanical requirements of the breaker for steady state, surge, and fault conditions.
- 7.6.2 Viewing Window - All viewing windows for viewing gauges, relays and indicators shall be Lexan.

7.7 Relay Panel

- 7.7.1 The relay panel shall be dead front with all switches, circuit breakers, etc. enclosed. Such devices shall be completely installed and wired for fully functional operation and shall include the following:

Protective Relay One (1) three-phase multifunction protective relay shall be SEL-0351S7X3E3E5221 with neutral protection. The protective relay shall provide overcurrent, voltage, frequency, power element protection. It shall also include synchronism check and auto-reclosing. Protective device shall feature an alphanumeric LCD display, 232/485 ports for local access and Ethernet for remote access. Protective device shall provide non-volatile memory for storage of time-current characteristics of overcurrent protection, and program settings. On-board memory shall also provide multi-layer storage of event sequences, meter trending and oscillographics when triggered. Man-machine interface shall include breaker trip and close pushbuttons, along with LED indication of breaker position.

232/485/ethernet ports shall be provided for real-time data, relay programming and IRIG-B signaling. Simultaneous communications shall be available for relay programming and non-stop SCADA polling.

Protective device shall be designed for continuous 5 ampere current transformer secondary inputs. All current inputs shall be routed through a separate current test block providing maintenance access to current circuitry.

DNP 3.0 level 2 communications protocol shall be available via Ethernet.

7.7.2 Test Switches

7.7.2.1 Current/Trip/Potential - Test block shall be ABB Type FT-14, Style FT4A14T06CN4036. Test block shall have a clear cover.

Current inputs shall be electrically located between the current transformer shorting blocks and the protective device. Current switches shall be black, A through H.

Test input shall have an “a” contact from the breaker auxiliary switch shall be wired to Terminals 17 and 19 of the test block to facilitate testing of the relay. No wiring connections shall be made to Terminals 18 and 20 of the test block.

Potential inputs shall be electrically located between the terminal block and the protective device. Potential switches shall be black, K through N.

7.7.2.2 Inputs and Outputs – The first (5) inputs and first five (5) outputs shall be routed through an ABB Type FT-1 test block, Style Number C9688A08G01, with switches A through E being orange for the outputs and switches F through J being yellow for the inputs. The test block shall have a clear cover.

7.7.3 All Supervisory Control and Data Acquisition (SCADA) functions, including status and alarms as required by the Specifications, shall be provided through the multifunction protective relay serial port.

7.7.4 Input and output points of the protective relay

7.7.4.1 1200A Breaker

All input and output points of the protective relay (except those already wired into internal control of the breaker) shall be wired by the Manufacturer to terminal blocks located inside the power circuit breaker control cabinet, whether or not they are programmed with a relay function. The first five (5) inputs and first five (5) outputs shall be wired to test switches as noted in Tables 8-1. Whetting voltages should be supplied where necessary for activating inputs.

<u>Input</u>		<u>Outputs</u>		<u>Operator Panel</u>	
IN101	52A	OUT101	Trip 1	Ground Enabled	
IN102	Spare	OUT102	Trip 2	Reclose Enabled	
IN103	Spare	OUT103	Close / Reclose	Remote Enabled	
IN104	Spare	OUT104	BFI	Alternate Settings	
IN105	Spare	OUT105	Instantaneous Block	Lock	
IN106	Capacitor Charge	OUT106	Spare	Hot Line Tag	
IN201	BFI-CO	OUT107	Spare	Instantaneous Enabled	Cold Load Pickup
IN202	Spare	ALARM	Alarm	AUX2	
IN203	Loss of AC	OUT201	Sync Check Test	AUX3	
IN204	69 switch	OUT202	Sync Check CLOSE Permissive	AUX4	
IN205	Spare	OUT203	Frequency Pickup		
IN206	Spare	OUT204	Spare		
IN207	Spare	OUT205	Spare		
IN208	Spare	OUT206	Spare		
		OUT207	Spare		
		OUT208	Spare		
		OUT209	Spare		

		OUT210	Spare		
		OUT211	Spare		
		OUT212	Spare		

Table 7.1 – Protective Relay inputs and outputs for the 1200 ampere breakers with SEL-351S-7 relays.

7.7.4.2 All input and output points of the protective relay (except those already wired into internal control of the breaker) shall be wired by the Manufacturer to terminal blocks located inside the power circuit breaker control cabinet, whether or not they are programmed with a relay function. The first five (5) inputs and first five (5) outputs shall be wired to test switches as noted in Tables 8-2. Whetting voltages should be supplied where necessary for activating inputs.

<u>Input</u>		<u>Outputs</u>		<u>Operator Panel</u>	
IN101	52A	OUT101	Trip 1	Ground Enabled	
IN102	Spare	OUT102	Trip 2	Reclose Enabled	
IN103	Spare	OUT103	Close / Reclose	Remote Enabled	
IN104	Spare	OUT104	BFI	Alternate Settings	
IN105	Spare	OUT105	Instantaneous Block	Lock	
IN106	Capacitor Charge	OUT106	Spare	Hot Line Tag	
IN201	BFI-CO	OUT107	Spare	Instantaneous Enabled	Cold Load Pickup
IN202	Spare	ALARM	Alarm	AUX2	
IN203	Loss of AC	OUT201	Sync Check Test	AUX3	
IN204	69 switch	OUT202	Sync Check CLOSE Permissive	AUX4	
IN205	Block Inst.	OUT203	Frequency Pickup		
IN206	BFI	OUT204	Spare		
IN207	BFI	OUT205	Spare		
IN208	BFI	OUT206	Spare		
		OUT207	Spare		
		OUT208	Spare		

		OUT209	Spare		
		OUT210	Spare		
		OUT211	Spare		
		OUT212	Spare		

Table 7.2 – Protective Relay inputs and outputs for the 2000 ampere breakers with SEL-351S-7 relays.

7.7.5 Provisions for external trip and block of close of the power circuit breaker shall be provided and shall be wired by the Manufacturer to terminal blocks located inside the power circuit breaker control cabinet. All sensing voltage and current inputs shall be wired to terminal blocks.

7.8 Wiring

7.8.1 All power wiring shall be made with #10 AWG tinned copper wire or larger sized wire. The primary insulation jacket of all wiring shall be 600 volt; 90°C; and water, oil, and flame resistant. Control wiring shall be 45 or 65 stranded cable, Type SIS, and not smaller in size than #14 AWG tinned copper wire, with the exception that wiring to alarm auxiliary relays and indicating lights may be smaller in size. All current transformer leads are to be #10 AWG tinned copper or larger in size.

- Power wiring shall be sized as required in accordance with the National Electrical Code.
- All connections for wiring shall be made using silicon bronze, split type lock washers, screws, and nuts.
- All wires shall be identified at each end with legible permanent labels.
- Wiring connections between fixed and hinged sections shall be minimum 41-strand, flexible wire.
- Seven-stranded control wire is not acceptable.
- All terminal connections for conductor sizes #10 AWG in size and smaller shall be made with pre-insulated, full ring tongue, crimp-type lugs. Lugs shall be AMP, Inc. "Pre-Insulated Diamond-Grip" (PIDG) with nylon sleeves. Spade-type terminals or slip-on connectors are not acceptable.
- All terminal connections for conductors' sizes #2 AWG through #9 AWG shall be made with Burndy "Insulug" Type YAEV.
- All terminal connections for conductor sizes larger than #2 AWG shall be made with two-hole, long-barrel, double-indent crimp-type lugs; Burndy "Hylug" Type YA. (Single-hole lugs may be used only where necessary.)
- High-temperature insulated wire shall be used for connections to heaters.

7.8.2 Grommets shall be provided for all openings in metal barriers used for wiring.

- 7.8.3 Uninsulated exposed conductor or terminal lug shall not extend beyond the sides of the terminal block or its insulating barriers.
- 7.8.4 All leads for multi-ratio current transformers shall be wired to shorting-type terminal blocks in the control cabinet. If junction boxes are required in wiring between current transformer and control cabinet, terminal blocks or splicing sleeves shall be used for wiring connections. In-line type disconnecting terminals will not be acceptable.
- 7.8.5 If accidental short circuiting of certain wires can result in malfunction of equipment such as closing or tripping of the breaker, these wires shall not be terminated on adjacent terminal block points.
- 7.8.6 All wiring shall be neat and orderly.
- 7.8.7 No more than two (2) wires per terminal point are permissible.
- 7.9 Terminal Blocks and Fuse holders
 - 7.9.1 Molded-type terminal blocks, rated 600 volt, 30 amperes, for all control connections shall be provided. Terminal blocks with self-contained pressure-type connectors are not acceptable.
 - 7.9.2 General Electric Type EB-25 or Marathon Type 1500STD terminal blocks shall be provided furnished with white marking strips for identification of terminal wires for all connections except current transformer. Modular assembly style terminal blocks are not acceptable.
 - 7.9.3 For current transformer leads, General Electric Type EB-27 or Marathon Type 1506SC shorting terminal blocks shall be provided. Each block will be equipped with at least three shorting screws. A separate shorting-type terminal block shall be provided for each set of current transformer leads.
 - 7.9.4 One General Electric Type EB-1 or Marathon Catalog #1422123 power terminal block shall be provided for landing of Greenville Utilities' 48-volt dc control power leads.
 - 7.9.5 A minimum of 15-percent spare (but not less than 12 points) terminal points shall be provided in the mechanism housing and cabinet. These terminal points shall be furnished with all connection hardware.
 - 7.9.6 Fuse holders shall be Marathon RF30AXS (X = 2 for 2 poles, 3 for 3 poles, etc.) series fuse blocks with hard-gripping fuse clips (reinforcing member) and straight slotted silicon bronze screws on each terminal or approved equivalent.
 - 7.9.7 A single throw disconnect switch shall be installed on all fuse holders.

8.0 **Tests**

- 8.1 The tests shall be performed on the breakers as a three-phase unit.
- 8.2 Production tests shall be performed on each breaker and associated bushing current transformer, bushings and relays as required by present-day standards.
 - 8.2.1 Dielectric test on all control wiring and accessories.
 - 8.2.2 Ratio check of current transformers – submit correction curves.
 - 8.2.3 Power factor test on each bushing.
- 8.3 If the breaker or any of its auxiliaries or accessories fails to pass the tests specified, additional tests shall be made to locate the failure. After rework or repair of the failure, the specified tests shall be repeated to ensure that the repaired breaker, auxiliary or accessories will meet the Specification in all respects.
- 8.4 Rework or repair and retesting shall be done at Manufacturer's expense.
- 8.5 Manufacturer shall keep a record of all failures detected during tests, of rework or repair required and of test data taken after rework or repairs have been completed.
- 8.6 Rework or repairs shall be made in accordance with an approved procedure signed by that party responsible to give in-process disposition of such rework or repairs.

APPENDIX A

PAINT FINISH FUNCTIONAL SPECIFICATIONS

(EEI Finishing Requirements)

1. Salt spray (relates to coastal environments and/or presence of snow-melting salts or fertilizers)

Scribe to bare metal and test for 1,000 hours in 5% salt spray per ASTM B-117. Loss of adhesion from bare metal should not extend more than 1/8" from the scribe. Underfilm corrosion should not extend more than 1/16" from the scribe.

2. Crosshatch adhesion (relates to adhesion after scratching of the finish)

Scribe to bare metal a crosshatch pattern and test per ASTM D3359, latest revision. Use Method A for films thicker than 5 mils, and Method B for films less than or equal to 5 mils. There shall be 100% adhesion to the bare metal and between layers.

3. Humidity (relates to environments with high humidity)

Test for 1,000 hours subject to 98% humidity at 45°C±1°C per ASTM D-2247. There should be no blisters.

4. Impact (relates to transit and handling damage and abuse by the public)

Impact the test panel with a 160 in.-lb. falling dart per ASTM D-2794. There should be no cracking or chipping of the paint on the impact side of the test panel.

5. Oil resistance (relates to probable contact with mineral oil)

Immerse two test panels in mineral oil (or other liquids, as specified) for 72 hours, one at room temperature (20° to 25°C) and one at 100° to 105°C.

6. Exposure (relates to exposure to sunlight and rainfall, loss of gloss, color fading and chalking)

Exposure for 500 hours per ASTM G-53 with a cycle for four hours UV at 55°C followed by four hours condensation of 40°C. Loss of gloss as a result of this test should not exceed 50% per ASTM D-523.

7. Abrasion Test – Taber Abrader (relates to wear encountered during installation)

Test a panel having the minimum dry build thickness (-0.=0.1mil) using a CS-10 wheel, 1,000-gram weight, per ASTM D-4050, latest revision. The number of cycles of abrasion required to wear the coating through to the substrate shall be at least 3,000 cycles.

SUBMIT BIDS ON ATTACHED REQUEST FOR PROPOSAL FORM

GREENVILLE UTILITIES COMMISSION

PROPOSAL FORM

HUDSON SUBSTATION CIRCUIT BREAKERS

The undersigned bidder hereby declares that he has carefully examined the enclosed detailed specifications for the furnishing of Greenville Utilities with the items listed below. The undersigned bidder further agrees, if this proposal is accepted within sixty (60) days from the date of the opening, to furnish any or all the items upon which prices are quoted at the price set opposite each item. Delivery shall be FOB Greenville, North Carolina, within the time indicated below:

ITEM NO.	QUANTITIES	DESCRIPTION	DELIVERY TIME	UNIT PRICE	EXTENSION
I	4	15 kV, 1200 Ampere Vacuum Circuit Breaker, multifunction protective relay control with Ethernet connectivity		\$	\$
II	1	15 kV, 2000 Ampere Vacuum Circuit Breaker, multifunction protective relay control with Ethernet connectivity		\$	\$

	Firm Price Total			\$ _____
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<p><u>Complete and Check All Math:</u> It is the responsibility of the Bidder to extend unit prices and supply a total for all items, including the Percent Adder.</p>

Method of Award: GUC, in its sole discretion, may award this bid as individual item(s) or as a total bid for item(s) I-II.

Complete and Check All Math: It is the responsibility of the Bidder to extend bid prices and supply a total for all items.

GREENVILLE UTILITIES COMMISSION

PROPOSAL FORM

HUDSON SUBSTATION CIRCUIT BREAKERS

It is certified that this proposal is made in good faith and without collusion or connection with any other person bidding on the same above listed items.

Certified check or cash for \$ n/a or bid bond for \$ n/a attached.

Firm Name _____ Phone (_____) _____

Address _____

City _____ State _____ Zip Code _____

Fax # _____ E-mail _____

Authorized Official _____ Title _____

Typed Name

_____ Date _____

Signature

**THREE (3) copies of your proposal should be received
no later than AUGUST 15, 2024 at 2:00 PM (EDST).**

NO BIDS CONSIDERED UNLESS SUBMITTED ON THIS FORM

(RETURN THIS FORM(S) AND THE FOLLOWING EQUIPMENT DATA FORMS)

Letter of Compliance to E-Verify for Greenville Utilities Commission

1. I have submitted a bid for contract or desire to enter into a contract with the Greenville Utilities Commission;
2. As part of my duties and responsibilities pursuant to said bid and/or contract, I affirm that I am aware of and in compliance with the requirements of E-Verify, Article 2 of Chapter 64 of the North Carolina General Statutes, to include (mark which applies):

3. ____ After hiring an employee to work in the United States I verify the work authorization of said employee through E-Verify and retain the record of the verification of work authorization while the employee is employed and for one year thereafter; or
4. ____ I employ less than twenty-five (25) employees in the State of North Carolina.

5. As part of my duties and responsibilities pursuant to said bid and/or contract, I affirm that to the best of my knowledge and subcontractors employed as a part of this bid and/or contract, are in compliance with the requirements of E-Verify, Article 2 of Chapter 64 of the North Carolina General Statutes, to include (mark which applies):

6. ____ After hiring an employee to work in the United States the subcontractor verifies the work authorization of said employee through E-Verify and retains the record of the verification of work authorization while the employee is employed and for one year thereafter; or
7. ____ Employ less than twenty-five (25) employees in the State of North Carolina.

Specify subcontractor: _____

_____ (Company Name)

By: _____ (Typed Name)

_____ (Authorized Signatory)

_____ (Title)

_____ (Date)

Vendor Name: _____

GREENVILLE UTILITIES

Exception/Variation Form

Specifications for: Hudson Substation Circuit Breakers

Provider's Certification: This is to certify that it is our intent to furnish equipment, material, services, etc. in absolute compliance with the bid specification except where expressly noted below.

Instructions: List all exceptions or variations to these bid specifications. Providers shall identify each exception or variation by specification page. The omission of exception or variation information shall be deemed by the Commission as the Provider's intent to absolutely comply with the bid specification. If additional space is required, Provider may reproduce this form as necessary.

<u>Page #</u>	<u>Exception/Variation</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Authorized Signature of Certification: _____
Print Name: _____

Firm Represented: _____
Address: _____

EQUIPMENT DATA FORM

Breaker Data (1200 Ampere)

The Bidder shall submit the following data for each breaker/recloser with his Proposal:

1. Manufacturer's Name _____
2. Manufacturer's model designation _____
3. Rated maximum voltage, kV ms _____
4. Continuous-current rating, Amperes _____
5. Rated short-circuit current at rated maximum voltage, kA rms _____
6. Maximum symmetrical interrupting capability, kA rms _____
7. Three-second short-time current-carrying capability, kA rms _____
8. Close and latch capability, kA rms _____
9. Temperature:
Contact temperature rise, °C _____
Ambient temperature limits, °C Min. _____ Max. _____
Minimum interrupting mechanism operating temperature, °C _____
10. Operating Duty Cycle _____
11. Time characteristics at rated control voltage and operating charge:
 - a) Opening time (from energization of trip coil to contact parting) (cycles) _____
 - b) Closing time (cycles) _____
 - c) Factory adjustment for reclosing time _____
 - d) Maximum interrupting time-cycles:
 - 1) For 0-25% rated capacity _____
 - 2) For 25-100% rated capacity _____
12. Low frequency insulation withstand, kV rms wet _____
kV rms dry _____

13. BIL, kV _____
14. Operating mechanism data:
- a) Type of operating mechanism _____
- b) Maximum ac current required by closing circuit at rated voltage:
- Inrush _____ @ _____ V.
- Run _____ @ _____ V.
- c) Time required to recharge mechanism to normal fully charged state

15. Bushing manufacturer and type: _____
16. Current transformers:
- a) Ratio _____
- b) ANSI Class Accuracy _____
17. General:
- a) Net weight _____
- b) Guaranteed number of rated operations without maintenance:
- @ Continuous Current _____
- @ Rated IC _____
18. Power Supply Requirements:
- a) Ac Amps 120 Vac _____ 240 Vac _____
- b) 48 volts dc, Amps _____
- c) Mechanism space heater load, watts _____
- d) Stored energy charging source load, watts _____
19. Multifunction Relay Type _____

EQUIPMENT DATA FORM

Breaker Data (2000 Ampere)

The Bidder shall submit the following data for each breaker/recloser with his Proposal:

1. Manufacturer's Name _____
2. Manufacturer's model designation _____
3. Rated maximum voltage, kV ms _____
4. Continuous-current rating, Amperes _____
5. Rated short-circuit current at rated maximum voltage, kA rms _____
6. Maximum symmetrical interrupting capability, kA rms _____
7. Three-second short-time current-carrying capability, kA rms _____
8. Close and latch capability, kA rms _____
9. Temperature:
Contact temperature rise, °C _____
Ambient temperature limits, °C Min. _____ Max. _____
Minimum interrupting mechanism operating temperature, °C _____
10. Operating Duty Cycle _____
11. Time characteristics at rated control voltage and operating charge:
 - a) Opening time (from energization of trip coil to contact parting) (cycles) _____
 - b) Closing time (cycles) _____
 - c) Factory adjustment for reclosing time _____
 - d) Maximum interrupting time-cycles:
 - 1) For 0-25% rated capacity _____
 - 2) For 25-100% rated capacity _____
12. Low frequency insulation withstand, kV rms wet _____

kV rms dry Vendor Name: _____

13. BIL, kV _____
14. Operating mechanism data:
- a) Type of operating mechanism _____
- b) Maximum ac current required by closing circuit at rated voltage:
- Inrush _____ @ _____ V.
- Run _____ @ _____ V.
- c) Time required to recharge mechanism to normal fully charged state

15. Bushing manufacturer and type: _____
16. Current transformers:
- a) Ratio _____
- b) ANSI Class Accuracy _____
17. General:
- a) Net weight _____
- b) Guaranteed number of rated operations without maintenance:
- @ Continuous Current _____
- @ Rated IC _____
18. Power Supply Requirements:
- a) Ac Amps 120 Vac _____ 240 Vac _____
- b) 48 volts dc, Amps _____
- c) Mechanism space heater load, watts _____
- d) Stored energy charging source load, watts _____
19. Multifunction Relay Type _____

SECTION III

TERMS AND CONDITIONS FOR THE PURCHASE OF APPARATUS, SUPPLIES, MATERIALS, LABOR AND EQUIPMENT

These Terms and Conditions, made and entered into on this the ___ day of _____, by and between GREENVILLE UTILITIES COMMISSION OF THE CITY OF GREENVILLE, PITT COUNTY, NORTH CAROLINA, with one of its principal offices and places of business at 401 S. Greene Street, Post Office Box 1847, Greenville, Pitt County, North Carolina 27835-1847, hereinafter referred to as "GUC" and _____, a _____ organized and existing under and by virtue of the laws of the State of _____, with one of its principal offices and places of business at _____, hereinafter referred to as "PROVIDER";

1.0 TAXES

No taxes shall be included in any bid prices. GUC is exempt from Federal Excise Tax. GUC is not exempt from North Carolina state sales and use tax or, if applicable, Pitt County sales and use tax. Such taxes shall be shown as a separate item on the invoice.

2.0 INVOICES

It is understood and agreed that orders will be shipped at the established contract prices and quantities in effect on dates orders are placed. Invoicing at variance with this provision may subject the contract to cancellation. Applicable North Carolina sales tax shall be invoiced as a separate line item. All invoices must bear the GUC purchase order number. Mail all invoices to Greenville Utilities Commission, Finance Department, P. O. Box 1847, Greenville, NC 27835-1847.

3.0 PAYMENT TERMS

Payments for equipment, materials, or supplies will be made after the receipt and acceptance of the equipment, materials, supplies or services and after submission of a proper invoice. GUC's normal payment policy is thirty (30) days. GUC will not be responsible for any goods delivered without a purchase order having been issued. Payment will be made in U. S. currency only.

4.0 QUANTITIES

Quantities specified are only estimates of GUC's requirements. GUC reserves the right to purchase more or less than the stated quantities at prices indicated in the submitted Proposal Form based on our actual needs.

5.0 AFFIRMATIVE ACTION

The Provider will take affirmative action in complying with all Federal and State requirements concerning fair employment and employment of the handicapped, and concerning the treatment of all employees, without discrimination by reason of race, color, religion, sex, national origin, or physical handicap.

6.0 CONDITION AND PACKAGING

Unless otherwise indicated in the bid, it is understood and agreed that any item offered or shipped shall be new and in first class condition, that all containers shall be new and suitable for storage or shipment, and that prices include standard commercial packaging.

7.0 SAMPLES

Samples of items, if required, must be furnished free of expense to GUC, and if not destroyed, will, upon request, be returned at the Provider's expense. Request for the return of samples must be made at the bid opening, otherwise, the samples will become GUC's property. Each individual sample must be labeled with Provider's name.

8.0 SPECIFICATIONS

Any deviation from specifications must be clearly pointed out, otherwise, it will be considered that items offered are in strict compliance with specifications, and the Provider will be held responsible. Deviations must be explained in detail. **The Provider shall not construe this paragraph as inviting deviation or implying that any deviation will be acceptable.**

9.0 INFORMATION AND DESCRIPTIVE LITERATURE

Providers are to furnish all information requested. Further, as may be specified elsewhere, each Provider must submit with its proposal: cuts, sketches, descriptive literature, and/or complete specifications covering the products offered. Reference to literature submitted with a previous bid does not satisfy this provision. Bids which do not comply with these requirements will be subject to rejection.

10.0 AWARD OF CONTRACT

As directed by statute, qualified bids will be evaluated and acceptance made of the lowest responsible, responsive bid most advantageous to GUC as determined upon consideration of such factors as prices offered, the quality of the article(s) offered, the general reputation and performance capabilities of the Provider, substantial conformity with the specifications and other conditions set forth in the bid, the suitability of the article(s) for the intended use, the related services needed, the date(s) of delivery and performance, and such other factors deemed by GUC to be pertinent or peculiar to the purchase in question.

Acceptance of the order includes acceptance of all terms, conditions, prices, delivery instructions, and specifications as shown on this set of Terms and Conditions and in this order or attached to and made a part of this order.

The conditions of this order cannot be modified except by written amendment in the form of "Amended Purchase Order," which has been approved by GUC's Procurement Manager.

In the event of a Provider's failure to deliver or perform as specified, GUC reserves the right to cancel the order or any part thereof, without prejudice to GUC's other rights. The Provider agrees that GUC may return part of or all of any shipment at Provider's expense. GUC may charge the Provider with all reasonable expenses resulting from such failure to deliver or perform.

11.0 MEDIATION/BINDING ARBITRATION

In the event of any dispute between the Parties, the Parties agree to submit any dispute to non-binding mediation before a mutually agreeable Mediator prior to initiating litigation. If the Parties are unable to agree upon a Mediator within thirty (30) days after demand therefore, either Party may petition a Court of competent jurisdiction for the designation of a qualified Mediator for these purposes. Each Party shall bear its own costs and expenses of participating in the mediation (including, without limitation, reasonable attorneys' fees), and each Party shall bear one-half (1/2) of the costs and expenses of the Mediator. Unless otherwise agreed, the Parties will hold the mediation in Greenville, North Carolina. The matters discussed or revealed in the mediation session shall not be disclosed in any subsequent litigation.

In the event the matter is not resolved in mediation, either Party may request arbitration. The parties shall jointly select an Arbitrator, and shall be bound by the decision of the Arbitrator with respect to any dispute between the parties with respect to this Agreement. If the parties are unable to mutually agree upon an Arbitrator, the Parties shall each select an Arbitrator, and the two Arbitrators so selected shall select a third Arbitrator, and the decision of the majority of the Arbitrators shall be conclusive and binding upon the Parties. The Parties at all times agree to equally split the costs of any Arbitrator(s) selected in an effort to resolve the dispute between the Parties. Any party desiring to resolve a dispute under the terms of this Agreement shall notify the other Party in writing, and the Parties shall seek to agree upon a mutually agreed-upon Arbitrator within a period of ten (10) days from the date of such written demand. If the Parties are unable to agree within such ten (10) day period, the Parties shall each select an Arbitrator, and the two (2) Arbitrators so selected shall select a third Arbitrator within fifteen (15) days from the date of the written demand for arbitration, and a decision shall be rendered by the Arbitrator(s) so selected within five (5) days after such Arbitrator(s) is selected.

12.0 GOVERNMENT RESTRICTIONS

In the event any Governmental restrictions may be imposed which would necessitate alteration of the material, quality, workmanship, or performance of the items offered on this bid prior to their delivery, it shall be the responsibility of the successful Provider to notify the GUC Procurement Manager, at once, indicating in its letter the specific regulation which required such alterations. GUC reserves the right to accept any such alterations, including any price adjustments occasioned thereby, or, in the sole discretion of GUC, to cancel the contract.

13.0 INSURANCE

13.1 Coverage – During the term of the contract, the Provider at its sole cost and expense shall provide commercial insurance of such type and with the following coverage and limits:

13.1.1 Workers' Compensation – The Provider shall provide and maintain Workers' Compensation Insurance, as required by the laws of North Carolina, as well as employer's liability coverage with minimum limits of \$1,000,000 each accident, covering all Provider's employees who are engaged in any work under the contract. If any work is sublet, the Provider shall require the subcontractor to provide the same coverage for any of its employees engaged in any work under the contract.

13.1.2 General Liability – Commercial Liability Coverage written on an “occurrence” basis in the minimum amount of \$1,000,000 per occurrence.

13.1.3 Automobile – Automobile Liability Insurance, to include coverage for all owned, hired, and non-owned vehicles used in connection with the contract with a minimum combined single limit of \$1,000,000 per accident.

13.2 Requirements - Providing and maintaining adequate insurance coverage is a material obligation of the Provider. All such insurance shall meet all laws of the State of North Carolina. Such insurance coverage shall be obtained from companies that are authorized to provide such coverage and that are authorized to do business in North Carolina by the Commissioner of Insurance. The Provider shall at all times comply with the terms of such insurance policies and all requirements of the insurer under any of such insurance policies, except as they may conflict with existing North Carolina laws or this contract. The limits of coverage under each insurance policy maintained by the Provider shall not be interpreted as limiting the Provider’s liability and obligations under the contract. It is agreed that the coverage as stated shall not be canceled or changed until thirty (30) days after written notice of such termination or alteration has been sent by registered mail to GUC’s Procurement Manager.

14.0 PATENTS AND COPYRIGHTS

The Provider shall hold and save GUC, its officers, agents, and employees, harmless from liability of any kind, including costs and expenses, including reasonable attorney fees, on account of any copyrighted articles or any patented or unpatented invention, device or appliance manufactured or used in the performance of this contract.

15.0 PATENT AND COPYRIGHT INDEMNITY

The Provider will defend or settle, at its own expense, any action brought against GUC to the extent that it is based on a claim that the product(s) provided pursuant to this agreement infringe any U.S. copyright or patent; and will pay those costs, damages, and attorney fees finally awarded against GUC in any such action attributable to any such claim, but such defense, settlements, and payments are conditioned on the following: (1) that Provider shall be notified promptly in writing by GUC of any such claim; (2) that Provider shall have sole control of the defense of any action on such claim and of all negotiations for its settlement or compromise; (3) that GUC shall cooperate with Provider in a reasonable way to facilitate the settlement of defense of such claim; (4) that such claim does not arise from GUC modifications not authorized by the Provider or from the use of combination of products provided by the Provider with products provided by GUC or by others; and (5) should such product(s) become, or in the Provider’s opinion likely to become, the subject of such claim of infringement, then GUC shall permit Provider, at Provider’s option and expense, either to procure for GUC the right to continue using the product(s), or replace or modify the same so that it becomes non-infringing and performs in a substantially similar manner to the original product.

16.0 EXCEPTIONS

All proposals are subject to the terms and conditions outlined herein. All responses will be controlled by such terms and conditions and the submission of other terms and conditions, price catalogs, and other documents as part of a Provider’s response will be waived and have no

effect on this Request for Proposal or any other contract that may be awarded resulting from this solicitation. The submission of any other terms and conditions by a Provider may be grounds for rejection of the Provider's proposal. The Provider specifically agrees to the terms and conditions set forth in this set of Terms and Conditions by affixing its name on the signatory page contained herein.

17.0 CONFIDENTIAL INFORMATION

Except as provided by statute and rule of law, GUC will keep trade secrets which the Provider does not wish disclosed confidential. Each page shall be identified in boldface at the top and bottom as "CONFIDENTIAL" by the Provider. Cost information shall not be deemed confidential. The determination of whether a matter is confidential will be determined by North Carolina law.

18.0 ASSIGNMENT

No assignment of the Provider's obligations or the Provider's right to receive payment hereunder shall be permitted without the express written consent of GUC, provided however, upon written request approved by the GUC Procurement Manager, solely as a convenience to the Provider, GUC may:

- Forward the Provider's payment check directly to any person or entity designated by the Provider, and
- Include any person or entity designated by Provider as a joint payee on the Provider's payment check.
- In no event shall such approval and action obligate GUC to anyone other than the Provider, and the Provider shall remain responsible for fulfillment of all contract obligations.

19.0 ACCESS TO PERSON AND RECORDS

GUC shall have reasonable access to persons and records of Provider as a result of all contracts entered into by GUC.

20.0 INSPECTION AT BIDDER'S SITE

GUC reserves the right to inspect, at a reasonable time, the item, plant, or other facilities of a prospective Provider prior to contract award and during the contract term as necessary for GUC's determination that such item, plant, or other facilities conform with the specifications/requirements and are adequate and suitable for the proper and effective performance of the contract. Provider may limit GUC's access to restricted areas.

21.0 AVAILABILITY OF FUNDS

Any and all payments of compensation of this specific transaction and any continuation or any renewal or extension are dependent upon and subject to the allocation of GUC funds for the purpose set forth in this Agreement.

22.0 GOVERNING LAWS

All contracts, transactions, agreements, etc., are made under and shall be governed by and construed in accordance with the laws of the State of North Carolina.

23.0 ADMINISTRATIVE CODE

Bids, proposals, and awards are subject to applicable provisions of the North Carolina Administrative Code and General Statutes and Laws of the State of North Carolina.

24.0 EXECUTION

In the discretion of GUC, failure of a duly authorized official of Provider to sign the Signatory Page may render the bid invalid.

25.0 CLARIFICATIONS/INTERPRETATIONS

Any and all questions regarding these Terms and Conditions must be addressed to the GUC Procurement Manager. Do not contact the user directly. **These Terms and Conditions are a complete statement of the parties' agreement and may only be modified in writing signed by Provider and the GUC Procurement Manager.**

26.0 SITUS

The place of all contracts, transactions, agreements, their situs and forum, shall be North Carolina, where all matters, whether in contract or tort, relating to the validity, construction, interpretation, and enforcement shall be determined.

27.0 TERMINATION OF AGREEMENT

GUC or Provider may terminate this Agreement for just cause at any time. Provider will be paid for all time and expenses incurred as of the termination date. Termination for just cause by either party shall be by certified letter and shall be effective thirty (30) days after signed and acknowledged receipt of said letter. Just cause shall be based on reasonable grounds, and there must be a fair and honest cause or reason for such action. The causes for termination, include, but are not limited to: (1) Provider's persistent failure to perform in accordance with the Terms and Conditions, (2) Provider's disregard of laws and regulations related to this transaction, and/or (3) Provider's substantial violation of the provisions of the Terms and Conditions.

28.0 DELIVERY

Shipments will be made only upon releases from a purchase order issued by GUC in accordance with GUC's current needs.

Time is of the essence with respect to all deliveries under this Agreement. Delivery of all equipment, materials, or supplies shall be made Free on Board (FOB) GUC Warehouse, 701 Utility Way, Greenville, North Carolina 27834, unless otherwise specified. The agreed price for such equipment, materials, or supplies shall include all costs of delivery and ownership, and risks of loss shall not be transferred from Provider to GUC until express written acceptance of delivery and inspection by GUC. Delivery hours are between 8:00 AM and 4:30 PM Monday-Friday only. **GUC's purchase order number is to be shown on the packing slip**

or any related documents. GUC reserves the right to refuse or return any delivery with no purchase order number or which is damaged. GUC will not be charged a restocking fee for any delivery which is refused or returned.

29.0 INDEMNITY PROVISION

Provider agrees to indemnify and save GREENVILLE UTILITIES COMMISSION of the City of Greenville, Pitt County, North Carolina, and the City of Greenville, North Carolina, its co-owners, joint venturers, agents, employees, and insurance carriers harmless from any and all losses, claims, actions, costs, expenses including reasonable attorney fees, judgments, subrogations, or other damages resulting from injury to any person (including injury resulting in death), or damage (including loss or destruction) to property of whatsoever nature of any person arising out of or incident to the performance of the terms of this Contract by Provider, including, but not limited to, Provider's employees, agents, subcontractors, and others designated by Provider to perform work or services in, about, or attendant to, the work and services under the terms of this Contract. Provider shall not be held responsible for any losses, expenses, claims, subrogations, actions, costs, judgments, or other damages, directly, solely, and proximately caused by the negligence of Greenville Utilities Commission of the City of Greenville, Pitt County, North Carolina. Insurance covering this indemnity agreement by the Provider in favor of Greenville Utilities Commission of the City of Greenville, Pitt County, North Carolina, and the City of Greenville, North Carolina, shall be provided by Provider.

30.0 FORCE MAJEURE

Neither party shall be considered in default in the performance of its obligations hereunder to the extent that the performance of any such obligation is prevented or delayed by any cause, existing or future, which is beyond the reasonable control of such party. In any such event of force majeure, the parties shall advise each other of such event, and the parties shall negotiate an equitable adjustment to their respective obligations under this Agreement.

31.0 WARRANTY(IES)

The Provider hereby includes all warranties, whether expressed or implied, including, but not limited to, the Implied Warranty of Merchantability and the Implied Warranty of Fitness for a Particular Purpose.

32.0 INTEGRATED CONTRACT

These Terms and Conditions, Instructions to Bidders, Specifications, and the selected Provider's bid represents the entire contract between the Parties. No verbal or other written agreement(s) shall be held to vary the provisions of this Agreement.

33.0 CONTRACT PROVISIONS

Each of the provisions of these Terms and Conditions shall apply to the full extent permitted by law, and the invalidity in whole or in part of any provision shall not affect the remainder of such provision or any other provisions.

34.0 E-VERIFY

E-Verify - I understand that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law in accordance with NCGS §64-25 et seq. I am aware of and in compliance with the requirements of E-Verify and Article 2 of Chapter 64 of the North Carolina General Statutes. To the best of my knowledge, any subcontractors employed by me as a part of this contract are in compliance with the requirements of E-Verify and Article 2 of Chapter 64 of the North Carolina General Statutes.

35.0 IRAN DIVESTMENT ACT CERTIFICATION

By acceptance of this purchase order, Vendor/Contractor certifies that, as of the date of the purchase order or contract, it is not on the Final Divestment List as created by the State Treasurer pursuant to N.C.G.S. § 143-6A-4. In compliance with the requirements of the Iran Divestment Act and N.C.G.S. § 143C-6A-5(b), Vendor/Contractor shall not utilize in the performance of the contract any subcontractor that is identified on the Final Divestment List.

36.0 UNIFORM GUIDANCE

Contracts funded with federal grant or loan funds must be procured in a manner that conforms with all applicable federal laws, policies, and standards, including those under the Uniform Guidance (2 C.F.R. Part 200).

37.0 SAFETY STATEMENTS

Safety Culture Commitment Statement:

At Greenville Utilities, we are committed to a culture of safety that prioritizes the well-being of our employees, contractors, and the communities we serve.

We believe that everyone deserves to work in a safe environment, and we are dedicated to fostering a culture where **safety is a core value, not just a priority.**

Here's what that means to us:

- **Employee and Contractor Safety:** We are committed to providing a safe work environment for all employees and contractors. We will invest in safety training, resources, and equipment to prevent accidents and injuries.
- **Open Communication:** We encourage open and honest communication about safety concerns. We believe everyone has a right and responsibility to speak up about unsafe work practices and potential hazards.
- **Continuous Improvement:** We are committed to continuous improvement in safety performance. We will learn from incidents and near misses, and we will actively seek ways to improve our safety processes and procedures.
- **Accountability:** We hold ourselves and our contractors accountable for safe work practices. This includes providing clear safety expectations, enforcing safety rules, and recognizing safe behavior.
- **Collaboration:** We believe in working collaboratively with employees, contractors, and regulatory agencies to achieve the highest level of safety.

Our commitment to safety extends beyond our employees. We work closely with our contractors to ensure they share our safety values. We expect them to implement robust safety programs, train their workers thoroughly, and adhere to all safety regulations.

We are confident that by working together, we can create a culture of safety where everyone goes home safe and healthy every day.

This commitment statement is a public declaration of our unwavering dedication to safety. We will continue to strive for zero incidents while promoting a positive safety culture that prioritizes the well-being of everyone involved in our utility operations.

Safety Management System Commitment Statement:

At Greenville Utilities, we are unwavering in our commitment to delivering safe and reliable utility service through a robust Safety Management System (SMS). This system forms the foundation of our safety culture, ensuring the well-being of our employees, contractors, and the communities we serve.

Our SMS commitment emphasizes:

- **Zero Incidents:** We believe all incidents are preventable. We strive for zero incidents by proactively managing risks and continuously improving our safety practices.
- **Empowered Workforce:** We foster a culture where safety is everyone's responsibility. This includes providing comprehensive safety training for both employees and contractors, empowering them to identify and report hazards.
- **Data-Driven Decisions:** We utilize data from inspections, incident investigations, and performance metrics to make informed decisions for risk mitigation and continuous improvement of our SMS.
- **Leadership Engagement:** Our leadership team actively demonstrates a commitment to safety by participating in safety reviews, audits, and promoting safety as a core value.
- **Contractor Collaboration:** We extend our safety commitment to our contractors. We require contractors working on our system to adhere to SMS principles, participate in safety briefings, and maintain strong safety programs within their own organizations.
- **Transparent Communication:** We believe in open communication about safety. We encourage employees and contractors to report concerns without fear of reprisal. We also maintain transparent communication with stakeholders about SMS performance.

This SMS commitment is a continuous journey, not a destination. We are dedicated to regularly reviewing and updating our system to reflect best practices and emerging technologies. Through continuous improvement and a commitment to a positive safety culture, we aim to remain an industry leader in safe and reliable utility service.

38.0 NOTICES

Notices to the Parties should be sent to the names and addresses specified below:

Cleve Haddock, Lifetime CLGPO
Procurement Manager
Greenville Utilities Commission
P.O. Box 1847
Greenville, NC 27835-1847

Vendor Specified on Page 1 of Section III when awarded.

GREENVILLE UTILITIES COMMISSION

By: _____
Anthony C. Cannon

Title: General Manager/CEO
(Authorized Signatory)

Date: _____

Attest: _____

Name (Print): Amy Wade

Title: Executive Secretary

Date: _____

(OFFICIAL SEAL)

COMPANY NAME:

By: _____

Name (Print): _____

Title: _____
(Authorized Signatory)

Date: _____

Attest: _____

Name (Print): _____

Title: Corporate Secretary

Date: _____

(CORP. SEAL)

APPROVED AS TO FORM AND LEGAL CONTENT:

By: _____
Phillip R. Dixon

Title: General Counsel

Date: _____